

Bird Observer

VOLUME 44, NUMBER 5

OCTOBER 2016



HOT BIRDS



Jerry Twomey and Alan Trautmann discovered a **Barn Owl** roosting in a grove of trees at Belle Isle Marsh in early May. A wise decision was made to wait for a couple of months before making the sighting public in order to protect the bird from being harassed by photographers. Alan took the photo on the left.

An evening bird walk in Parker River NWR, led by Sue McGrath, discovered a **Fork-tailed Flycatcher** on August 10. The bird was not relocated the next day. Lee Weber took the photo on the right.



Maybe the most-viewed bird in the state this summer, an **American Avocet** appeared at Plum Island in late July and lingered in the area for over a month. Suzanne Sullivan took the photograph on the left.

The August 2016 edition of the BBC Extreme Pelagic was its usual spectacular self, with at least five **White-faced Storm-Petrels** and a Black-capped Petrel, plus a Sowerby's Beaked Whale and perhaps most astonishingly a Whale Shark! Luke Seitz took the photo on the right.



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Bird Observer

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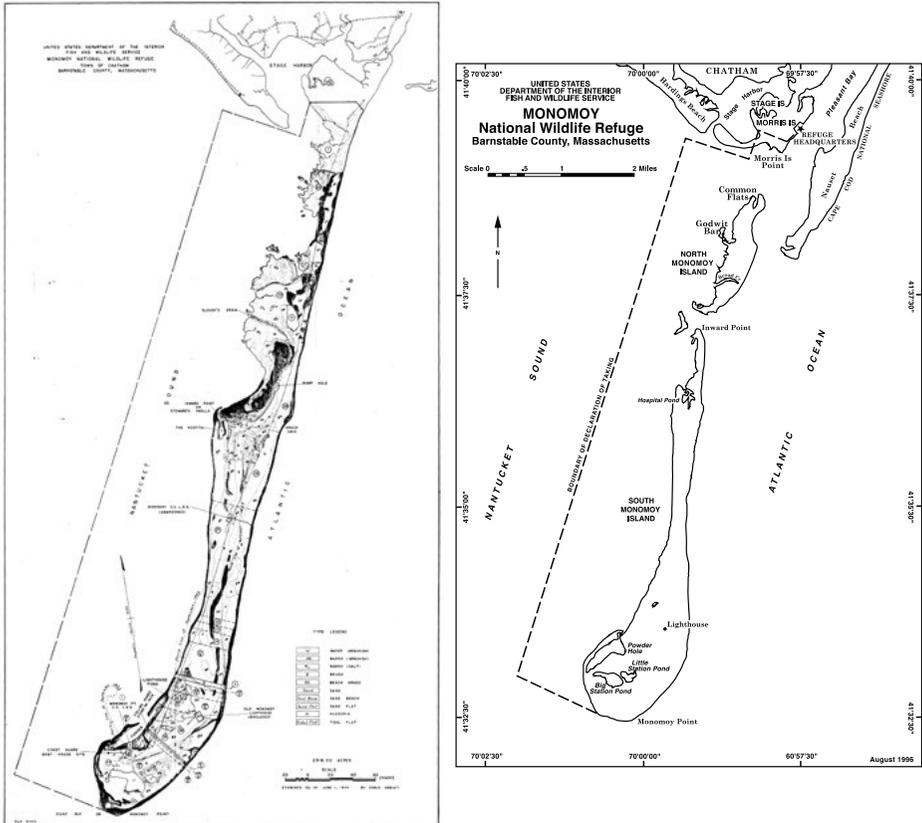
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When Change Is the Norm: The Monomoy Barrier System and its Constantly Shifting Habitat

Kate E. Iaquinto



Figures 1 & 2. (Left) Map of the original refuge boundary and landform when Monomoy NWR was established in 1944. Figure credit: USFWS 1944, Division of Realty.

(Right) Map of the islands after the Blizzard of 1978. Figure credit: USFWS 1988.

Environmental Assessment—Master Plan: Monomoy National Wildlife Refuge. Chatham, Massachusetts. 186 pp. U.S. Fish and Wildlife Service, Hadley, Massachusetts. [AR, IC, 307-490] U.S. Department of the Interior, Fish and Wildlife Service, Region 5, Newton Corner, Massachusetts.

Chatham, Massachusetts, located on the elbow of Cape Cod, is the quintessential coastal New England town and summer destination for many tourists. More recently, Chatham has been in the news for its increasing gray seal population and the great white sharks that have followed. These are amazing wildlife resources, but what makes Chatham special to birders is the enormous diversity and numbers of avian species that can be seen here.

Chatham is home to an extensive barrier beach system, part of which was established in 1944 by the U.S. Fish and Wildlife Service (FWS) as Monomoy National Wildlife Refuge (refuge or NWR). These islands are immensely important for nesting and migratory shorebirds and seabirds. In 2016 alone, the refuge and adjacent South Beach hosted 67 pairs of Piping Plovers (*Charadrius melodus*), 10,505 pairs of Common Terns (*Sterna hirundo*), 14 pairs of Roseate Terns (*Sterna dougallii*), over 700 pairs of Least Terns (*Sternula antillarum*), 19 pairs of American Oystercatchers (*Haematopus palliatus*), and saw thousands of migrant shorebirds and staging terns. Monomoy NWR is also a diverse nesting area for waterfowl such as American Black Duck (*Anas rubripes*), wading birds such as Black-crowned Night-Heron (*Nycticorax nycticorax*) and Great Egret (*Ardea alba*), and landbirds including Savannah Sparrow (*Passerculus sandwichensis*) and Saltmarsh Sparrow (*Ammodramus caudacutus*). The dynamic nature of the Monomoy barrier beach system is what makes it a unique and important place to protect for all of the species that depend on it.

To me, the feeling of Monomoy is always the same regardless of its physical form or a particular map. It is a beautiful barrier beach that has for many hundreds of years stretched miles off the shore of Chatham. Whether it was a peninsula or a chain of islands, whether it was connected or disconnected, whether it was inhabited or deserted, the place remains the same: a stretch of beautiful beach—largely unaltered by humans—that is essential wildlife habitat, especially for birds.

While looking at our refuge map, a visitor recently asked me if the map showed “what it looks like out there right now.” “That’s a tricky question!” I said. The map was a 2015 aerial, but since the area is constantly changing, aerial imagery is immediately outdated. We see measurable changes in the shoals and channels on a daily basis; this place does not remain the same for more than one tide cycle. Each day the tides ebb and flow and so do the beaches of Monomoy and the inlets that enable boat access to the southern end of South Beach and the northern end of South Monomoy Island. One day, one route is perfectly acceptable to pass through at mid tide; the next week, it is no longer passable. This makes it a constant challenge and keeps us on our feet. It also discourages many boaters except those who are the most experienced or have a stake in getting out there, e.g., the refuge’s and Mass Audubon’s Coastal Waterbird Program staff, shell fishermen, and the occasional birding group, fin fisherman, or beachgoer.

The dynamic nature of Monomoy is also what makes it so intriguing, especially to the public for many of whom the refuge islands are out of reach. One needs a private boat or permitted tour boat to access the refuge. This is problematic because it prevents the public from easily visiting their national wildlife refuge, and it impedes friends’ groups and volunteers hoping to access the refuge for service projects. But this inaccessibility is part of what makes Monomoy so special; its relative isolation from human populations enhances its value for the wildlife populations we are working to conserve.

I have had the pleasure of working at Monomoy since the summer of 2007. Monomoy is a challenging refuge to work at for many reasons. We are a federally designated Wilderness area, which guides the management applied on the refuge, often meaning that we use more primitive techniques. We have a field camp where

our seasonal staff live and work seven days a week from May through July. We manage habitats for four threatened or federally endangered species: Piping Plovers, Roseate Terns, Red Knots (*Calidris canutus rufa*), and northeastern beach tiger beetles (*Cicindela dorsalis dorsalis*). We are a Western Hemisphere Shorebird Reserve Network site of regional significance, meaning that tens of thousands of shorebirds pass through annually during migration. We have only three permanent staff members and a small army of volunteers and seasonal staff to get all of our work done. But the fact that the island is actually a moving target makes logistics from year to year one of our biggest challenges. When I first started working at the refuge, I was a seasonal technician with big dreams, never suspecting that I would still be at Monomoy in 2016, and better yet as the refuge biologist. I have seen a lot of amazing changes to this dynamic area in what amounts to a split second of geologic time. I've also seen great increases in many of our focal species—especially plovers and terns—but let's start from the beginning.

Geomorphological History: 1944-2006

The area now known as Monomoy National Wildlife Refuge was a peninsula in 1944 (see Figure 1) when the U.S. Fish & Wildlife Service established the refuge. Along the east side of the refuge was the Atlantic Ocean, and Nantucket Sound was to the west. The sand that would become South Beach—then the southern extent of Nauset Beach—terminated due east of the Morris Island Refuge property (USFWS 2016). Originally set aside for migratory birds, specifically breeding and migrating waterfowl, the refuge was a popular place for hunting and fishing and was used quite heavily by the public. As long as the refuge property remained joined to Morris Island, cars were able to travel down the beach, providing easy access to the southern extent of the refuge. However, that changed during a spring nor'easter in 1958 when the peninsula separated from the mainland. For a short time, vehicles could still access the refuge via a ferry, but that was short lived as the break became more and more substantial. The majority of the refuge land became an island, isolated from the mainland and preventing easy public access.

In 1970, the United States Congress designated most of the offshore portions of Monomoy National Wildlife Refuge as a wilderness area. Per the Wilderness Act of 1964, this designation ensured that the refuge would be administered for the use and enjoyment of the American people in such manner as will leave it unimpaired for future use as wilderness. This meant that the beach shacks that had been present on the refuge had to be removed and vehicles would no longer be allowed to access the refuge. Allowances in the wilderness designation were made for access to actively used cabins, but this designation truly changed how the public could access the refuge.

In 1978, Monomoy was changed again quite dramatically. The blizzard of 1978 created 20 temporary breaks in Cape Cod's outer beaches (Milton 2008), including a new break at Monomoy. The refuge island was split into three: North Monomoy Island, South Monomoy Island, and what would become Minimoy Island, which was first only a flood shoal between North and South Monomoy Islands (See Figure 2).



Figure 3. This photograph, taken from South Monomoy Island facing northeast toward South Beach, shows how close the two properties were before they connected during a Thanksgiving Day storm later in 2006. Photo credit: USFWS 2006.

As the offshore portions of the refuge became more distant from the mainland and harder to access due to shoaling around the northern extent of the refuge, fewer and fewer people were using the island for recreation; more space became open and maintained in its natural state for wildlife. The outer beach—Nauset Spit and North Beach, Chatham—crept closer and closer to the refuge until it broke during a coastal storm in 1987. The end of Nauset Spit became an island that rejoined the mainland across from the United States Coast Guard Station, Chatham, in 1992 (Keon and Giese 2015). This beach, newly accessible from the mainland, became known as Chatham’s South Beach.

As South Beach continued to grow southward due to southerly longshore currents in the Atlantic Ocean, it gradually became the home to many pairs of nesting Piping Plovers. South Beach—especially its southern reaches that grew farther and farther from the mainland — was also much longer and less disturbed than other Cape beaches, many of which, including large portions of the National Seashore, allow off-road vehicle access. Mass Audubon, and later its Coastal Waterbird Program (CWP), worked with the Town of Chatham and the Massachusetts Natural Heritage and Endangered Species Program (NHESP) to monitor Piping Plovers and Least Terns at the site beginning in 1992, which continues today. During that first year, South Beach

hosted 12 pairs of Piping Plovers (Melvin 1992) but peaked around 64 pairs in 2013 (NHESP 2015).



Figure 4. This series of aerial imagery depicts, between 2001 and 2015, the area where the connection of South Beach and South Monomoy Island occurred in 2006. Images were taken by the James W. Sewall Company and were funded by the FWS and the Town of Chatham.

During the years between 1992 and 2006, South Beach continued to migrate south, growing longer and becoming more vegetated. As South Beach grew, more of the refuge islands became protected from ocean waves; sand flats formed along the inside waterway, known as the Southway, between the refuge and South Beach. In a Thanksgiving nor'easter in 2006, South Beach and South Monomoy Island joined, sealing off the southern extent of the Southway and no longer allowing access to the Atlantic Ocean. This event also marked the first time since 1958 that it was possible to walk on dry land from the United States Coast Guard's Chatham Light to Monomoy Light. (See Figure 3.)

The Connection of Monomoy NWR and South Beach, Chatham: 2006-2013

My first summer at Monomoy NWR was 2007, following the connection of South Beach and South Monomoy Island. Everything had just changed dramatically, but to me it all seemed normal. I was hired as a seasonal biological technician responsible for monitoring Piping Plovers and assisting with other biological projects as needed. My undergraduate training and my experience working for several years with Piping Plovers for the Fish and Wildlife Service in Rhode Island prepared me well for my time at Monomoy. At the time, I had no idea that I would end up working at the refuge for so long! I thought I would be there for the summer, maybe a second season, but I could not have predicted how that first summer would change my life.

The connection of South Beach and South Monomoy Island changed a few things around the refuge immediately; first, Mass Audubon began sharing the field camp at Monomoy with the FWS seasonal staff. Field camp has been established annually on Monomoy NWR since the mid-nineties with the initiation of the Avian Diversity Project. The purpose of our field camp is to provide 24-hour human presence near our Common and Roseate tern colony to prevent establishment of predator species in the area, primarily Herring (*Larus argentatus*) and Great Black-backed (*Larus marinus*)

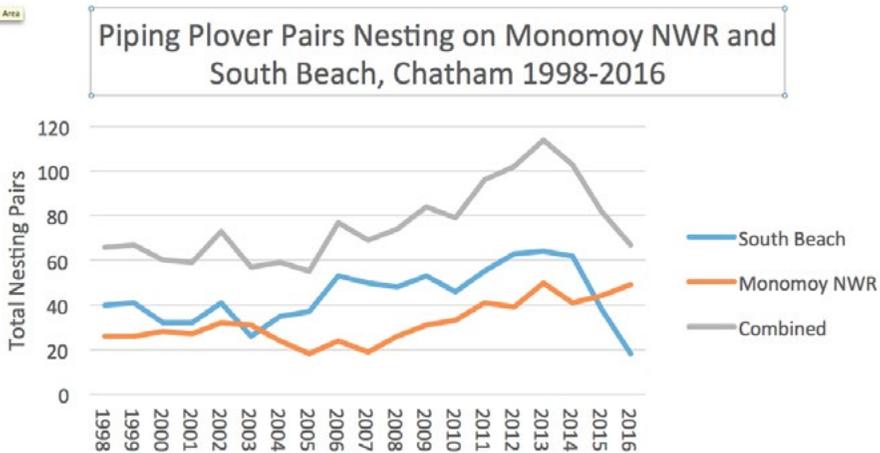


Figure 5. The total count of nesting pairs on Monomoy National Wildlife Refuge and South Beach, Chatham, between 1998 and 2016. Data has been compiled using state census forms from Mass Audubon Coastal Waterbird Program and the US Fish & Wildlife Service at Monomoy National Wildlife Refuge.

gulls. We set up the camp using the model that had been successful in reestablishing nesting islands for seabirds in the Gulf of Maine, led by Dr. Stephen Kress and Project Puffin. Having a field camp on the island also enables plover staff to monitor on a daily basis without worrying about when the next boat ride could be, simplifying the challenges of shoaling and weather that can make the waters around the islands inhospitable. CWP staff stationed at our field camp are able to walk to South Beach daily to monitor Least Terns, American Oystercatchers, and Piping Plovers without requiring boat support. This cooperative relationship between FWS and CWP continues to this day and is truly important to enabling the protection of wildlife on Monomoy's barrier system.

Obvious changes in nesting birds occurred with the growth and connection of South Beach to South Monomoy. As South Beach grew it provided more favorable habitat for Piping Plovers. Piping Plovers nest on ocean and bayside beaches above the high tide line but outside of areas that are densely vegetated. The optimal plover nesting habitat is close to foraging areas, which include intertidal ocean beaches, overwash fans, bayside flats, and salt ponds. Wider, more substantial natural barrier beaches attract greater numbers of nesting pairs. Therefore as South Beach grew the numbers of pairs nesting there increased, particularly near the connection where the interior of the barrier system also provided desirable habitat. (See Figure 4.)

Until the actual connection in 2006 South Beach was the area that experienced the most change. However once the connection occurred the longshore drift began depositing sand onto South Monomoy Island as well. Historically the southern tip of South Monomoy Island and a small area on the northeast side known as Plover Beach had been the main nesting sites for Piping Plovers, but after the connection with South Beach the eastern side of the island continued to grow in width and the mudflats



Figure 6. Summer of 2011, facing South Beach from the new dune on the east side of the established boundary signs. The image shows the new dune as well as the additional rows of dune and vegetation forming toward the ocean side. Photo credit: USFWS/Aubrey Sirman 2011.

between the two sites became great foraging habitat. In 2008, the second summer that the properties were connected, the connection established a wide beach averaging 200–400 meters in width from the vegetation to low tide line that was about two kilometers long. By 2015, the length of that wide beach had doubled to over four kilometers, with much of the area between 300 and 400 meters in width. Due to the beach widening, both the refuge and South Beach saw increases in the number of nesting Least Terns. Most of this wide beach is now on South Monomoy Island and continues to host many pairs of nesting Piping Plovers and Least Terns each year. (See Figure 5.)

Every year the changes in the connection area continue. In addition to the widening beach and expanding mudflats, the vegetation has changed substantially. In 2007, the first breeding season of the connection, there was no vegetation on the sand connecting South Beach to South Monomoy Island. In fact, it was desert-like. It was a wide expanse of open sand and cobble above the high tide line. By the next year, vegetation began to grow and a dune ridge formed between the Southway and the ocean side. Slowly, as the beach became wider, that new dune ridge became more developed and a second row of dunes formed. Currently, depending on where you are on the connection, there are up to three rows of dunes, as well as a series of hummocks on the outer oceanside beach. (See Figure 6.) These hummocks serve as nesting areas,

providing vegetation to shelter Piping Plover and Least Tern chicks. Horned Larks (*Eremophila alpestris*) use these areas as well.

Each year the connection also experiences varying winter storm damage that changes how dry or wet the areas of the connection are. In 2012, a swale developed between the new dune ridge and oceanside hummocks. This area fills with water from the Southway during storms or astronomical high tides and stays wet between these events, which provides areas of foraging to the large number of nesting plovers surrounding the swale. Many of the broods that hatch chicks on the South Monomoy portion of the connection head to the swale once their chicks are large enough to forage independently. Foraging in the swale allows them to avoid nesting Least Terns. The terns initiate their nests after the plovers do and can be aggressive toward the young plover chicks.

As with the beach portions of the connection, the inside flats of the Southway have become more vegetated since the area closed. While Monomoy NWR has long boasted a growing and expansive salt marsh on North Monomoy Island and smaller areas near Powder Hole and Hospital Pond on South Monomoy Island, South Beach has had only small intermittent patches. When the Southway closed, the interior side of the connection became protected from the currents and waves of the open ocean, creating approximately 20 acres of new salt marsh that continues to grow annually.

This salt marsh and the surrounding flats serve as foraging areas to Piping Plovers and other nesting species and provide immense shellfish resources such as amethyst gem clams (*Gemma gemma*) that are critical to large flocks of migrant shorebirds, including Black-bellied Plover (*Pluvialis squatarola*), Red Knot, Dunlin (*Calidris alpina*), Sanderling (*Calidris alba*), Ruddy Turnstone (*Arenaria interpres*), and Short-billed Dowitcher (*Limnodromus griseus*). The flats inside the connection also provide important staging areas for Common and Roseate terns as well as occasional Black (*Chlidonias niger*), Sandwich (*Thalasseus sandvicensis*), Arctic (*Sterna paradisaea*) and Forster's (*Sterna forsteri*) terns.

While these changes in geomorphology benefitted both habitat and our focal species, the connection also presented refuge staff with management challenges. Prior to the connection, the northern tip of South Monomoy Island—the location of the tern colony—experienced occasional overwash during winter storms. This saltwater inundation brought in sand and salt, killing patches of the vegetation and maintaining the early successional dune grassland habitat. Common Terns prefer to nest on the open ground in areas of patchy vegetation that can be used by the chicks to hide from the summer heat. Often, these types of habitats are maintained by occasional winter storm overwash that prevents the herbaceous vegetation from getting too thick and hampers the growth of woody vegetation (Nisbet 2002). As South Beach crept south of the northern tip of the South Monomoy Island tern colony, the area no longer received overwash in winter storms; woody vegetation such as bayberry and rugosa rose quickly colonized. Beach grass also developed a thick layer of duff that prevented terns from nesting within the grass and became more favorable to Laughing Gulls (*Leucophaeus atricilla*), a competitor of the terns that nest within the South Monomoy Island colony.

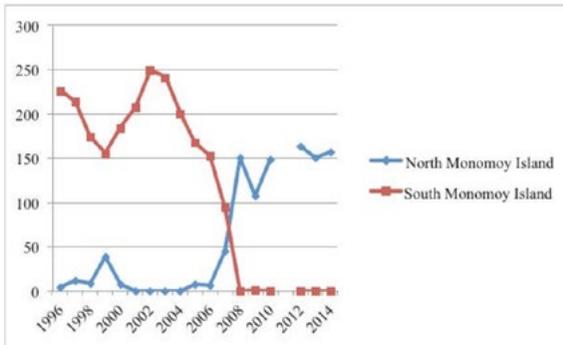


Figure 7. This graph, taken from the 2016 Monomoy Comprehensive Conservation Plan, depicts the number of Black-crowned Night-Herons nesting on the Refuge between 1996 and 2014.

The refuge chose to use fire as a tool to mimic the impacts of saltwater inundation and began performing prescribed burns approximately every two to four years based on the density of South Monomoy’s vegetation and the amount of woody vegetation present. The first burn was in fall 2004 after the terns had left for the winter. It met the objectives of slowing the establishment of woody vegetation, removing the layer of duff within the beach grass, and opening up areas to create a patchier habitat. By burning the 35-acre tern colony site and monitoring the vegetation using a combination of sampling plots and photo plots, the refuge has been able to keep the habitat within the colony in a state that is preferable to terns. The most recent burn in 2015 was a great success; a record number of 10,505 pairs of Common Terns nested in the colony during 2016. The connection of South Beach to South Monomoy Island triggered the necessity for management with fire, but overall it has had the desired outcome and has possibly been more effective than if natural overwash was the only means of clearing vegetation on the north tip.

Another management challenge that we have faced since the connection is the increased number of coyotes and other predator species on the barrier system. Coyotes have been documented on South Monomoy Island annually since 1996 (USFWS 2016). As the tip of South Beach came closer and closer to the island, protecting the Southway from ocean currents and shrinking the amount of water between the mainland and the refuge, the number of coyotes able to swim to the island increased steadily. Once the connection was established, the number of coyotes on the island exploded. Coyotes are common nest predators on Monomoy NWR and South Beach and have been documented depredating eggs and chicks of all of our focal species. Where coyotes seem to have the biggest impact is in the tern colony, with documentation of several different coyotes eating up to 70 tern chicks in one night (unpublished data, Monomoy NWR).

Coyotes also impacted wading birds and gulls that had previously nested in large numbers on South Monomoy Island. Figure 7 demonstrates how the number of nesting Black-crowned Night-Herons shifts from South Monomoy Island to North Monomoy



Figure 8. The 2013 break in South Beach at low tide on February 13, 2013. Photo credit: USFWS/Kate Iaquinto 2013.

Island after the connection in 2006. A similar phenomenon was seen with nesting gulls. Between 100 and 200 large gulls nested on South Monomoy Island prior to the connection, but the numbers decreased to less than 100 in 2006 and less than 50 in 2007 (USFWS 2016). By the 2012 census, there were few gulls nesting on South Monomoy Island at all. In both cases, increased numbers of coyotes forced bird species to move their nests to other areas of the refuge.

In addition to increases in coyote numbers, the connection made it possible for opossum to reach South Monomoy Island, though they were documented taking nests only during two years (USFWS 2016). Avian nest predators such as American Crows (*Corvus brachyrhynchos*) are now a much more common sight on the island than prior to the connection.

The Break in South Beach: 2013-Present

South Beach had been for a long time an important site for local and visiting birders alike. For many years various birding groups, including Mass Audubon and bird clubs from all over the region, could take a ferry out to the southern end of South Beach to bird, especially during the southward migration starting in late July and going into the fall. Refuge staff had the luxury of being able to access the tern colony by boat at almost any tide while protected from the prevailing southwest winds of the summer. As I stated earlier, beginning with the 2006 connection, it was possible to hike



Figure 9. The 2013 break in South Beach at low tide three weeks later on March 5, 2013. Photo credit: USFWS/Kate Iaquinto 2013.

between Chatham Light and Monomoy Light, a feat that had not been possible since 1958. This hike, a distance of approximately 8.5 miles one way, was done by several people, many of whom were FWS or CWP staff. I assisted a mother and her nine-year-old son in completing the hike. I gave them maps and suggestions and heard back from them when they had completed it. They had a blast! I really wanted to do the hike, but in 2013 things changed once again, and it was suddenly and surprisingly no longer possible. In February, yet another powerful nor'easter and winter storm created a break in South Beach east of the northern tip of North Monomoy Island.

After the storm passed, I walked down to view the new break. There was quite a bit of sand still in the area where the water had pushed through, and it was possible to walk across the break from the mainland toward South Monomoy. There appeared to be two inlets formed by the overwash. Gradually, these inlets joined into one large gap between the northern and southern portions of South Beach. A former staff member and I marked the inlet with GPS and repeated our efforts three weeks later. The break was changing quickly. (See Figures 8 and 9 for the difference in conditions.) There was a lot of speculation about what exactly would come of this break, and I suppose it is still undecided. Would it seal back up? Would it open completely, allowing boat traffic to access the Atlantic Ocean? The jury is out, the break continues to change, and we are faced with a dramatic new boating situation each spring when we put our refuge boats back into the water. The flood shoals that were formed during the 2013 storm have

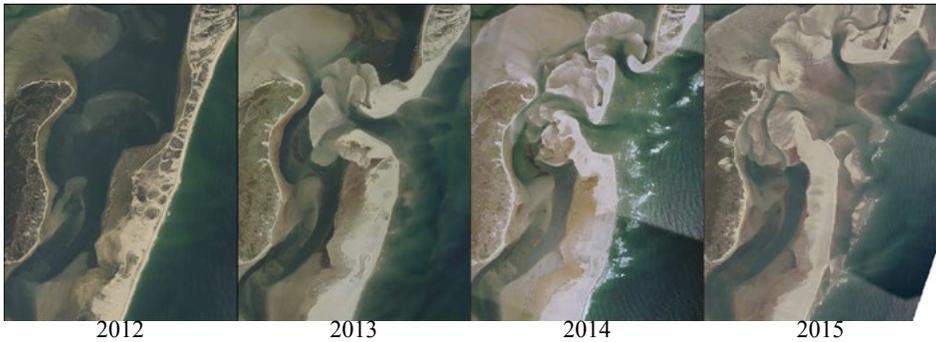


Figure 10. This aerial imagery depicts the north tip of North Monomoy Island and the portion of South Beach where the 2013 break occurred. Images were taken by the James W. Sewall Company and were funded by the FWS and the Town of Chatham.

continued to grow and grow, making navigation through the Southway more and more challenging. The first year of the break, we were able to pass by these shoals during most tides, but slowly over the last three years, our boat access to the southern end of the Southway has become more and more limited. In 2015, ferry services stopped running trips into the Southway for fear that they would get stuck. The refuge was limited to smaller boats and smaller windows of time. In 2016, it was only possible to pass through the shoals within several hours of high tide, the smallest window yet. The Southway is slowly turning into something like a large salt pond.

Since 2013, the southern half of South Beach has taken a beating. The original growth and development of South Beach between 1992 and 2013 had increased the numbers of nesting Piping Plovers in the area. The sudden shift to the destruction of South Beach after the 2013 break seems to be having a predictable and opposite response for nesting birds. Since the break occurred, South Beach has continued to erode. The southern portion of South Beach is overwashed frequently, so that by 2016 there was very little vegetation left except on the area by the connection. In fact, in 2016, only 24 pairs of Piping Plovers nested on the southern end of South Beach.

The portion south of the break has continued to move westward and southward. Each year the opening between the northern and southern sections of South Beach becomes larger; in 2015 it was almost half a mile wide. Due to the uneven exchange of Atlantic Ocean water and water from the much smaller and shallower Southway, flood shoals have continued to grow on the eastern side of the break, making navigation from the mainland through the Southway impossible at low tide. It is likely possible to walk from the mainland to North Monomoy Island at low tide, but to my knowledge no one has tried. (See Figure 10.)

Unlike the 2006 connection, the 2013 break has caused more trouble and has presented more challenges than benefits. Ocean water rushes into the break at high tide and has caused a severe amount of erosion on North Monomoy Island. Since the 2013 break, the northern half of North Monomoy Island has lost between 20 and 60



Piping Plovers. Photograph by Sandy Selesky.

meters of upland habitat that protected the salt marsh and provided nesting habitat for American Oystercatchers and the refuge's colony of Herring and Great Black-backed gulls. The loss of dunes on the north tip of North Monomoy Island has caused the salt marsh to be easily visible from the east side; occasionally it becomes completely flooded during higher tides. Large areas of sand have washed into the salt marsh as well, turning what was high marsh into overwash fans that are flooded at high tide. We do not census nesting Saltmarsh Sparrows in the marsh, but it is almost certain that this change is having an impact on the nesting population on the refuge. The loss of the dunes has contributed to a decline in nesting American Oystercatchers. A statewide gull census will likely be performed in 2017, and I'm sure that we will find the gull numbers to be down since the 2012 census of the colony.

The most unfortunate result of the loss of gull nesting habitat in 2016 is that large gulls attempted to nest in the tern nesting area on South Monomoy Island. This was the first year since 2007 that gulls had to be controlled in the tern nesting area to prevent them from establishing a colony. This year we reacted quickly by opening field camp early, harassing gulls non-lethally, and destroying several nests. We assume that this will need to be an annual tradition as less and less habitat becomes available for the gulls on North Monomoy Island. Most gull species are generalists and can persist in many habitats, forage on a wide range of species, and are tolerant of human disturbance. Common Terns, on the other hand, are a state-listed species of special concern and rely on specific undisturbed island habitat and particular forage fish to survive. The refuge must prioritize terns over gulls to meet our conservation goals of maintaining healthy native bird populations.

Although the 2013 break has certainly made things at Monomoy more challenging, it is important to understand that this is all part of a natural cycle. In the time that I've been at Monomoy, the geomorphological impacts have caused major changes in nesting species, but ultimately, this barrier system is large enough, diverse enough, and is situated on the earth in such a way that the majority of species that have been present here for decades continue to be there and will continue to be there for the foreseeable future. 🐦

The findings and conclusions in this article are those of the author and do not necessarily represent the views of the U.S. Fish and Wildlife Service.

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Kate Iaquinio is a Wildlife Biologist for the U.S. Fish & Wildlife Service at Monomoy National Wildlife Refuge. She is currently working toward a Master's in Environmental Conservation at the University of Massachusetts, Amherst. Ms. Iaquinio is studying the movements and behaviors of breeding Piping Plovers in Massachusetts and Rhode Island using nanotags.



LEAST TERN FAMILY BY SANDY SELESKY

IBA News: Monomoy Boundaries

Birding Community E-Bulletin

Jutting off the elbow of Cape Cod, Massachusetts, Monomoy National Wildlife Refuge provides fragile wildlife, and especially shorebird, coastal habitat. Among other things, the NWR, established in 1944 to conserve migratory birds, is a place that species like the Red Knot use as a stopover site. It is also a site where knots and other shorebirds can feast on horseshoe crab eggs, and the island is the largest haul-out site for grey seals on the Atlantic coast of the U.S. The refuge is an Important Bird Area (IBA), and the refuge's barrier beach and other habitats support breeding populations and staging areas for the federally listed Piping Plover and Roseate Tern, and the state-listed Northern Harrier, Common Tern, and Least Tern all breed on the refuge.

Equally notable is the fact that an impressive 86% of Monomoy NWR's lands is composed of wilderness designated by Congress in 1970. Monomoy is the only officially designated Wilderness Area found anywhere in highly developed southern New England. Nearly half of the refuge's 7,921 acres is subtidal or open water. However, the western boundary of the refuge is now at risk because of an effort to redefine that boundary at the "mean low water line."

If the western boundary of the refuge were set at the low water mark, it would potentially open that portion of the refuge to horseshoe crab harvesting. This harvest could take place just below mean low water, said Libby Herland, project manager at the Eastern Massachusetts Wildlife Refuge Complex. "That's a huge concern that we have."

In response to calls from local town and state officials, Congressman William Keating (D) is submitting legislation to redefine Monomoy's boundaries, essentially giving away a huge chunk of the refuge. Efforts are afoot, however, to stop this action.

For information on the IBA status of Monomoy, see here:

[<http://tinyurl.com/MonomoyIBA>](http://tinyurl.com/MonomoyIBA)

If you wish more information on the boundary proposal, and to take action on this issue, you may want to refer to details from the National Wildlife Refuge Association:

[<http://refugeassociation.org/action/#/61>](http://refugeassociation.org/action/#/61)

Also see the following article in the Boston Globe:

[<https://www.bostonglobe.com/metro/2016/07/30/placid-preserve-cape-cod-roiled-with-tensions-over-who-owns-land/PrmA7PIIiwGvESRZ8QT23K/story.html>](https://www.bostonglobe.com/metro/2016/07/30/placid-preserve-cape-cod-roiled-with-tensions-over-who-owns-land/PrmA7PIIiwGvESRZ8QT23K/story.html)

For additional information about worldwide IBA programs, including those in the U.S., check the National Audubon Society's Important Bird Area program web site at:

[<www.audubon.org/bird/iba>](http://www.audubon.org/bird/iba)

The Founding of the Association of Massachusetts Bird Clubs, 2016

John Nelson

In 1924 a group of bird clubs from across New England formed the Federation of the Bird Clubs of New England to work together for bird conservation in the region. Massachusetts state ornithologist Edward Howe Forbush was chosen as first president, and member clubs lobbied effectively to get state funding for the publication of Forbush's three-volume *Birds of Massachusetts and Other New England States*, the first truly comprehensive study of the region's birds. The Federation also strove to preserve prime bird habitat. To protect coastal breeding birds, the Federation purchased Egg Rock off Nahant and Milk Island off Rockport in Massachusetts, and working with private donors and the Massachusetts Audubon Society, the organization successfully campaigned to acquire land for a wildlife sanctuary on Plum Island. The Federation was also part of a final, failed attempt to save the Heath Hen from extinction, and it was among the first organizations to publicize the threat to birds posed by feral cats. In 1934 Francis H. Allen wrote a brief history, *A Federation of the Bird Clubs in New England: A Record of its First Ten Years*, to document the Federation's achievements.

There is little available information about the Federation after 1934, and by decade's end it was apparently defunct. Yet the Federation still illustrates how bird clubs can benefit both birds and club members by coming together with a common purpose. I cited the Federation in early 2016 when, with the support of the Brookline Bird Club, I proposed to bird club representatives from around the state that we form a new association of bird clubs in Massachusetts. The primary purpose of this association, I explained, would be to establish a simple, direct channel of communication for clubs to share information about events, initiatives to protect birds or their habitats, and other matters of mutual interest. What I envisioned was a loose, non-binding alliance without officers, by-laws, dues, or bureaucracy. Member clubs could share information or propose joint activities as often or as seldom as they wished. Once an association was formed, the group could exchange ideas about how to give the organization a sharper focus or a more specific agenda.

I wasn't sure how other clubs would react, and I anticipated, if not resistance, at least some skepticism about the value or feasibility of an association. But the responses from around the state were positive, often enthusiastic, in a spirit of camaraderie. I discovered that I had omitted several small clubs of which I was previously unaware, and they were delighted when I extended the proposal to them. Eventually I asked all the clubs to agree in writing to establish an association, with the provisions that "no member club or individual shall claim to represent the Association without the knowledge of all other member clubs and the consent of at least $\frac{3}{4}$ of member clubs" and that "any club may choose to revoke its membership at any time." By July 2016, the following seventeen clubs from across the state had agreed to form an association:

- Allen Bird Club
- Athol Bird and Nature Club
- Boxborough Birders
- Brookline Bird Club
- Cape Cod Bird Club
- Emerald Necklace Bird Club
- Essex County Ornithological Club
- Forbush Bird Club
- Hampshire Bird Club
- Hoffmann Bird Club
- Massachusetts Young Birders Club
- Menotomy Bird Club
- Merrimack Valley Bird Club
- Nasketucket Bird Club
- Paskamansett Bird Club
- South Shore Bird Club
- Ware River Nature Club

It will take time for our association to make progress in agenda-setting, or even to establish a dialogue among the member clubs. Thus far e-mail has been used for all communications, and it is evident that, despite logistical obstacles, a face-to-face meeting and discussion would energize all the different bird clubs. At least for the moment we have a structure in place that can enhance connections among birders across Massachusetts, offer opportunities for co-sponsorship, and advocate for the welfare of birds. A simple example of the potential for joint advocacy is the recent proposal by the U. S. Fish and Wildlife Service to establish a Great Thicket National Wildlife Refuge in New England. Several bird clubs and individual birders from around the state have already sent in letters to support the proposal, but a letter from the Association could justifiably claim to represent the views of thousands of taxpaying birders.

The Association also will make it easier for member clubs to co-sponsor activities, especially field trips and speaker events. As an example, on June 4, 2016 the Allen Bird Club, Hampshire Bird Club, and Brookline Bird Club jointly sponsored a productive outing at the grasslands of Westover Air Force Base. Co-sponsored trips provide opportunities to introduce birders to areas they have never explored, enable club members to meet other birders from across the state, and increase overall participation

in field trips. I hope that clubs will take the initiative to contact fellow clubs with ideas for joint excursions that might appeal to their members.

Another potential value of this new Association is in spreading the word to encourage birders from member clubs to work with state and federal agencies, especially the Massachusetts Natural Heritage and Endangered Species Program (NHESP), to gather data important for bird conservation. Club members can provide useful data by submitting sightings of endangered breeding birds to the NHESP, which uses such reports to support legal protection for state-listed species. Volunteer observers are also needed in Massachusetts for the annual Breeding Bird Survey (BBS), organized by the U.S. Geological Service, and state ornithologist Andrew Vitz is seeking qualified birders to conduct breeding bird surveys of state wildlife management areas, such as the Westborough and the Burrage Pond Wildlife Management Areas in Hanson and Halifax, where data are needed to determine the status of breeding birds.

The vitality of our Association will depend on how often and how actively the member clubs communicate with one another. It is too early to know what direction the organization might take. Yet I am optimistic about its potential to bring birders in the state together—to meet one another, share ideas, bird together, and take unified action on behalf of our birds. 🦅

***John Nelson**, of Gloucester, MA, serves on the board of the Brookline Bird Club and the council of the Essex County Ornithological Club, and chairs the BBC's Conservation and Education Committee. A regular contributor; he published 100th anniversary histories of both clubs in Bird Observer. His other recent writings about birds include "I Saw What I Said I Saw: Witnesses to Birds and Crimes" in the Winter 2015 issue of The Missouri Review; "Funny Bird Sex," the lead article in the January 2016 issue of The Antioch Review; and "A Morning on the Rio Negro," a story about birding in Amazonia, scheduled for publication in the Fall 2016 issue of Birdwatching.*



BALD EAGLE BY SANDY SELESKY

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A Close Look at Banded Gulls

Dave Adrien



Figure 1. Leg bands on Herring Gull 148. All photographs by the author.

Reset the calendar to July 2014, which coincidentally aligned with gull post-nesting dispersal for the year. The seasonal lull had set in. Spring warbler migration had ended and shorebirds had yet to head south. I asked a simple question of Sue McGrath of Newburyport Birders: “I’m accumulating some pictures and sightings of gulls on Plum Island. Where, or to whom, do I report these sightings?” The response was prompt. Sue told me to contact Julie Ellis, the director of the Gulls of Appledore program. As it turned out, Professor Ellis was on maternity leave so I struck it up with longtime volunteer Bill Clark.

A birder in New Hampshire questioned me one day about what I was doing as I was taking pictures of gulls on Hampton Beach. When I explained, his comment was: “We don’t pay attention to banded gulls. They are all from Appledore.” Well, not exactly.

If you have spent any time on the Parker River National Wildlife Refuge or on Sandy Point State Reservation then you, too, have probably run into Great Black-backed Gull (*Larus marinus*) 2E2. Gull 2E2 was banded as a nesting adult on Appledore in May 2006, so he is at least 14 years old now. He is a regular and we have



Figures 2 & 3. Great Black-backed Gull 2E2 with mate (left). Great Black-backed Gull 2E2 with offspring (right).

proven him to be a commuter to the Isle of Shoals as we have sightings on Plum Island and his nest site on Appledore in the same day. Gull 2E2 often returns to the refuge in late March or early April with his assumed mate (see Figure 2). Then he makes lone cameo appearances during the nesting season. In early August he shows up with his offspring (see Figure 3), only to disappear in late December.



Figures 4 & 5. Ring-billed Gull K41 (left). Herring Gull 148 (right).

Wandering west on Sandy Point, you will find a typical roost of gulls where you might see Ring-billed Gull (*Larus delawarensis*) K41 (see Figure 4). He typically shows up in late July. Gull K41 was banded in Varennes, Quebec, on Ile Deslauriers in the St. Lawrence River.

If you move farther north along Plum Island you will find another regular banded gull on the beach at Parking Lot 1. Herring Gull (*Larus argentatus*) 148 (patagial tag -see Figure 5) with an orange color band #19 (see Figure 5) was banded by the Massachusetts Department of Conservation and Recreation (DCR) on Revere Beach as a juvenile on December 20, 2012. He has become an adept camp raider, and pity the poor fisherman who left an unguarded bait bucket only to return to find it empty.

I see one gull every winter that returns to shop at Walmart on Route 1 in Seabrook, New Hampshire. Herring Gull ALY (see Figure 6) was banded on July 5, 2014, on



Figures 6 & 7. Herring Gull ALY (left). Herring Gull X53 (right).

Brier Island, Nova Scotia at the tip of Digby Neck, and frequents the parking lot here between January and February. That pink band really stands out.

My long-distance gull winner is Herring Gull X53 (patagial -see Figure 7) with a burnt orange color band TG. Gull X53 was banded in Witless Bay, Newfoundland on September 9, 2012. Talk about site fidelity, this gull returns to Revere Beach in front of Kell's Kremer, and I have located it here for 3 years within 100 yards of shorefront every year.



Figure 8. Ring-billed Gull 724-20656.

If you find that reading the plastic field readable (PFR) bands is too easy then you can search for gulls that have only a metal band. It takes a little patience to get all nine numbers but sometimes it can prove interesting. Ring-billed Gull 724-20656 (Figure 8) was found on the Exeter River in downtown Exeter, N.H. on February 22, 2016. This was the first reported sighting of this bird that was banded in Quebec City, Quebec on June 2, 1993. At 23 years old, this bird has won

my known age contest; it was likely banded as an adult, which could add another three years.



Figures 9 & 10. Hybrid Gull F07 (left). Herring Gull N72 (right).

I hope I have shown that not all banded gulls come from the Maine colony and that almost every gull has a unique story, including Herring Gulls raised by Great Black-backs, not to mention hybrids.

Gull F07 (see Figure 9) is a well documented cross between a Lesser Black-backed Gull (*Larus fuscus*) and a Herring Gull on Appledore. Herring Gull N72 (see Figure 10) was banded in July 2008 and the gull team made a strange observation. Great Black-backed Gulls were feeding, raising, and defending this Herring Gull chick. This was unusual as Great Black-backs often kill and eat young Herring Gulls. This pair of Great Black-backed gulls was also suspect in consuming eggs from nearby Herring Gull nests. Somehow this Herring Gull chick survived and was adopted by the Great Black-backed pair. The one re-sight in 2013 indicated that N72 had survived to adulthood. The photo above is from the only set of pictures of N72. Based on the surrounding birds, N72 does realize he is a Herring Gull and is tolerated by his peers.

But the real thrill comes when you find the unexpected, be it a Black-headed Gull (*Chroicocephalus ridibundus*) on Hampton Beach, Hampton, New Hampshire or a Little Gull (*Hydrocoloeus minutus*) on Sandy Point, Ipswich, Massachusetts (7/13/2015—see Photo Essay).

My search for bands has proven a number of things:

Here is a birding activity that can be done in the dead of winter. Nothing is more fun than Revere Beach at -2° F with a 20–30 mile per hour wind.

You can provide volumes of information to researchers. I now regularly correspond with eight different agencies in four states and four provinces in Canada on gulls alone.

But the biggest benefit is that unknowingly you slow down and look at every bird, and when you are frequenting the beaches you find numerous other specialties.



Figures 11 & 12. American Oystercatcher (25) (left). Red Knot (779) (right).

It could be an American Oystercatcher (*Haematopus palliatus*) (band #25—see Figure 11) that commutes to Cedar Key, Florida or a Red Knot (*Calidris canutus*) (lime green flag # 779—see Figure 12) that shows up at Mispillion Harbor, Delaware in May every year since 2010.



Figure 13. Semipalmated Sandpiper with geolocator.

The Semipalmated Sandpiper (*Calidris pusilla*) (see Figure 13) was one of 29 birds outfitted with geolocators on Coats Island, Nunavut, Canada, in June of 2015 by Shiloh Schulte from Manomet. It showed up at Sandy Point on August 12, 2015. In late July 2016, I managed to find two blue-flagged Semipalmated Sandpipers on Sandy Point. They were originally banded in Coroa dos Ovos, Maranhao, Brazil.

In May 2016, Dave Williams, a Mass Audubon volunteer, asked me if I had seen the banded Willet (*Tringa semipalmata*) at the Pannes. Well,

I couldn't let that go by. Eventually I found six Willets that had been banded in 2015 by the Biodiversity Research Institute (BRI). These birds were equipped with geolocators as well. Geolocators are great and relatively inexpensive, but they are archival. They do not transmit. Thus, recapture is necessary to retrieve the data. On May 26, I photographed one bird (Figure 14) with its geolocator in place, and I saw it again on June 3. It was recaptured on June 22 and the geolocator was gone. This bird had been to Brazil and back only to lose all of its recorded data out on the Plum Island marsh. According to Kevin Regan, lead investigator for BRI, "Twenty-two of twenty-five willets banded in the Gulf of Maine and in New Jersey wintered in Maranhao, Brazil, indicating this species may have a very limited wintering range, making these birds even more vulnerable to degradation of those habitats." They have a



Figure 14. Willet

fascinating migration route. Willets fly four to six days out over the open Atlantic from Massachusetts to South America, and return across Cuba and up the Eastern Seaboard.

In July 2016, I was doing re-sights on terns at Sandy Point. I managed to find many birds—both adults and hatch year of Common as well as Roseate terns. I found two yellow-flagged Common Terns that were tagged in Argentina. Needless to say, they have won the distance contest. The adventure never ends.

To get back to the original topic of the story, my banded gull count now stands at 644 birds with over 2250 sightings. So, go out and give it a try. You never know what fascinating people you will meet or what birds you might find.

Good birding. 🐦

Reference

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Dave Adrien retired from the lumber business in June 2014 and has been a full-time birder since. Most weekdays he can generally be found somewhere on Plum island.

GULL BANDING KEY

Herring Gull

Plastic field readable

Orange w/two black letters (e.g., "TG")	Royal Society for the Protection of Birds
White-letter w/two numbers ("Z59")	Mass. Department of Conservation & Recreation
White—two letters (e.g., "CX")	
Maroon w/white	College of the Atlantic
Green w/white letters	Shoals Marine Lab
Orange w/black letter w/2 numbers ("A00")	University of New England
Blue w/white letters	
Pink w/white letters ("ALY")	Acadia University
Red w/white (discontinued)	University of New Brunswick

Rivet Bands

Orange (rivet)—two numbers ("19")	Mass. Department of Conservation & Recreation
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Patagial

White w/black "X" followed by two numbers ("X53")	Royal Society for the Protection of Birds
Green w/three black numbers (e.g., "148")	Mass. Department of Conservation & Recreation

Great Black-Backed Gull

Plastic field readable

Black w/white letters	Shoals Marine Lab
Green w/ "A" plus two letters	Acadia University

Ring-billed Gull

Plastic Field Readable

Blue w/three black digits	Mass. Department of Conservation & Recreation
Red w/white "A" or "C" plus two numbers ("AO8")	
Blue w/white letters	Université du Québec à Montréal

Patagial

Orange	Mass. Department of Conservation & Recreation
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Glaucous Gull

Plastic Field Readable

Blue w/two digit alpha numeric	Laval Université
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GULL BANDING INSTITUTIONS

Acadia University

Banding locations

Sable Island, Nova Scotia, Canada
Brier Island, Nova Scotia, Canada
Digby Neck, Nova Scotia, Canada

Contact

Rob Ronconi
Acadia University
15 University Ave.
Wolfville, Nova Scotia, Canada B4P 2R6
<rronconi@yahoo.com>
<sableislandgulls.wordpress.com>

College of the Atlantic

Banding location

Great Duck Island, off Bar Harbor, Maine

Contact

John Anderson, W.H. Drury Professor of Ecology/
Natural Medicine
College of the Atlantic
105 Eden St.
Bar Harbor, ME 04609
<janderson@coa.edu>

Laval Université

Banding location

Bylot Island, Nunavut Territory, Canada

Contact

Gilles Gauthier, Professor
% Marie-Christine Cadieux
Laval Université
2325 Rue de l'Université
Quebec City, Quebec, Canada G1V 0A6
<Marie-christine.Cadieux@bio.ulaval.ca>

Massachusetts Department of Conservation and Recreation

Banding locations

Throughout Central and Eastern Massachusetts
(no nest sites)

Contact

Dan Clark, Director, Natural Resources Section
Mass DCR
Division of Water Supply Protection
180 Beaman St.
West Boylston, MA 01583
<dan.clark@state.ma.us>

Royal Society for the Protection of Birds

Banding location

Witless Bay Ecological Reserve (Avalon
Peninsula), Newfoundland, Canada

Contact

Alex Bond
RSPB
UK Headquarters, The Lodge, Sandy
Bedfordshire, UK SC19 2 DL
<Alex.Bond@rspb.org.uk>

Shoals Marine Lab

Banding locations

Appledore Island, Maine, offshore from
Portsmouth, New Hampshire.

Contact

Julie Ellis, Director, Northeast Wildlife Disease
Cooperative
or Bill Clark, Volunteer
Shoals Marine Lab
Tufts University
Cummings School of Veterinary Medicine
North Grafton, MA 01536
<Julie.Ellis@tufts.edu>
<lwc1@ptd.net>

Université du Québec à Montréal

Banding locations

St. Lawrence Seaway, islands near Montreal

Contact

Jean-Francois Giroux
Université du Québec à Montréal
141 President Kennedy, SB-2630
PO Box 8888, Station Centre-ville
Montreal, Quebec, Canada H3C 3P8
<giroux.jean-francois@uqam.ca>

University of New Brunswick, Fredericton

Contact

Tony Diamond, Research Professor
University of New Brunswick
PO Box 4400
Fredericton, New Brunswick, Canada E3B 5A3
<www.unb.ca/research/alar/>

University of New England

Banding locations

Rooftops, Portland, Maine

Contact

Noah Perlut, Asst. Chair of Environmental
Sciences
University of New England
Decary Hall - 221
Biddeford, ME 04055
<nperlut@une.edu>

PHOTO ESSAY

More Gulls

Dave Adrien



Little Gull (above). Black-headed Gull (below). All photographs by Dave Adrien.





I've found that gulls prefer Starbucks (above) to Dunkin Donuts in spite of how they are labelled by DCR (below).



MUSINGS FROM THE BLIND BIRDER

A Short but Sweet Season

Martha Steele



Prairie Warbler singing. Photograph by Sandy Selesky.

By mid-July this past summer, we started harvesting peas, lettuce, Swiss chard, beet greens, and our first early potatoes from our northeastern Vermont garden. As I picked peas, I found myself thinking that we had just planted everything only a short time ago. In late May, I was on my knees, digging a small, one-inch deep trench into which I carefully placed one tiny pea seed at a time, about an inch or so apart along the length of 15 yards or so. Merely six or seven weeks later, here I was, picking full pods of sweet, delicious peas from three-foot high vines. Likewise, I had planted potato tubers, which resulted in lush green vegetation and multiple potatoes from each tuber in the same short period of time. I was simply astonished at the short time needed between the planting of seeds to the harvesting of fresh vegetables sprawling across the garden.

Similarly, I am always amazed at how quickly the prime birding season goes by for us in the Northeast. After sometimes harsh months of bitter cold or snow, we eagerly look forward to the coming spring and arrival of our migrants. This year, Bob, Alvin, and I started looking in late February for our first American Woodcock to arrive, so hopeful were we that we would hear our first returning migrants while still in the grips of a mostly silent winter. Soon after in March we began to hear such birds as Red-winged Blackbirds, but we must always contend with the unpredictable New England

weather. So although we know what is to come, even in early spring it seems like the coming of the spring migration is still a distant speck in time.

April brings more migrants, mostly of the shorebird and waterfowl variety. We begin to get really excited with our first Tree Swallows, our first Eastern Phoebes, our first Palm Warblers, and a few other songbirds.

But the real stars of the show, and the ones that really send us racing both in spirit and in body crisscrossing the region, are the warblers, grosbeaks, tanagers, flycatchers, orioles, and other songbirds that arrive in full force in May. The frantic pace of birding in May will not be matched at any other time of year, which is why I think that the real birding begins that month.

I find it hard to imagine traveling outside of New England in May because it is the zenith of our birding year, the beginning of an incredibly intense time of seeing and hearing birds, and a time to savor each and every moment of welcoming our birds back because that time, like our vegetable garden, will pass far too quickly.

There is no better example of how migrating birds can essentially leave us birders in their dust than visiting Mount Auburn Cemetery in May. Before the first of May, the grounds are mostly quiet and free of birders. But come May, birders flock to the venerable garden cemetery, hoping to see 20 or more species of warblers, Baltimore Orioles singing from the top of flowering trees, melodic thrushes captivating those in the Dell, and much more. Then, merely three weeks later, birders largely disappear and the cemetery returns to its reflective self. In what seems to be an instant, the migration is over at Mount Auburn Cemetery and the birds and birders must wait another year as the season shifts from migration to breeding season.

As spring migration passes Massachusetts by, Bob, Alvin, and I largely move ourselves to northern New England where we can enjoy several more weeks of intense bird song, which simply fills the air. Pretty soon, we casually say, oh, another Common Yellowthroat, or another Northern Waterthrush. But in truth, we are enjoying the song for a relatively short time, and I constantly try to remind myself never to take any single song from any individual bird for granted. I know that within a matter of just a few weeks, I will not hear them again for, gulp, another 10 months or so.

As June progresses into July, the song diminishes gradually. It seems that slowly, one by one, songs of various species drop off, until sometime in early to mid-August, you are left with only a few species that you sometimes hear singing, such as American Robin, Blue Jay, Black-capped Chickadee, and other birds that often sing many months of the year in our part of the world.

In late July, we can still hear songs from vireos, including Warbling, Red-eyed, and Blue-headed vireos; Song, Chipping, and White-throated sparrows; Hermit and Wood thrushes; Purple Finch; and American Goldfinch. But gone, for the most part, are the warblers and orioles. The Baltimore Oriole in particular seems to sing up a storm for maybe four or five weeks and then its trumpet-like song just disappears. I am just getting comfortable with my oriole friends when they abandon me with their silence.

In August, I am resigned to the fact that the birding season is mostly over for me, given my visual limitations and the absence of bird song. Sure, we still go with Bob from time to time to bird, and I can take great vicarious pleasure in listening to Bob as he describes what he is seeing. But the birding for me is just that, vicarious. This is not to say that I do not enjoy it, but I do feel sadness at the realization that I have to wait many months until I hear my birds again. The instant jolt of adrenaline that I feel when I hear the familiar warbler songs will not be felt for many more months, and I just shake my head and ask, where did the time go? How could the song season have been so short?

Given how short the season seems, I tend to hang onto every song that I hear as the season winds down. As the singing fades through the summer, I stop and linger with every song that I hear. A Hermit Thrush singing near the edge of our woods one late July morning stopped me in my tracks for nearly 30 minutes. A Chipping Sparrow's incessant and dry trill, not necessarily described as beautiful, is sweet to my ears in early August. A Black-throated Blue Warbler in full song amidst silence all around snaps me to attention from working on my laptop. An early August Common Yellowthroat singing glues me to the spot, in sharp contrast to only weeks earlier when their songs were so numerous that I hardly noticed. The clicking of Ruby-throated Hummingbirds visiting the feeder throughout August bring smiles and warmth to my heart.

With the spring and summer fading into the fall migration, our northern outdoors becomes largely devoid of song, replaced by the chips and chirps and calls that are so hard to identify. I continue to try to learn who is behind any given call, but this is very challenging and frustrating. I soon yearn for the full song that will rise again next spring.

So, yes, savor each and every moment, each and every day, when you hear the full song of our migrant and breeding birds. Time will flash by before we have to endure another long drought of song. Oh, I have to go now. I think I just heard a Scarlet Tanager and I want to follow its song. Not exactly beautiful, but sweet to my ears. 🐦

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



Scarlet Tanager. Photograph by Sandy Selesky.

GLEANINGS

It's a Noisy World Out There

David M. Larson



Traffic noise may mute interspecific reactions to Tufted Titmouse alarm calls. Photograph by John Flannery (CC BY-SA 2.0).

I've been thinking a lot about noise lately. Early this summer I had to relocate one of my Breeding Bird Survey points to reduce the incessant noise from a propane station. The compressor made it nearly impossible for me to hear any bird sounds. Another survey point is too close to the traffic of Interstate 95. Those observations lead me to think about how birds react to anthropogenic noise. Recent studies have shown that noise affects animal distribution, behavior, and reproductive success (Francis and Barber 2013).

A study published recently (Grade and Sieving 2016) tested the effects of highway noise on interspecific communication in songbirds. Specifically, the researchers tested the extent to which highway noise affects the response of Northern Cardinals to playback of Tufted Titmouse alarm calls. They played the titmouse high-*seet* alarm calls at varying distances from two busy highways (3200–3600 vehicles per day) in north central Florida. Their hypothesis was that the typical anti-predator responses of the cardinals (freezing) would decrease with increased ambient noise levels. Indeed,

they found that at background noise levels above 50 decibels (dB)—for comparison, 50 dB is as loud as a moderate rainfall, per <http://www.asha.org/public/hearing/Noise>—none of the cardinals responded to playback of alarm calls, but at lower noise levels, almost 80 percent of the cardinals responded to the same alarm calls. Clearly, the response of the cardinals was blunted by higher ambient noise levels. What this project did not address was whether the noise masked the sound of the alarm calls so the cardinals could not hear them or whether the noise distracted the cardinals so that they did not respond normally.

And then there are birds that rely primarily on their hearing to hunt for food, such as nocturnally hunting owls. Mason et al., (2016) have conducted studies on the effects of noise on hunting success in Northern Saw-whet Owls. The authors, who all work in Idaho—a state in which energy extraction is an important industry—recorded the chronic broadband sounds generated by a natural gas compressor station and used this noise source to test hypotheses regarding effects on captive owls. They captured owls in mist nets and transferred them to a flight tent in the field. The tent was light-proof and the owls were allowed a day to acclimate to the tent with internal lights. Then the birds were tested for their ability to capture released mice, in total darkness, under noise levels replicating the sounds of compressor stations at distances from 800 down to 50 meters distance, corresponding to 29–73 dB. The researchers tested two hypotheses: if this anthropogenic noise reduced hunting success at all (threshold hypothesis); and if hunting success decreased with increasing noise (dose-response hypothesis). By monitoring the owls using infrared sensitive video recorders, the researchers also attempted to determine if any deficit in hunting was traceable to the problems in prey detection, attempted capture, or successful capture.

Testing 30 owls in 184 trials over two years, the research indicated that the dose-response hypothesis held for all three parts of the response to prey, and successful capture upon strike was equally modelled by both hypotheses. The odds of hunting success decreased by 8% for each decibel increase in noise. The odds of detection of the mouse decreased by 11% for each decibel increase in noise. Overall, capture of prey was degraded by noise up to 61 dB (equivalent to 200m from the original sound source). At higher volumes, there were no successful captures. Similar to the Grade and Sieving (2016) paper on Northern Cardinals, these authors could not distinguish between masking and distraction as causes.

These two papers present results consistent with the growing literature showing significant changes in bird behavior with increasing ambient noise from anthropogenic sources. In the first case, bird response to predator-avoidance cues were demonstrated and, in the second, degradation in auditory hunting by owls was shown. Much recent research has demonstrated that bird diversity and population density are lower near sources of high ambient noise. The researchers in Florida noted that Northern Cardinals were less abundant near those noisy highways in Florida than in woodlands far from the roads. Although Mason et al. (2016) did not address population levels, I suspect that Northern Saw-whet Owls would not choose to hunt near compressor stations where they cannot detect prey audibly.

The sound spectrum of noise can be a significant variable. Norman Smith, director of the Blue Hills Trailside Museum (Mass Audubon and Massachusetts Department of Conservation and Recreation) in Milton has noted that Snowy Owls at Logan Airport in Boston can detect and respond to mouselike squeaks against a backdrop of jet engine noise (personal communication). These observations suggest that Snowy Owls are able to pick out those high frequency sounds and are not overwhelmed by jet engine noise.

Anthropogenic noise is everywhere, from cities, highways, and many other sources. And, lest you think that gas compressing stations are limited to the west, all natural gas pipelines require compressing stations every 40–100 miles to keep the gas flowing; this topic has been controversial recently in Massachusetts, with plans for new pipelines. Noise mitigation efforts, designed to protect humans, may end up helping birds and other wildlife as well. 🐦

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COMMON LOONS BY SANDY SELESKY

FIELD NOTE

Broad-winged Hawk Attacks its Reflected Image

Alfred Maley



Figure 1. Broad-winged Hawk attacks its reflection. All photographs by the author.

Most readers of *Bird Observer* will have witnessed a songbird or two attacking its image in the rearview mirror of a car or in the window of a darkened room. This behavior has been termed “shadow boxing” and most often involves male birds during the nesting season. However, it was with some surprise that we found a Broad-winged Hawk (*Buteo platypterus*) doing the same thing at several of the windows of our living room in mid-June. It was frightening, in fact, since the bird would leap at the window from the ledge and make a resounding thump each time. Much flailing and flapping of wings was involved, as well as continual calling.

Fearing for the safety of both the hawk and our windows, I took to shouting obscenities at the bird and waving my arms in its face. It was extremely tame—or very focused—and took some convincing to stop, which it finally did after a day or two. During those couple of days the bird would go around the house, perch in the crab apple and dogwood trees close by, and launch its attacks by flying to the window ledge and letting its rival have it. The photos show the bird contemplating its image while taking a rest break and then flapping its wings during an attack.

This hawk was one of a pair that was nesting in the pine trees behind my next-door neighbor’s house. Although I did not precisely locate the nest, it could not have



Figure 2. Broad-winged Hawk contemplating.

been more than a hundred yards away and at that date would have had large young. A nearby nest for the hawk would be consistent with observations of songbirds which show that this behavior is exhibited more intensely the closer the mirror or window is to the nest. Shadow boxing mostly involves males, but we did experience a pair of Stonechats (*Saxicola torquatus*) during the winter of 2016 in Spain that would attack the rear-view mirrors on our vehicle—the male on one side and the female on the other. These attacks occurred during a time when they likely had young in the nest.

It's likely that all birds—and dinosaurs—will attack their image during the nesting season. Perhaps it's only a lack of opportunity that results in very few observations of raptors doing this sort of thing. I've been informed of two articles that describe shadow boxing by a Cooper's Hawk (*Accipiter cooperii*) in North Carolina and a Red-tailed Hawk (*Buteo jamaicensis*) in Ontario: <<http://www.charlotteobserver.com/living/home-garden/article23108277.html>> and <<http://discoveryportal.ontla.on.ca/en/about-parliament/the-legislative-building/architecture/hawks-gallery>> (See slide 5 in the photo slide show.)>.

In the case of the Broad-winged at our house, the behavior may have been triggered when the hawk took the nestlings from an American Robin's (*Turdus migratorius*) nest that was in a crab apple tree just ten feet from the living room window. This predation happened the day before we started observing the hawk attack our window. Perhaps the hawk noticed itself for the first time during the episode with the robin nestlings.

Recalling that Peregrines often nest near mirror glass in our cities, I thought that there should be reports of shadow boxing by falcons. However, I could not find such reports. Many falcon nest boxes have one-way mirrors that the birds completely ignore. Perhaps falcons quickly get used to the mirrors and then disregard them. I'm pleased that our Broad-winged Hawk is now ignoring our windows, at least until next year.

For much more information on shadow boxing by birds, including some great pictures, see <<https://shadowboxingbirds.wordpress.com/literature/>>

On a related theme, magpies—and possibly other corvids—seem to be the only birds that can recognize themselves in a mirror: <https://en.wikipedia.org/wiki/Mirror_test>

But that's a topic for another article. 🐦

Thanks to James Maley for researching the subject and providing the above references.

Catbird Fights Image in Car Windshield

William E. Davis, Jr.



Figure 1. The catbird pecking at its image. Note the reflected image of its bill on the windshield. All photographs by the author.

On February 22, 2016, my wife and I were picnicking at Long Key State Park in the Florida Keys. As we sat at a table next to our car I noticed a Gray Catbird (*Dumetella carolinensis*) perched on the top of our car. It had been flying around from shrub to shrub suggesting that it was unhappy with our presence. In winter, male and female catbirds defend separate territories and this bird was probably on territory. It soon flew down and perched on the windshield wiper facing the windshield. It proceeded to peck at its image reflected from the windshield (Figure 1) and several times launched itself feet-first in a full attack of its image (Figure 2). This continued for seven to eight minutes until a passing car prompted it to fly off.

The *Birds of North America* species account (Cimprich and Moore 1995, p. 6) describes the “Head-forward Display,” an agonistic display, in which the bird’s head is thrust forward, with bill open, at the rival, and often the feathers are fluffed. In Figure 3, the bill is open as the bird initiates an attack of its image, and, in Figure 4, some fluffing of the feathers is indicated. Interestingly the species account also states that, “Gray Catbirds are not reported to strike one another during conflicts....” This Catbird did strike its image as witnessed in Figure 2.

Birds fighting their reflection has been reported for many species of birds (e.g., Davis 1999, 2012) but is not mentioned in the Cimprich and Moore species account of the Gray Catbird. This suggests to me that this behavior is likely under-reported. 🐦

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Figure 2. Feet-first full attack of the reflected image by the catbird. Note the contact of the feet with the image.



Figure 3. Catbird pecks at its image with bill open.



Figure 4. Some fluffing of feathers is indicated as catbird attacks its image.

Courtship Feeding during Migration

Tom Aversa



Cape May Warbler. Photograph by Sandy Selesky.

On April 21, 2016 at approximately 10:30 am, while birding with my brother Steve at Hammock Park in Dunedin, Florida, I encountered a pair of Cape May Warblers (*Setophaga tigrina*). We easily identified the male by its black, finely-streaked bright yellow underparts, orangish face, and bold white wing patch. A nearby similarly shaped but much duller warbler proved to be a female Cape May. Both foraged in fairly close proximity within the crown of a live oak (*Quercus virginiana*). As we observed the birds, we noted that the male was carrying a food item. As they moved closer to each other, he approached the female and fed the unidentified invertebrate to her. I found this extremely surprising since I could not remember observing Neotropical wood-warblers engaging in courtship feeding during their migration.

On the next day while birding over 40 kilometers south of Dunedin at Fort De Soto Park in Pinellas County near St. Petersburg, we located another pair of Cape Mays. I was astonished to once again observe the brightly-plumaged male feed its female companion an unidentified invertebrate. This pair was foraging in mature slash pine (*Pinus elliottii*) near the Arrowhead Family Picnic Area of the park. Steve, as well as my sister Anne, also observed this incident.

In my search of the literature, I was unable to find any reference to wood-warblers courtship feeding on migration. This does not mean that it has never been observed, but perhaps only that no one had taken time to note it in a peer-reviewed journal. Dunn

and Garrett (1997) report that male migratory wood-warblers arrive about a week earlier to the breeding grounds than the females in order to claim territory and defend it from other males. In migration, many wood-warbler species are found in mixed-species flocks, primarily consisting of other wood-warblers. In some *Setophaga*, when more than one individual of a species is present within a flock, aggressive interactions between the conspecifics are frequently observed. Despite this, it is possible that in some cases at least, wood-warblers might pair on migration or even on their wintering grounds and move together to the northern breeding grounds. Greenberg and Gradwohl (1980) reported observing pairs of Canada Warblers (*Cardellina canadensis*) in mixed flocks in Panama. Most Cape Mays winter in the Caribbean (Baltz and Latta 1998), so it seems plausible that the migrants that we observed may have made the ocean crossing together while utilizing the easterly airflows that were present for several days before and throughout the days of my observations.

Other groups of Neotropical migrants such as grosbeaks, buntings, tanagers and orioles are often observed in mixed sex flocks, and pairs may migrate together. Wyatt and Francis (2002) reported that Rose-breasted Grosbeaks (*Pheucticus ludovicianus*) are more gregarious during migration but that male arrival dates at breeding sites average earlier than that of the females. Moore, Kerlinger, and Simons (1990) observed similar arrival date patterns for grosbeaks at a stopover site on the Mississippi coast.

Lack (1940) pointed out that the primary purpose of courtship feeding in birds, which perform this act previous to incubation, is not to provide extra nutrition. Instead the symbolic act presumably maintains and strengthens the bond between the pair. The action provides information to the female that allows her to gauge the prospective fitness of a male as a future food provider during incubation and the period when the two share feeding duties of the young. Royama (1966), however, emphasized that courtship feeding also provides important additional nutrition to female birds on the breeding grounds. He observed Great Tits (*Parus major*) in Japan and European Blue Tits (then *Parus caeruleus*, now *Cyanistes caeruleus*) in England and showed that the frequency of courtship feeding greatly increased just before and during the egg-laying period. He concluded that this showed that the predominant purpose of the behavior was to provide extra nutrition.

It seems far more likely that the symbolic importance of the act for pair bonding explains courtship feeding by Cape May Warblers in Florida, but it cannot be ruled out that the extra nutrition might increase the female's chance of arriving in the boreal forest in prime condition to begin the rigorous process of egg-laying. This would only make evolutionary sense if the pair bond is subsequently maintained throughout the migration period. Perhaps the lack of reported observations of courtship feeding along more northerly segments of their migration route also make Royama's explanation less likely.

The purpose of this note is to encourage others to watch for and note observed courtship feeding during migration. Because I observed the behavior on subsequent days at different locations, it seems likely that it occurs more frequently than it is reported. 🐦

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KING RAIL, BURRAGE POND WMA, BY DAVID CLAPP

ABOUT BOOKS

Quoth The Raven, “Cogito Ergo Sum”

Mark Lynch

The Genius Of Birds. Jennifer Ackerman. 2016. New York, New York: Penguin Press.

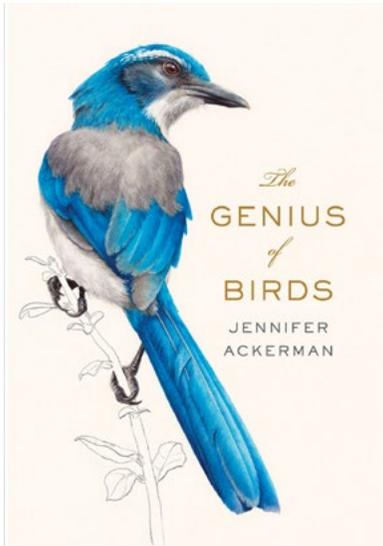
“Not *assuming* that other animals have thoughts and feelings was a good start for a new science. Insisting they did *not* was bad science.” (p. 27, Carl Safina. *Beyond Words: What Animals Think and Feel*.)

“For a long time, the knock on birds was that they’re stupid.” (p. 1, *The Genius of Birds*)

Some years back, an odd crow started to show up at my feeders. I never had crows at my feeders, so this bird stood out. Because it was also leucistic, with shocking white flight feathers, it was unique and identifiable even away from my house. When I went outside to fill the feeders, it would fly down, and I learned to save a piece of doughnut or leftovers to give it. It did not appear every day but often enough for me to look forward to its visits. Then I did not see the bird for a few weeks and assumed it had moved on. I was at an outside party at the house of the director of the art museum a few blocks away, eating and chatting with other guests in the backyard when the crow, “my crow,” flew down from nowhere and approached me looking for its usual handout. This bird had visually recognized me among about one hundred guests and fearlessly flew in and assumed it would be business as usual. I was shocked, but I had read anecdotal stories about crows mobbing crow hunters walking down streets, so I was not completely surprised. Still, this incident set me wondering if this behavior was a sign of complex intelligence.

Many of you probably have had experiences in which your observations of a bird’s unique behavior led you to wonder about its intelligence. If you studied ethology or zoology at the university level many decades ago, it was probably drilled into your budding academic brain that assuming complex intelligence, or anything that might smack of consciousness, in any creature other than a human was exhibiting anthropomorphism. Anthropomorphism is attributing human emotions and motivations to animal behavior. We all do this of course, but within the context of scientific research it was considered verboten. Academic careers have been wrecked in the past if a scientist assumed an anthropomorphic attitude in drawing conclusions while interpreting an animal’s behavior. We were taught to assume nothing and fall back on the belief that animal behavior was merely the result of instinct and did not involve deep intelligence. The human brain was considered the acme of evolutionary development. Although neurologists were still wrestling with the biological nature of consciousness, and philosophers were still trying to define it, it was assumed that if a creature didn’t have as large a brain as ours with the same structures in the same proportions, it could not have a rich interior life like ours. Animals could never have

feelings or use reason to solve a problem. Of course, millions of pet owners would disagree strongly.



As the science of studying animal behavior has evolved, these conservative attitudes have begun to change, albeit very, very slowly. Many researchers now assume that most apes and some monkeys do indeed exhibit behaviors that indicate that they have intelligence, experience emotions, and may even have a concept of “self.” (I have to admit here that there are many times that I doubt the collective intelligence of humans, so accepting that a mountain gorilla has some intelligence is not a stretch.) Almost grudgingly, it is now being recognized that a few animals other than primates may also be members of this “consciousness club.” They include elephants, dolphins, whales, and perhaps some birds. Such beliefs are still considered controversial, and debates about animal intelligence and consciousness have generated a

lot of heat and not much light. This dilemma is hardly surprising since hard definitions of consciousness, mind, or intelligence are elusive. We are not even certain how to measure our own intelligence let alone that of another species. “Intelligence is a slippery concept, even in our species, tricky to define and tricky to measure. One psychologist describes it as ‘the capacity to learn or to profit by experience.’” (p. 8)

In the last few years, some scientists have developed ideas of the uniqueness of animal minds even further. Endowed Professor for Nature and Humanity at Stony Brook University, Carl Safina has written that using the human mind and brain as the gold standard against which other creatures are measured and always found wanting, is missing the point. Many species of animals exhibit their own special kinds of “mind” that have evolved for them to succeed in their particular environment. Humans are but one kind of mind. As Carl Safina put it, “At issue here is: who are we here with? What kinds of minds populate the world?” (p. 20, *Beyond Words*)

Jennifer Ackerman is a journalist who specializes in writing about science, nature, and human biology. In *The Genius of Birds*, she travels around the world to spend time with researchers who are redefining how we look at avian minds. She begins by attempting to define terms. “In this book, genius is defined as the knack for knowing what you’re doing for ‘catching on’ to your surroundings, making sense of things, and figuring out how to solve your problems. In other words, it’s a flair for meeting environmental and social challenges with acumen and flexibility, which many birds seem to possess in abundance.” (p.11) Of course, as soon as Ackerman has committed such a definition to print, you can imagine the reaction of neurologists and philosophers who will have their own definitions of “genius.” An important question is if she created a definition of genius that merely supports her findings. Well, she had to start with a definition of what she is writing about, and to her credit she included

information from scientists with a wide variety of ideas about avian intelligence. But terms and definitions are important. Some researchers prefer the word “cognition” to “intelligence” because “intelligence” has so many human associations. Furthermore, cognition or intelligence does not also mean “consciousness” or a sense of self. Most of the scientists cited by Ackerman are “down in the weeds,” doing field and lab research aimed at trying to separate what is indeed intelligent behavior from simple reflexive processes (read: instinct).

Louis Lefebvre, biologist and comparative psychologist at McGill University, is one of the key scientists involved in this search for the best way to measure avian intelligence. He has even created an intelligence scale for birds. According to his scale, corvids, grackles, raptors, falcons, woodpeckers, sparrows, and tits all rank as very intelligent. On the low end of that scale are quail, ostriches, bustards, turkeys, and nightjars. The smartest species of birds are those that have altricial young. These are birds whose young are typically born blind and naked and have to stay in the nest for weeks before they leave.

Birds do have large brains for their body size, but size is a crude way to measure intelligence. Even within a species, brain size can vary. Early in studies of human neurology, it was thought that the seat of our intelligence lay in a structure called the neocortex. “The syllogism went like this: The neocortex is the special seat of intelligence. Birds have no neocortex. Therefore, birds have little or no intelligence.” (p. 56)

But comparing bird brains and human brains is an apples and oranges problem. Birds evolved quite differently from humans. Bird brains are not mammalian, they evolved from reptile and dinosaur brains. In fact, birds do have their own elaborate cortex-like neural systems and are therefore capable of complex behavior. Yes, birds have radically different brain “architecture” from us, but avian brains are organized in a similar fashion.

Ackerman begins her tour of avian minds in New Caledonia, where several researchers are studying the remarkable New Caledonian Crow, considered by many as the most intelligent bird on the planet. This species excels at complex problem solving and is adept at fashioning different tools out of pandanus leaves and twigs to solve those problems. These crows are so bright they have earned the moniker of avian “boffins,” British slang for “tech geeks.” “When these birds are problem-solving, they may be using forms of cognition intermediate between simple learning and human thought.” (p. 83)

Scientists like Alex Taylor are designing advanced cognition tests for New Caledonian Crows and so far have found out that they succeed on some tests but don’t do well on others. Why this is so has still to be discovered. Lest birders think at this point that *The Genius of Birds* is too technical, it is important to note that the book is written for the general intelligent audience and that Ackerman always keeps it entertaining and filled with interesting details about the birds themselves. Spoiler alert: she does tick the Kagu while on the island.

Do birds play? Ackerman considers the New Zealand parrot, the Kea, aptly nicknamed “mountain monkey.” This species is famous for being intelligent, bold, and curious. In the Kea’s case, its intelligence has also led it to be “ingeniously destructive.” (p. 92) It seems to be the juvenile delinquent of the avian world. These birds go out of their way to strip stopped cars of the rubber in their wipers and perform numerous other acts of avian vandalism, even acting in concert to steal people’s money from their wallets. Some people have concluded that they just get a kick out of screwing with humans, activities that would be an indication of intelligence.

Some researchers are testing the “social intelligence hypothesis,” the idea that a demanding social life may drive the evolution of the brain. Many birds have complex social systems, and one of the most complex is that of the Western Scrub Jay. They are constantly caching food and having to remember where they hid it, and they also pilfer other jays’ cached food. Researchers have observed jays stealthily observing other jays caching food. The kicker is that some jays realize they are being watched by future cache thieves, and knowing this they only pretend to cache food, “acting” as if they don’t know they are being watched. Can complex ever-changing behavior like this simply be an instinct or is this an indication of real intelligence?

Another interesting section of the book looks at avian mimicry and vocal learning. “But the odd thing is, so many aspects of human speech acquisition are similar to the way that song birds acquire their songs. In the great apes there’s no equivalent at all.” (p.159) If you thought that a mockingbird is simply “playing back” other songs heard in its nesting territory or that other birds’ songs are mostly inherited in the genes, you would be wrong. Song learning is a complex process in birds, and it varies tremendously from one species to the next. Some species, including the mimics, are like humans, and are “open ended learners” able to add new songs to their repertoire later in their lives. There are even known examples of one parrot teaching another parrot human speech. Examples like this and many others in the book seem to indicate that at least some species are intelligent and creative learners and that not everything a bird does is simply an instinct, hard-wired in its DNA.

Ackerman looks at the bowerbirds of Australia. Bowerbirds are medium sized birds that have large brains and are long-lived. The males of each species construct different kinds of complex arenas, which they decorate with colored objects, each species preferring a different color. When a female inspects the bower, the male picks up the objects and shows them to her. If she “agrees” to mate with him, the nest is built in a very different location. How many species, other than humans, do you know that use brightly colored objects to attract a mate? Because brightly colored objects are always in short supply, male bowerbirds not only pilfer other males’ objects, but when they do, they completely trash the bower. Some scientists think that male bowerbirds actually decorate their bowers for maximum optical effect, arranging smaller and larger objects in a way to create the optimal optical impact on the visiting female. If this is true, does that mean bowerbirds are creating art? “John Endler suggests that visual art can be defined as ‘the creation of an external visual pattern by one individual in order to influence the behavior of others, and... artistic skill is the ability to create art.’ Richard Prum, an ornithologist at Yale University, views it as ‘a form of

communication that coevolves with its evaluation.’ By these definitions, a bower would certainly seem to qualify as art, and bowerbirds as artists.” (p. 183)

The Genius of Birds touches on many more topics and covers a surprising amount of complex material. Ackerman easily weaves all these different strands into a fascinating and powerful narrative. By the end of the book, the reader realizes that the concept of intelligence in humans, let alone other species, is still not well understood. There are many, sometimes conflicting, definitions of intelligence. For example: is being supremely adaptive to a challenging and ever changing variety of situations a sign of real intelligence? If this is true, and some scientists think this the case, then lowly English Sparrows and starlings are geniuses. As Ackerman puts it, “Intelligence as we understand it may vary among birds, but no bird is truly stupid.” (p. 261)

Humans have always taken for granted that we are alone at the very apex of the evolution of the mind. But it seems we all were being anthropocentric, looking at the rest of the animals around us and only searching for what we thought we knew about ourselves. The reality is much more complex. “Birds learn. They solve new problems and invent novel solutions to old ones. They make and use tools. They count. They copy behaviors from one another. They remember where they put things.”(p. 9)

Maybe some species of birds keep mental lists of all the different humans they spot. Maybe they have more important things to do. 🐦

LITERATURE CITED:

Safina, Carl. 2015. *Beyond Words: What Animals Think And Feel*. New York, New York. Picador.

Note: Although Safina focuses his field observations only on mammals (elephants, wolves and orcas) he discusses other species at length as well as many of the crucial issues about looking at animal minds. He has some important criticisms of much touted tests of nonhuman self such as the “mirror test” and the concept of “theory of mind.”



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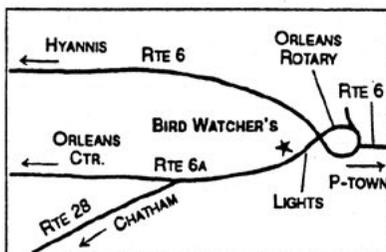
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BIRD SIGHTINGS

May-June 2016

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

The first week of May barely got into the fifties, stalling migration, but in the second week temperatures increased, and on May 8 birders all over the state experienced the first wave of May migrants. The high for the month reached 92° in Boston on May 28. The last week of the month was warm, bringing another wave of late migrants. The drought continued with just 2.83 inches of precipitation, nearly an inch below the average.

June was dry with only 1.33 inches of rain recorded in Boston, 2.35 inches below normal. Most of it fell on June 5, leaving the rest of the month with less than half an inch, causing many communities to issue watering bans. The high for the month was 87° on June 21 and 29.

R. Stymeist

WATERFOWL THROUGH ALCIDS

Unusual waterfowl included a Ring-necked Duck that spent June at Horn Pond in Woburn, a Lesser Scaup that spent the entire period at Quabbin Park, and a **King Eider** that lingered in Gloucester as late as June 26. A **Pacific Loon** in Nantucket Harbor was in poor condition and was eventually taken to a wildlife rehabilitator.

Black Vulture is becoming relatively common in the western part of the state, but a May 30 sighting may be a new state high, as one observer counted 43 birds feeding on a cow carcass. **Mississippi Kite** is annual during spring migration on outer Cape Cod but unusual inland, so the sighting of one in Williamstown on May 29 was exciting. Sandhill Cranes have been reported regularly in Worthington since 2013, and they were finally confirmed breeding on May 28 when they were photographed with young. A pair of Sandhills has been seen regularly at Burrage Pond WMA in Hanson and may be the next to be confirmed breeding.

Western Massachusetts featured some shorebird excitement during this period. On June 28 an **American Avocet** was photographed in Sheffield. This appears to be the first Berkshire County record and only the third western Massachusetts occurrence: the first was in Longmeadow in August, 1974, and a second appeared in Sunderland in November, 2003. Only one day later on June 29, a **Ruff** was discovered at Silver Lake in Pittsfield. It was initially thought to be a Lesser Yellowlegs, but the observer took a photograph, which was analyzed by an eBird reviewer who made the identification. This species is uncommon enough along the coast but is exceptionally rare inland. This is only the second Berkshire County report, the first being on May 23, 1970, at Ashley Falls. Other noteworthy sightings in the western part of the state included a rare spring American Golden-Plover in Pittsfield on May 20 and a remarkable 250 Semipalmated Sandpipers in Longmeadow on May 30.

Another noteworthy shorebird was a **Black-necked Stilt** that spent a week in May in West Harwich. In addition to the Pittsfield **Ruff**, there were **Ruffs** at Crane Beach in Ipswich on June 5 and on Plum Island on June 21. During the 5-year Breeding Bird Atlas (Mass Audubon, 2007-2011) there was only one confirmation of breeding for Wilson's Snipe, so the discovery of an adult with recently fledged young at October Mountain in Washington was very exciting.

As many as four Little Gulls were reported from Provincetown throughout the month. A **Franklin's Gull** was discovered at Race Point in Provincetown on June 12, and the same

observer sighted one again on June 23; photographs of the two birds indicated two different individuals.

There were up to five **Gull-billed Terns** reported during the period, although the single tern at Race Point on June 12 could easily have been one of the two photographed in Wellfleet on June 17. **Caspian Tern** is a regular, if uncommon, spring migrant, but this year there were an unusual number reported, most in the first week of May. Often persistence is rewarded, and such was the case for Peter Flood, a birder who regularly surveys the seabirds at Race Point in Provincetown. On May 8, Peter spotted a spectacular breeding-plumaged **White-winged Tern**, a rare Eurasian vagrant, and managed to get word to two other Race Point regulars who were also rewarded with views of this mega-rarity. This is only the second Massachusetts record for this species, the first being over a half a century ago in 1954.

M. Rines

Brant				6/5	Plymouth B.	3	S. Zende#
5/3	Newbypt	225	R. Heil	White-winged	Scoter		
5/3	Brewster	70	W. Mumford	5/12	Turners Falls	1	E. Huston
5/16	E. Boston (B.I.)	25	P. Peterson	5/19	Hinsdale	1	J. Pierce
6/18	Eastham	1	K. Schopp	6/1	N. Truro	14	B. Nikula
Wood Duck				Black Scoter			
5/1	ONWR	6	BBC (J. Center)	5/3	Pittsfield (Pont.)	2	J. Pierce
5/26	GMNWR	40	A. Bragg#	6/2	P.I.	2	S. Sullivan
Gadwall				6/5	Plymouth B.	9	S. Zende#
5/4-27	Worc. (BMB)	1	J. Liller + v.o.	Long-tailed Duck			
6/7	P.I.	18	R. Heil	5/3	P.I.	3100	R. Heil
Eurasian Wigeon				5/4	Pittsfield (Pont.)	1	R. Wendell
5/4	Nantucket	1	T. Pastuszak#	Bufflehead			
American Wigeon				5/10	Stoneham	10	J. Kovner
5/1	P.I.	1	N. Landry	5/10	Malden	2	C. Kaynor
5/2	Spencer	1	M. Lynch#	6/4	Plymouth	1	N. Marchessault
American Black Duck				Common Goldeneye			
5/10	P.I.	35	R. Heil	5/1	Revere	1	G. d'Entremont#
Blue-winged Teal				5/13	N. Truro	1	C. Caron#
5/5	Belchertown	1	L. Therrien	Hooded Merganser			
5/14	Burrage Pd WMA	2	G. d'Entremont#	5/15	GMNWR	17	USFWS (S. Arena)
5/20	Williamstown	2	C. Johnson	6/16	Stockbridge	6	J. Pierce
6/17	P'town	2	B. Nikula	6/18	Washington	2	J. Pierce
6/22	P.I.	1	T. Wetmore	Common Merganser			
Northern Shoveler				5/14	Burrage Pd WMA	1	G. d'Entremont#
5/8	Turners Falls	3	S. Desrosier	5/28	Huntington	2	M. Lynch#
5/9	W. Boylston	6	D. Grant	6/25	Sandisfield	2 f + 4yg	M. Lynch#
5/9	S. Quabbin	2	L. Therrien	Red-breasted Merganser			
5/13	Wayland	2	B. Harris	5/1	P'town	500	B. Nikula
5/17	E. Boston (B.I.)	2	S. Zende#	5/7	Wachusett Res.	1	J. Bourget#
5/18, 6/1	P.I.	10, 5	T. Wetmore	5/13	S. Quabbin	1	L. Therrien
Green-winged Teal				Ruddy Duck			
thr	P.I.	55 max	v.o.	5/3	Waltham	7	J. Forbes
5/1	Lexington	5	J. Forbes	5/4	Chestnut Hill	44	D. Scott
5/29	Washington	3	J. Pierce	5/7	Pembroke	11	BBC (GdE)
5/31	E. Boston (B.I.)	1	S. Zende	6/24	P.I.	2	T. Wetmore
6/1	Nantucket	2	L. Dunn	Northern Bobwhite			
Ring-necked Duck				5/20	N. Truro	1	B. Nikula
5/3	Sterling	4	J. Johnson	5/21	Chatham	1	G. d'Entremont#
5/6	Westboro	4	T. Spahr	6/11	P'town	2	B. Nikula
6/thr	Woburn (HP)	1	v.o.	6/22	Eastham (F.H.)	1	J. Hoye#
Lesser Scaup				Ring-necked Pheasant			
thr	Quabbin Pk	1	L. Therrien	5/25	Newbypt	1	MAS (D. Moon)
King Eider				6/19	Lenox	1	SSBC (GdE)
6/26	Gloucester	1	K. Testerman	Ruffed Grouse			
Common Eider				5/10	Ware R. IBA	3	M. Lynch#
6/11	Manchester	27	J. Berry#	6/15	Mashpee	3	J. Pratt
6/29	Boston H. 474 f, 333 yg		C. Trocki#	6/18	Savoy	3	M. Lynch#
Harlequin Duck				6/26	Holden	3	M. Lynch#
5/14	Chilmark	4	B. Burke	Red-throated Loon			
5/19	Nantucket	1	S. Kardell#	5/4, 6/4	P.I.	76, 6	v.o.
Surf Scoter				6/4	N. Truro	3	B. Nikula
5/2	Turners Falls	5	J. Coleman	6/thr	P'town	2	B. Nikula

Pacific Loon	6/23-30	Nantucket	1	B. Perkins	6/25	P.I.	40	T. Wetmore	
Common Loon	thr	P.I.	22 max	v.o.	Snowy Egret	6/16	Magnolia	50	J. Hoye#
	5/4	S. Quabbin	19	L. Therrien		6/24	P.I.	47	J. Keeley#
	5/8	P'town (R.P.)	183	S. Arena		6/24	E. Boston (B.I.)	21	DCR (S. Riley)
	6/26	Wachusett Res.	14	K. Bourinot#	Little Blue Heron	5/14	Manchester	3	J. Hoye#
	6/26	E. of Chatham	16	B. Nikula#		6/19	DWWS	1 imm	G. Gove#
Pied-billed Grebe	6/19	Bolton Flats	1	S. Arena		6/24	E. Boston (B.I.)	1	DCR (S. Riley)
	6/20	Richmond	1	J. Pierce		6/25	Acton	1	W. Martens
	6/28	Easthampton	1	D. McLain	Tricolored Heron	5/14	W. Harwich	1	J. Restivo#
Horned Grebe	5/5	Richmond	2	T. Collins		5/14	S. Dart. (A.Pd)	1	E. Lipton
	5/13	N. Truro	1	L. Waters#		5/31	Fairhaven	2	N. Smith
	6/25	Hyannis	1	J. Barnard		6/16	Magnolia	1	J. Hoye#
Red-necked Grebe	5/2	Turners Falls	5	J. Coleman	Cattle Egret	5/18	DWWS	1	K. Rawdon#
	5/4	S. Quabbin	3	L. Therrien		5/18	DWWS	1	K. Rawdon#
	5/4	P.I.	1	MAS (D. Weaver)	Green Heron	5/14	Sheffield	4	K. Schopp#
	5/7	GMNWR	1	C. Winstanley		5/21	Topsfield	4	J. Berry#
	5/13	P'town (R.P.)	1	H. Yelle#		6/2	Worc. (BMB)	6	J. Liller
Northern Fulmar	6/25	Stellwagen	1	W. Lackey#		6/4	Millis	5	W. Webb#
	6/26	E. of Chatham	1	P. Flood#	Black-crowned Night-Heron	5/30	Medford	27	M. Rines
Cory's Shearwater	5/29-6/30	P'town	88 max	v.o.		6/20	P.I.	16	D. Adrien
	6/9	N. Truro	30	B. Nikula	Yellow-crowned Night-Heron	5/1	S. Dartmouth	2	A. Morgan
	6/26	E. of Chatham	300	B. Nikula#		5/19-6/30	Barnstable	1	N. Villone#
	6/26	Stellwagen	270	BBC (I. Giriunas)		6/7	Woburn (HP)	1	M. Ashleigh
Great Shearwater	6/9	P'town	30	B. Nikula		6/28	P.I.	2	D. Adrien
	6/12	Nantucket	150	T. Pastuszak#	Glossy Ibis	5/2	Rowley	473	O. Burton#
	6/25	Stellwagen	500	W. Lackey#		5/8	Mt.A.	9	B. Black#
	6/26	E. of Chatham	1200	B. Nikula#		5/18	Natick	6	J. Jones
Sooty Shearwater	5/28, 6/9	P'town	1, 120	B. Nikula		5/21	Pittsfield	4	T. Collins
	6/4	N. Truro	15	B. Nikula	White-faced Ibis	6/11	Manchester	41	J. Berry#
	6/8	Stellwagen	1000	L. Waters#		thr	Essex County	1	v.o.
	6/12	Nantucket	50	T. Pastuszak#	Black Vulture	5/5	Athol	2	G. Watkevich
	6/26	E. of Chatham	3500	B. Nikula#		5/11	Uxbridge	2	J. Lawson
Manx Shearwater	5/4-6/17	P'town	8 max	B. Nikula		5/11	Gardner	5	T. Pirro
	6/26	E. of Chatham	2	P. Flood#		5/25	Blackstone	2	R. Holden
	6/26	Stellwagen	5	BBC (I. Giriunas)		5/27	Mt. Wachusett	2	T. Pirro
Wilson's Storm-Petrel	6/7	P'town	96	S. Arena		5/30	Ashley Falls	43	K. Schopp
	6/8	Stellwagen	160	L. Waters#		6/11	Holyoke	2	M. Lynch#
	6/18	Orleans	55	L. Waters#	Turkey Vulture	5/14	P'town (R.P.)	46	L. Waters#
	6/26	E. of Chatham	125	B. Nikula#		5/24	Ware	30	P. + F. Vale
Northern Gannet	6/3	P.I.	4	T. Wetmore		6/11	Holyoke	38	M. Lynch#
	6/7	P'town	26	S. Arena		6/15	N. Truro	28	Hawkcount (DM)
Double-crested Cormorant	5/10	P.I.	295	R. Heil	Osprey	5/3	Burrage Pd WMA	6	P. Peterson
	6/11	Manchester	175	J. Berry#		5/9	N. Truro	15	Hawkcount (DM)
	6/14	Medford	61	R. Stymeist		5/14	P.I.	10	J. Trimble
Great Cormorant	5/14	N. Scituate	3	G. d'Entremont#	Mississippi Kite	5/15, 5/29	N. Truro	1, 2	Trimble, Hawkct.
	6/9	Westport	1	M. Iliff		5/29	Williamstown	1 ph	M. Morales
	6/16	Outer Brewster I.	1	R. Stymeist#		6/6	N. Truro	1	Hawkcount (DM)
American Bittern	5/12	Bolton Flats	4	D. Grant		6/7	Eastham	1	M. Lowe
	5/19	Ware R. IBA	2	M. Lynch#	Bald Eagle	5/7	S. Quabbin	pr n	M. Lynch#
	5/29	Washington	5	J. Pierce		5/10	P.I.	5	R. Heil
	6/16	Stockbridge	4	J. Pierce		5/10	Waltham	2	J. Forbes
	6/26	GMNWR	2	USFWS (S. Arena)		5/14	Wayland	2	B. Harris#
Least Bittern	6/10-11	GMNWR	7	USFWS (S. Arena)		6/9	Framingham	pr n, 1 juv	B. Dinerman
	6/19	Bolton Flats	3	S. Arena	Northern Harrier	5/9-15	P.I.	13	Hawkcount (UG)
Great Egret	5/9	Burrage Pd WMA	10	P. Peterson		6/20	Bolton	1	S. Miller
	6/16	Magnolia	40	J. Hoye#		6/27	Nantucket	5	B. Foehring
					Sharp-shinned Hawk	5/9	N. Truro	47	Hawkcount (DM)

Sharp-shinned Hawk (continued)				5/18	Wachusett Res.	3	B. Kamp
5/9-10	P.I.	271	Hawkcount (UG)	5/20	E. Boston (B.I.)	5	S. Zende#
5/14	W. Warren	2	B. Zajda	Piping Plover			
6/17	Southwick	2	S. Kellogg	5/14	P'town (R.P.)	11	L. Waters#
Cooper's Hawk				5/24	P.I.	36 pr	USFWS
5/8	Wompatuck SP	2	BBC (E. Giles)	5/29	Plymouth B.	19	SSBC (GdE)
5/9	P.I.	20	Hawkcount (UG)	6/15	Monomoy	67	J. Layman
Northern Goshawk				6/18	Orleans	17	L. Waters#
5/10	P.I.	1	U. Goodine#	6/19	Revere B.	22	R. Stymeist
6/18	Savoy	1	M. Lynch	Killdeer			
Red-shouldered Hawk				6/7	Saugus	13	S. Zende#
5/9	Burrage Pd WMA	2	P. Peterson	6/15	DFWS	10	P. Sowizral
5/20	Carlisle	2	A. Joslin	6/28	P.I.	18	R. Heil
5/26	Wendell	2	M. Lynch#	American Oystercatcher			
6/4	Skinner SP	2	BBC (L. Ferrarosso)	5/17	Chatham	19	J. Pratt
6/4	October Mt.	2	K. Schopp	6/1	Monomoy	23	J. Layman
Broad-winged Hawk				6/14	E. Boston (B.I.)	10	DCR (S. Riley)
5/8	Quabbin Park	12	J. Hoye#	6/15	Winthrop	12	C. Trocki#
5/10	Newbypt	3	P. + F. Vale	6/27	Nantucket	20	S. Keene
5/19, 6/7	N. Truro	49, 22	Hawkcount	Black-necked Stilt			
5/19	Ware R. IBA	3	M. Lynch#	5/17-23	W. Harwich	1	D. St. Onge#
Clapper Rail				American Avocet			
thr	Fairhaven	4 max	C. Longworth	6/28	Sheffield	1 ph	K. Schopp#
5/8	Harwichport	1	B. Nikula	Spotted Sandpiper			
6/14	Wellfleet	2	E. Lipton	5/4	Chestnut Hill	6	D. Scott
6/27	S. Dart. (A.Pd)	1	D. Hlousek	5/15	Saugus	10	S. Zende#
King Rail				5/21	Topsfield	6	J. Berry#
5/3-6/5	Burrage Pd WMA1-2		v.o.	5/28	Huntington	16	M. Lynch#
Virginia Rail				6/26	Wachusett Res.	7	K. Bourinot#
5/19	Ware R. IBA	4	M. Lynch#	Solitary Sandpiper			
6/10-11	GMNWR	32	USFWS (S. Arena)	5/4	Quabog IBA	2	M. Lynch#
6/11	Burrage Pd WMA	3	P. Peterson	5/7	GMNWR	3	C. Winstanley
6/12	IRWS	2 ad, 1 juv	MAS (Baird)	5/11	P.I.	3	T. Wetmore
6/25	Brookfield	4	R. Jenkins	5/14	Wenham	2	J. Berry
Sora				5/20	Rowley	1	P. + F. Vale
5/10	P.I.	2	E. Labato	Greater Yellowlegs			
5/14	Wayland	2	B. Harris#	thr	P.I.	31 max	v.o.
5/18	Lenox	3	S. Kellogg#	5/3	Newbypt H.	135	R. Heil
5/21	Topsfield	2	J. Berry#	Willet			
6/10-11	GMNWR	5 ad	USFWS(S.Arena)	thr	P.I.	60 max	v.o.
6/19	Bolton Flats	2	S. Arena	5/8	GMNWR	2	W. Martens
Common Gallinule				6/2	Monomoy	60	J. Layman
5/7-6/19	Bolton Flats	1-2	v.o.	6/15	Winthrop	7	C. Trocki#
5/7	Belchertown	1	L. Therrien	Lesser Yellowlegs			
5/7-11	Longmeadow	1	v.o.	thr	P.I.	114 max	v.o.
5/8	Concord	1	J. Forbes	5/14	Agawam	2	S. Kellogg
5/14	Wayland	1	B. Harris#	5/17	E. Boston (B.I.)	10	S. Zende#
American Coot				Upland Sandpiper			
thr	GMNWR	1-2	v.o.	thr	Westover	19 max	v.o.
5/2	Quabbin Pk	1	L. Therrien	5/2, 27	Camp Edwards	6, 5	D. Kim
5/14	DWWS	1	E. Giles	5/10	P.I.	1	E. Labato
5/18	Longmeadow	1	S. Motyl	5/10	Nantucket	1	S. Kardell
6/4	Plymouth	1	N. Marchessault	5/11	Westfield	3	S. Kellogg#
Sandhill Crane				5/13	Bedford	1	P. + F. Vale
thr	Burrage Pd WMA	2	v.o.	5/29	Plymouth	5	SSBC (GdE)
5/8	Oxbow NWR	1	B. Murphy	Whimbrel			
5/12-21	Bolton Flats	1	D. Grant + v.o.	5/8	Ipswich (C.B.)	1	N. Dubrow
5/20	Concord	1	C. Winstanley	5/11	P.I.	8	M. Watson
5/28	Worthington	pr + 1 yg	M. Lynch#	5/14	Duxbury B.	1	R. Bowes
6/26	Cumb. Farms	1	N. Marchessault#	5/21	Manomet	1	B. Z.
Black-bellied Plover				Hudsonian Godwit			
5/7	GMNWR	3	C. Winstanley	5/12	Newbypt H.	3	P. Roberts#
5/8	Wachusett Res.	3	M. Lynch#	5/18, 6/2	P.I.	1	T. Wetmore
5/14	Duxbury B.	62	R. Bowes	Ruddy Turnstone			
5/14	P.I.	67	J. Trimble	thr	P.I.	32 max	v.o.
5/21	Chatham	500	C. Goodrich	5/14	Duxbury B.	98	R. Bowes
American Golden-Plover				5/21	Chatham	40	C. Goodrich
5/14	Duxbury B.	2	R. Bowes	6/1	Plymouth B.	9	S. Zende#
5/14	P.I.	1	S. Miller#	Red Knot			
5/20	Pittsfield	1	K. Hanson	thr	P.I.	32 max	v.o.
Semipalmated Plover				5/14	Wellfleet	12	L. Waters#
5/14	P.I.	22	J. Trimble	5/20	Duxbury B.	15	R. Bowes
5/15	Northampton	3	L. Therrien	6/1	Chatham	80	J. Layman

Red Knot (continued)								
6/1	Plymouth B.	8		S. Zende#				
Sanderling								
5/13	P.I.	50		T. Wetmore				
5/14	Duxbury B.	39		R. Bowes				
Semipalmated Sandpiper								
thr	P.I.	380 max		v.o.				
5/21	Chatham	1000		C. Goodrich				
5/30	Longmeadow	250		L. Richardson				
6/3	Monomoy	500		J. Layman				
6/5	Plymouth B.	35		S. Zende#				
Least Sandpiper								
thr	P.I.	200 max		v.o.				
5/14	Duxbury B.	36		R. Bowes				
5/16	W. Harwich	250		M. Keleher				
5/17	E. Boston (B.I.)	60		S. Zende#				
White-rumped Sandpiper								
5/14-6/30	P.I.	10 max		v.o.				
5/14	Duxbury B.	3		R. Bowes				
5/20	Chatham	8		M. Faherty#				
6/7	P'town	3		S. Arena				
6/24	E. Boston (B.I.)	1		DCR (S. Riley)				
Pectoral Sandpiper								
5/9	Stockbridge	1		S. Kellogg				
5/20	Rowley	2		P. + F. Vale				
5/28	Longmeadow	1		L. Richardson				
Purple Sandpiper								
5/3	P.I.	15		R. Heil				
5/14	N. Scituate	30		G. d'Entremont#				
5/16	Manomet	1		T. Lloyd-Evans				
Dunlin								
thr	P.I.	55 max		v.o.				
5/14	Duxbury B.	453		R. Bowes				
5/18	Wachusett Res.	1		B. Kamp				
5/21	Chatham	3000		C. Goodrich				
Stilt Sandpiper								
5/17-26	P.I.	2		D. Larson + v.o.				
Ruff								
6/5	Ipswich (C.B.)	1 f		N. Dubrow				
6/21	P.I.	1 m ph		S. Wilson#				
6/29	Pittsfield	1		R. Wendell				
Short-billed Dowitcher								
thr	P.I.	220 max		v.o.				
5/11	Nantucket	6		L. Buck				
5/11	S. Dart. (A.Pd)	7		N. Sylvia				
5/17	E. Boston (B.I.)	34		S. Zende#				
5/24	Whately	12		J. Rose				
5/30	Longmeadow	1		L. Richardson				
Wilson's Snipe								
6/18	Washington	1 ad + 1 yg		J. Pierce				
American Woodcock								
5/20	P.I.	16		P. + F. Vale				
Wilson's Phalarope								
thr	Rowley/P.I.	2		v.o.				
5/30	Manomet	1		M. McMahon				
5/31	E. Boston (B.I.)	1 f		S. Zende#				
Red-necked Phalarope								
5/7	GMNWR	1		C. Winstanley#				
Black-legged Kittiwake								
6/1, 11	N. Truro	15, 15		B. Nikula				
6/7	P'town	17		S. Arena				
Bonaparte's Gull								
thr	P'town	2000 max		B. Nikula				
5/3	S. Quabbin	3		L. Therrien				
5/4	Pittsfield (Onota)	31		T. Collins				
6/13	Newbypt	13		J. Berry				
Little Gull								
thr	P'town	4 max		B. Nikula				
6/11	N. Truro	1 IS		B. Nikula				
Laughing Gull								
thr	P'town	1000 max		B. Nikula				
6/1	Plymouth B.	150		S. Zende#				
6/28	P.I.	2		T. Wetmore				
Franklin's Gull								
6/12, 23	P'town (R.P.)	1, 1		B. Nikula#				
Iceland Gull								
5/7, 6/7	P'town	9, 4		S. Arena				
5/27	Truro	1		B. Harris				
Lesser Black-backed Gull								
5/7	Wachusett Res.	3		J. Bourget				
6/1, 11	N. Truro	12, 70		B. Nikula				
6/12	P'town (R.P.)	42		S. Arena#				
6/18	Orleans	5		L. Waters#				
Glaucous Gull								
5/9-13	P'town	2		S. Williams#				
Least Tern								
5/2	Nantucket	32		L. Buck				
5/29	Plymouth B.	75		SSBC (GdE)				
6/2	Ipswich (C.B.)	100		J. Berry#				
6/7	P.I.	75		R. Heil				
Gull-billed Tern								
6/11-17	P.I.	1-2		S. Sullivan + v.o.				
6/12	P'town (R.P.)	1		P. Flood				
6/17	Wellfleet	2		L. Waters#				
Caspian Tern								
5/2-4	Pittsfield (Onota)	2-4		R. Wendell#				
5/2	Watertown	1		S. Perkins				
5/2	Turners Falls	3		J. Coleman				
5/3	Pittsfield (Pont.)	1		J. Pierce				
5/3	Northampton	1		D. McLain				
5/7	Newbury	2		S. Grinley#				
5/7	Northfield	1		E. Huston				
5/7	S. Hamilton	1		D. Walters				
5/7	P'town (R.P.)	1		P. Flood				
5/7-08	Ipswich (C.B.)	1		N. Dubrow				
5/8	Sudbury	1		T. Spahr				
5/8-09	Burrage Pd WMA	1		D. Furbish + v.o.				
5/9, 12, 19	P.I.	1, 1, 1		v.o.				
5/14	Marshfield	1		S. Whitebread				
5/20, 6/19	N. Truro	1		Young, Nikula				
5/20	Duxbury B.	1		R. Bowes				
5/29-30	Wachusett Res.	1		B. Kamp + v.o.				
Black Tern								
5/2	Cheshire	1		J. Pierce#				
5/2	Pittsfield	1		K. Schopp#				
5/6	P.I.	1		D. Adrien				
5/12, 6/23	P'town (R.P.)	3, 1		Flood, Nikula				
White-winged Tern								
5/8	P'town (R.P.)	1 ph		P. Flood#				
Roseate Tern								
5/2	Nantucket	18		L. Buck				
5/8	P'town (R.P.)	102		S. Arena				
5/9	Nantucket	56		S. Kardell				
6/7	P.I.	25		R. Heil				
Common Tern								
thr	P'town	1400 max		B. Nikula				
thr	P.I.	1500 max		v.o.				
5/2-4	Pittsfield (Onota)	2-5		v.o.				
5/3, 7	S. Quabbin	4, 2		L. Therrien				
5/21	Medford	4		O. Inbar				
6/10	S. Monomoy	10000 pr		USFWS				
Arctic Tern								
5/7, 6/25	P'town	1, 2		B. Nikula				
6/16	Chatham	2		J. Layman				
Forster's Tern								
5/3	S. Quabbin	1		L. Therrien				
6/10	P.I.	1 ph		S. Sullivan				
Royal Tern								
5/28, 6/4	P'town	1, 1		B. Nikula				
6/3	Nantucket	1		L. Buck				
6/12, 25	P'town	3, 1		B. Nikula#				
6/19	Elizabeth I.	1		M. Sylvia				
6/22	Ipswich (C.B.)	1		D. Williams				
Black Skimmer								
5/26	Edgartown	12		S. Whiting#				
6/5	Plymouth B.	2		S. Zende#				

Black Skimmer (continued)	5/13	P'town	1	B. Nikula
6/24 Vineyard Haven	4	S. Whiting	Razorbill	
Pomarine Jaeger	5/4		P.I.	1
6/18 P'town (R.P.)	1	S. Arena	5/8 P'town (R.P.)	4
6/26 E. of Chatham	2	B. Nikula#	5/12 Hingham (WE)	2
Parasitic Jaeger			6/26 E. of Chatham	1
thr P'town	12 max	B. Nikula	6/28 Nantucket	1
6/26 E. of Chatham	3	B. Nikula#	Black Guillemot	
Long-tailed Jaeger			5/14 Gloucester (E.P.)	1
5/28, 29 P'town	2, 1	B. Nikula	6/12 P'town (R.P.)	1
Common Murre			6/17 P'town	1
5/8 P'town (R.P.)	3	P. Flood		

CUCKOOS THROUGH FINCHES

A **Barn Owl** was found roosting in trees at Belle Isle Marsh in East Boston on May 3, only the fifth mainland record in the last ten years. The most recent was at Hanscom Field in Concord in January 2015, and the last time the species was reported in the May-June period was in Salisbury in May 2004. Long-eared Owls are rare breeders in Massachusetts; for the second year in a row a pair of Long-ears successfully fledged young in the Polpis area of Nantucket. Common Nighthawks were on the move, with several high counts noted May 20-22. At Camp Edwards, which is part of Otis Air National Guard Base on Cape Cod, as many as four **Chuck-will's-widows** and 34 Whip-poor-wills were tallied on May 25. Chucks were also found on Nantucket, Plymouth, and in Falmouth. Hawk watchers stationed at lot 1 on Plum Island tallied 32 American Kestrels, 25 Merlins, and two Peregrines on May 9. There were seven reports of Red-headed Woodpeckers during this period, three of which were holdovers from last winter.

The first week of May was cold, a stalled front was keeping the birds to our south, and finally on May 8 a high-pressure cell from Canada brought clearing skies and strong southwest winds to the region. Birders reported fallouts from many areas across the state and especially several coastal points, including Plum Island, Nahant, Eastern Point in Gloucester, and Marblehead Neck. Significant movement was also noted with a warm front beginning on May 21 and again at the end of the month with good numbers of flycatchers.

A total of 34 species of warblers were reported during the period. Highlights included six Golden-winged Warblers compared with just one bird reported in May 2015, nine Orange-crowned, four each of Kentucky and Prothonotary, 14 Hooded, and 12 Ceruleans from eight locations with five being seen at Skinner State Park in Hadley. Other noteworthy spring migrants included good numbers of Olive-sided and Yellow-bellied flycatchers, two reports of Philadelphia Vireo, and three Summer Tanagers.

A **Fork-tailed Flycatcher** was found and photographed at Bear Creek Wildlife Refuge in Saugus where access is restricted to organized groups. On May 1, a **Golden-crowned Sparrow** was discovered at a feeder in Hingham. The homeowner was worried about allowing a deluge of visiting birders, but access was permitted via a sign-up sheet. Eventually over 100 birders were able to see the bird.

The breeding season again saw increased nesting success with Purple Martins in Mashpee. Mary Keleher, who has monitored the nesting sites in town for several years, reported 47 nests with over 200 eggs on June 13. With luck, most will hatch and successfully fledge. Acadian Flycatchers were suspected breeders in four locations and Cerulean Warblers again nested at Skinner State Park; one nest was easily observed from the road; observers reported fledged young being fed by the adults on June 15. As many as four Clay-colored Sparrows were found at Camp Edwards in Otis Air National Guard Base, suggesting that they were again nesting on the property.

R. Stymeist

Yellow-billed Cuckoo			5/1-11	Worc. (BMB)	1	v.o.	
5/9	DFWS	1		Ipswich	1	v.o.	
5/14	Medford	5		5/12-22	Nantucket	1	S. Kardell#
5/22	Wompatuck SP	6	BBC (E. Giles)	5/16-6/3	Williamstown	1	M. Morales#
5/29	Lenox Dale	4		5/19	Colrain	1	T. Bullock
6/26	Wellfleet-Truro	8	M. Faherty#	5/28	Gloucester (E.P.)	1	S. Hedman
Black-billed Cuckoo				Red-bellied Woodpecker			
5/9	Burrage Pd WMA	1	P. Peterson	5/14	W. Warren	9	B. Zajda
5/26	MBWMA	5	J. Hoye#	5/21	Topsfield	14	J. Berry#
6/4	Millis	3	W. Webb#	Yellow-bellied Sapsucker			
6/11	MSSF	24	G. d'Entremont	5/9	Quabbin (G54)	5	B. Zajda
6/22	Royalston	3	M. Lynch#	5/11	New Marlboro	11	K. Schopp
Barn Owl				5/21	Great Barrington	16	M. Lynch#
5/3	E. Boston (B.I.)	1 ph	J. Twomey#	6/11	Ware River BBS	8	T. Pirro
Eastern Screech-Owl				6/26	Holden	12	M. Lynch#
5/3	Medford	5	H. Bochner	Pileated Woodpecker			
5/4	Wayland	2	B. Harris	5/10	Ware R. IBA	7	M. Lynch#
Great Horned Owl				5/21	Topsfield	9	J. Berry#
thr	Mt.A.	2	v.o.	6/11	Ware River BBS	5	T. Pirro
5/17	N. Andover	ad +2 yg	J. Berry	Olive-sided Flycatcher			
5/18	Reading	1 ad, 1 yg	D. Williams	5/14-6/11	Reports of indiv. from 12 locations		
Barred Owl				5/26	Wendell	2	M. Lynch
thr	Medford	pr + 4 yg	M. Rines	6/7	ONWR	2	J. Hoye#
5/28	Ashby	2	J. Forbes	Eastern Wood-Pewee			
Long-eared Owl				5/11	DFWS	1	P. Sowizral
5/14	Nantucket	1 ad 2 yg	H. Young#	5/20	MSSF	21	T. Lloyd-Evans#
5/28	Ashley Falls	1	K. Schopp#	5/26	Wendell	19	M. Lynch#
Northern Saw-whet Owl				6/7-8	Ipswich	11	J. Berry
5/20	MSSF	1	T. Lloyd-Evans#	6/11	Ware River BBS	12	T. Pirro
5/24	Camp Edwards	2	J. McCumber#	6/12	Monson	21	M. Lynch#
Common Nighthawk				Yellow-bellied Flycatcher			
5/20	Boston (F.Pk)	6	P. Peterson	5/12	Amherst	1	L. Therrien
5/21	Topsfield	6	J. Berry#	5/16	Cheshire	1	J. Pierce
5/21	Wayland	67	B. Harris	5/17	Ashley Falls	1	K. Schopp
5/22	Sheffield	46	J. Pierce	5/23	Williamstown	1	M. Morales
Chuck-will's-widow				5/26-31	P.I.	3 b	B. Flemer#
5/13-6/31	Falmouth	1	M. Keleher + v.o.	5/28	Rockport	1	B. Harris#
5/19	Nantucket	1	S. Kardell	5/28	MNWS	1	M. Brengle
5/25	Camp Edwards	4	J. McCumber	5/31	Manomet	2 b	T. Lloyd-Evans#
6/23	Plymouth	1	B. Harrington	6/4	Hawley	1	M. Lynch#
Eastern Whip-poor-will				Acadian Flycatcher			
5/20	P.I.	22	T. Wetmore	5/27	Cohasset	2	V. Zollo
5/25	Camp Edwards	34	J. McCumber	5/28	Wompatuck SP	2	G. d'Entremont
6/8-9	MSSF	18	G. d'Entremont#	6/4	Quabbin (G22)	2	E. Huston
Chimney Swift				6/26	Freetown SF	pr n	B. Harris
5/3	Woburn (HP)	85	M. Rines	Alder Flycatcher			
5/6	Jamaica Plain	90	J. Battenfeld	5/13	New Salem	1	G. d'Entremont#
5/7	GMNWR	50	C. Winstanley	5/28	P.I.	7	T. Wetmore
5/16	N. Andover	200	D. Peterson	5/28	Huntington	24	M. Lynch#
Ruby-throated Hummingbird				5/28	Gloucester (E.P.)	4	S. Hedman
5/11	Quabbin Park	5	B. Zajda	6/18	Savoy	11	M. Lynch#
5/20	Milton	6	R. Mussey	Willow Flycatcher			
5/27	P.I.	4	S. Sullivan	5/19	Worc. (BMB)	4	J. Liller
6/18	Savoy	4	M. Lynch#	5/31	P.I.	20	P. + F. Vale
American Kestrel				6/10	GMNWR	12	USFWS (S. Arena)
thr	Woburn (HP)	2 pr n	M. Rines	6/11	Quabob IBA	7	M. Lynch#
5/9	P.I.	32	Hawkcount (UG)	6/16	New Braintree	4	M. Lynch#
5/10	N. Truro	5	Hawkcount (DM)	Least Flycatcher			
5/17	E. Boston (B.I.)	3	S. Zende#	5/10	Medford	1	M. Rines#
6/4	Camp Edwards	3	J. McCumber	5/14	W. Warren	3	B. Zajda
Merlin				5/21	Great Barrington	47	M. Lynch#
5/9	P.I.	25	Hawkcount (UG)	5/26	P.I.	6	P. + F. Vale#
5/10	N. Truro	8	Hawkcount (DM)	6/2	Barre Falls	7	B. Samdahl#
5/10	P.I.	7	Hawkcount (UG)	6/18	Savoy	8	M. Lynch#
6/29	Quabbin Pk	1	L. Therrien	Great Crested Flycatcher			
Peregrine Falcon				5/8	Medford	1	M. Rines#
5/9	P.I.	3	Hawkcount (UG)	5/21	Topsfield	21	J. Berry#
5/21	Haverhill	2 ad n, 4 juv	Mirick	5/26	Wendell	12	M. Lynch#
5/22	Brockton	2	W. Loughlin	5/28	Wompatuck SP	8	G. d'Entremont
5/25	Lawrence	4 juv b	C. Gibson	Eastern Kingbird			
Red-headed Woodpecker				5/3	Burrage Pd WMA	1	P. Peterson
5/1-08	W. Roxbury (MP)	1	v.o.	5/30	P.I.	45	D. + T. Swain

Eastern Kingbird (continued)				6/4	Turners Falls	20 n	M. Lynch#
6/11	Quabog IBA	22	M. Lynch#	6/5	Plymouth B.	20	S. Zende#
Fork-tailed Flycatcher					Cliff Swallow		
6/7-08	Saugus	1 ph	S. Zende# + v.o.	5/10	P.I.	31	R. Heil
White-eyed Vireo				5/21	Tyringham	7	M. Lynch#
5/4	Medford	1	M. Rines	5/23	Lincoln	2	M. Rines
5/4	Clinton	1	M. Lynch#	6/11	Stockbridge	30	S. Kellogg#
5/13	Manomet	1 b	T. Lloyd-Evans#	6/18	Chatham	4	A. Curtis
5/21	Acoaxet	2	G. d'Entremont#	6/19	Lenox	2	SSBC (GdE)
6/4	S. Dart. (A.Pd)	2	B. Cassie		Barn Swallow		
6/18	P.I.	1	J. Offermann	5/7	GMNWR	40	C. Winstanley
Yellow-throated Vireo				5/10	P.I.	320	R. Heil
5/8	Upton SF	2	BBC (N. Paulson)	5/21	Tyringham	65	M. Lynch#
5/13	Skinner SP	7	G. d'Entremont#		Red-breasted Nuthatch		
5/15	Groveland	4	J. Berry#	5/8	Upton SF	6	BBC (N. Paulson)
5/15	Quabog IBA	8	M. Lynch#	6/11	MSSF	20	G. d'Entremont#
6/4	Hadley	4	SSBC (GdE)	6/11	Ware River BBS	8	T. Pirro
6/26	IRWS	2	J. Berry	6/18	Savoy	10	M. Lynch#
Blue-headed Vireo				6/18	Mt. Greylock	7	SSBC (GdE)
5/8	P.I.	11	N. Landry	6/20	Royalston	16	M. Lynch#
5/10	MNWS	8	BBC (L. Ferraresso)		Brown Creeper		
5/17	Medford	6	P. + F. Vale	5/7	Wompatuck SP	7	BBC (GdE)
5/21	Great Barrington	18	M. Lynch#	5/10	Ware R. IBA	9	M. Lynch#
6/18	Savoy	19	M. Lynch#	5/21	Topsfield	6	J. Berry#
Warbling Vireo				5/26	Wendell	8	M. Lynch#
5/11	Medford	14	P. + F. Vale		House Wren		
5/14	W. Warren	15	B. Zajda	5/6	Ipswich	7	J. Berry
5/15	Quabog IBA	21	M. Lynch#	5/10	MNWS	8	BBC (L. Ferraresso)
5/21	Topsfield	43	J. Berry#	5/15	Quabog IBA	20	M. Lynch#
6/11	Quabog IBA	26	M. Lynch#	5/18	W. Newbury	8	P. + F. Vale
Philadelphia Vireo				5/19	Ipswich	5	J. Berry#
5/14	Westport	1	S. Paventy	6/16	New Braintree	13	M. Lynch#
5/28	P.I.	1	P. + F. Vale		Winter Wren		
Red-eyed Vireo				5/8	Milton	1	R. Mussey
5/9	Medford	1	M. Rines	5/8	Upton SF	2	BBC (N. Paulson)
5/26	Wendell	144	M. Lynch#	5/10	Ware R. IBA	5	M. Lynch#
6/4	Hadley	36	BBC (M. Burns)	5/12	Wendell	4	M. Lynch#
6/11	Ware River BBS	43	T. Pirro	5/14	Wompatuck SP	3	G. d'Entremont#
6/18	Savoy	98	M. Lynch#	5/21	Great Barrington	3	M. Lynch#
6/18	Mt. Greylock	76	SSBC (GdE)	5/22	Brookline	1	P. Peterson
Fish Crow				5/23	Hawley	5	M. Lynch#
5/27	P.I.	9	S. Sullivan	6/14	GMNWR	1	P. Peterson
6/3	Beverly	5	K. Elwell	6/18	Savoy	5	M. Lynch#
Common Raven				6/30	Ipswich	1 m	J. Berry
6/4	Hawley	7	M. Lynch#		Marsh Wren		
6/11	Woburn	6	M. Rines#	5/12	GMNWR	34	A. Bragg#
6/16	Carlisle	4	T. + D. Brownrigg	5/21	Topsfield	16	J. Berry#
6/18	Savoy	6	M. Lynch#	5/30	P.I.	20	D. + T. Swain
6/21	Allston	2 ad + 2 juv	S. Carey	5/31	Topsfield	10	J. Berry
Horned Lark				6/11	Lenox	4	S. Kellogg
5/2, 18	Westfield	10, 1	S. Kellogg	6/17	W. Harwich	34	E. Lipton
5/14	Plymouth	2	G. d'Entremont#	6/26	IRWS	6	J. Berry
5/15	Saugus	2	S. Zende#		Blue-gray Gnatcatcher		
Purple Martin				5/1	Wompatuck SP	6	BBC (E. Giles)
thr	P.I.	16 max	v.o.	5/3	W. Newbury	7	R. Heil
5/3, 6/30	Mashpee	26, 102	M. Keleher	5/9	Medford	11	M. Rines
5/9	Burrage Pd WMA	5	P. Peterson	5/12	GMNWR	9	A. Bragg#
6/7	Norfolk	8	K. Marie	5/21	Topsfield	22	J. Berry#
6/27	Barnstable	9	K. Fiske#	5/23	Canton	14	P. Peterson
6/30	Wellfleet (WBWS)	3 ad, 2 yg	M. Faherty	6/18	Milton	11	P. Peterson
Tree Swallow					Golden-crowned Kinglet		
5/4	Quabog IBA	1130	M. Lynch#	5/1	P.I.	1	F. Vale
5/10	P.I.	945	R. Heil	5/10	Barnstable	1	P. Crosson
Northern Rough-winged Swallow				5/10	Lexington	1	J. Forbes
5/3	Burrage Pd WMA	4	P. Peterson	5/11	Gloucester (E.P.)	1	J. Nelson
5/4	Quabog IBA	7	M. Lynch#	5/21	Great Barrington	1	M. Lynch#
5/9	Worc. (BMB)	6	J. Liller	6/5	Fall River	2	G. d'Entremont#
5/10	P.I.	5	R. Heil	6/11	Ware River BBS	1	T. Pirro
Bank Swallow					Ruby-crowned Kinglet		
5/8	Burlington	10	M. Rines	5/3	P.I.	12	T. Wetmore
5/10	P.I.	47	R. Heil	5/10	Ware R. IBA	3	M. Lynch#
5/11	Ipswich (C.B.)	15	J. Berry	5/10	Ipswich	2	J. Berry
5/15	Quabog IBA	53	M. Lynch#	5/18	Leominster	1	J. Young

Ruby-crowned Kinglet (continued)				5/22	Wompatuck SP	6	BBC (E. Giles)
5/20	P.I.	1	P. + F. Vale	6/6	Milton	2	P. Peterson
Veery				Louisiana Waterthrush			
5/11	Quabbin (G54)	16	B. Zajda	5/28	Huntington	7	M. Lynch#
5/21	Great Barrington	33	M. Lynch#	6/25	Sandisfield	9	M. Lynch#
5/28	Wompatuck SP	12	G. d'Entremont	6/26	Wendell	2	G. Dysart
6/11	Ware River BBS	28	T. Pirro	Northern Waterthrush			
6/18	Mt. Greylock	15	SSBC (GdE)	5/7	Wompatuck SP	9	BBC (GdE)
6/30	Ipswich	42	J. Berry	5/8	Hamilton	6	J. Berry
Gray-cheeked Thrush				5/8	Upton SF	6	BBC (N. Paulson)
5/17	Mt Holyoke	1	J. Coleman	5/8-27	P.I.	59 b	B. Flemer#
5/17-18	Mt.A.	1	S. Williams + v.o.	5/9	W. Bridgewater	10	B. Loughlin
5/26	P.I.	1	P. + F. Vale#	5/14	Wenham	9	J. Berry
Gray-cheeked/Bicknell's Thrush				5/17	Freetown SF	6	G. d'Entremont#
5/27	Granby	1	L. Therrien	5/26	Wendell	9	M. Lynch#
Swainson's Thrush				Golden-winged Warbler			
5/10	Quabbin (G4)	2	B. Zajda	5/5	Quabbin (G54)	1	B. Zajda
5/12	Medford	5	M. Rines#	5/9	S. Peabody	1	R. Heil
5/17	Manomet	4 b	T. Lloyd-Evans#	5/14	P.I.	1	G. Revelas#
5/18	Boston (F.Pk)	3	P. Peterson	5/18	Andover	1	M. McCarthy
5/26	P.I.	9	S. Miller	5/20	MBWMA	1	J. Smith
6/18	Savoy	3	M. Lynch#	5/20	Adams	1	D. Shustack
6/18	Mt. Greylock	2	SSBC (GdE)	Blue-winged Warbler			
Hermit Thrush				5/14	W. Warren	12	B. Zajda
5/7	Medford	3	M. Rines#	5/15	Quabog IBA	7	M. Lynch#
5/11	Quabbin (G54)	4	B. Zajda	5/17	Acoaxet	5	G. d'Entremont#
5/11	P.I.	3	T. Wetmore	5/25	Pepperell	5	S. Miller#
5/19	Ware R. IBA	37	M. Lynch#	5/26	Bedford	5	MAS (B. Stevens)
5/28	Ashby	3	J. Forbes	6/5	Milton (Fowl M.)	8	SSBC (P. O'Neill)
6/11	MSSF	21	G. d'Entremont	6/16	New Braintree	7	M. Lynch#
6/19	October Mt.	4	SSBC (GdE)	Black-and-white Warbler			
Wood Thrush				5/8	Pepperell	13	A. Bostick
5/14	W. Warren	22	B. Zajda	5/10	MNWS	15	BBC (L. Ferraresso)
5/15	Quabog IBA	25	M. Lynch#	5/11	Medford	31	M. Rines#
5/19	Hamilton	5	J. Berry	5/14	Wompatuck SP	14	G. d'Entremont#
5/25	Pepperell	5	S. Miller#	5/14	P.I.	27	J. Trimble
6/11	Quabog IBA	19	M. Lynch#	5/17	Manomet	32 b	T. Lloyd-Evans#
6/26	Wachusett Res.	9	K. Bourinot#	5/26	Wendell	34	M. Lynch#
Gray Catbird				Prothonotary Warbler			
5/1-28	P.I.	158 b	B. Flemer#	5/10	Ipswich	1	I. Pepper
5/11	Manomet	32 b	T. Lloyd-Evans#	5/11	Nahant	1	L. Pivacek
5/11	Gloucester (E.P.)	81	J. Nelson	5/24	Sheffield	1	K. Schopp
5/15	Quabog IBA	131	M. Lynch#	5/29	GMNWR	1	J. Forbes#
6/11	MSSF	19	G. d'Entremont	Tennessee Warbler			
6/16	New Braintree	81	M. Lynch#	5/14	W. Warren	2	B. Zajda
Brown Thrasher				5/17	Medford	5	M. Rines#
5/7	Medford	2	M. Rines#	5/20	Hingham	2	G. d'Entremont
5/12	Boston (F.Pk)	2	P. Peterson	Orange-crowned Warbler			
5/19	P.I.	10	G. d'Entremont#	5/9	Williamstown	1	C. Johnson#
6/11	MSSF	4	G. d'Entremont	5/9	Brewster	1 b	S. Finnegan
American Pipit				5/10	Manomet	1 b	M. VandenBoom
5/1	Concord (NAC)	1	B. Harris#	5/11	Mt.A.	1	S. Williams#
5/9	P'town (R.P.)	3	S. Williams#	5/12	Boston	1	P. Peterson
5/29	Rockport	1	S. Sullivan#	5/14	S. Quabbin	1	D. Griffiths
6/29	P.I.	1	C. Marchant	5/14	Gloucester	1	S. + J. Mirick
Cedar Waxwing				5/15	P.I.	1 b	B. Flemer#
5/25	Pepperell	80	S. Miller#	5/24	S. Hamilton	1	D. Walters
5/26	P.I.	36	P. + F. Vale#	Nashville Warbler			
5/29	GMNWR	75	J. Forbes	5/8	Nahant	3	L. Pivacek
5/29	Newbury	57	J. Berry#	5/10	Ipswich	3	J. Berry
6/18	Savoy	21	M. Lynch#	5/11	Medford	6	M. Rines#
Ovenbird				5/14	P.I.	4	J. Trimble
5/11	Quabbin (G54)	43	B. Zajda	6/2	Winchendon	7	M. Lynch#
5/14	Wompatuck SP	59	G. d'Entremont#	Mourning Warbler			
5/14	W. Warren	41	B. Zajda	5/14-6/30	Reports of indiv. from 17 locations		
5/17	N. Andover	28	J. Berry	5/26	Wendell	2	M. Lynch#
5/19	Ware R. IBA	150	M. Lynch#	5/26	Medford	2	M. Rines#
6/11	MSSF	101	G. d'Entremont	5/29	Cohasset	2	E. Lipton
6/18	Savoy	63	M. Lynch#	6/3	P.I.	3	B. Harris
Worm-eating Warbler				6/6	MNWS	2	L. Ferraresso
thr	Reports of indiv. from 16 locations			6/18	Mt. Greylock	4	SSBC (GdE)
5/10	Mt Holyoke	2	L. Therrien	Kentucky Warbler			
5/13	Skinner SP	5	G. d'Entremont#	5/1	P'town	1	J. Trimble#

Kentucky Warbler (continued)			6/7	P.I.	60	R. Heil	
5/21-22	MNWS	1	J. Smith + v.o.	6/16	New Braintree	28	M. Lynch#
6/8	Marlboro	1	T. Spahr		Chestnut-sided Warbler		
6/26	Freetown SF	1	B. Harris	5/8	Pepperell	5	A. Bostick
Common Yellowthroat				5/12	Wendell	54	M. Lynch#
5/12	GMNWR	25	A. Bragg#	5/14	W. Warren	32	B. Zajda
5/14	W. Warren	27	B. Zajda	5/14	P.I.	8	J. Trimble
5/14	P.I.	52	J. Trimble	6/18	Savoy	53	M. Lynch#
5/21	Topsfield	65	J. Berry#	6/18	Mt. Greylock	16	SSBC (GdE)
6/5	Milton (Fowl M.)	24	SSBC (P. O'Neill)	Blackpoll Warbler			
6/11	MSSF	47	G. d'Entremont	5/17	Manomet	7 b	T. Lloyd-Evans#
6/18	Savoy	61	M. Lynch#	5/21	Topsfield	7	J. Berry#
Hooded Warbler				5/25	Pepperell	6	S. Miller#
thr	Reports of indiv. from 12 locations			5/26	Medford	15	M. Rines#
5/14	Medford	2	M. Rines#	5/27	P.I.	10	T. Wetmore
American Redstart				6/26	Mt. Greylock	2	K. Schopp
5/10	Boston	2	P. Peterson	Black-throated Blue Warbler			
5/11	Quabbin (G54)	52	B. Zajda	5/11	Waltham	6	J. Forbes
5/17	Manomet	27 b	T. Lloyd-Evans#	5/11	Ipswich	11	J. Berry#
5/21	Great Barrington	81	M. Lynch#	5/14	P.I.	16	J. Trimble
5/26	Medford	54	M. Rines#	5/17	Medford	11	M. Rines#
5/26	P.I.	39 b	B. Flemer#	6/18	Savoy	16	M. Lynch#
6/11	Quabog IBA	31	M. Lynch#	6/18	Mt. Greylock	21	SSBC (GdE)
6/18	Mt. Greylock	13	SSBC (GdE)	Palm Warbler			
Cape May Warbler				5/1	P.I.	12	J. Keeley#
5/9	Williamstown	2	M. Morales	5/7	Mt.A.	3	P. + F. Vale
5/9	Rowe	2	C. Hyytinen	5/11	Ipswich	5	J. Berry#
5/10	Pittsfield	3	J. Pierce	Western Palm Warbler			
5/14	N. Truro	2	S. Williams#	5/10	P.I.	1	S. Sullivan
5/17	E. Boston (B.I.)	3	S. Zende#	Pine Warbler			
5/18	P.I.	4	T. Wetmore	5/21	Wompatuck SP	27	SSBC (Whitebread)
Cerulean Warbler				6/6	Milton	14	P. Peterson
5/10-6/30	Skinner SP	5 max	v.o.	6/7-8	Ipswich	13	J. Berry
5/13	S. Quabbin	1	L. Therrien	6/11	Ware River BBS	23	T. Pirro
5/16	Medford	1	M. Rines	6/11	MSSF	72	G. d'Entremont
5/21	Nantucket	1	G. Andrews#	6/26	Wachusett Res.	13	K. Bourinot#
5/24	Hadley	1	P. + F. Vale	Yellow-rumped Warbler			
5/28	P.I.	1	B. Buxton#	5/1	Ware R. IBA	35	M. Lynch#
5/29	W Brookfield	1	M. Lynch#	5/3	P.I.	35	T. Wetmore
5/29	Boston	1	S. Jones#	5/3	Mt.A.	30	P. + F. Vale
Northern Parula				5/5	Boston (F.Pk)	35	P. Peterson
5/11	Medford	29	M. Rines#	5/12	Wendell	65	M. Lynch#
5/14	P.I.	26	J. Trimble	6/19	October Mt.	3	SSBC (GdE)
5/17	Mt.A.	16	P. + F. Vale	Prairie Warbler			
5/17	Medford	20	M. Rines#	5/26	Wendell	12	M. Lynch#
6/20	ONWR	1	A. List	6/11	MSSF	49	G. d'Entremont
6/26	Salisbury	1	D. Kraushaar	6/26	Wachusett Res.	4	K. Bourinot#
Magnolia Warbler				Black-throated Green Warbler			
5/8	Nahant	4	L. Pivacek	5/10	Ware R. IBA	36	M. Lynch#
5/17	Manomet	52 b	T. Lloyd-Evans#	5/11	Medford	10	M. Rines#
5/17	Medford	32	M. Rines#	5/14	P.I.	26	J. Trimble
5/17	E. Boston (B.I.)	7	S. Zende#	5/21	Wompatuck SP	10	SSBC (Whitebread)
5/18	Boston	6	P. Peterson	6/18	Mt. Greylock	7	SSBC (GdE)
5/20	P.I.	22	P. + F. Vale	6/18	Savoy	31	M. Lynch#
6/18	Savoy	9	M. Lynch#	Canada Warbler			
6/19	October Mt.	8	SSBC (GdE)	5/9, 26	Medford	1, 7	M. Rines
Bay-breasted Warbler				5/27	P.I.	9	S. Sullivan
5/8	Pepperell	1	A. Bostick	6/13	Concord	3	D. Swain
5/14	Rockport (H.P.)	3	J.+ T. Beers	6/19	October Mt.	2	SSBC (GdE)
5/17	Mt.A.	2	M. Sabourin	6/26	Freetown SF	1	B. Harris
5/21	P.I.	5	S. Miller#	Wilson's Warbler			
5/25	Medford	5	M. Rines#	5/4	Ashley Falls	1	K. Schopp#
Blackburnian Warbler				5/17	Medford	6	M. Rines#
5/14	P.I.	6	T. Wetmore	5/17	Mt.A.	6	M. Sabourin
5/23	Hawley	15	M. Lynch#	5/17	E. Boston (B.I.)	8	S. Zende#
5/26	Medford	4	M. Rines#	5/18	Boston	5	P. Peterson
6/19	October Mt.	12	SSBC (GdE)	5/27	P.I.	3	P. + F. Vale
6/26	Mt. Greylock	13	K. Schopp	Yellow-breasted Chat			
Yellow Warbler				5/14	N. Truro	1	S. Williams#
5/9	Burrage Pd WMA	32	P. Peterson	Eastern Towhee			
5/14	W. Warren	47	B. Zajda	5/8	Upton SF	18	BBC (N. Paulson)
5/15	Quabog IBA	66	M. Lynch#	5/19	Ware R. IBA	57	M. Lynch#
5/21	Topsfield	30	J. Berry#	5/21	Wompatuck SP	32	SSBC (Whitebread)

Eastern Towhee (continued)				6/7-8 Ipswich	10	J. Berry
6/3 P.I.	31	R. Stymeist		6/26 Wachusett Res.	12	K. Bourinot#
6/11 MSSF	131	G. d'Entremont		Rose-breasted Grosbeak		
6/12 MBWMA	18	BBC (S. Hedman)		5/9 Ware R. IBA	12	M. Lynch#
6/26 Holden	18	M. Lynch#		5/9 Waltham	6	J. Forbes
Clay-colored Sparrow				5/10 Medford	11	M. Rines#
5/1-06 Bradford	1	S. Mirick		5/13 Skinner SP	6	G. d'Entremont#
5/13, 6/11 Camp Edwards	2, 4	Pratt, Trimble		5/15 Groveland	9	J. Berry#
Field Sparrow				5/17 Worc. (BMB)	10	J. Liller
5/9 MBWMA	4	S. Riley#		Blue Grosbeak		
5/26 Wendell	8	M. Lynch#		5/31 Sandwich	1	J. Erickson
6/2 Worc. (BMB)	5	J. Liller		6/25-30 Cumb. Farms	2	v.o.
6/4 Westover AFB	5	BBC (L. Ferraresso)		Indigo Bunting		
Vesper Sparrow				5/17 Medford	5	M. Rines#
5/5 W. Roxbury (MP)	1	T. Bradford		5/18 Waltham	5	J. Forbes
5/14 Plymouth	2	G. d'Entremont#		5/28 Huntington	21	M. Lynch#
Savannah Sparrow				5/29 Newbury	6	J. Berry#
5/2 P.I.	15	T. Wetmore		6/12 MBWMA	7	BBC (S. Hedman)
5/7 Cheshire	10	M. Lynch#		6/18 Mt. Greylock	7	SSBC (GdE)
5/10 Rowley	18	J. Berry		Dickcissel		
5/25 W. Roxbury (MP)	10	P. Peterson		5/19 N. Dighton	1	J. Eckerson#
6/7 Saugus	32	S. Zende#		6/1 Hingham	1	S. Williams
Grasshopper Sparrow				Bobolink		
thr Westover	15 max	v.o.		5/8, 6/7 Saugus	4, 25	S. Zende#
5/2 Westfield	5	S. Kellogg		5/15 Quabog IBA	36	M. Lynch#
5/20 Falmouth	24	H. Clipp		6/4 Westover AFB	20	BBC (L. Ferraresso)
5/27 Camp Edwards	12	H. Clipp		6/7 P.I.	52	R. Heil
5/29 Plymouth	3	SSBC (GdE)		6/15 DFWS	15	P. Sowizral
6/9 Montague	5	J. Coleman		6/16 New Braintree	52	M. Lynch#
6/10 Greenfield	1	B. Lafley		Eastern Meadowlark		
6/25 N. Truro	1 m	M. Faherty		5/7 Cheshire	2	M. Lynch#
Nelson's Sparrow				5/10 P.I.	2	R. Heil
6/3 Ipswich (C.B.)	1	N. Dubrow		5/18 Camp Edwards	7	D. Kim
Saltmarsh Sparrow				6/4 Westover AFB	10	BBC (L. Ferraresso)
thr P.I.	22 max	v.o.		6/11 Plymouth	2	G. d'Entremont
Seaside Sparrow				6/25 Falmouth	8	F. Bouchard
6/5 S. Dart. (A.Pd.)	5	SSBC (GD)		Yellow-headed Blackbird		
6/19 P.I.	3	T. Wetmore		5/3-05 S. Dartmouth	1	J. Bogart + v.o.
6/24 Newbury	1	J. Garrett		Rusty Blackbird		
Lincoln's Sparrow				5/2 Wayland	10	J. Forbes
5/7 Windsor	2	M. Lynch#		5/8 Hamilton	30	J. Berry
5/11 Medford	2	P. + F. Vale		Orchard Oriole		
5/14 P.I.	2	J. Trimble		5/9 Burrage Pd WMA	12	P. Peterson
5/17 Manomet	3 b	T. Lloyd-Evans#		5/19 P.I.	7	G. d'Entremont#
5/19 Lexington	2	J. Andrews		5/21 Topsfield	5	J. Berry#
Swamp Sparrow				6/1 Winchester	6	R. LaFontaine
5/15 GMNWR	24	USFWS (S. Arena)		6/1 Woburn (HP)	5	M. Rines
5/15 Quabog IBA	21	M. Lynch#		6/7 P.I.	5	R. Heil
White-throated Sparrow				Baltimore Oriole		
5/7 Windsor	39	M. Lynch#		5/9 Burrage Pd WMA	20	P. Peterson
5/11 Medford	31	P. + F. Vale		5/15 Quabog IBA	43	M. Lynch#
5/12 P.I.	30	E. Labato		5/21 Topsfield	41	J. Berry#
6/19 October Mt.	6	SSBC (GdE)		6/16 New Braintree	20	M. Lynch#
White-crowned Sparrow				Purple Finch		
5/1 Wompatuck SP	1	BBC (E. Giles)		5/9 Ware R. IBA	18	M. Lynch#
5/10 Wakefield	1	J. Beers		5/30 P.I.	15	D. + T. Swain
5/11 P.I.	5	MAS (D. Moon)		6/4 Hawley	7	M. Lynch#
5/11 Medford	2	M. Rines#		6/11 MSSF	6	G. d'Entremont
5/19 Westboro	1	B. Robo		6/18 Mt. Greylock	9	SSBC (GdE)
Golden-crowned Sparrow				Red Crossbill		
5/1-06 Hingham	1 ph	C. Harrison#		6/14-25 Mt. Greylock	6 max	J. Pierce#
Dark-eyed Junco				6/27 Belchertown	1	L. Therrien
6/18 Savoy	21	M. Lynch#		Pine Siskin		
6/18 Mt. Greylock	13	SSBC (GdE)		5/4 P'town	1	B. Nikula
6/25 Sandisfield	3	M. Lynch#		6/18 Springfield	2	J. Koon
6/30 Harwich	1	D. Meyer		Evening Grosbeak		
Summer Tanager				5/5 New Salem	2	B. Lafley
5/18 Nantucket	1	T. Pastuszak#		5/13 Warwick	3	G. d'Entremont#
5/23-25 P.I.	1 m	G. Gove + v.o.		5/23 Hawley	5	M. Lynch#
5/28 Gloucester (E.P.)	1	S. Hedman		6/16 Newbury	2	D. Davis
Scarlet Tanager				6/20 Heath	8	D. Potter
5/12 Wendell	36	M. Lynch#		6/24 Shutesbury	2	B. Emily
5/14 W. Warren	7	B. Zajda		6/29 Westminster	2	C. Caron

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

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://www.birdobserver.org/Contact-Us/Submit-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

American Wigeon

The American Wigeon (*Anas americana*) is an “odd duck” among the dabblers (*Anas* spp.), because of its short bill that enables it to graze on vegetation in terrestrial habitats. Males in breeding plumage are easily recognized by their white crown and forehead that once gave them their colloquial name “baldpate.” Males have a dark green patch from the eye to the nape, a gray neck, and pinkish to brown body. In flight, both sexes have a white patch on the forewing, which is generally smaller in females. Females can be distinguished with difficulty from the similar Eurasian Wigeon by their gray rather than rusty brown heads. Males are readily distinguished from the Eurasian Wigeon by the latter’s rusty face and neck, and gray rather than brown body. The American Wigeon is monotypic and, not surprisingly, is closely related to the Eurasian Wigeon.

The breeding range of the American Wigeon extends from Alaska across much of western Canada and to the east along the southern flanks of James and Hudson bays, and sporadically across the Great Lakes to Newfoundland and Nova Scotia. In the United States, the American Wigeon breeds across the prairie states to eastern Washington, Oregon, and California. Most populations are migratory, wintering along the British Columbia coast south through Mexico to Panama and across much of the United States south of the Great Lakes and east to Massachusetts. They also winter in the Caribbean and a few even winter in Hawaii—wigeon really get around. They are year-round residents in about half of their western United States breeding range.

After breeding, American Wigeon males migrate to protected lakes and marshes to molt, where they are unable to fly for more than a month. Females usually remain on the breeding grounds to molt. As a result, males tend to make their post-molt migration earlier than the females and young. The American Wigeon is one of the earliest duck species to migrate. In Massachusetts, they are considered rare and local breeders, uncommon spring migrants, and locally common migrants in fall. They are also fairly common winter residents in a few localities. Spring migration occurs in April and fall migrants arrive in September with many remaining until their preferred ponds freeze over.

American Wigeons are seasonally monogamous and only produce a single brood each year. The male gives a three-syllable, high-pitched call often referred to as the slow whistle, which is used in courtship, serves to establish individual recognition, and is also used in threatening situations. What is described as a fast whistle is used in aggressive situations. Females have a variety of calls, including a brood call, which probably also functions in individual recognition, letting the chicks know that it’s mom calling. Courtship occurs on the wintering grounds and is highly competitive since there are often more males than females in the population. Males perform a number of courtship displays. In one, the male starts the display with tail-wagging, followed by raising his breast out of the water and shaking his head. He then tucks his head onto his breast and again wags his tail. In another display, the male stretches his head and

neck upwards, fluffing his crown feathers and uttering the slow whistle. In yet another common display, the male arches his wings over his back, crosses the primary feathers, and wags his tail, tucking his head and whistling at the same time. These and other displays serve to emphasize the striking color pattern on the head and the white on wings and flanks. American Wigeon males defend a territory by rushing at intruders, biting and bill-grabbing. During courtship and territorial defense a male may swim at an intruder, head and neck extended, flush the opponent, and chase it nipping at its tail. Most aggression is intraspecific.

Nesting habitat consists of upland areas of brush or grass near lakes, ponds, or marshes. Short-grass prairies and parkland are favored in western Canada where wigeon populations are most dense, but they also nest in coastal tundra. Nests are usually on dry ground in tall grass or shrubbery. The nest typically is a depression lined with down and grass, leaves, or other vegetation. The female may lay up to a dozen cream-colored eggs. She alone develops a brood patch and she alone incubates the eggs for three weeks or more until they hatch. The chicks are precocial, covered with down and eyes open. They are mobile, leave the nest within a day of hatching, and feed themselves. The female broods the chicks and defends them against intruders, wildly beating her wings in distraction displays or even attacking interlopers while the chicks hide. The male usually deserts the family before hatching but occasionally one will stay on for the six-to-seven weeks until the chicks become independent.

American Wigeon feed in ponds, rivers, and marshes, but also feed extensively, often at night, by grazing in terrestrial habitats such as grasslands and agricultural fields. The combination of a short, wide, and deep bill at its base results in a strong bite that facilitates plucking leafy vegetation and seeds. Conversely, wigeon have less ability to strain food from the water than other dabbling ducks. On the water they forage mostly from the surface and tip up less than other dabblers. They are opportunistic and aggressive foragers, often feeding with diving ducks that stir algae and other plant food to the surface. They regularly kleptoparasitize American Coots, stealing plant material from them. During the winter and migration, they are almost entirely herbivorous. In the breeding season, however, they take insects including beetles and dragonflies, prey upon crustaceans, eat more seeds, and sometimes take fruit.

American Wigeons suffer nest predation from gulls, crows, and mammals, adult females being taken at the nest as well as chicks. Hunters take more than a half million wigeons each year, but fortunately during hunting season wigeons tend to feed at night in terrestrial habitats and spend their days in sheltered areas. Loss of wetlands and upland breeding areas is a continuing problem for them, but they are nonetheless expanding their breeding range to the east. With a breeding population of about three million, it appears that the American Wigeon is secure. 🦆

William E. Davis, Jr.

AT A GLANCE

August 2016



WAYNE R. PETERSEN

Well, it's not the *Mona Lisa*, but it's close: it's a shorebird! And who doesn't love shorebirds? Hmm...perhaps it's better not to answer that question. Regardless of one's taste for shorebirds, the pictured bird represents a stellar example. Faced with this reality, the thoughtful reader should at once focus on the bill of the featured species. It is slim, slightly tapered, and fine tipped—a good start.

Shorebirds can be divided immediately into several major families, two of which are richly represented in Massachusetts—plovers (*Charadriidae*) and sandpipers and their allies (*Scolopacidae*). These two families can be easily distinguished by the shapes of their bills. Plovers have short, blunt-tipped bills and some of the larger species have a slight constriction in the middle, e.g., Black-bellied Plover. Many sandpipers have notably finer and proportionately longer bills, and shapes that vary from upturned, e.g., godwits; straight, e.g., Baird's Sandpiper; or prominently downturned, e.g., Whimbrel. Additionally plovers have large eyes and angular-shaped, rather than rounded heads. Some plovers are prominently banded on their underparts, e.g., Semipalmated Plover, or else they are extensively black in breeding plumage, e.g., Black-bellied and American golden-plovers.

With these points in mind, it is clear the mystery shorebird is a sandpiper. Even in the print journal a look at its legs reveals that they are light in color, and the online rendition shows them to actually be yellowish. This leg color is a key to identifying the mystery species. While Greater and Lesser yellowlegs also have yellow legs, they are much longer-legged and obviously taller than the mystery shorebird. Most of the other yellow-legged possibilities differ in equally distinct ways: by having much longer legs or bills; being more uniform in ventral coloration, e.g., Buff-breasted Sandpiper; or by having a longer, more finely-streaked neck and a thinner, straight bill, e.g., Upland Sandpiper.

Only two regularly occurring shorebirds in Massachusetts exhibit the characteristics of the pictured individual—Least Sandpiper and Pectoral Sandpiper. Pectoral Sandpipers are noticeably larger than Least Sandpipers, and are densely streaked across the breast; their clearly defined breast streaks abruptly end against the white of their belly, not with the ragged interface exhibited by the mystery bird. Also, the bill of a Pectoral Sandpiper is heavier, more notably drooped, and bicolored, with dull yellow at the base, not black as in the pictured bird. The pictured shorebird is an adult Least Sandpiper (*Calidris minutilla*)—the smallest shorebird species in the world.

A common spring and an abundant fall migrant, Least Sandpipers may be found inland as well as on the coast, where they are especially numerous in July and early August, often preferring muddy flats and salt marshes to the open sandflats preferred by some of the other small sandpiper species. The author photographed this Least Sandpiper on North Beach, Chatham on September 10, 2007. 🐦

Wayne R. Petersen

ABOUT THE COVER ARTIST

Barry Van Dusen

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

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AMERICAN AVOCET BY SANDY SELESKY

AT A GLANCE



WAYNE R. PETERSEN

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

MORE HOT BIRDS



Ginger Andrews and Trish Pastuszak discovered not one, but two **White-winged Doves** at their feeders on August 20. One kept visiting until at least the 24th. Trish took the photo on the left.

A **Baird's Sandpiper** found near Williamstown by Manuel Morales was the first in the Berkshires since 1976. Gael Hurley took the photo on the right.



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