

# Bird Observer

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VOLUME 40, NUMBER 3

JUNE 2012



## HOT BIRDS

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Sandy McGibbon of Dennis put out her hummingbird feeder on March 24 and almost immediately this adult male **Allen's Hummingbird** (right) showed up. Sandy took this photo of the visitor, only the second state record.



Vern Laux of Nantucket found out about a **Black-throated Sparrow** (left) on private property on the island on April 21 and was able to alert Jeremiah Trimble, who took this photograph of this third state record.

On May 18 Martha's Vineyard plover warden Luanne Johnson discovered a **Wilson's Plover** (right) in the course of her rounds, and Lanny McDowell posted this photo on his blog.



On May 19 Simon Perkins led a crew to Kettle Island in Magnolia to census the heron colony there. They watched a **White-faced Ibis** (left) fly in, land in a tree, then drop down to a nest. Simon returned on May 27 and got this photo.

Kim Griswold and Susan Ainsworth were visiting Nantucket on May 31 and discovered a **Swallow-tailed Kite** (right) at Madaket. Vern Laux got some spectacular flight shots.



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LONG-TAILED DUCKS IN FLIGHT BY SANDY SELESKY

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# Bird Observer

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VOL. 40, NO. 3 JUNE 2012

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## Summer Birding in Pittsburg, New Hampshire

*Erik Nielsen*

At 281 square miles or just under 180,000 acres, Pittsburg, at the northern tip of New Hampshire, is by far the largest town in New England. With fewer than 900 permanent residents, it is also one of the most sparsely populated. Tourism, however, is a major industry in the area and the actual number of people in Pittsburg is a good deal higher for much of the year. Nevertheless, the town consists largely of undeveloped wet forest and the many logging roads provide “relatively easy” access to prime boreal birding areas. Breeding species include sought-after specialties like Spruce Grouse, Black-backed Woodpecker, Olive-sided Flycatcher, Philadelphia Vireo, Gray Jay, Boreal Chickadee, and Lincoln’s Sparrow. In 2002 the state established the Connecticut Lakes Natural Area in partnership with The Nature Conservancy, protecting 25,000 acres of some of the best habitat in Pittsburg and the neighboring town of Clarksville.



June is usually the best month to find many of the boreal species in the area. Late May can sometimes be even more productive, but a trip before mid to late June may be hampered by numerous closed gates. Some years the snowmelt or spring rains cause extensive damage to the logging roads and many may not open to cars until later in June.

The climate is quite a bit wetter and somewhat colder than in southern New England, and it is unusual to encounter more than a couple of warm, sunny days in a row. This isn’t always a bad thing. While black flies and mosquitoes are ever present in June, any day with warm temperatures and a bit of sun brings out the deer flies. They, more than any of the other biting insects, are effective in preventing one from lingering in any one spot.

Due to the size of the area and the four-hour drive from Boston, visiting the town usually requires spending at least a couple of nights. The town website <<http://www.pittsburg-nh.com>> has a fairly complete listing of lodges and cabin rentals. There are also several private and a couple of state campgrounds within the borders (see <<http://www.visitnh.gov>> or google “Pittsburg NH campgrounds”). Many of the cabin rentals have wireless Internet available, but it is worth keeping in mind that there is no mobile phone service in the Pittsburg area.

US Route 3 is the main road in town and the most direct way of getting there from the south. It enters Pittsburg crossing the Connecticut River at an elevation of 1123 feet and rises steadily for 27.5 miles until it reaches the Canadian border at 2373 feet.



The following section describes some of the best birding spots, in my opinion, starting from the town's southern border on Route 3. The name of each locality is preceded by the number of miles along Route 3 from the town line.

**Mile 2.2: Tabor Road**

This road runs along the western end of the fertile Indian Stream valley for slightly over 1.6 miles. Cliff and Barn swallows nest on and in some of the farm buildings here. The fields and pastures provide nesting habitat for Wilson's Snipe, Savannah Sparrow, and Bobolink. American Bitterns can sometimes be found in the wetter sections of the fields and Northern Harriers occasionally hunt the edges. If one feels the need to boost the list, a couple of the farms host the only population (to my knowledge) of House Sparrows in town. Another hard-to-find southern species, Warbling Vireo, is usually present in the trees along the stream just before it runs under Route 3 between Tabor Road and Indian Stream Road.

### **Mile 2.5: Indian Stream Road**

Covering 20.5 miles, this is the longest of the logging roads and the one that passes through the most diverse habitat. It starts at Route 3 at 1168 feet, goes through rich farmland for the first 1.3 miles, and ends in mostly coniferous forest at 1964 feet. For the first 1.3 miles it parallels Tabor Road on the other side of the Indian Stream valley. Alder Flycatcher, Veery, Gray Catbird, Yellow Warbler, Savannah Sparrow, Rose-breasted Grosbeak, and Bobolink are some of the species that one finds along this stretch.

For the next four miles, Indian Stream Road passes through mostly deciduous woods with good numbers of American Redstarts and Ovenbirds. A boggy area on the right at mile 3.6 often hosts Alder Flycatcher, Canada Warbler, Northern Waterthrush, Swamp Sparrow, and, occasionally, Wilson's Warbler. Just past mile 5.0 the road opens up where Moose Pond Road comes in from the right. Belted Kingfishers usually nest nearby and often fly over or perch in some of the dead trees in the wet area.

For the next nine-plus miles the road runs along the stream, sometime quite close, with a few good views of the stream valley. Along the way, the counts of several of the more common wood warbler species can be impressive. Stretches of spruce/fir forest host Boreal Chickadees and sometimes Black-backed Woodpeckers. At about mile 5.7 there is a pull-off on the left by the stream. It is a good spot to look for Spotted Sandpipers, especially during low-flow periods. A boggy area on the left at mile 9.0 is usually a worthwhile stop. An Olive-sided Flycatcher often perches in the top of one of the scattered trees, a Wilson's Warbler frequently sings its chattering song, and Rusty Blackbirds are fairly common.



Common Loon (Indian Stream, June 6, 2011; all photographs by the author)

At mile 14.2 turn left on the road that leads to and runs alongside Terrell Pond. The access road to the parking area by the dam is 0.7 mile down Terrell Pond Road. The parking area has a nice view of the spruce forests in the stream valley below; this is another good spot from which to scan for Olive-sided Flycatcher. Just under 0.3 mile past the little road to the dam, Terrell Pond Road skirts the pond for another 0.3 mile. Hooded Mergansers and Great Blue Herons are often present at the far end of the pond. Black-backed Woodpeckers usually nest nearby. Another 0.5 mile up the road, Killdeer and Spotted Sandpipers are sometimes present at an old gravel pit; an Olive-sided Flycatcher frequently sings from one of the dead trees in an abandoned beaver pond.

Turn around here and return to Route 3. The six miles of Indian Stream Road north from Terrell Pond Road climb steadily for another 500 feet, but it is not an area from which I have many records. By the time of day we normally get there, much of the bird activity has died down.

### **Mile 5.3: Back Lake Road**

Unusual species for Pittsburg, Northern Cardinals and Warbling Vireos can occasionally be found shortly after Back Lake Road leaves Route 3 in the center of Pittsburg. Follow Back Lake Road for 1.1 miles; just before the transfer station, a marshy area on the left usually has Alder and Least flycatchers and sometimes an Olive-sided. On the left at mile 2.6, Moose Pond Road cuts over to Indian Stream Road. The area around this intersection can sometimes be productive for southern species like Great Crested Flycatcher and Scarlet Tanager. Another 0.25 mile up the road there is a good look at Back Lake. The lake is quite shallow—the deepest spot is 15 feet and the average depth is only seven feet—providing good feeding conditions for a number of local ducks. A scan occasionally turns up scarcer species like Common Goldeneye and Ring-necked Duck. (Another good spot for checking the lake is the boat launch 0.33 mile up Spooner Road off Route 3.) Back Lake Road joins Route 3 again at mile 10.1.

### **Mile 10.4: Day Road/Perry Stream Road**

This road is referred to by either name. Conventional wisdom is that Day Road becomes Perry Stream Road at the timber company gate a couple of miles up. The road climbs steadily from 1530 feet elevation at Route 3 to 2390 feet 12.75 miles later. A few Alder Flycatchers and a Savannah Sparrow or two can usually be heard near the intersection with Route 3 and around the large lawns one mile farther up. The latter area can also be quite productive during and immediately after heavy rains. We have come across Greater and Lesser yellowlegs, Solitary Sandpipers, and Bonaparte's Gulls feeding in the pools that form there. This is also a good spot from which to listen for Lincoln's Sparrows. One or two pairs often nest in the brushy area behind the lawns.

At mile 2.75 on this road, a gravel pit off to the right often has nesting Belted Kingfishers. Alder Flycatchers and a Northern Waterthrush are frequently found on the left side of the road, and the area usually has many Chestnut-sided Warblers.

White-winged Crossbill numbers vary greatly from year to year, but some are usually present along this road, especially in the stretches of dense spruce between the road and the stream a short distance from the gravel pit. Boreal Chickadees inhabit most sizeable areas dominated by spruce. Black-backed Woodpeckers, Bay-breasted Warblers, and the rare Cape May Warbler seem to prefer older stands, ideally with a high percentage of dead or dying trees. There are a number of areas along the road fitting these criteria. One spot is around mile 7.0, where the woods are quite wet and therefore might have been spared from logging. Canada Warblers and Northern Waterthrushes are usually here, too.

The timber company frequently makes side roads in order to gain access to logging areas located miles from the main road. These are worth checking, as the logged areas can be especially interesting. On July 1, 2001, heading up a recently cleared hillside along one side road off Perry Stream Road, we counted 21 Lincoln's Sparrows. However, when we checked the same area again the following year, we found only two.

#### **Mile 11.9: First Lake boat launch and picnic area.**

The launch area is a popular bathing spot and can be quite crowded on warm, sunny days. It is, however, a good place from which to scan the western part of the lake. There's usually a flock of Mallards and Canada Geese hanging out there, but it is often worth a second look. It is possible to find a Wood Duck with the Mallards and one or two Common Mergansers and Common Loons in the deeper water near the dam.

#### **Mile 12.85: Boat launch by Lopstic Cabins, First Connecticut Lake**

The First Lake cove visible from this pull-off on the right can be surprisingly productive. Common Loons nest in the cove and at least one is usually within sight. Common Mergansers are regular and Common Goldeneyes occasionally spend time here. Beavers frequently cut across the cove, and we've also seen river otters, raccoons, and black bears do the same.

It is also worth checking the hillside by Magalloway Cabins. Alder Flycatchers and Yellow Warblers can often be found there and occasionally a Lincoln's Sparrow can be heard singing from the shrubby hillside. It is the only



Heavy rains for extended periods can put a serious damper on the birding, but can also produce some great species. The torrential rains starting the evening of June 14, 2008, were finally letting up a bit around 10 the next morning. We decided to check large lawns and ponds on the off chance that an unusual shorebird or duck had been grounded during the night. We have found zcoters, yellowlegs and Bonaparte's Gulls after similar conditions in the past; but we never expected to see this Whimbrel that awaited us at the First Lake boat launch.

spot in Pittsburg where we have come across all three New Hampshire mimids. Gray Catbirds are usually present. For a few years in the 1990s Brown Thrashers spent the summer by the Magalloway Cabins, but we haven't found any there since 1995. In June 2011 a Northern Mockingbird was singing from the roof of the same cabins.

#### **Mile 15: Camp Otter Road**

The boat launch at the end of this road provides one of the best looks at First Lake. Turn right on Camp Otter Road, take the left fork 0.2 mile from Route 3, and continue for another half-mile to the lake.

#### **Mile 16.7: Magalloway Road, Magalloway Mountain, and Smith Brook Road**

Logging is almost always going on somewhere along Magalloway Road. As a result, habitats along the road are quite varied with large clear-cut areas and dense woodlands of different composition and age. On the right at mile 1.1, just past the bridge across the Connecticut River, there is a small parking area and an old logging road that parallels the river for a good half-mile and ends at the lakeshore. Birds along the road include Yellow-bellied Flycatcher, Boreal Chickadee, and, occasionally, Black-backed Woodpecker. Continuing on Magalloway Road, you'll find Buckhorn Road on the right at mile 3.0. It connects with Cedar Stream Road, which runs along the southern end of Lake Francis in Clarksville and ends at Route 145 just south of Pittsburg village.

At 3383 feet, Magalloway Mountain is the second highest mountain in the area. To get there, take the road on the right at mile 5.3 on Magalloway Road and continue three miles to the base of the mountain. The hike up is fairly steep in places, but can be accomplished at a leisurely pace in 45 minutes. On the way up, there are usually several Yellow-bellied Flycatchers, Winter Wrens, Swainson's and Hermit thrushes,



Gray Jay (end of Smith Brook Road, June 3, 2011)

Black-throated Blue Warblers, plus a Canada Warbler or two. Bicknell's Thrush probably breeds here from time to time, but is a more likely breeder on the inaccessible Stub Hill that is 250 feet taller. In June 1993 there were at least three singing males near the summit. More common birds on Magalloway Mountain include Gray Jay, Boreal Chickadee, Blackpoll Warbler, Dark-eyed Junco, Purple Finch, and the occasional White-winged Crossbill or Pine Siskin.

Smith Brook Road is on the left 1.1 miles from Route 3 along Magalloway Road, just past the Connecticut River crossing. This is another road that has been extensively logged in recent years. Counts of singing Mourning Warblers can sometimes reach double digits. An American Kestrel occasionally perches in a clear-cut area, but in recent years Merlins are more common cruising through. In late July and early August 2005 a Fox Sparrow was singing in an area that was clear-cut a couple of years prior.

The habitat changes to dense spruce forest past the gate at mile 6.4 on Smith Brook Road. Rusty Blackbirds often breed in a wet section farther along on the right. At mile 7.1, where the road is blocked by a gate, some of the forest has been cut fairly recently; the area will probably remain somewhat open for a few years.. Olive-sided Flycatchers and Lincoln's Sparrows can usually be heard and are sometimes seen from this spot. On a cold day in early June 2011 we came across a large hatching of flies among the debris left over from the logging operation. Among the birds feeding on the docile flies were nine Gray Jays, two Black-backed Woodpeckers, and a few Swainson's and Hermit thrushes.

#### **Mile 16.7: Coon Brook Road**

This road is located almost directly across Route 3 from Magalloway Road. It leads to Coon Brook Bog, a popular fishing pond with attractions for birders as well. It is one of the best places to look for Ring-necked Ducks and Hooded Mergansers in the area, especially at times with less boating activity. The pond is surrounded by spruce forest. We have come across nesting Black-backed Woodpeckers there at least twice. To get to the bog, take the right fork at 0.5 mile, turn left at 1.7 miles, and you'll arrive at the dam in another 0.1 mile.



Black-backed Woodpecker (Coon Brook Road, June 16, 2010)

### **Mile 17.5: Big Brook Road**

Big Brook Bog is another good location for Ring-necked Ducks and Hooded Mergansers. The parking area is on the right 2.3 miles down the road and is the best spot from which to scan the pond. An Olive-sided Flycatcher is often heard from the other side of the pond, and Lincoln's Sparrows are usually present in the more open areas along the road. Sometimes Philadelphia Vireos are found near the old gravel pit on the right at mile 2.9.

### **Mile 18.9: Second Lake Dam**

There's a decent look at the southern end of Second Connecticut Lake from here. Common Loons are usually present; Bald Eagles and Ospreys are occasional visitors.

### **Mile 19.2: Second Lake boat launch.**

The boat launch is a great spot from which to scan the lake and it can be very productive. There are almost always a few Common Loons and a Herring Gull or two. Our lists from here include Surf Scoters, ten species of sandpipers—including a Sanderling—Caspian Tern, and Black Tern.

### **Mile 22.2: East Inlet Road**

If I absolutely had to name one favorite road in Pittsburg, this would be the one. The road continues for 13.75 miles and ends at Rhubarb Pond, less than half a mile from the Quebec border. Spruce and fir dominate the woodlands for much of the road;



Male Spruce Grouse (East Inlet Road, June 23, 2005)

species like Yellow-bellied Flycatcher, Boreal Chickadee, Bay-breasted Warbler, and Blackpoll Warbler are actually common in spots. Spruce Grouse is not easy to find anywhere in Pittsburg, but this road provides the best chance. From 1995 through 2011 we have counted one or more Spruce Grouse 24 times along East Inlet Road. Our highest count in a single day was 11—one adult male plus two females, each with four young.

East Inlet Road crosses the Connecticut River 0.3 mile from Route 3. At the T-intersection just over the bridge, Scott's Bog (or Brook) Road begins on the left and East Inlet Road continues to the right. We usually stop here first. It is a good spot to look for Common Mergansers and Yellow-bellied Flycatchers, Ruby-crowned Kinglets, Nashville, Bay-breasted, and Canada warblers, plus Northern Waterthrushes.

Turn right and continue along East Inlet Road. It parallels the river between the T and the north end of Second Lake for a little under 0.5 mile. Some of this stretch is worth covering on foot. There are a couple of pull-offs where it is possible to see the river. Alder Flycatchers and Swamp Sparrows are found on the river side; Swainson's Thrushes, Yellow-bellied Flycatchers, both kinglets, and Boreal Chickadees are among the common species on the woodland side. Black-backed Woodpeckers have nested along the road here. Where East Inlet Road makes a sharp left, an old road proceeds for a short distance to a spot near the mouth of the river at Second Lake. At times, Bald Eagles perch in the trees along the shore. Common Loons, Black Ducks, and Common or Hooded mergansers frequent the shallow water.

The next mile or so of East Inlet Road passes through mostly deciduous woodlands. Ovenbirds and Black-throated Blue Warblers are common. Broad-winged Hawks nest in the vicinity and hunt along the roadside. The boat launch for East Inlet is on the left at mile 2.0. The navigable part of this water body stretches back 0.75 mile; many of the more interesting breeding species like Pied-billed Grebe, American Bittern, Virginia Rail, and Wilson's Snipe frequently call from the more distant portion. Canoeing East Inlet is a good way to find waterbirds and to get a look at many of the land birds that are difficult to spot in the dense woods. Yellow-bellied, Alder, and Olive-sided flycatchers and several different warblers can be seen singing from perches near the water. Black-backed Woodpeckers often find suitable nesting trees fairly close to the pond.

An old logging road on the left near mile 3.5 cuts through the middle of prime spruce woodlands and for years has been the most reliable spot for finding Spruce Grouse. Black-backed Woodpeckers are regular and Yellow-bellied Flycatchers, Boreal Chickadees, and Bay-breasted Warblers are common. In recent years, however,



Female Spruce Grouse (near mile 11 on East Inlet Road, June 17, 2010)

the woods have been encroaching on the road and access is increasingly challenging. It is usually worth the effort to bushwhack and wade through some of the wet sections of what remains of the road.

Another rather impenetrable old road on the left near mile 4.7 provides, at least in theory, access to the Norton Pool area that hosts the last remaining lowland virgin spruce forest in New Hampshire. Many of the bird species of note there are the same as for the previously described logging road.

As you continue north for the next few miles, the habitat along the road consists of fairly mature, dense woodlands. Where the woods open up in a few places it's not unusual to find a Philadelphia Vireo singing from an aspen. The road reaches its highest elevation of 2500 feet at mile 8.5. Once you exit the Connecticut Lakes Natural Area, you may see signs of logging again as it is currently permitted outside the preserve's boundary.

A road leads down to Snag Pond on the left just past mile 11. We have never found a Black-backed Woodpecker at this boggy area, but it looks perfect and it may be just a matter of time. Some of the breeding species we have come across here include Spruce Grouse, Ring-necked Duck, Wilson's Snipe, Gray Jay, Olive-sided Flycatcher, Wilson's Warbler, and Rusty Blackbird.

At mile 12.1 the road on the left leads to Boundary Pond; continuing straight will take you to Rhubarb Pond. The road to the latter pond isn't always passable, but when it is the trip is usually worth it. There's a small parking area just before the pond and a small road loops part way around it. We have found Black-backed Woodpecker here.

#### **Mile 22.2: Scott's Bog (or Brook) Road.**

Scott's Bog Road begins on the left at the T-intersection just after you cross the bridge over the Connecticut River. Although much shorter, it rivals East Inlet Road as my favorite road in the area. For the first couple of hundred yards, the road runs next to the river and is usually quite "birdy" with Alder and Yellow-bellied flycatchers, Swainson's Thrushes, Boreal Chickadees, Nashville and Blackpoll warblers, and Northern Waterthrushes being part of the chorus. Around mile 1.0 there's an old gravel pit on the right. A Philadelphia Vireo has been a regular fixture across from the entrance for a number of years and it's not unusual to find a second in the pit as well. Belted Kingfishers usually nest in the steep banks of the pit. Least Flycatchers sing in the vicinity.

At mile 1.3 a road on the right leads into a boggy area. Black-backed Woodpeckers are regular and there is almost always an Olive-sided Flycatcher within earshot. This is one of the few spots where we have seen Palm Warblers in late June. While never regular, Tennessee Warbler seems to be more frequent in the summer along the next 0.75-mile stretch of Scott's Bog Road than anywhere else in Pittsburg.

At mile 2.1 a logging road is on the right and Scott's Bog Road continues on the left. Bay-breasted Warblers can often be found in the tall spruce for the next 0.4 mile. At mile 2.5 a road leads to the boat ramp (~0.3 mile) and a good look at the pond.

Philadelphia Vireos often sing along this road. A few years ago, Black-backed Woodpeckers nested in one of the dead trees near the base of the dam. At mile 3.2 (~0.7 mile past the boat ramp road) it is not difficult to climb down the wooded hillside for another good look at the pond from a large, whitish rock on the shore. Species we have seen here include Bald Eagle, Northern Harrier, Northern Goshawk, American Bittern, Virginia Rail, and Pied-billed Grebe.

#### **Mile 22.7: Sophie's Lane (a.k.a. Deer Mountain Road)**

This road is not always open to cars. It parallels the Connecticut River on the west side between Route 3 and Third Lake. Specialties along here include Black-backed Woodpecker, Olive-sided Flycatcher, and Philadelphia Vireo. Oddly enough, it is the only place in Pittsburg we've seen a Tufted Titmouse.

#### **Mile 23.1: Moose Falls Flowage**

The pond here was created by a dam on the Connecticut River near the Deer Mountain Campground. It is a good spot to check for Ring-necked Ducks, Hooded and Common mergansers, and the occasional American Bittern. Wilson's Snipes can frequently be seen winnowing over the pond. An Olive-sided Flycatcher often calls from the far shore.

#### **Mile 26.3: Third Lake boat launch**

The parking lot at this boat launch is a good vantage point for scanning the lake. There is usually a pair of Common Loons within sight and frequently a Spotted Sandpiper along the shore.

#### **Mile 27.5: Quebec border and trail to Fourth Lake.**

It is necessary to check in at the border station to get permission to embark on the trek along the border to the Fourth Connecticut Lake, which is best described as a small, boggy pond. We have visited the "lake" only once and don't have much to report bird-wise. It was, however, interesting to see the source of the mighty Connecticut River.

#### **A caution:**

A roughly four-mile stretch of Route 3 from just past mile 15 to Second Lake is locally referred to as "Moose Alley"—and not without reason. The woods on both sides are quite wet and moose are commonly seen getting minerals from muddy pools right by the side of the road. This area can also be quite productive bird-wise, but if you've stopped to get a look at a bird, somebody will invariably stop and ask: "Seen any moose?" At dusk, and especially on weekends, the moose watchers come out in force and the traffic will often slow down to a crawl. 🦌

*Erik Nielsen started birding in his native Denmark in the early 1970s. He came to Massachusetts in 1981 and got hooked on birding Pittsburg on his first trip there in 1983 with his soon-to-be wife, Seth Sweet. The two of them have since made one or more trips to the area each year and have accumulated a list of 180 species for the town.*

## Hidden Risk: Mercury in Terrestrial Ecosystems of the Northeast

*Allyson Jackson*

It is June and throughout New England dazzling songbirds are once again settling in for the summer breeding season. Some have traveled long distances from Central and South America, while others have been haunting our yards and feeders all winter. As New England birdwatchers revel in watching birds build nests and raise families, we are often reminded of the many factors that will influence their success. Some stressors on reproduction are obvious and well documented by research; human disturbance, habitat fragmentation, brood parasitism, and even reduced soil calcium levels all have been shown to influence a bird's reproductive success in a given year. In the past few years, Biodiversity Research Institute (BRI), in collaboration with The Nature Conservancy and with many other wildlife researchers, have documented another potentially dangerous stressor to bird populations in New England—mercury pollution in our terrestrial ecosystems. Our complete findings are found in a full color report and accompanying technical report, which can be downloaded from our website <<http://www.briloon.org/hiddenrisk>>. In this article, I have summarized some of the major concerns regarding mercury pollution and how we can use songbirds as indicators of mercury risk in terrestrial ecosystems.

The human health effects of mercury contamination are well documented; adverse effects include impacts on cardiovascular health, IQ, workplace productivity, and motor control. Similarly, mercury negatively affects wildlife populations by altering behavior and hindering reproduction. Past investigations have emphasized adverse impacts to fish-eating wildlife, such as Common Loons, Bald Eagles, and river otters, but we have now synthesized current research and documented elevated mercury concentrations in a new group of animals—terrestrial invertivores—that until now has largely been ignored in mercury investigations. Terrestrial invertivores (eaters of insects and other invertebrates) cover a wide range of species, including songbirds, shorebirds, and bats. In this article, I will focus on songbirds, but we are equally concerned about the impact of mercury on other invertivore species.

Mercury contamination affects songbird species in many of the same ways that it affects humans. Mercury found in ecosystems is rarely at levels high enough to cause direct mortality; instead we often observe a variety of sublethal impacts, such as changes to hormone activity, immune response, and even song performance (Figure 1). Perhaps most importantly, we know that for Carolina Wrens living along a mercury-contaminated river in Virginia, higher blood mercury levels are correlated with increased probability of nest failure. In 2011, BRI collaborated with the College of William and Mary and the U.S. Fish and Wildlife Service to publish the first article summarizing what we call effects concentrations for a songbird species. This article shows that at blood mercury concentrations as low as 0.7 parts-per-million, Carolina Wrens show a 10% reduced probability of raising a successful brood. Although this

may seem like a fairly small effect, our Hidden Risk report summarizes blood mercury concentrations in a wide range of songbird species in the Northeast and mid-Atlantic states that approach or exceed this threshold. For songbird populations already under stress from other environmental and anthropogenic changes, the added stress of mercury contamination could have much larger consequences than we would expect if mercury was acting on the population in isolation. To fully understand the intricacies of mercury contamination, we must understand three important components of mercury research: 1) how mercury moves through the ecosystem 2) how habitat and species characteristics affect songbird mercury exposure, and 3) why songbirds are often the best indicators of mercury exposure in terrestrial ecosystems.

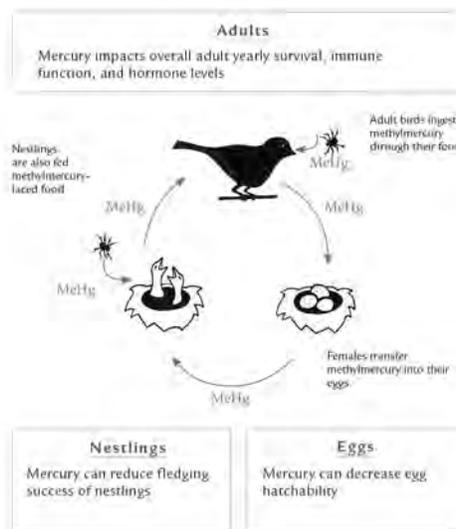


Figure 1. Songbirds are exposed to mercury in all life stages.

### How Mercury Moves Through the Terrestrial Ecosystem

Mercury, the silvery liquid found in old thermometers, is a pollutant and cause for concern at local, regional, and global scales. As a naturally occurring heavy metal found within the Earth's crust, mercury is often used in many industrial processes where it is then emitted into the atmosphere through a variety of anthropogenic sources. Although some source types, such as waste incinerators, have reduced their mercury emissions 95% between 1990 and 2005, utility coal boilers continue to emit more than 50 tons of mercury each year. In December 2011, the U.S. Environmental Protection Agency (EPA) finalized a rule called the Mercury and Air Toxics Standards (MATS) that requires all electric generating plants to upgrade to advanced pollution control equipment by 2016 <<http://www.epa.gov/mats/>>.

Although great strides have already been made in reducing mercury emissions from incinerators, and the MATS rule will likely have the same effect on coal-fired power plants, it is important to continue to monitor the effect of mercury at local, regional, and global scales. For example, on a local scale, researchers have shown that mercury levels in soil are higher in areas close to power plants, with the areas downwind of the power plant usually receiving even higher inputs. Combining this influx of mercury into an ecosystem with certain ecological factors such as precipitation or soil acidification can lead to a biological mercury hotspot, where we see elevated mercury levels in a relatively distinct geographic area. These hotspots, or areas of high contamination, are often related to local environmental conditions that have an ability to convert mercury into its most toxic form via the process of methylation. For example, wetland habitats are prime areas where this process occurs, making local wetland areas more prone to high mercury availability.

Although areas of high contamination may occur near mercury-emitting sources, often they do not. Because mercury released into the atmosphere can circle the world before eventually being deposited, habitats located far from point sources of mercury can still be of major concern to wildlife health. Certain regions can be at higher risk to mercury contamination than others because the availability of mercury depends on both atmospheric deposition and habitat type. For example, in 2005 wildlife researchers working together in a mercury synthesis project found high mercury levels across taxa such as fish, birds, and mammals in New England, likely due to prevailing wind patterns and rainfall in the Northeast. A similar synthesis was completed in the Great Lakes; a third synthesis is currently being planned for the western U.S., Canada, and Mexico <<http://www.briloon.org/mercuryconnections>>.

Although we see the effects of mercury at local and regional scales, it is truly a global pollutant that knows no international boundaries. When mercury is released into the atmosphere, some settles into the surrounding area, but the rest may travel great distances on the prevailing wind patterns before settling back to earth. The United Nations Environment Programme (UNEP) intends to ratify a globally binding agreement on mercury in 2013 <<http://www.unep.org/hazardoussubstances/>>. Mercury is a pollutant without borders that we must continue to focus on as a global concern.

### **How Habitat and Species Characteristics Affect Songbird Mercury Exposure**

Elemental mercury released into the ecosystem cannot readily be incorporated into the food web without first being methylated or made available to living organisms. The process of methylation occurs with the help of bacteria found primarily in wet areas. This causes large variation in the amount of mercury found in wildlife based on habitat type. For example, atmospheric deposition of mercury can be similar in two adjacent habitats—an upland meadow and a wet bog. If little mercury in the meadow is made available by methylation, then wildlife living in that habitat would be relatively protected from mercury toxicity. The wet habitat of the bog, however, could allow for high rates of methylation, which would be reflected in high mercury levels in the organisms that live there.

As an added complexity, songbird species with their diverse feeding strategies also show a wide amount of variation in how much mercury they take up from the environment. Because mercury biomagnifies, or becomes more concentrated as it moves up the food chain, birds feeding at high trophic levels, such as a Carolina Wren that eats predatory spiders, generally have much higher mercury levels than a grain-eating species, such as an American Goldfinch. This complicates mercury studies, since two species foraging side-by-side may have large variation in mercury uptake.

### Songbirds as Indicators of Mercury Exposure in Terrestrial Ecosystems

The goal of mercury research is disentangling the interaction between habitat and species sensitivities. Because songbirds are ubiquitous across many habitat types, they offer a unique opportunity for comparison across different terrestrial habitats. Because mercury exposure depends on both species characteristics (such as trophic level) and habitat characteristics (such as wet-dry cycles), we chose an indicator songbird species to best represent the mercury risk in each ecosystem type: Saltmarsh Sparrow in estuaries, Rusty Blackbird in bogs and beaver ponds, Louisiana Waterthrush in forested rivers and creeks, Wood Thrush in upland forests, and Bicknell's Thrush in high elevation forests (Figure 2).

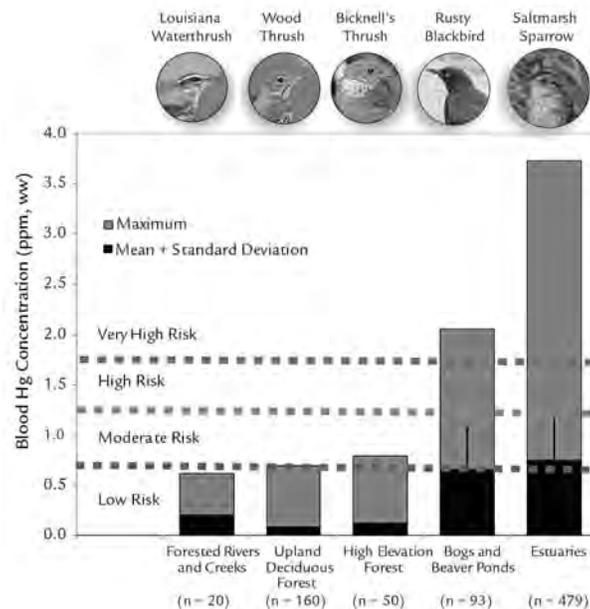


Figure 2. Blood mercury concentrations of indicator songbirds representing risk associated with different terrestrial ecosystems. Lines show blood mercury levels associated with 10% (0.7 ppm), 20% (1.2 ppm), and 30% (1.7 ppm) reduced nesting success in Carolina Wrens.

As expected, birds found in habitats with pronounced wet-dry cycles, such as bogs, beaver ponds, and estuaries have the highest blood mercury concentrations. Interestingly, we also found elevated blood levels in birds found in upland areas such as deciduous and high elevation forests. For two species of high conservation concern, the Rusty Blackbird and the Saltmarsh Sparrow, we found that atmospheric deposition of mercury reduces nesting success by an average of 10%, which could have implications for already struggling populations.

Mercury loading in songbirds is not restricted to the breeding season; some species, such as the Northern Waterthrush, build up high levels of mercury during migration and in tropical wintering areas. Just as breeding birds face a variety of stressors that mercury exposure may amplify, we could see synergistic impacts of mercury on birds already under the extreme stress of migration. BRI's Migratory Bird Program plans to continue to explore the interaction of migration and mercury through a variety of studies <<http://www.brioon.org/migratory-bird-program>>.

Historically, researchers have often used fish as bioindicators of mercury contamination within aquatic ecosystems, but our songbird research has shown that mercury is not confined to the aquatic ecosystem. Although fish represent direct links to the aquatic ecosystem, their mercury levels do not always align with atmospheric deposition. We postulate that songbirds are good candidates for terrestrial indicator species for several reasons: 1) Songbirds are found in all terrestrial habitat types, aiding in comparisons between different habitats and geographic locations, 2) Blood can be sampled non-lethally in conjunction with many ongoing songbird banding and monitoring programs, 3) Blood mercury concentrations reflect current (~30 day) dietary uptake of methylmercury, meaning that blood responds to rapid changes in methylmercury in the food web. There are some indications that the deposition of mercury from the air is significantly linked with songbird blood mercury concentrations.

### **Hidden Risk Summary**

At-risk habitats and associated indicator species are identified based on the species' level of conservation concern, relative abundance, and ability to build up mercury in their bodies.

Current environmental mercury loads have the ability to significantly reduce reproductive success in several songbird species of conservation concern in the northeastern U.S. including the Saltmarsh Sparrow and Rusty Blackbird.

Standardized monitoring of environmental mercury loads is needed to measure how changes in mercury emissions are related to new U.S. EPA regulations; we suggest that terrestrial invertivores are important indicators for assessing short and long-term changes.

Despite rising global mercury emissions, there are actions that managers and policy makers can take to limit future ecosystem degradation. Through greater understanding of the extent of wildlife exposure and harmful impacts to ecosystem

health, it is now clear that increased conservation efforts are necessary to reduce this neurotoxin in our environment for the benefit of wildlife and people. 

**Allyson Jackson** (<http://www.briloon.org/allyson-jackson>), [allyson.jackson@briloon.org](mailto:allyson.jackson@briloon.org)) is the Mercury in Forest Songbirds <http://www.briloon.org/hg-forest-songbirds> Project Leader at Biodiversity Research Institute in Gorham, Maine <http://www.briloon.org>. After growing up on Long Island, New York, Allyson left her natal ocean habitat to attend Juniata College in Pennsylvania. Working in the forests and streams of central Pennsylvania piqued her interest in ecological research, leading her to pursue a master's degree at the College of William and Mary in Virginia. There she became interested in ornithological research and shaped a thesis examining the impact of golf course and urban habitat on Eastern Bluebird fledgling survival (and sweated through two field seasons in the Virginia summer). Her current work at BRI continues to look at ways that humans impact bird populations, but now through an ecotoxicological lens. Moving to beautiful Maine, she started at BRI in 2010, where she has helped with many papers about mercury contamination in birds, including Carolina Wrens, Tree Swallows, and Common Loons. She plans to continue working with birds and mercury as she moves across the country to start a doctoral program at Oregon State University in the fall of 2012.

*Hidden Risk* was the result of many years of collaboration between researchers, land managers, and funding agencies willing to share knowledge, study sites, and data. We greatly appreciate all of the efforts of many folks at Biodiversity Research Institute and The Nature Conservancy in organizing and interpreting mercury data. The full list of acknowledgements can be found in our full report <http://www.briloon.org/hiddenrisk>.

## State of Canada's Birds

Bird Studies Canada and our North American Bird Conservation Initiative partners have announced the upcoming release of the first-ever *State of Canada's Birds* report.

"Much of the information for the report was collected by volunteers," said Dr. George Finney, BSC President. "Without the citizen science programs offered by Bird Studies Canada and our partners, the report would not have been possible. BSC's valued members and volunteers are critical to the success of bird research and conservation efforts."

The report draws on 40 years of data to create a picture of the current health of Canada's birds. It points to the strong influence of human activity – both positive and negative – on bird populations. Although many species are declining, we have learned that where conservation is applied, it works. For example, some raptor and waterfowl population increases are a result of management and conservation programs.

The report will be available online on June 26. To obtain an electronic copy, please visit the *State of Canada's Birds* website <http://www.stateofcanadasbirds.org/>. Bird Studies Canada members will receive a printed copy of the full report in early July, with their Summer issue of *BirdWatch Canada*.

## Low Impact Birding on Local Urban Beaches

*Susannah Corona*

First some good news. For birders in and around Boston, viewing coastal waterbirds is getting easier—and “greener,” since we don’t have to drive all the way to Cape Cod or Plum Island anymore to get that first plover of the year. Terns, plovers, and oystercatchers now nest on Greater Boston beaches, easily accessible to many thousands of people.

Surprisingly, there are aspects of the urban environment that appear to benefit our vulnerable beach nesting birds. Busy roads might actually limit predator access. Hamburger stands down the beach have been a great distraction for gulls. And best of all, most urban humans tend not to be keyed in to wildlife. They typically walk or jog right past nests without noticing or disturbing them. There is a downside to this of course, and some of it is counterintuitive

Certainly, nesting shorebirds are routinely threatened by the sheer volume of human activity on our beaches during the nesting season, but errant Frisbees, unleashed dogs, and stumbling drunks in the night are transgressions typically born of ignorance, not malice. A wildlife photographer deliberately encroaching inside the posted limits has no such excuse. And even the most well-intentioned birders can be more problematic than the general public. Although birders benefit from the urban nesting phenomenon, they often have little idea of their own impact on this fragile resource. Birders are in a sense hunters. Unlike most beachgoers, they are *looking* for birds, and they often find them. Birders tend to linger, lurk, loom, stare, point and photograph. Worst of all, birders love to post online and attract even more birders.

On most beaches it is not possible to fence off an area that is nearly large enough to really protect the nesting birds. Even when birders are outside the symbolic fencing they can have a negative impact. One of the main activities of birders is to stare. This is especially a problem when birds are on their nests and can’t move away. Birds don’t like to be stared at—who does? They have excellent vision, and they are very wary of the “predator stare.” It is so stressful for them to be looked at directly that they will often leave the nest in response. Staring is a form of pointing; other predators can follow your gaze.

Birders may point with a scope, binoculars, or camera lens as well as their eyes. Pointing can attract the unwanted attention of avian predators such as crows, as well as humans including those who are unhappy with the whole “birds taking over the beach” thing. Birders often have no idea how much they are being watched by other humans (as well as by lurking crows). State employees routinely hear reports within minutes of crazy birders with scopes on urban beaches.

You might think that ground nesting birds are accustomed to being loomed over, but they really don’t like it. Even if you are outside the fencing and the bird isn’t

moving, don't assume it isn't stressed by your presence. If you must stay in the area, make yourself small by sitting or lying down.

### **Inter-species Communication and How the Inverse-square Law of Physics Applies to Birding**

Birds can "count" insofar as they seem to know the difference between one, some, and lots of people looking at them. If you are sitting quietly at a safe distance and your ten friends show up, the bird will notice. If a group doubles in size, it should move four times farther away.

Different species have different strategies to tell you if you are too close. Plovers will shift, leave the nest, or try to distract you by running in front and calling. If a plover tries to distract you, it is making a request. As a good birder, etiquette demands that you not look for a nest or small chicks, but rather do what the bird wants and immediately follow it. Watch carefully where you step.

Terns have a different strategy. If there are lots of them, they will show bravado and screech and possibly even dive bomb. That is a clear message that you are too close. Back well away until they settle down. A "safe" distance could be as much as fifty feet *outside* the symbolic fencing line. However, terns in small colonies often do not defend their nests. They may startle up in front of you and fly overhead. It is up to the birder to be observant and to stay well clear of posted areas.

Unlike plovers and terns, oystercatchers do not communicate well with humans. Although they sometimes fly up and scream, more often they just sneak away from their nests, usually well before you get near. Even experienced birders and researchers can be fooled into thinking there is no nest nearby, and if the birds are disturbed too much, soon there won't be one. In general, oystercatchers need the biggest safety zone of all. They are not rare enough to warrant fenced enclosures, although many managers of our public beaches will attempt to protect nests with fencing. It is best to stay well clear of posted oystercatcher nesting areas.

### **Set a Good Example**

Because of their paraphernalia, the general public can easily identify birders, and when birders frequent beaches, they attract a lot of attention. So it is especially important that birders model good behavior. Birders should take precautions to avoid attracting attention to vulnerable nests. Especially in urban areas, it is probably best to avoid posting specific information on locations of Piping Plovers, oystercatchers, and terns on nesting areas until the season is over. 🦅

*Susannah Corona has 27 years of experience working on ways to put people and birds at close range. She has designed, built, and maintained bird display areas and has also worked on rehabilitation and captive breeding programs for shorebirds and penguins in zoos and aquariums in the United States, New Zealand, and Japan. She is now in her sixth year as a shorebird monitor in Massachusetts.*

Piping Plovers on Cranes Beach: Photographs by Evan Lipton



“Foot-trembling” feeding behavior



Portrait



Challenge

## Northern Cardinal Attacks Its Reflected Image in a Window

*William E. Davis, Jr.*

On April 8, 2012, I heard a noise about 7 a.m. at my bedroom window and found that it was made by a female Northern Cardinal (*Cardinalis cardinalis*) presumably attacking its own image in the storm window. For the next hour, the female (it had a bright red bill, which rules out a juvenile male) continued to launch a series of attack bouts from the tops of two 4" x 4" posts that were level with the bottom of the storm window. The two posts were aligned three feet and seven feet from the window. The bouts occurred at intervals of about five to fifteen minutes, and each consisted of a flurry of one to six fluttering attacks at the window with usually one to three bill-jabs (the bill striking the window) per attack. The attacks in each bout were separated by three to ten seconds. A bout ended when the bird flew away.

The following day the cardinal returned to the attack around 9 a.m., and I then watched bouts at 12:35, 12:46, 12:51, 12:58, and 1:09 p.m. In the 12:35 bout it attacked three times from the near post and in each instance pecked the window two or three times while hovering, before returning to its post. I could clearly hear the contact of the bill with the window from where I was sitting. In the 12:46 bout the bird attacked three times and in the next, five times, one of which was launched from the far post. The pattern continued for the next two bouts with two and six attacks per bout and one to three bill-pecks per attack.

At 3:48 p.m. I watched the attacks from behind the window curtain and viewed the attacks and pecks from a distance of less than two feet. I could clearly see, as well as hear, the bill making contact with the window. In the 3:48 bout the bird made eight attacks, six with one peck and two with two pecks.

Typically, the cardinal sat on its perch with its crest slightly raised (Figure 1) and before lunging from its post perch to attack the window (Figure 2), lowered (sleeked)



Figure 1. All photographs by the author.



Figure 2.



Figure 3.

its crest, crouched, and peered at its window image (Figure 3). This is consistent with the discussion of aggression in *The Birds of North America* species account: “In extreme circumstances, bird crouches with crest down, feathers smooth, vision fixed on opponent before lunging.” (Halkin and Linville 1999, p. 13).

My observations raise the question: Could the bird actually see its own reflection or was it simply trying to get into the room? To address the first part I

placed a stuffed cardinal toy atop the near post where most of the cardinal’s attacks had initiated, and from that spot I photographed the window. The image of the toy was clear (Figure 4)—the cardinal could see its image from its post perch. Although



Figure 4.



Figure 5.

the common, and often fatal, bird strikes on windows suggest that glass is usually invisible to birds (Klem 2006), a bird’s reflection is clearly visible at times. The fact that the cardinal stopped short and fluttered while pecking its image (Figure 5) suggests that it regarded its reflected image as a real bird. In a previous study, I placed a mirror beneath the spot where a Red-eyed Vireo (*Vireo olivaceus*) was attacking a window. The vireo also attacked the mirror although there was no room to see into (Davis 1999), suggesting again, that the bird was attacking its image in the reflective surface, not simply trying to get into the room.

I did not see the cardinal the following day but on April 12, my wife saw the female cardinal attacking the passenger-side exterior mirror of my daughter’s parked car. The next day I watched the cardinal from inside my car as it followed a pattern of alighting on the top of the mirror (Figure 6), then fluttering less than a foot to perch on the door-window interface (Figure 7), sleeked its feathers and crouched (Figure 8) and attacked its image in the mirror (Figure 9). The bird’s image is clearly apparent in



Figure 6.



Figure 7.



Figure 8.



Figure 9.

Figure 7. The bird had been following this routine for some time judging from the accumulated guano on the door and mirror base (Figure 10). After attacks the bird returned to its mirror perch. In every instance when I have seen a bird attacking its image in a reflective surface, it did so from a perch at approximately the same height as the reflective surface that the bird attacked. The perch appears to be a prerequisite for triggering this particular behavior, perhaps because it provides a stable image to contemplate.

Birds attacking their images in windows is fairly common and has been reported for more than a century. Most instances involve birds during breeding season when they become highly territorial. John Burroughs reported a bluebird fighting its image as early as 1894, and Frank Chapman in the late 19<sup>th</sup> or early 20<sup>th</sup> century determined the territorial boundaries of a Northern

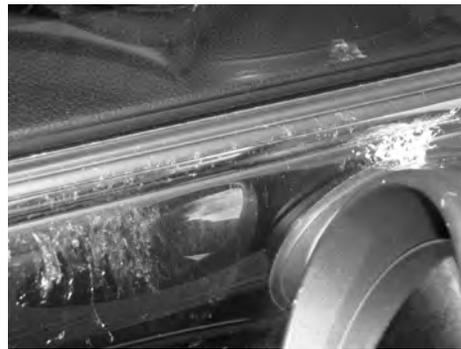


Figure 10.

Cardinal territory using a mirror—the male attacked its image in the mirror up to the edge of its territory (Terres 1996). George M. Sutton reported on a female Northern Cardinal fighting her image in a basement window in Ithaca, New York, in 1946 (Sutton 1947). Northern Cardinals of both sexes have been recorded fighting their images. The phenomenon of image fighting is widespread among birds and is world-wide in occurrence. For example, I have witnessed it in Tasmania and Western Australia. 🦋

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*William E. Davis, Jr., is the Cover Art Editor of Bird Observer and the Memoir Series Editor of the Nuttall Ornithological Club.*



ADULT FEMALE BALD EAGLE WITH TWO NESTLINGS BY DAVID LARSON

## Mass Audubon's Birder's Certificate Program

*David Larson*

On August 18, 2012, the Birder's Certificate Program (BCP) will begin its ninth academic year at Mass Audubon's Joppa Flats Education Center. From 2004 to the present, 135 students have taken this yearlong course, the premier bird biology program offered by Mass Audubon.

The BCP is offered annually. It is a key component in Mass Audubon's on-going effort to provide the finest educational programs to inform and excite the public about the nature of Massachusetts. We developed the certificate program in collaboration with college faculty, experienced birders, and professional ornithologists. The program is equivalent to an undergraduate level ornithology course, with the addition of extensive field time and the opportunity for self-directed study.

The program covers a wide range of subject matter, including avian systematics, biology, physiology, behavior, ecology, biogeography, and conservation. Each module (12 in total) combines classroom and field experience, and student comprehension is evaluated through homework assignments. The program can be completed within one calendar year. Students who successfully complete the program receive a certificate of achievement, a custom binocular harness, and bragging rights.

The program's primary goals are to develop the ornithological knowledge base of birders, demonstrate ways birders can contribute to the scientific study of birds, and encourage closer collaboration between birders and professional ornithologists. The program also seeks to develop a cadre of skilled program and trip leaders, provide professional development opportunities for Mass Audubon staff, and contribute to bird conservation and to the protection of the nature of Massachusetts.

The audience for this program includes birders who want to go beyond simple field identification, nature enthusiasts who want to gain an in-depth knowledge of bird life, and natural history program leaders who want to gain scientific insight into their work.

Program faculty are Bill Gette (Sanctuary Director at Joppa Flats Education Center), David Larson (Education Coordinator at Joppa Flats, Director of the Birder's Certificate Program), Chris Leahy (Bertrand Chair of Natural History and Field Ornithology at Mass Audubon), Kim Peters (Chief Scientist and Director of Bird Conservation for Mass Audubon), and Wayne Petersen (Director of the Important Bird Areas Program at Mass Audubon).

An important aspect of this course for the organizers and faculty is the independent study module. This module is required for graduation and presents the students with two options: elective study or a research project. The students who opt for the electives track will research and write five papers on aspects related to programs, workshops, or trips. For example, someone taking a gull workshop could investigate taxonomic relationships between closely related gulls. A student who

visited a seabird nesting colony could note interspecies interactions and then follow up on such behaviors in the literature, or someone who visited a bird-banding station could write up a note on arrival dates or weight changes for different species of warblers. The main point is to put to use information presented in the course.

For those students who wish to take on a longer term project, the other independent study choice is to do a small research project and write up the results. The student proposes a project or adopts one from choices offered during the program. For example, these projects can be to develop a bird checklist for a local conservation property or to engage in an ongoing research project such as the recently concluded Breeding Bird Atlas Project in Massachusetts. Or the student can monitor nest boxes or take on some other issue that strikes his fancy. The course director vets the projects, trying to make sure that they are possible and not too intricate to be practical. One of the most important benefits of these projects is that they can benefit communities in a tangible way, helping to inform land management and conservation activities. Oh, and they can be fun.

As the director of the BCP, I have seen many projects over the years. Betsey Sweet and Esther Williams describe one of the most delightful in the following article. I hope you enjoy it as much as I did.

More information on the Birder's Certificate Program is available online at <http://www.massaudubon.org/birderscertificate>. 

*David Larson is the Director of Mass Audubon's Birder's Certificate Program (in Newburyport) and Certificate Program in Bird Ecology (in Belize), the Education and Science Coordinator at the Joppa Flats Education Center in Newburyport, and the Production Editor of Bird Observer. He enjoys interacting with BCP students every year, the dynamics are always different and the students are diverse, interesting, and fun.*



BEHIND A FISHING BOAT BY DAVID LARSON

## The Cormorants of Brush Island—Summer 2011

*Elizabeth W. Sweet and Esther C. Williams*

In early 2011 we decided to fulfill the independent study requirement of Mass Audubon's Birder's Certificate Program by counting the nests of the three colonial species that regularly breed on Brush Island (Figs. 1 and 2). Brush Island is located 0.25 miles off the shore of Cohasset, Massachusetts. We chose Brush Island as the site of our study because the island is a manageable size (0.9 acre) for a project and because it is a Category 3 Important Bird Area (see [<http://www.massaudubon.org/Birds\\_and\\_Birding/IBAs/>](http://www.massaudubon.org/Birds_and_Birding/IBAs/)).



Figure 1. Brush Island—all photographs by Alexandra M. Daniell.

We made seven trips around the island from June through August of 2011 by kayak or rowboat. We found that Double-crested Cormorant was the dominant species during this breeding season. Each of our circumnavigations provided views of the development and behavior of the young birds, from chicks hatching to juveniles fledging. These glimpses of life on the island over the course of three months made us eager to land on the island and at last see the nesting areas at close range.



Figure 2. The authors studying Brush Island.

We planned to delay visiting the island until most birds had fledged. We would perform our nest count at the end of the breeding season. Our goal was to provide useful data to compare with previous population counts of nesting pairs. Earlier surveys had shown that all three species (Herring Gulls, Great Black-backed Gulls, and Double-crested Cormorants) were declining in number (Melvin 2010). We set the date of August 31 for our count because it was after the breeding season and because it was a date when Gabrielle Gareau, South Shore Coordinator for Mass Audubon's Coastal Water Bird Program, could help us. Unfortunately, on August 28 the wind and waves of Tropical Storm Irene destroyed many of the nests that we had previously seen from our boats. Although the effect of the storm on our data was a blow, in both senses, all was not lost. Our observations from the water and our post-Irene exploration of the island produced three unanticipated findings of particular interest.

### **Findings:**

#### **Stratification of bird roosting spots and nest sites**

We observed from the boats that each of the three species favored certain areas of the island. The Great Black-backed Gulls and their chicks were most often seen on the highest elevations, especially in the grassy patches on top. The Double-crested Cormorants occupied the entire middle elevation, which was a broad horizontal band of rock between the grassy area and the tide line, consistent with the species' known preference for nesting on bare rock (Hatch and Weseloh, 1999). The Herring Gulls preferred to spend time on the lower levels just above the tide line, although their nests were thinly scattered in higher rock crevices.

#### **Nest materials**

When we finally set foot on Brush Island, we saw that the cormorants had built much sturdier nests than those of the other two species. Many of their nests had survived the storm, although Irene had nearly eradicated the nests of both gull species.

The Double-crested Cormorants had built their nests close together on the rocks, sometimes only six inches apart. These birds used a variety of materials as previously



Figure 3. Double-crested Cormorant nest on Brush Island—note lobster trap pieces.

reported (Hatch and Weseloh, 1999), both natural (sticks and seaweed) and manmade (string, rope, and roughly shaped pieces of metal lobster traps)(Fig. 3). It was the pervasive use of these lobster trap pieces that caught our interest. Approximately 70% of the nests included one or more pieces of plastic-coated metal wire mesh, four to nine square inches in size. These mesh pieces were remnants of metal lobster traps that had broken up on Brush Island's rocky beach. Metal lobster traps did not begin to replace wooden ones in this area until

the end of the 1970s (Domnarski, 2011). Therefore the use by Double-crested Cormorants of wire mesh pieces from lobster traps to build nests is a relatively recent innovation. We think that the presence of this mesh in the nests increases their ability to withstand storms.

#### **Piles of small stones: a theory**

We were puzzled to find little piles of 10–40 small black stones deposited near many cormorant nests (Fig. 4). On average, the stones were 0.25-0.5 inches in diameter. Some of the piles were stuck together with a pale, mucus-like substance. We observed one fresh pile of goo and pebbles, which contained a pink worm. A web search provided a theory. Cormorants are known to host parasites in their intestines.



Figure 4. Aggregations of small stones near cormorant nests (Left: typical pile of stones; Right: stones in mucus with small worm).

Swallowing stones and regurgitating them may be a way of cleansing their innards. Shags in New Zealand and cormorants in Ontario have been observed “spitting stones.” (Robinson et al., 2008; Gayle, 2011)

Our summer of research gave us great respect for the Double-crested Cormorants of Brush Island. These birds managed to claim a large territory on a crowded island, to thrive among more aggressive species, and to innovate by using manmade materials. Also, these cormorants may have used a self-treatment for a malady. As a result of our study, we gained a high regard for and lasting interest in the species and its welfare (Fig. 5) 🐦

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*Elizabeth (Betsey) Sweet's career has been in early childhood education, teaching preschoolers and college courses in child psychology. Birding has been a hobby since taking courses at Drumlin Farm with Marian Dickey and Nancy Powell in the early 1970s. Esther Williams comes from a family of birders and has spent almost every summer of her life within sight of Brush Island. She spends most of her non-birding time with family and friends and the rest on the tennis court. In the past she taught various sports and COBOL, and she worked at the Cambridge Historical Society. Betsey and Esther have been birding together since the 1970s and have enjoyed many birding trips, near and far, over the years.*



Figure 5. Betsey and Esther navigating and bailing off Brush Island.

## Birding All 351 Towns in One Year

*John Galluzzo*

I looked at my calendar late in 2010 and realized I would be covering a lot of Massachusetts in the coming year. As a regional coordinator for the state's Breeding Bird Atlas 2 project, I had planned several forays into Bristol County around Fall River, New Bedford, and Attleboro, to fill in gaps in that under-examined section of the state. I had a few blocks to work on in remote corners of Plymouth County as well and had set up, with great anticipation, a journey to Berkshire County to lend my help to colleagues out there.

In 2011 I would travel to Lincoln, Worcester, the Cape, and elsewhere for meetings. I would deliver lectures on everything from ospreys to lighthouses in Methuen, Westford, Tewksbury, Easthampton, Dennis, and even Amherst, New Hampshire. I had a trip to lead to Nantucket—which never materialized—and a journey to New Jersey to sign copies of a book at a huge air show. I'd also sign a different book in Dartmouth, Newburyport, and other coastal places. And I had pending dealings at my alma mater, the University of Massachusetts at Amherst. In short, I was going to be all over Massachusetts in 2011.

But could I go *everywhere* in Massachusetts in one year?

In 2009, I had taken on a personal challenge. For health reasons—and, to be truthful, just for the fun of it—I took a nature walk in a different place every single day, save for five October days when I was bedridden with pneumonia. I just went about my normal life and found places to walk along the way. In 2011, I proposed to myself that I should go 351 steps farther. I should take a half hour nature walk in every town in Massachusetts.

I did the math. To reach all 351 in 365 days, I would need to do 29.25 towns per month, 6.75 towns per week, or less than one town per day. The math didn't help.

January 1 loomed, and I took my own bait. Being a historian, I thought I should find a symbolic place to start. Plymouth? No matter what the weather, it was accessible, and certainly I could write glowingly and prosaically about the place where journeys began and begin. Provincetown? Should I go one step back, to the place where the Pilgrims first set foot in the New World? Boston, the capital?

Nope. Dighton.

My friend Jim Sweeney emailed and asked for help with the Taunton Christmas Bird Count circle. As the sun rose on January 1, 2011, I was standing in a manure field at the Bristol County Agricultural School (with permission) staring at one flock of American Pipits, and another of Horned Larks. A few minutes later, I located a Gray Catbird for the group. Symbolic or not, I was on the first steps of a long road. By the end of the day I had added Taunton and Somerset. Three down, 348 to go. One-one hundred and seventeenth of the way there. I got a Fox Sparrow for the list, too, at the Boyden Wildlife Sanctuary in Taunton.

That's when it hit me, what I should be walking for. It was easy just to say "351 nature walks" and make it a personal goal, but the fact was that I could show the people of Massachusetts that no matter where they lived, they were within a few minutes of a nature walk, or a nature experience, even if no formal trails existed. This could be my statement for open space, my loving embrace of my home state and all it has to offer. Birding in all 351 towns would be the underlying story there, less important than the walking.

After that first day, I started my research in earnest. I set up a spreadsheet: town name, incorporation date, a potential walking site. In that third column I would fill in the three properties I had walked in bold text. I then ran down the list and added the towns and sites I knew well—Hingham? Wompatuck State Park! Cohasset? Wheelwright Park! Then I added every Mass Audubon wildlife sanctuary. Including those sanctuaries became my primary sub-goal. The problem was that several towns had more than one Mass Audubon sanctuary, like Worcester, Attleboro, and Marshfield. Oh well, I had made this bed. I planned for extra time. I let Google Maps tell me more. I looked at the big green blobs, the open space parcels, and picked the most enticing sounding. I found towns without any open spaces: Bellingham, Alford, Richmond, Russell, and Montgomery, among others. So I searched for Trustees of Reservations properties, local land conservancies, and, finally, cemeteries. Many nineteenth century cemeteries were laid out as places for walking, lands for the living as well as the dead.

I then set the calendar. If I had a meeting scheduled in Lincoln and I left early enough, I could walk Concord, Carlisle, and Bedford before the gathering came together. A lecture in Methuen? Oh, the possibilities. I could wind my way slowly from my home in Weymouth and check off towns along the way. I would fill in the gaps later in the year. I would get more speaking engagements, for sure, and other meeting calls would come from different parts of the state.

But January 2011 was not kind to me. It snowed like the Dickens. I was able to get out—had to, to keep my commitments—but found there were times I had to question my own sanity. Scituate and Marshfield fell into place without any scheduling effort. I walk my SEANET trail every two weeks in the former, and lead an annual "First Birds of the New Year" walk in the latter the first Saturday of every January. The Weston Reservoir proved to be remarkable, as a barking red fox heralded the arrival of shooting stars in the predawn light. Willard's Woods in Lexington gave me my first Great Horned Owls of the year. But walking up three hills in Stow, Boxborough, and Acton in a foot-and-a-half of new snow tested my quads in ways I wasn't expecting. On the other hand, I quickly learned about one-stop shopping, like finding the Lowell-Dracut-Tyngsborough State Forest and walking all three towns in a matter of an hour and a half without even thinking about my car (and without any signs of the recent Red-headed Woodpeckers).

As February began, and I headed for a meeting in Plymouth, I stopped in Kingston, only to hear a radio meteorologist declare we should expect two feet of snow by the end of the day. They had moved beyond predicting inches and were predicting feet.

In two months I had hit 67 towns and was ahead of schedule. By the end of March, I'd visited 93. The weather had kept my bird list down. I realized I had another factor working against me, or against the unfortunate towns that were saddled with midday positioning. I would not, could not, hit every town at sunrise, when the birdlife was at its noisy best. Just as I had felt bad for the snow-smashed towns, I felt sad for the midday places. Through no fault of their own, I would not see them at their best. I wouldn't see as much of the snowbound towns as I would the rest; it was a half an hour in each town, not a half a mile. Still, warmer weather was coming.

So, too, was my travel schedule for Mass Audubon. In April I took off for eight days in Colorado to co-lead a trip with Charlie Nims. I was home for four days, and then I headed to Santa Barbara for a maritime history conference. When I returned with pneumonia, I really felt the sting. By the end of April, I was far behind. Still, the birding was getting better. I found a phoebe nest in Westborough at Walkup and Robinson Memorial, saw Wood Ducks in the forest at the Mt. Pisgah Conservation Area in Northborough and Berlin, and caught the Manx Shearwaters off Revere Beach while helping with a SEANET training for college students. May, of course, though wet, was May. The Mourning Warbler at Mt. Auburn Cemetery was a real treat, and the usual suspects helped fill up the list, and lifted my spirits as well. The stress I was under was completely self-induced, of course, so the notion of falling into a depression was ridiculous. But what did I know? I had never walked a full state before. On Memorial Day weekend, as I headed for New Jersey, I stopped in Douglas, Webster, Charlton, Dudley, Southbridge, and Sturbridge.

June was to be my ace-in-the-hole, and so it proved to be. I did my breeding bird circles at the Attleboro Springs Wildlife Sanctuary, then discovered a singing Indigo Bunting and a foraging Brown Thrasher at World War I Memorial Park in North Attleboro. At Noon Hill Reservation in Medway I heard an Olive-sided Flycatcher, but the possible significance didn't hit me until much later. I was there just days after the Monson tornado and the band of thunderstorms that pushed eastward in the same system. Washouts on the trails gave enough evidence of the severity at Noon Hill. Could this bird have been blown east during the storms?

On June 26, I stepped out of my car in the October Mountain State Forest in Washington. I had three days to conquer the 32 towns of Berkshire County. The sunshine was with me. I walked from sunrise to sundown in the world of Chestnut-sided Warblers, Yellow-bellied Sapsuckers, and those Olive-sided Flycatchers. Coming from Weymouth, I may as well have been on the moon. Hearing juncos singing in July? Where the heck was I?

I spotted two Black Vultures in Sheffield as I headed for the Lime Kiln Wildlife Sanctuary. I heard a Mourning Warbler singing plain as day in Balance Rock Park in Lanesborough, too low an expected elevation. I climbed Laurel Hill in Stockbridge only to find the peak fogged in. I spent three glorious hours on Greylock before ending my second day on Savoy Mountain, where a Cooper's Hawk and a raven were my best sightings. Raptors had been extremely hard to come by wherever I went in Berkshire County. On day three I heard rumors of a goshawk in the Lynes Wildlife

Sanctuary in Westhampton, as I started my way back home. After half the year, I had 181 towns.

July mellowed, and I headed down east with Carol Decker of the Ipswich River Wildlife Sanctuary to lead our annual Puffins and Peatlands trip. In August I pulled out another one of my aces, co-leading a visit to Penikese and Cuttyhunk Islands. In the process, I knocked off the little known and even littler populated town of Gosnold. I also led an eight-day nature photography trip to Glacier National Park in Montana and walked in the snow at Logan's Pass at the height of summer. On August 31, my cemetery gambit paid off, as I scored a midday Barred Owl in Leicester.

On September 1, I had fewer than 100 towns to go, but my appointment calendar was running out. I had reached the point in the year when I would be forced to fill in the gaps on the map (I did keep a digital map that I colored in as I went—checks and balances against my spreadsheet). Where were the gaps? Franklin, Hampshire, and Hampden Counties, Martha's Vineyard, and Nantucket. I had left the islands for last, avoiding the midsummer crowds and the ferry costs. I had three out-of-state trips left for the year, to Block Island, Acadia National Park in Maine, and the Finger Lakes region of New York. Other than that, it would be smooth sailing.

I visited the Monson area first, having delayed that portion of the project to be out of the way during the cleanup after the June tornado. I walked in the storm's path on the grounds of the Keep Homestead Museum. But there was more than the tornado to deal with; Tropical Storm Irene had also slashed through western Massachusetts at the end of August. State Parks throughout the region were closed indefinitely. In October, an early, heavy snowfall would cause even more tree damage.

In one of my final stops north of Boston, I crossed paths with a flock of Rusty Blackbirds at Lawrence's Den Rock Park on October 19. In Petersham at the Rutland Brook Wildlife Sanctuary, a Sora caught me off guard. On November 10 I visited Nantucket and used another card I had tucked up my sleeve. A maritime history colleague picked me up at the ferry and joined me on a walk at Stump Pond. On November 19 I stood atop Mt. Tom and claimed it in the name of the Wild Turkey, as the last native one had been shot there a century and a half earlier.

Then, life turned ugly. On Monday, November 21, my father went into a coma in West Palm Beach. I flew down to see him that night, and stayed through Thanksgiving, but he never batted an eye. I flew home with a decision to make. I had completed my nature walks in 308 towns, and had 43 to go. Should I stop, or should I continue? I felt useless in Massachusetts, and I figured the project would keep my mind occupied. I walked on, but kept my phone with me at all times. I vowed to finish as quickly as possible, should the opportunity arise that I could be of service to him.

I walked 11 towns on November 28 and 10 more the next day. On November 30, I spent a fantastic day on Martha's Vineyard, by far my best birding experience of the year. Gannets ripped across the waves off Gay Head in Aquinnah, Common Loons floated on Menemsha Harbor, and a beautiful raft of White-winged Scoters dominated my view of Tisbury Great Pond from the Long Point Wildlife Sanctuary.

I entered December with just sixteen towns to go. On the 3rd, my dad came out of his coma. His first question was, "Did the Pats beat the Chiefs on Monday Night Football?" We didn't have the heart to tell him the game had been nearly two weeks earlier. I spoke to him by phone and excitedly made plans to fly back down to Florida. But it was not to be. He slipped back under before the day was out, and I put the plans on hold again.

On December 6, I conquered 10 more towns: New Salem, Shutesbury, Leverett, Sunderland, Deerfield, Conway, Buckland, Hawley, Ashfield, and Whately. On December 7, the 341st day of the year, I started in Warren and picked up the trail in Brimfield, where the storm damage was like nothing I had ever seen. Entire forest communities were lying on their sides. It was worse than Monson. I moved through Pelham, Belchertown, and Ware. Atop Quabbin Hill, I found my first-of-season American Tree Sparrows. I consulted the list: nope, I hadn't checked them off earlier in the year. On the very last day of walking in Massachusetts, I was still adding to my list.

And the irony was not lost on me that as I stood at the Enfield Lookout, I was looking out over the four Massachusetts towns I could never walk: Enfield, Dana, Greenwich, and Prescott. When I started the project, I had no preconceived notion where it would end. And so there it was, you start in Dighton, you end in Hardwick. That's just how it was.

Back when I had taken my last steps for my 2009 project, I realized that whenever people in the future would say to me, "Do you remember that day back in 2009...?" I could inevitably say, "Sure, I remember it well. I went for a walk that day." Now, just short of two years later, if someone says to me, "I'm from a little town out in central Massachusetts, you've probably never heard of it," I can honestly say, "I'll bet I have."

The sadness, of course, was that I was reaching a personal goal that I wanted to share with my dad, but he couldn't hear me. I wanted to let him know that I had struck a blow for open space. I'd set out to prove that no matter where you lived in Massachusetts, a nature walk was not that far away. But he was still clinging to life, and there was still hope. Maybe someday I'd be able to tell him.

I looked south to Rhode Island and wondered. There were only 39 towns in the Ocean State, and I had three weeks. I'd already walked New Shoreham. Thirty-eight towns? That was a long weekend for me. But I wanted to be ready to fly to my dad's side at a moment's notice and decided to hold off.

I thought about the birds for the year and figured the best way to characterize the final list was as a cross-section of species one might expect to see in Massachusetts in the course of a year, save for one major grouping. I had purposely avoided the beaches in summer, and as such, had a big gap where the shorebirds should have been. But I had visited all habitats, walked in all kinds of weather, stood at every Massachusetts altitude from the ocean's edge to the top of Mt. Greylock. I didn't chase rarities, but if a species regularly and reliably visited Massachusetts, I saw it.

Standing at the edge of the Patrill Hollow Preserve in Hardwick as I finished my final walk, I smiled as eight words rang through my head: "I came, I saw, I kicked its Mass!" 

*John Galluzzo is the adult education and citizen science coordinator for Mass Audubon's South Shore Sanctuaries in Marshfield. He is helping to write the Massachusetts Breeding Bird Atlas 2 and was a member of the team that produced the State of the Birds report. He is the author of 35 books on local, regional, and national history.*

## Home Values Higher near National Wildlife Refuges, New Study Finds

WASHINGTON: A new peer-reviewed national study, released today by the U.S. Fish and Wildlife Service, shows that in urban areas across three regions of the country owning a home near a national wildlife refuge increases home value and helps support the surrounding community's tax base.

According to the study, conducted for the Service by economic researchers at North Carolina State University, homes located within half a mile of a refuge and within eight miles of an urban center were found to have higher home values of roughly:

- Seven to nine percent in the Southeast;
- Four to five percent in the Northeast; and
- Three to six percent in the California/Nevada region.

Researchers based their findings on 2000 U.S. Census Bureau micro-level data. The report is the first national study to analyze national wildlife refuges' impact on land values. "National wildlife refuges are public treasures that protect imperiled wildlife and delight visitors," said Service Director Dan Ashe. "These findings remind us that refuges also boost community health, sometimes in unexpected ways," the director continued.

The National Wildlife Refuge System, a network of public lands including 556 refuges and 38 wetland management districts covering more than 150 million acres, is managed by the Service. Besides providing habitat for plants and animals, many refuges offer scenic vistas, wildlife watching, cultural and educational events, and recreation such as fishing and hiking. Last year, 45 million people visited a national wildlife refuge.

A 2006 analysis by the Service called *Banking on Nature* found that more than 34.8 million visits to refuges in fiscal year 2006 generated \$1.7 billion in sales, almost 27,000 jobs, and \$542.8 million in employment income in regional economies. An updated analysis is expected by 2013.

The lead researcher on the new report, titled *Amenity Values of Proximity to National Wildlife Refuges*, was Laura O. Taylor with North Carolina State University. The report is available at [http://www.fws.gov/refuges/about/pdfs/NWRS\\_Amenity\\_Report\\_April\\_2012\\_with\\_Covers8.pdf](http://www.fws.gov/refuges/about/pdfs/NWRS_Amenity_Report_April_2012_with_Covers8.pdf).

## ABOUT BOOKS

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### Up Close and Personal

Mark Lynch

*The Bluebird Effect: Uncommon Bonds with Common Birds.* Julie Zickefoose. 2012. Boston, Massachusetts: Houghton Mifflin Harcourt.

“If anything, I’ve come to understand how little we know about even the most common birds—not only how they live, the migrations they make, the social fabric in which they exist, but also, at an even more mysterious and fundamental level, how they perceive the world around them.” (Scott Weidensaul p. xiv of the introduction to *The Bluebird Effect*)



I am not the birder I was six or seven years ago. I am not talking about how the inevitable slow but sure deterioration that age brings can affect your skills in the field. In a much more fundamental way, I now look at birds differently. What accelerated the process was dedicating myself to the Breeding Bird Atlas 2. As I atlased each block, I would sometimes spend hours waiting for a particular bird to do something I could enter in the data base as “probable” or “confirmed” behavior. Spending that much time on a single bird, I began to look at birds as individuals, not just as abstract representatives of a species. A particular Eastern Wood Pewee never seemed to be able to weave together the bottom of her nest, so the carefully chosen plant fabric kept falling out through a sizeable hole in the bottom of the nest. A certain Black-throated Blue Warbler sang a perfect imitation of a Cerulean Warbler. On one day late in the breeding season, we watched two young Pileated Woodpeckers balance on the small, flimsy twigs at the very top of a choke cherry tree to delicately pluck the fruit and toss it back in their mouths. For sure, there were many similarities in behavior within a species, but it was amazing to witness the variations that also existed between birds of the same species. This is nothing new or earth shattering, but for me, I finally “got it.” Birds can be looked at as more than a name on a list with dryly described behaviors. If you spend the time with them, some birds can be recognized as individuals. *The Bluebird Effect* is a book that celebrates the individuality of birds.

Julie Zickefoose is a force of nature. She is a natural historian who has put in many years working on conservation programs. She is a well-established and nationally recognized artist whose drawings often grace the cover of *Bird Observer*. Increasingly, her time is gobbled up as a licensed wildlife rehabilitator, initially for songbirds, but now also for bats and even box turtles. She is a dedicated educator, lecturer, writer, blogger, and Facebook poster, an amateur poet, and even plays in a band with her husband Bill Thompson III. She is a caring mother of two teenagers.

*The Bluebird Effect* is the second volume of her essays and art, and it is a uniquely interesting and beautiful bird book.



All images from *The Bluebird Effect*

*The Bluebird Effect* is a collection of illustrated essays, many of them recounting events Julie experienced while rehabilitating various species of songbirds like sparrows, tanagers, phoebes, and orioles. Some were written years before while Zickefoose waited for the right venue to have them published. She even held a few of them back from *Bird Watcher's Digest*, published by her husband Bill Thompson III. Read together, this book can be seen as an autobiography of Zickefoose, her adventures in the natural world, and the evolution of her ideas about bird behavior. Some of the essays go back to her time in Connecticut in the 1980s working for the Nature Conservancy. Zickefoose now lives on an amazing property in the Ohio Appalachians, and many of the pieces in *The Bluebird Effect* are set here.

You may have some romantic notions about raising nestlings till they fledge, but even a casual reading of this book reveals that the process of raising nestlings is demanding and difficult work and at times harrowing. But Zickefoose has been at this business since she was a child.

“For most of my life, I’ve tried to fix broken birds.” (p. 111)

The pace of rehabbing young songbirds increases dramatically during what Zickefoose calls “baby season,” the months of June and July when her phone seems to ring constantly with calls from people who have found abandoned nestlings. The calls are so frequent that Julie can honestly say she dreads to hear the phone ring. She



cannot possibly personally handle even most of the calls, although she can certainly help with advice. Each individual bird or nest of birds presents a particular set of problems like diet or hydration or how to gradually give the young enough room so they can learn to fly. The rehabber has to not only have a wealth of knowledge of bird behavior but also has to be creative in finding solutions to keep the birds healthy. It is physically and mentally demanding. There is the never ending feeding and the

constant dread that your charges will die on your watch because of something you did or didn't do. This is balanced by the experience of getting to know a bird intimately. Zickefoose has gained important insights into behavior and intelligence of certain bird species that most ornithologists are just not privy to. In each case a unique human-bird bond was formed, and it's these interactive learning experiences that each essay explores.

Zickefoose believes that birds are much more complex creatures than most people traditionally understand or admit to. Her decades of experiences detailed in these essays seem to show that at least some species of birds exhibit behaviors that indicate a more developed mind than most of us (I include myself here) give them credit for. Experience has shown her that birds are not simply feathered bags of instinctual reactions, at least not in all cases, and are capable at times of complicated interactions with humans. Some birds can even be recognized as individuals as nestlings. Writing about raising young Chimney Swifts:

“There is a spark in these birds, a mischievousness and intelligence that I'd never had the luxury of noticing before I stood in as their mother. It's easy to assume that a bird that spends most of its life on the wing must not be very interesting or intelligent. And yet I perceive predictable differences among all seven fledglings. Some are adventurous, like the aptly named Amelia; some more timid; some are assertive and reckless; some like Sasha, just sweeter, for lack of a better word.” (p. 131)

Because of observations like these, Zickefoose has been accused of anthropomorphizing her experiences. After a close reading of *The Bluebird Effect*, though, I find her indeed passionate about birds. She is not unquestioningly “earthy crunchy” in her beliefs by any means. These are feelings and ideas arrived at only after years of working with young birds. She cares about her charges but is also level headed and practical. Her pieces are not written to convince one how smart or complicated birds are. Julie's objective is to put on paper what she has seen and felt while working in the intense world of rehabbing young birds. The reader may at times be skeptical, but who else among us has had her experiences? Over the years, who has put in such long hours in this closest of proximities to this number and variety of birds? She has earned her opinions.

Many of Zickefoose's observations will reveal an avian world that most birders will be unfamiliar with because we do not actually spend a lot of time with individual birds.

“Hummingbird nestlings explore everything, surprisingly enough, with their tongues, which they can extend like fine rice noodles, almost twice the length of the bill. If baby hummingbirds are curious about an object, they taste it. I cannot think of another bird that explores in this way, but most birds' tongues can't be extended much beyond the end of the bill. I wish I could peek into a woodpecker nest; I would bet that young woodpeckers use their long, bony-spined tongues in the same way. In the spring of 2010, I will get the answer when a pair of pileated woodpeckers excavates a nest in our

orchard. From a pop-up blind near the nest tree, I will watch in delight as the two nestling woodpeckers run their tongues over everything they explore, just like the hummingbirds did. It's bad enough to have a hummingbird run its tongue up your nostril while you're trying to feed it; I'd hate to have a woodpecker try that." (p. 73)

The chapter about raising a passel of Chimney Swifts is one of my personal favorites. It reveals intimate details about the life of a bird species that we see often but actually don't know well. Let's be honest, most of us only know swifts as twittering "flying cigars" seen high in the sky. Chimney Swift nestlings need prodigious amounts of water, and dehydration is a constant worry to Julie. They never grow down feathers but go from their naked skin straight to pin feathers, like woodpeckers. There are also no fecal sacs excreted by the young swifts. Instead, as Julie observes, they orient themselves to face the wall and shoot their fecal matter straight out of the nest and into space. *The Bluebird Effect* is filled with unique observations like this that will appeal to every level of birder.

Not all of the pieces in *The Bluebird Effect* are about Zickefoose's exhausting adventures in bringing up baby birds. A handful of essays consider philosophical issues that come up often in nature conservation and birding but are not often written about. A piece about her experiences with protecting Piping Plovers and Least Terns in Connecticut in the 1980s wrestles with the morality of killing night herons that are predated the nests of these species. Pieces about hunting Mourning Doves and Sandhill Cranes wrestle with the thorny issues about why we hunt certain species rather than others. Zickefoose has long been outraged about the increasing number of states allowing a season on shooting cranes. When she asked crane hunters why they shoot cranes, one answer she got was that they tasted good.

"Of all the adjectives I've used to describe cranes—*intelligent, monogamous, family-orientated, social, prehistoric, and wary* among them—one word I'd never considered employing is *flavorful*. Is it that simple? What if red-tailed hawks—our most abundant raptor—were tasty too? Would we have seasons and bag limits on them? Mourning doves are said to be delicious, and mourning dove hunting is a hot-button topic in some states. Some call them "songbirds" (which they technically are not) and believe them worthy of protection, while others take pleasure shooting them as game on the wing. So which is it? Which should it be?" (p. 273)

Zickefoose is not "anti-hunting" by any means, but she is asking hard questions about why certain species are chosen to be shot whereas others are not. If you think these questions don't affect birding here in Massachusetts, realize that it is still legal to hunt Soras in this state (September 1 till November 9 with a bag limit of 5) despite all the evidence that the bird is rapidly declining here. Why are we still hunting them? Because we have always hunted them? Because they taste good?

Another essay wrestles with the controversy of whether or not the Ivory-billed Woodpecker is still extant. Here, Zickefoose lets her emotions take over as she ponders the finality of extinction.

“We cut its habitat right out from under it, and we continue to cut it. We’ve sent it countless messages with our saws and our columns of smoke. Leave or die out. Find somewhere else to live. This land is our land now. And it just doesn’t listen to us; it goes on somewhere. I have to believe it; not dead but missing in action: alive, defiantly, desperately, joyously, alive. No one can tell me I’m wrong, and it seems, no one can tell me I’m right. There are those of us who cannot let go.” (p. 164)

*The Bluebird Effect* is filled with Zickefoose’s artwork. There is an abundance of her lively pencil sketches of nestlings. These capture the look and posture of many species at a time when birders rarely see them—nearly naked of feathers and clumsy, flexing young muscles and gradually becoming aware of the world around them. These sketches are unique and capture the fragility and the resilience of these birds. Some species Zickefoose sketched almost every day of their growth in her care. There are also finished full color paintings, a number of which are outstanding, like the just fledged hummingbird sitting on a line with clothespins or Julie’s young daughter Phoebe greeting a just fledged bird with the same name. This collected artwork could be a book in itself, and it is tough to say whether this is an illustrated collection of essays or an annotated art catalogue.

Zickefoose’s writing is colorful, detailed, passionate, and inviting to hardcore birders as well as the general public. In a curious way *The Bluebird Effect* is also a subversive book. It sneaks up on you. You think you are just reading a beautifully illustrated coffee table book about an interesting person’s experiences with young birds. And *The Bluebird Effect* is certainly that. But the reader is invited to consider some of the big questions about humans and birds. Where does the division lie between consumptive and non-consumptive wildlife enthusiasts, hunters versus birders? Why do we hunt and eat certain birds and not others? How intelligent are birds? Are behaviorists right in their assessment of bird intelligence? Can some species of birds emotionally respond to our care? What happens to our view of birds when we start to know them as individuals? Finally and ultimately, what do we really understand about the lives of birds? *The Bluebird Effect* may not offer definitive or easy answers to these complex questions, but Julie Zickefoose does write about what she has experienced, and those experiences are unique and certainly worth reading about. Most bird books today are dry summaries of molt, plumage, and field marks or collections of directions to find birds. *The Bluebird Effect* stands out as a unique book that entertainingly brings passion and ideas back into birding. 

situation of his preference; it spoke to me of planning and forethought, an awareness of the way nest box placement played into his plan to raise broods with two females at once.

With greatly reduced help from him, the injured male’s first mate raised a brood of five in the east box. But his affections clearly had been won by the widowed front yard female. When, on June 10, 1996, a new male arrived to win the east box female, the two-finger male had little argument. He settled in with the front yard female and conceded his first mate to the interloper. He’d had two broods by two females at one time, though, a rarely achieved feat in the bluebird world.

Now that they were an official pair, the droopy-winged male and the widowed female seemed to need a name. I decided on the Troysers, after the Amish bluebirdler and inventor Andy Troyer. He had sent me a nifty slot box and PVC baffle to try out, and it was here that the pair settled. The name Mr. Troyer fit the injured bluebird somehow; like Andy, he was intelligent, with a zeal for life. He came to know our schedule and would appear like magic at breakfast, lunch, and dinnertime, peering into the appropriate windows with a gentle reminder that he’d like to eat, too. In the morning, when I was rising from bed and dressing, he’d perch on a cast-iron



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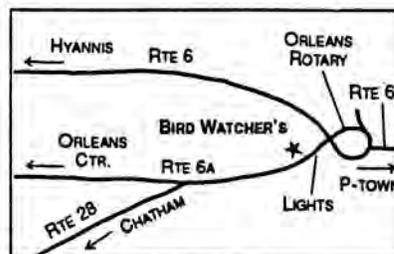
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# BIRD SIGHTINGS

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## January/February 2012

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

January and February continued the trend set in November and December as the year without a winter. January averaged 34.2° in Boston, 5.2° above the average. The first day of the year saw temperatures 15° above normal, delighting birders starting the New Year. A high of 60° was recorded in Boston on January 6. Rainfall totaled 2.67 inches, almost an inch under normal. Measurable amounts fell on 14 days with the heaviest occurring on January 26–27. Snowfall totaled 6.8 inches, 6.1 inches below average.

February was extremely mild with just a trace of snow and plenty of sunshine; it marked the eighth month in a row with above-normal temperatures. The month tied 1976 for the third warmest February on record. The high was 59° on the first, and the month averaged 37.4°, nearly 6° above normal. Rainfall in Boston was just one inch, 2.25 inches below average. Snowfall was only 0.9 inch, 10 inches less than normal, the fifth snowless February on record. The total for the season so far was only 8.7 inches, 24.1 inches below average.

*R.H. Stymeist*

### WATERFOWL THROUGH ALCIDS

Mild weather allowed waterfowl highlights to continue through mid-January. The **Barnacle Goose** originally discovered on November 5 in West Newbury lingered until January 13, and the **Cackling Goose** discovered in the Jamaica Plain area on December 3 remained through January 15. The **Tundra Swan** discovered in Dover on December 25 was last seen on January 14. **Redheads** were unusually well represented with reports from nine locations. The **Tufted Duck** originally found on October 22 in Attleboro remained through the period.

Least Bittern typically departs the state in August, and although a few will linger into the fall, an individual photographed in a Newton parking lot on January 5 may be the second January record. Egrets are less uncommon, but five Great Egrets was an unusual number for January.

A very dark Red-tailed Hawk was seen and photographed in Amherst during the last two weeks of February and was likely to have come from western Red Tail populations, whose color is more variable than that of eastern birds. Rough-legged Hawks were relatively well reported but not as impressively as Snowy Owls, our other northern raptor. Norm Smith saw a **Gyr Falcon** at Logan Airport in Boston on February 11. To reduce the possibility of strikes with airplanes, Norm is permitted to go on Logan property to trap Snowy Owls and transport them to more suitable locations. Airports provide ideal hunting territory for raptors, and Gyrfalcons have been seen here in the past.

A Sora lingered at Great Meadows NWR through the entire period, an unusual winter report. American Coots were reported in exceptional numbers this winter. Typically, even a single report of over 100 birds is unusual, but this winter there were over 100 in at least seven locations, all in eastern Massachusetts.

An unusual variety of shorebirds lingered into the winter months, particularly in the Harwich area. Species seen there included both yellowlegs species, a Marbled Godwit, and both

dowitchers. Short-billed Dowitcher is rare in winter but was seen and carefully described by experienced observers.

Two Slaty-backed Gulls were reported within a day of each other, a third year bird in Gloucester on January 21 and an adult in Wellfleet on January 22. This species occurred in the state for the first time in December 2007. At that time two birds were discovered in Gloucester and a third on Coast Guard Beach in Chatham, all adults. Since then there have been two additional sightings, a third winter bird at Turners Falls in February 2009 and an adult in Gloucester in January 2010.

*M. Rines*

<b>Greater White-fronted Goose</b>				1/21	P'town H.	375	B. Nikula
1/1	Rutland	1	M. Lynch#	1/22, 2/19	Boston H.	790, 360	TASL
1/2	Stow	1 ph	T. Murray#	1/29	Wellfleet H.	190	B. Nikula
<b>Snow Goose</b>				2/7	Westport	475	R. Heil
1/thr	Nahant	2	L. Pivacek	<b>Mallard</b>			
1/2	Newbypt H.	4	C. O'Brien	1/1	Charlton	650	M. Lynch#
1/2	Melrose	1 imm	P. + F. Vale	1/3	Lunenburg	1000	T. Pirro
1/6	Turners Falls	1	E. Dalton	1/21	P'town H.	125	B. Nikula
1/19	Amherst	2	J. Henningsen	1/22	Boston H.	466	TASL
2/16	Sheffield	1	R. Wendell	<b>Blue-winged Teal</b>			
<b>Brant</b>				thr	Marstons Mills	3	v.o.
1/1	Nahant	214	L. Pivacek	1/4	Plymouth	1 f	R. Bowes
1/7	Wellfleet	130	M. Lynch#	1/16	Turners Falls	1	T. Schottland
1/22, 2/19	Boston H.	484, 1137	TASL	<b>Northern Shoveler</b>			
1/29	Wellfleet H.	195	B. Nikula	thr	W. Barnstable	1-2	v.o.
2/18	Quincy	400	K. Ryan	1/thr	Jamaica Plain	1 m	v.o.
<b>Barnacle Goose</b>				1/thr	Melrose	1	v.o.
1/1-13	W. Newbury	1	v.o.	1/2	Arlington Res.	2	J. Forbes
<b>Cackling Goose</b>				1/7	Fall River	5	BBC (R. Stymeist)
1/1-15	Jamaica Plain	1	S. Walker + v.o.	1/19	Nantucket	3	T. Pastuszak
1/19	Amherst	1	J. Henningsen	<b>Northern Pintail</b>			
2/4-10	Hadley	1	I. Davies#	thr	P.I.	200 max	v.o.
<b>Mute Swan</b>				1/5	Marlboro	20	T. Spahr
1/9	Lynn	20	R. Heil	1/7	Westport	14	BBC (R. Stymeist)
2/17	Framingham	44	D. Puliafico	1/26	Amherst	7	I. Davies
<b>Tundra Swan</b>				2/7	Westport	99	R. Heil
1/1-14	Dover	1	v.o.	<b>Green-winged Teal</b>			
<b>Wood Duck</b>				thr	P.I.	20 max	v.o.
2/14	Uxbridge	2 m	B. Milke	1/1	Nantucket	34	G. d'Entremont#
2/26	W. Warren	4 m	B. Zajda	1/1	Worcester	15	J. Rees
2/26	Ipswich	2	J. Berry	2/25	W. Harwich	17	B. Nikula
2/28	W. Newbury	2 m	P. + F. Vale#	<b>Eurasian Green-winged Teal</b>			
<b>Gadwall</b>				1/8-19	Marstons Mills	1	P. Crosson#
1/1	P.I.	160	T. Wetmore	<b>Canvasback</b>			
1/5	Gloucester	22	J. Berry#	thr	Haverhill	4 max	S. Mirick
1/7	Marstons Mills	14	M. Lynch#	1/1	Nantucket	110	G. d'Entremont#
1/26	W. Harwich	13	B. Nikula	1/1-2/12	Cambr. (F.P.)	6 max	v.o.
1/29	S. Peabody	23	R. Heil	1/1-14	W. Newbury	1 m	v.o.
2/12	Plymouth	48	SSBC (GdE)	1/24	Plymouth	1 m	H. Levesque
2/20	Ipswich	45	J. Berry#	<b>Redhead</b>			
<b>Eurasian Wigeon</b>				thr	P.I.	3-4	v.o.
1/1-2/18	Orleans	1-2 m	v.o.	1/1	Nantucket	4	G. d'Entremont#
1/1	W. Barnstable	1 m	v.o.	1/6	Framingham	1 f	J. + S. Hepburn
1/15	Nantucket	1 m	K. Blackshaw#	1/14	Plymouth	1 pr	G. d'Entremont
1/16, 2/4	Turners Falls	1	Schottland, Smith	1/20	Mashpee	1 f	M. Keleher
1/29	Falmouth	1 m	G. d'Entremont#	1/2-13	Acton	2 f	S. Perkins#
<b>American Wigeon</b>				1/24	Cambr. (F.P.)	1	J. Trimble
thr	P.I.	10 max	v.o.	2/14	Ipswich	2	D. Chickering#
thr	Longmeadow	4	v.o.	2/25	Falmouth	2	BBC (M. Keleher)
1/1	W. Barnstable	105	M. Keleher#	<b>Ring-necked Duck</b>			
1/2	Arlington Res.	6	J. Thomas	1/1	Nantucket	125	G. d'Entremont#
1/3	E. Boston (B.I.)	9	P. Peterson	1/5	Framingham	120	J. Hoye#
1/7	Orleans	65	M. Lynch#	1/14	Plymouth	100	G. d'Entremont#
1/15	Nantucket	55	K. Blackshaw#	1/20	Mashpee	125	M. Keleher
2/7	S. Dart. (A.Pd)	16	R. Heil	2/18	Wrentham	210	J. Fecteau
2/18	Plainville	11	J. Fecteau	2/29	GMNWR	72	S. Perkins#
<b>American Black Duck</b>				2/29	Sterling	74	D. Grant
thr	P.I.	1000	v.o.				

<b>Tufted Duck</b>				2/10	Scituate	1 m	MAS (Galluzzo)
thr	Attleboro	1 m	v.o.	2/12	Plymouth	1 m	SSBC (GdE)
<b>Greater Scaup</b>					<b>Hooded Merganser</b>		
1/10	Wachusett Res.	76	T. Pirro	thr	Chestnut Hill	45 max	v.o.
1/22, 2/19	Boston H.	350, 537	TASL	1/1	Nantucket	133	G. d'Entremont#
1/23	Somerset	350	J. Sweeney	1/7	Woburn (HP)	70	K. Sweadner
1/29	Falmouth	1080	G. d'Entremont#	1/8	Worcester	51	J. Rees
2/12	Nantucket	216	K. Blackshaw#	1/19	Lynn	67	R. Heil
<b>Lesser Scaup</b>				1/29	Springfield	21	A. & L. Richardson
thr	P.I.	27 max	v.o.	2/12	Turners Falls	20	J. Rose
1/1	Attleboro	17	J. Sweeney		<b>Common Merganser</b>		
1/1	Mashpee	85	M. Keleher#	1/8	New Salem	40	B. Lafley
1/9	Lynn	14	R. Heil	1/14	Plymouth	50	G. d'Entremont
2/25	Haverhill	4	S. + J. Mirick	1/16	Medford	40	P. Roberts#
<b>King Eider</b>				1/20	Stoneham	71	D. + I. Jewell
thr	Gloucester	3 max	v.o.	2/12	Turners Falls	56	J. Rose
1/12	Rockport (A.P.)	1	D. Ely#	2/21	Wayland	51	B. Black
<b>Common Eider</b>				2/28	S. Quabbin	154	L. Therrien
1/1	Nantucket	5000	G. d'Entremont#		<b>Red-breasted Merganser</b>		
1/22, 2/19	Boston H.	3353, 3683	TASL	thr	P.I.	400 max	v.o.
2/4	Chatham	2500	B. Nikula	1/1	P'town	1200	B. Nikula
<b>Harlequin Duck</b>				1/22, 2/19	Boston H.	380, 727	TASL
thr	Rockport	127 max	v.o.	1/29	Cape Ann	110	J. Berry#
1/2	Orleans	3	M. Keleher#		<b>Ruddy Duck</b>		
1/4	Manomet	14	T. Lloyd-Evans	1/2	Eastham	36	B. Nikula
1/8	P'town	3	M. Keleher#	1/3	W. Newbury	97	D. Ely
2/12	N. Scituate	8	SSBC (GdE)	1/6	Chestnut Hill	52	R. Doherty
2/18	Dennis (Corp. B.)	2	CCBC (P. Bono)	1/7	Haverhill	54	S. Mirick
2/26	Nantucket	17	K. Blackshaw#	1/11	Attleboro	45	J. Russo
<b>Surf Scoter</b>				2/19	Nantucket	30	K. Blackshaw#
1/2	Nant. Sound	375	G. d'Entremont		<b>Northern Bobwhite</b>		
1/22, 2/19	Boston H.	779, 802	TASL	1/7	WBWS	4	M. Keleher
2/16	Cape Ann	790	R. Heil		<b>Ring-necked Pheasant</b>		
2/22	P.I.	20	T. Wetmore	1/1-31	Southwick	1	S. Kellogg
<b>White-winged Scoter</b>				1/27	Sandwich	1	M. Keleher
1/1	Wachusett Res.	1	M. Lynch#	1/31	Rockport	1	P. + F. Vale#
1/7	N. Truro	24	M. Lynch#	2/11	Hadley	1	L. Therrien
1/22, 2/19	Boston H.	623, 974	TASL		<b>Ruffed Grouse</b>		
2/4	P.I.	240	E. Nielsen	1/13	Hubbardston	1	W. Howes
<b>Black Scoter</b>				1/18	Grafton	1	N. Paulson
thr	P.I.	60 max	v.o.		<b>Wild Turkey</b>		
1/2	Orleans	200	M. Keleher#	1/2	W. Gloucester	42	J. Nelson
1/22, 2/19	Boston H.	10, 6	TASL	1/8	Sutton	71	A. Marble
2/16	Cape Ann	160	R. Heil	2/15	Westport	50	J. Hoye#
2/26	Nantucket	25	K. Blackshaw#		<b>Red-throated Loon</b>		
<b>Long-tailed Duck</b>				thr	P.I.	75 max	v.o.
thr	P.I.	200 max	v.o.	1/1	Nantucket	500	G. d'Entremont#
1/22, 2/19	Boston H.	64, 57	TASL	1/8	Acoaxet	19	E. Nielsen
2/16	Cape Ann	105	R. Heil	1/22, 2/19	Boston H.	20, 25	TASL
<b>Bufflehead</b>				2/16	Cape Ann	21	R. Heil
1/1	Nantucket	436	G. d'Entremont#		<b>Common Loon</b>		
1/10	Newbypt	250	J. Berry#	thr	P.I.	45 max	v.o.
1/20	Lynn B.	210	R. Heil	1/2	Nant. Sound	22	G. d'Entremont
1/22, 2/19	Boston H.	1475, 1996	TASL	1/13	Ipswich	29	J. Berry
2/27	Gloucester	130	P. + F. Vale	1/22, 2/19	Boston H.	45, 37	TASL
<b>Common Goldeneye</b>				2/16	Cape Ann	192	R. Heil
1/1	Nantucket	30	K. Blackshaw#	2/29	Wachusett Res.	5	D. Grant
1/8	Squantum	33	V. Zollo		<b>Pied-billed Grebe</b>		
1/22, 2/19	Boston H.	263, 334	TASL	1/1	Nantucket	11	G. d'Entremont#
1/23	Somerset	62	J. Sweeney	1/2	Brewster	9	M. Keleher#
2/12	Turners Falls	32	J. Rose	1/11	Wayland	3	B. Harris
2/16	Cape Ann	107	R. Heil	1/26	Cambr. (F.P.)	3	P. Peterson
2/23	GMNWR	31	S. Perkins#	2/17	W. Harwich	3	B. Nikula
<b>Barrow's Goldeneye</b>				2/18	Brewster	6	CCBC (P. Bono)
thr	Squantum	1 m	v.o.		<b>Horned Grebe</b>		
thr	Falmouth	1 m	v.o.	thr	P.I.	60 max	v.o.
thr	Gloucester	1-2	v.o.	1/9, 2/18	S. Quabbin	13, 3	L. Therrien
1/thr	Mashpee	1 m	v.o.	1/13	Ipswich	21	J. Berry
1/1	Wachusett Res.	2	M. Lynch#	1/22, 2/19	Boston H.	137, 179	TASL
1/1-3	W. Newbury	1	v.o.	2/16	Cape Ann	48	R. Heil
1/11	Dorchester	1 m	R. Stymeist	2/19	Westport	62	G. d'Entremont
1/12	New Bedford	1 m	G. Gove#		<b>Red-necked Grebe</b>		
2/5	Wellfleet	1	S. Grinley#	thr	P.I.	43 max	v.o.

Red-necked Grebe (continued)				Sharp-shinned Hawk			
1/2	Winthrop	9	R. Schain	thr	Reports of indiv. from 20 locations		
1/22, 2/19	Boston H.	4, 60	TASL	Cooper's Hawk			
2/16	Cape Ann	60	R. Heil	1/1	P.I.	2	T. Wetmore
Northern Fulmar				1/7	Fall River	2	BBC (R. Stymeist)
1/11	Jeffrey's L.	52	S. Mirick#	2/15	Westport	2	J. Hoye#
1/12	Rockport (A.P.)	33	R. Heil	Northern Goshawk			
Northern Gannet				1/3	W. Newbury	1 ad	D. Ely
thr	P.I.	30 max	v.o.	1/9	GMNWR	1 juv ph	R. Haddock
1/1	Nantucket	500	G. d'Entremont#	Red-shouldered Hawk			
1/11	Jeffrey's L.	11 ad	S. Mirick#	1/20	Upton	pr	N. Paulson
1/12	Rockport (A.P.)	505	R. Heil	2/2	Mashpee	2	M. Keleher
1/14	Eastham (F.E.)	70	B. Nikula	2/7	Westport	5 ad	R. Heil
Double-crested Cormorant				2/17	Easton	pr n	K. Ryan
1/2	Nantucket	4	G. d'Entremont#	2/26	Rehoboth	pr	K. Bartels
1/14	Plymouth	2	G. d'Entremont#	<b>Western Red-tailed Hawk</b>			
1/14-15	Gloucester	5	J. Trimble	2/17-29	Amherst	1 ph	J. Drucker + v.o.
2/7	Westport H.	6	R. Heil	Red-tailed Hawk			
Great Cormorant				2/4	Medford	6	P. Roberts#
1/9	Nahant	27	BBC (Wilkinson)	2/7	Westport	16	R. Heil
1/22, 2/19	Boston H.	1, 30	TASL	2/8	Danvers	6	J. Berry
2/1	Duxbury B.	22	R. Bowes	Rough-legged Hawk			
2/11	P'town H.	98	B. Nikula	thr	P.I.	4 max	v.o.
2/16	Cape Ann	69	R. Heil	1/18	Rowley	3	G. Dysart
American Bittern				2/1-18	Hadley	1	F. Bowrys
1/7	P.I.	2	B. Peters	2/5	Haverhill	1 lt	S. + J. Mirick
1/12	Rowley	1	S. McGrath	2/5	Boston (Logan)	1	N. Smith
Least Bittern				2/19	Cumb. Farms	1	S. Sullivan#
1/5	Newton	1 ph	P. McFarland	2/20	Ipswich	1 lt	J. Berry#
Great Blue Heron				American Kestrel			
1/1	Nantucket	6	G. d'Entremont#	thr	Nahant	1	L. Pivacek + v.o.
1/18	Eastham	6	E. Hoopes	1/3	Revere	1	P. Peterson
2/4	Cambridge	5	C. Devanthery	1/6	Neponset	1 m	R. Stymeist
2/7	Westport	9	R. Heil	1/8	Southwick	1	S. Kellogg
Great Egret				1/9	Hadley	1	D. Williams
thr	Truro	1	v.o.	2/thr	Boston (Logan)	3	N. Smith
1/1	S. Dartmouth	1	A. Morgan	2/16	Duxbury B.	1 m	R. Bowes
1/2-7	P.I.	1	R. Schain + v.o.	Merlin			
1/4	Nantucket	1	T. Pastuszak	thr	Reports of indiv. from 26 locations		
1/8	Acoaxet	2	E. Nielsen	2/1	Duxbury B.	2	R. Bowes
Snowy Egret				2/7	Chatham (S.B.)	2	B. Harris
1/1	Nantucket	1	G. d'Entremont#	<b>Gyrfalcon</b>			
Black-crowned Night-Heron				2/11	Boston (Logan)	1	N. Smith
1/29	Nantucket	4	K. Blackshaw#	Peregrine Falcon			
2/5	Arlington	1	A. Golden	thr	Gloucester	2	v.o.
Black Vulture				1/1	P.I.	2	N. Landry
1/7	Westport	1	BBC (R. Stymeist)	1/8	Squantum	2 ad	V. Zollo
1/13	Lenox	33	J. Morris-Siegel	2/thr	Boston (Logan)	3	N. Smith
2/7	Worcester	2	B. Kamp	2/14	Ludlow	2	C. Carpist
2/9	Amherst	9	S. Surner	2/19	Worcester	2	M. Lynch#
2/15	W. Warren	1	B. Zajda	2/25	Woburn	pr	M. Rines
2/25	Freetown	1	S. Arena	Virginia Rail			
Turkey Vulture				1/3	Cotuit	3	M. Keleher
2/7	Westport	25	R. Heil	1/7	N. Truro	7	M. Lynch#
2/10	Florence	10	T. Gagnon	2/2	Harwich	2	R. Heil
2/13	Worcester	120	B. Kamp	2/4	Barnstable	6	M. Iliff
2/19	Essex	47	P. Brown	Sora			
2/25	Fall River	11	SSBC (L. Abbey)	thr	GMNWR	1 ph	S. Selesky + v.o.
Bald Eagle				Common Gallinule			
thr	Reports of 1-2 indiv. from 18 locations			1/1	Nantucket	2 imm	v.o.
1/1	S. Quabbin	6	M. Lynch#	American Coot			
1/19	Lawrence	3 ph	C. Gibson	thr	Woburn (HP)	125	M. Rines
2/12	P.I.	3	K. Dia	thr	GMNWR	130 max	v.o.
2/26	Easthampton	3	B. Zajda#	1/1	Nantucket	233	G. d'Entremont#
Northern Harrier				1/2	Waltham	180	J. Forbes
thr	P.I.	6 max	v.o.	1/2	Eastham	220	B. Nikula
1/1	Nantucket	3	G. d'Entremont#	1/8	Southwick	46	S. Kellogg
1/13	Cumb. Farms	6	MAS (Galluzzo)	1/20	Mashpee	225	M. Keleher
1/18	GMNWR	2	K. Dia#	1/29	Lynn	110	R. Heil
1/28	Rockport	2	BBC (Drummond)	Black-bellied Plover			
1/31	Rowley	3	J. Berry#	1/1, 2/15	Duxbury B.	2 juv	R. Bowes
2/thr	Boston (Logan)	4	N. Smith	1/10	Osterville	4	E. Hoopes
2/6	Duxbury B.	2	R. Bowes	1/13	Ipswich	5	J. Berry

Black-bellied Plover (continued)				1/12	Rockport (A.P.)	343		R. Heil
2/7	Chatham (S.B.)	27	B. Harris	Black-headed Gull				
2/12	Plymouth	2	E. Dalton	1/thr	Hyannis	1-2		v.o.
Killdeer				1/thr	Nantucket	1		v.o.
1/17	Nantucket	3	T. Pastuszek	1/1-2/10	Gloucester (E.P.)	1		v.o.
2/23	Andover	2	S. Arena	1/24	Manchester	1 1W		R. Heil
2/27	DFWS	4	D. Swain	1/28	Newbypt H.	1		P. O'Neill
2/29	Waltham	4	J. Forbes#	Iceland Gull				
Greater Yellowlegs				thr	Gloucester	41 max		v.o.
1/1	Wellfleet H.	1	B. Nikula	1/7	Cambr. (F.P.)	2		J. Trimble
thr	W. Harwich	17 max	B. Nikula	1/8	Falmouth	4		B. Nikula
1/14	P.I.	1	T. Wetmore	1/12	Agawam	2		J. Zepko
1/14	Chatham	1	B. Nikula	1/18, 2/28	Lunenburg	2, 3		T. Pirro#
1/15	Essex	1	D. Brown	1/29	Turners Falls	4		J. Smith
Lesser Yellowlegs				1/29	P'town	10		B. Nikula
1/1	W. Harwich	1	B. Nikula	Lesser Black-backed Gull				
Marbled Godwit				thr	Reports of indiv. from	10 locations		
1/1-7	E. Harwich	1	B. Nikula#	1/7-23	Cambr. (F.P.)	2		J. Trimble
Ruddy Turnstone				1/24	Plymouth	2		R. Bowes
thr	Nantucket	40 max	Blackshaw#	2/26	Nantucket	2		K. Blackshaw#
1/1	Falmouth	16	M. Keleher#	<b>Slaty-backed Gull</b>				
1/8	Osterville	30	B. Nikula	1/21	Gloucester	1 3W ph		Trimble, Grinley
1/11	S. Boston	13	R. Stymeist	1/22	Wellfleet H.	1 ad ph		B. Nikula#
2/19	Boston H.	16	TASL	Glaucous Gull				
Red Knot				thr	Gloucester	9 max		v.o.
2/7	Chatham (S.B.)	5	B. Harris	1/1	Falmouth	1 imm		M. Keleher#
Sanderling				1/3	Lunenburg	1 1W		T. Pirro
thr	Duxbury B.	95 max	R. Bowes	1/12	Agawam	3		J. Zepko
thr	P.I.	400 max	v.o.	1/28	S. Boston	1 1W		P. + F. Vale
1/8	Osterville	61	B. Nikula	1/29	Turners Falls	1		J. Smith
1/8	Falmouth	60	B. Nikula	2/14	S. Hadley	1		B. Lafley
2/2	Rockport (A.P.)	200	P. + F. Vale	Pomarine Jaeger				
2/18	Dennis (Corp. B.)	105	B. Nikula	1/12	Rockport (A.P.)	4		R. Heil
2/19	Boston H.	57	TASL	1/12	Manomet	2		M. Iliff
Purple Sandpiper				Dovekie				
1/8	Falmouth	15	B. Nikula	1/1	Rockport (H.P.)	5		C. Cook
1/9	Nahant	13	BBC (Wilkinson)	1/1, 1/22	P'town	18, 2		B. Nikula
1/10	Gloucester (EP)	200	R. Heil	1/2	Eastham (F.E.)	2		B. Nikula
2/5	Nantucket	15	K. Blackshaw#	1/11	Jeffrey's L.	32		S. Mirick#
2/10	Scituate	20	MAS (Galluzzo)	Common Murre				
2/19	Boston H.	44	TASL	1/8	P'town (R.P.)	2		M. Keleher#
Dunlin				1/11	Jeffrey's L.	3		S. Mirick#
thr	P.I.	600 max	v.o.	1/12	Rockport (A.P.)	35		R. Heil
thr	Duxbury B.	1684 max	R. Bowes	Thick-billed Murre				
2/7	Chatham (S.B.)	675	B. Harris	1/1	P'town	4		B. Nikula
2/16	Cape Ann	150	R. Heil	1/11	Jeffrey's L.	1		S. Mirick#
2/18	Dennis (Corp. B.)	135	B. Nikula	1/12	Rockport (A.P.)	32		R. Heil
Short-billed Dowitcher				1/14	Gloucester H.	2		J. Trimble
thr	W. Harwich	1	B. Nikula#	1/29	N. Truro	1		B. Nikula
Long-billed Dowitcher				2/6	Salem	2		D. Ely
1/2-7	P.I.	1	v.o.	Razorbill				
thr	W. Harwich	1	B. Nikula#	thr	P.I.	200 max		v.o.
Wilson's Snipe				1/1	Nantucket	15		K. Blackshaw#
1/2	Amherst	1	L. Therrien	1/8	Acoaxet	3		E. Nielsen
1/3	E. Boston (B.I.)	1	P. Peterson	1/12	Rockport (A.P.)	795		R. Heil
1/16	Cumb. Farms	2	E. Dalton	2/5	P'town	50		B. Nikula
2/4	W. Harwich	1	B. Nikula	2/5	Truro	50		R. Stymeist#
American Woodcock				2/19	Boston H.	2		TASL
2/17	Belmont	3	R. Stymeist	Black Guillemot				
2/19	N. Attleboro	6	J. Fecteau	thr	Cape Ann	57 max		v.o.
2/22	N. Reading	3	P. + F. Vale	1/22	Nahant	2		TASL
2/23	Falmouth	5	M. Keleher	2/7-15	Duxbury B.	1		R. Bowes
2/26	W. Bridgewater	3	D. Cabral	2/19	Boston H.	6		TASL
Black-legged Kittiwake				Atlantic Puffin				
thr	P.I.	30 max	v.o.	1/11	Jeffrey's L.	1		E. Masterson
1/1, 1/29	P'town	60, 145	B. Nikula	1/28	Plymouth	1		T. Lloyd-Evans
1/11	Jeffrey's L.	42 ad	S. Mirick#	2/4	Rockport (A.P.)	1 juv		S. Hedman#
1/12	Rockport (A.P.)	1120	R. Heil	Large alcid species				
1/14	Eastham (F.E.)	300	B. Nikula	1/14	Eastham (F.E.)	930		B. Nikula
Bonaparte's Gull				1/29	P'town	270		B. Nikula
1/1	Nantucket	1500	G. d'Entremont#	2/4	N. Truro	360		B. Nikula
1/2	Eastham (F.E.)	36	B. Nikula					
1/8	Acoaxet	63	E. Nielsen					

## OWLS THROUGH FINCHES

This was the winter of the Snowy Owl, not only in Massachusetts but also across the country. At Logan Airport in Boston Norm Smith banded 23 Snowies during the period, and as many as six were reported on Plum Island. Last winter there were very few reports of Snowy Owls, probably because an abundance of lemmings resulted in fewer owls moving south to look for food. This abundance of food is likely to have increased the nesting success of the owls, resulting in overcrowding and sending them south in record numbers.

At Logan Airport Norm Smith reported seeing seven Short-eared Owls on January 22. There were near record reports of Screech, Barred and Great Horned owls, but only two Long-eared Owls were documented. The female **Rufous Hummingbird** that was first noted in Wareham on October 20 was last seen on January 20, three months to the day.

The continued mild weather and lack of snow was a boon to the many lingering species. Originally found on November 25, the **Cassin's Kingbird**, the fourth record for the state, was last noted on January 14. Other holdovers from December included Western Kingbird, Lark Sparrow, **Painted Buntings** from Eastham and Methuen, and the celebrated **Townsend's Warbler** at Jim and Natalie Berry's feeder in Ipswich. There were eleven species of warblers seen during the period, including the Townsend's, two Ovenbirds, a Northern Waterthrush, a Black-and-white in Dennis, at least seven Orange-crowns, and a Prairie Warbler in Marblehead. Most unusual was a **Wood Thrush** photographed in Lexington on January 22; there is only one other January report of Wood Thrush, a bird found on the Concord CBC, last noted on January 6, 1972.

A **Spotted Towhee** was found on the coast of Rockport on January 26 and was last reported on February 25; this is only the second occurrence of this species since Rufous-sided Towhee was split into Spotted and Eastern towhees. The only other recent record was a bird seen in Hadley in January and February 1999. The bird of the period was a very cooperative **Lazuli Bunting** discovered at Wellfleet Bay Wildlife Sanctuary on February 4 and last reported on February 28. This was only the third record for Massachusetts following a bird photographed on Nantucket in May 2002 and one in Hadley on January 30-31, 2007. Noteworthy sparrow reports for the period included Chipping Sparrows from six locations, four Clay-colored, two Vesper, and a rare "Sooty" Fox Sparrow, which was photographed in Wellfleet. The winter finch report was dismal with only a scattered number of Pine Siskins and just one report of an Evening Grosbeak.

*R. Stymeist*

Barn Owl				Long-eared Owl			
1/2	Chilmark	2	R. Stymeist	2/4	Barnstable	1	J. Trimble
1/9	Nantucket	1	V. Laux	2/15-31	Amherst	1-2	I. Davies + v.o.
Eastern Screech-Owl				Short-eared Owl			
thr	Reports from 37 locations			thr	P.I.	1-2	v.o.
Great Horned Owl				1/thr	Rowley	1-3	v.o.
thr	Reports of 1-4 indiv. from 33 locations			1/12	Newbury	1	S. McGrath
Snowy Owl				1/22	Boston (Logan)	7	N. Smith
thr	Chatham	1-2	v.o.	2/19	Cumb. Farms	1	S. Sullivan#
thr	Boston (Logan)	23 b	N. Smith	Northern Saw-whet Owl			
thr	P.I.	6 max	v.o.	1/1	Ware R. IBA	2	M. Lynch#
thr	Duxbury B.	2	R. Bowes	1/1	Mashpee	2	M. Keleher#
1/11	Somerville	1	L. DeLorenzo#	1/14	Brewster	2	E. Hoopes
1/11-15	Winthrop B.	1	J. Twomey + v.o.	1/20	Grafton	1	N. Paulson
1/13	Ipswich	1	J. Berry	2/4	P.I.	1	R. Scott
1/16	Yarmouth	1	P. Crosson	2/14	Sudbury	1	J. Hoye#
1/16	Saugus	1	J. Restivo	2/15	Westport	1	J. Hoye#
2/4	Rowley	1	M. Lynch#	2/20	Westminster	1	T. Pirro
2/19	Fairhaven	1	C. Longworth	<b>Rufous Hummingbird</b>			
Barred Owl				1/1-20	Wareham	1 f	C. Roy
thr	Reports of indiv. from 14 locations						

Red-bellied Woodpecker				2/26	Saugus	35	S. Zende#
1/7	Lexington	4	M. Rines#		Red-breasted Nuthatch		
2/12	N. Marshfield	3	SSBC (GdE)	1/10	Mt. Watatic	5	C. Caron
Yellow-bellied Sapsucker				1/13	Southwick	2	S. Kellogg
1/1	Carlisle	1	T. + D. Brownrigg	1/26	Mashpee	21	M. Keleher
1/3	Heath	1	D. Potter	2/4	Ashburnham	4	C. Caron
1/4	Boston (PG)	1	P. Peterson	2/7	Holyoke	2	F. Bowrys
1/8	Sutton	1	M. Joubert	2/9	Royalston	2	C. Caron
1/15	W. Millbury	1	A. Marble	2/10	Becket	2	R. Laubach
1/25	S. Hadley	1	F. Bowrys		Brown Creeper		
2/1	Springfield	1	A. & L. Richardson	1/2	Jamaica Plain	3	P. Peterson
2/5	Sutton	1 m, 1 f	M. Joubert	1/26	Mashpee	2	M. Keleher
2/8	Ipswich	1	J. Berry	2/1	Brookline	2	A. + D. Morgan
2/10	Worcester	1	D. Berard	2/11	Woburn (HP)	2	M. Rines#
2/16	DFWS	1	P. Sowizral		Carolina Wren		
2/20	Dennis (Corp. B.)	1	J. Trimble	1/1	Nantucket	23	G. d'Entremont#
Northern Flicker				1/7	Westport	19	BBC (R. Stymeist)
1/23	Somerset	5	J. Sweeney	1/7	Lexington	8	M. Rines#
1/27	Jamaica Plain	4	P. Peterson	1/29	Falmouth	21	G. d'Entremont#
2/5	Nantucket	4	K. Blackshaw#	2/12	N. Marshfield	7	SSBC (GdE)
Pileated Woodpecker				2/12	Gloucester	7	P. Peterson
thr	Reports of indiv. from 12 locations				Winter Wren		
2/15	IRWS	2	S. Santino#	1/2	Medford	2	R. LaFontaine
Eastern Phoebe				1/9	Burlington	2	M. Rines
1/8	Acoaxet	1	E. Nielsen	2/7	Belchertown	2	L. Therrien
1/22	Truro	1	B. Nikula	2/7	Holyoke	2	F. Bowrys
<b>Cassin's Kingbird</b>				2/7	Westport	4	R. Heil
1/1-14	W. Newbury	1	v.o.	2/20	Barnstable	2	J. Trimble
<b>Western Kingbird</b>					Marsh Wren		
1/1	S. Orleans	1	B. Nikula	1/7	N. Truro	2	M. Lynch#
Northern Shrike				1/8	Acoaxet	2	E. Nielsen
1/1-2/12	P.I.	1 ad	v.o.	2/1	P.I.	1	T. Wetmore
1/1	W. Newbury	1	BBC (L. de la Flor)	2/4	Barnstable	2	M. Iliff
1/1	N. Truro	1	B. Nikula	2/7	GMNWR	3	S. Perkins#
1/1	Marstons Mills	1	M. Keleher#		Golden-crowned Kinglet		
1/4	Great Barrington	1	D. St James	1/10	Mt. Watatic	5	C. Caron
1/11	Wayland	1	B. Harris	2/7	Westport	6	R. Heil
2/7	Uxbridge	1	D. Knowlton	2/15	IRWS	4	S. Santino#
2/thr	Windsor	1	v.o.	2/20	Barnstable	8	J. Trimble
2/9	ONWR	1 imm	C. Caron	2/27	Sudbury	4	G. Billingham
2/15	DFWS	1 imm	P. Sowizral		Ruby-crowned Kinglet		
2/20	Concord	1 imm	S. Perkins#	thr	Reports of indiv. from 14 locations		
Fish Crow				1/3	S. Dart. (A.Pd)	3	P. Champlin
1/1	Bourne	40	M. Keleher#	1/8	Cumb. Farms	2	M. Iliff
1/4	Framingham	46	B. Harris	1/21	Sandwich	2	M. Keleher
1/8	Dorchester	68	BBC (R. Stymeist)		Eastern Bluebird		
1/13	Jamaica Plain	35	P. + F. Vale	1/1	W. Newbury	10	BBC (L. de la Flor)
2/4	Northampton	3	T. Gagnon	1/1	Ipswich	17	J. Berry
2/18	Sandwich	35	B. Nikula	2/26	Easthampton	10	B. Zajda#
2/19	Lawrence	18	P. Brown		Hermit Thrush		
Common Raven				thr	Reports of indiv. from 19 locations		
1/22	W. Roxbury (MP)	2	M. Iliff	1/7	Westport	2	BBC (R. Stymeist)
1/29	Windsor	4	M. Lynch#	1/26	Mashpee	3	M. Keleher
1/29	Cheshire Valley	6	M. Lynch#	2/20	Barnstable	5	J. Trimble
2/2	Ipswich	pr	J. Berry		Wood Thrush		
2/9	Stoneham	2	D. + I. Jewell	1/22	Lexington	1 ph	J. Forbes
2/9	Royalston	2	C. Caron		Gray Catbird		
2/11	Quincy	pr	G. d'Entremont	1/1	Nantucket	7	G. d'Entremont#
2/12	Plainville	2	J. Fecteau	1/8	Acoaxet	8	E. Nielsen
2/19	Georgetown	2	P. Brown	1/17	P.I.	3	K. Elwell
2/25	Haverhill	2	S. + J. Mirick	1/24	Gloucester	3	R. Heil
2/25	Woburn	pr	M. Rines	1/29	Falmouth	5	G. d'Entremont#
2/29	Paxton	pr	B. Mulhearn	2/7	Westport	5	R. Heil
Horned Lark					Brown Thrasher		
thr	P.I.	28 max	v.o.	1/7	W. Roxbury (MP)	1	P. Peterson
1/12	Worcester	30	F. McMenemy	1/8	Acoaxet	1	E. Nielsen
1/13	Ipswich	42	J. Berry	1/23	Nahant	1	B. Hodson
1/17	Fitchburg	20	N. Beauregard		American Pipit		
1/20	Cumb. Farms	23	R. Schain	1/1	Rutland	1	M. Lynch#
1/21	Sharon	55	V. Zollo	1/7	Acton	10	D. Swain + v.o.
1/22	Northampton	170	S. Sumner	1/20	W. Roxbury (MP)	1	T. Bradford
1/23	Duxbury B.	23	R. Bowes	1/22	Nahant	1	L. Pivacek#
1/28	Hadley	44	I. Davies	2/7	Cumb. Farms	8	M. Iliff

Bohemian Waxwing				1/24	Gloucester	3 m	R. Heil
2/26	New Salem	19	R. Stymiest	American Tree Sparrow			
2/28	Savoy	53	T. Gagnon	1/2	Lexington	15	J. Forbes
2/28	Middlefield	10	P. Purdy	1/5	P.I.	29	D. Chickering
2/29	Heath	2	D. Potter	1/22	Cumb. Farms	160	G. d'Entremont
Cedar Waxwing				1/24	W. Roxbury (MP)	32	M. Iliiff
1/1-8	P.I.	20	K. Elwell + v.o.	2/20	Northboro	11	S. Moore#
1/5	Rockport (H.P.)	30	P. + F. Vale#	Chipping Sparrow			
1/15	W. Boylston	60	M. Lynch#	thr	Wayland	3	B. Harris
2/5	Nantucket	40	K. Blackshaw#	1/1	S. Wellfleet	2	B. Nikula
2/11	Truro	25	B. Nikula	1/2	Medford	2	R. LaFontaine
2/25	N. Attleboro	40	F. Bouchard	1/5	Mashpee	8	M. Keleher
Lapland Longspur				2/7	Westport	5	R. Heil
1/13	Ipswich	1	J. Berry	2/29	Clinton	2	D. Grant
1/21	Sharon	1	V. Zollo	Clay-colored Sparrow			
2/3	Eastham (F.E.)	2	E. Hoopes	1/16	Cumb. Farms	1 ad	E. Dalton
Snow Bunting				1/19, 2/20	Nantucket	1	T. Pastuszak
thr	P.I.	35 max	v.o.	1/26-2/29	Hadley	1	I. Davies
1/8	Nantucket	25	K. Blackshaw#	2/1-26	Cataumet	1	v.o.
1/10	Winthrop B.	12	P. Peterson	Field Sparrow			
1/13	Ipswich	80	J. Berry	1/1	Cataumet	3	M. Keleher#
1/17	Fitchburg	20	N. Beauregard	1/8	Acoaxet	6	E. Nielsen
1/17	Northampton	10	B. Lafley	1/11	Hadley	1	J. Rose
1/29	Worcester	65	M. Lynch#	1/23	Norwood	2	V. Zollo
2/20	Bourne	14	P. Kyle	1/23	Dighton	2	J. Sweeney
Ovenbird				2/8	WBWS	5	J. Hoye#
1/5-13	Boston	1	S. McMahon	2/8	Peabody	2	P. Peterson
1/21	Vineyard Haven	1	L. McDowell	Vesper Sparrow			
Northern Waterthrush				1/13-2/7	Cumb. Farms	1	J. Galluzzo + v.o.
1/thr	Barnstable	1	v.o.	1/22-2/29	Northboro	1	B. Volkle#
Black-and-white Warbler				Lark Sparrow			
2/7	Dennis	1	E. Banks	1/1-20	Lexington	1	v.o.
Orange-crowned Warbler				Savannah Sparrow			
1/thr	Wellfleet	1	v.o.	1/20	Cumb. Farms	28	R. Schain
1/2	Boston (Fens)	1	R. Schain	2/3	Hadley	18	J. Drucker
1/10	Rockport	1	R. Heil	2/7	Chatham (S.B.)	4	B. Harris
1/20	Ipswich	1	J. Berry#	2/19	Cumb. Farms	15	S. Sullivan#
2/5-23	Eastham	1	E. Nielsen#	Ipswich Sparrow			
2/23-24	Mattapan (BNC)	2	v.o.	1/1	Duxbury B.	2	R. Bowes
Common Yellowthroat				1/10	Gloucester	1	R. Heil
1/2	Boston (Fens)	1	R. Schain	Fox Sparrow			
1/9	Bolton Flats	1 f	C. Caron	1/1	Sandwich	2	M. Keleher#
2/5	Salisbury	1 f	B. Harris#	2/5	Barnstable	5	J. Trimble
2/9-28	W. Roxbury (MP)	1	v.o.	2/7	Dartmouth	3	R. Heil
Palm Warbler				2/23	W. Warren	3	B. Zajda
1/19	Nantucket	1	T. Pastuszak	2/28	Northboro	2	S. Moore#
Western Palm Warbler				Sooty Fox Sparrow			
1/1	S. Wellfleet	2	B. Nikula	1/14-2/5	Wellfleet	1	J. Young
Pine Warbler				Swamp Sparrow			
thr	Wellfleet	25	B. Nikula	1/1	Nantucket	3	G. d'Entremont#
1/thr	Plympton	1 m	T. Lloyd-Evans	1/24	W. Roxbury (MP)	9	M. Iliiff
2/2	Wrentham	1	E. LoPresti	1/26	Mashpee	11	M. Keleher
2/12	Plymouth	2	SSBC (GdE)	2/16	Ipswich	4	J. Berry
2/16	Rockport (A.P.)	1	P. Peterson	White-throated Sparrow			
Yellow-rumped Warbler				1/8	Acoaxet	30	E. Nielsen
1/7	N. Truro	11	M. Lynch#	1/17	P.I.	10	K. Elwell
1/8	Acoaxet	9	E. Nielsen	1/16	Ipswich	18	J. Berry
1/22	Nantucket	25	K. Blackshaw#	2/7	S. Dart. (A.P.)	12	P. Champlin
2/7	Westport	10	R. Heil	White-crowned Sparrow			
Prairie Warbler				1/1-21	Nantucket	1	T. Pastuszak
1/1-4	Marblehead	1	D. Noble	1/8	S. Quabbin	1	L. Therrien
Townsend's Warbler				1/20	Cumb. Farms	1 ph	R. Schain
thr	Ipswich	1 ph	J. +. N. Berry	1/21	Northboro	1	H. Squillante
1/21	Lexington	1 ph	D. Goldfinger	1/22-2/18	Hadley	1	S. Surner
Yellow-breasted Chat				2/20	Nantucket	1	T. Pastuszak
thr	Reports of indiv. from 12 locations			Dark-eyed Junco			
1/3	S. Dart. (A.Pd)	2	P. Champlin	1/2	Jamaica Plain	50	P. Peterson
1/29	Falmouth	2	G. d'Entremont#	2/4	Ashburnham	60	C. Caron
Spotted Towhee				2/14	Baldwinville	60	T. Pirro
1/26-2/25	Rockport	1 ph	P. + F. Vale + v.o.	2/17	Mt.A.	55	R. Stymeist
Eastern Towhee				Lazuli Bunting			
thr	Heath	1	D. Potter	2/4-28	WBWS	1 ph	M. Faherty + v.o.
1/7	Westport	6	BBC (R. Stymeist)				

<b>Painted Bunting</b>				<b>Common Grackle</b>			
1/1-8	Methuen	1 m	P. LaGrasse	1/2	E. Harwich	70	B. Nikula#
1/1-2/19	Eastham	1	v.o.	1/31	Bolton Flats	300	K. Bourinot
Dickcissel				2/27	Concord	1200	S. Perkins#
thr	Amherst	1	J. Drucker	2/27	W. Bridgewater	450	K. Ryan
1/14-2/15	Rockport	1	S. Hepburn + v.o.	<b>Brown-headed Cowbird</b>			
1/18	Watertown	1	A. Gurka	1/7	Westport	35	BBC (R. Stymeist)
1/26	Newton	1	H. Miller	1/19	Belchertown	30	J. Fleming
Red-winged Blackbird				1/20	Cumb. Farms	95	R. Schain
1/7	W. Roxbury (MP)	40	P. Peterson	2/7	Acoaxet	350	R. Heil
1/20	Cumb. Farms	2800	R. Schain	<b>Baltimore Oriole</b>			
1/29	Spencer	200	M. Lynch#	1/3	Mashpee	1	L. Lynch
1/31	Bolton Flats	550	K. Bourinot	1/7	Westport	1	BBC (R. Stymeist)
2/20	Harwich Port	125	B. Nikula	1/8	Brewster	1	C. Harris
2/24	Andover	450	S. Arena	2/18	Barnstable	2	CCBC (P. Bono)
2/27	Concord	200	S. Perkins#	<b>Purple Finch</b>			
Eastern Meadowlark				2/1	Ashburnham	12	C. Caron
1/10	Rowley	1	W. Tatro	2/4	Royalston	10	P. + F. Vale
1/15	New Braintree	1	M. Lynch#	2/4	Hinsdale	12	G. Hurley
2/7	Westport	3	R. Heil	2/10	Winchendon	12	C. Caron
2/7	S. Dart. (A.P.)	10	P. Champlin	<b>Pine Siskin</b>			
2/19	Cumb. Farms	1	S. Sullivan#	1/3	Carlisle	5	T. + D. Brownrigg
2/21	Eastham (F.H.)	13	P. + F. Vale	2/1	Royalston	6	C. Buelow
<b>Yellow-headed Blackbird</b>				2/4	Hinsdale	12	G. Hurley
1/8	Cumb. Farms	1 m ad	M. Iliff	2/8	Cummington	12	T. Gagnon
Rusty Blackbird				2/10	Winchendon	8	C. Caron
1/1	New Braintree	10	M. Lynch#	2/20	Heath	40	D. Potter
1/3	W Stockbridge	15	J. Morris-Siegel	<b>Evening Grosbeak</b>			
1/28, 2/19	Wayland	24, 13	B. Harris	2/28	Heath	28	D. Potter
2/11	Sheffield	8	C. Johnson				
2/25	Littleton	12	G. Marley				
2/28	W. Warren	4 m	B. Zajda				



EVENING GROSBEEK BY DAVID LARSON

## ABBREVIATIONS FOR BIRD SIGHTINGS

Taxonomic order is based on AOU checklist, Seventh edition, up to the 52nd Supplement, as published in *Auk* 128 (3): 600-13 (2011) (see <<http://www.aou.org/checklist/north>>).

<b>Locations</b>		Newbypt	Newburyport
Location-#	MAS Breeding Bird	ONWR	Oxbow National Wildlife Refuge
	Atlas Block	PG	Public Garden, Boston
A.A.	Arnold Arboretum, Boston	P.I.	Plum Island
ABC	Allen Bird Club	Pd	Pond
A.P.	Andrews Point, Rockport	POP	Point of Pines, Revere
A.Pd	Allens Pond, S. Dartmouth	PR	Pinnacle Rock, Malden
B.	Beach	P'town	Provincetown
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	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
CCBC	Cape Cod Bird Club		Boston Harbor Census
Corp. B.	Corporation Beach, Dennis	WBWS	Wellfleet Bay WS
Cumb. Farms	Cumberland Farms, Middleboro	WMWS	Wachusett Meadow WS
	Drumlin Farm Wildlife Sanctuary	Wompatuck SP	Hingham, Cohasset, Scituate, and Norwell
DFWS	Delaney WMA		Worcester
DWMA	Stow, Bolton, Harvard	Worc.	
	Daniel Webster WS	<b>Other Abbreviations</b>	
DWWS	Eastern Point, Gloucester	ad	adult
E.P.	First Encounter Beach, Eastham	b	banded
F.E.	Fort Hill, Eastham	br	breeding
F.H.	Fresh Pond, Cambridge	dk	dark (morph)
F.P.	Franklin Park, Boston	f	female
F.Pk	Gate 40, Quabbin Res.	<i>fide</i>	on the authority of
G40	Great Meadows NWR	fl	fledgling
GMNWR	Harbor	imm	immature
H.	Halibut Point, Rockport	juv	juvenile
H.P.	Horn Pond, Woburn	lt	light (morph)
HP	High Ridge WMA, Gardner	m	male
HRWMA	Island	max	maximum
I.	Ipswich River WS	migr	migrating
IRWS	Ledge	n	nesting
L.	Mass Audubon	ph	photographed
MAS	Millennium Park, W. Roxbury	pl	plumage
MP	Martha's Vineyard	pr	pair
M.V.	Martin Burns WMA, Newbury	S	summer (1S = 1st summer)
MBWMA	Marblehead Neck WS	v.o.	various observers
MNWS	Myles Standish State Forest, Plymouth	W	winter (2W = second winter)
MSSF	Mount Auburn Cemetery, Cambr.	yg	young
Mt.A.	Nine Acre Corner, Concord	#	additional observers
NAC			

## HOW TO CONTRIBUTE BIRD SIGHTINGS TO *BIRD OBSERVER*

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

Species on the Review List of the Massachusetts Avian Records Committee (indicated by an asterisk [\*] in the Bird Reports), 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](mailto:mattgarvey@gmail.com)>.

## From MassWildlife: Reporting Summer Fish Kills

Now that warm weather is finally here, lakes and ponds will be warming up and summer fish kills may be discovered in some bodies of water. The sight of dead and dying fish along the shores of a favorite lake, pond or river can be distressing and can trigger concerns about pollution. Fish do act as the “canary in the coal mine,” so it’s natural to think a fish kill is an indicator of a problem with human caused pollution. However, the vast majority of summer fish kills reported are natural events.

Natural fish kills are generally the result of low oxygen levels, fish diseases, or spawning stress. Depletion of dissolved oxygen is one of the most common causes of natural fish kills. As pond temperature increases, water holds less oxygen. During hot summer weather, oxygen levels in shallow, weedy ponds can further decline as plants consume oxygen at night. This results in low, early morning oxygen levels that can become critical if levels fall below the requirement of fish survival. In addition to reduced oxygen levels, late spring and early summer is when many warmwater fish such as sunfish, bluegill, pumpkinseed, and largemouth bass begin to spawn. At this time, large numbers of these species crowd into the shallow waters along the shore vying for the best spawning sites. These densely crowded areas become susceptible to disease outbreaks, especially as water temperatures increase. The result is an unavoidable natural fish kill, usually consisting of one or two species of fish.

When a caller reports a fish kill, a DFW fisheries biologist determines if the kill is due to pollution or is a natural event. Generally, pollution impacts all kinds of aquatic life, therefore the most important piece of evidence for the biologist is knowing the number of fish species associated with the fish kill. Fish kills in which only one or two species are involved are almost always a natural event. When it is likely a fish kill is due to pollution, DFW notifies the Department of Environmental Protection (DEP). DEP takes the lead on a formal investigation which includes analysis of water and fish samples to determine the source of pollution. DFW provides DEP with technical assistance by identifying the kinds and numbers of fish involved.

To report a fish kill Monday - Friday between 8:00 a.m. and 4:30 p.m., contact Richard Hartley at 508-389-6330. After normal business hours or on holidays and weekends, call the Fish Kill Pager at 508-722-9811 or contact the Environmental Police Radio Room at 1-800-632-8075. More information about fish kills can be found at [http://www.mass.gov/dfwele/dfw/fisheries/fish\\_kills.htm](http://www.mass.gov/dfwele/dfw/fisheries/fish_kills.htm).

## ABOUT THE COVER

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### Indigo Bunting

The male Indigo Bunting (*Passerina cyanea*) with its bright blue plumage and indigo head is one of our most colorful songbirds and is highly vocal during the breeding season. Adult males are unmistakable. Young males have variable plumage, combinations of brown and blue. Females are light brown with indistinct buffy wing bars, a whitish throat, and a faintly streaked breast that separates them from female Lazuli Buntings. In contrast, female Painted Buntings are greenish in color. Small and short-tailed, the species is monotypic with virtually no geographic variation in size or plumage color throughout its range.

Indigo Buntings breed throughout the eastern half of the United States and southern Canada, south to northern Florida, and in scattered populations west to Colorado, Wyoming, and southern California. They winter in southern Florida and south throughout the Caribbean, Mexico, Central America, and northern South America. A few individuals arrive in Massachusetts in April, typically in the aftermath of strong southerly winds, but most arrive in mid-May. The majority of the population departs by mid-October. In Massachusetts, Indigo Buntings are a common breeding species and fairly common spring and fall migrants.

This species is socially monogamous and may produce more than one brood per year. Both males and females, however, tend to wander a bit and 20-40% of young may be sired by a male other than the female's mate. Males often return to the same territory in succeeding years and females occasionally return to a former territory. They tend to be winter-site faithful as well. Indigo Buntings tend to inhabit brushy, second growth habitats, woodland edges, power line right-of-ways, forest clearings, and abandoned agricultural fields.

Males are highly territorial, and chase intruding males, sometimes engaging in grappling fights. The male threat display involves standing erect with feathers sleeked down, crown feathers elevated, and tail flicking from side to side. The male sometimes hops toward the intruder with wings erect over his back. Only the male sings and his territorial advertising song is a high pitched, sharp, warble. In general, each male has a unique song comprising combinations of song elements; however, within a "neighborhood"—usually three or four territorial individuals—songs may be identical. Males do not learn their father's song but instead first year breeding males copy the song of neighboring males, and in most cases retain this song throughout life. Males do not sing during fall migration or on the wintering grounds, hence young birds have no protracted models for song until the following spring when they establish a territory.

The female chooses the nest site, usually less than a meter from the ground in a shrub or herb. She alone builds the nest, which is an open cup of stems, grass, bark, and a touch of spider web. The nest is lined with fine grass or deer hair. The female exclusively incubates the clutch of three or four usually plain white eggs for the 12-13

days until hatching, and she alone develops a brood patch. The female feeds the nestlings; the male helps only occasionally. After fledging in 9-12 days, the young are fed by both parents for three weeks until they reach independence. Males defend the territory throughout the nesting cycle.

In summer Indigo Buntings are omnivorous. They eat grass seeds, husking them with bill and tongue, and berries. They also glean invertebrates from foliage, including caterpillars, insects, spiders, and grasshoppers. In winter they eat mostly seeds. They may forage in flocks on the wintering grounds, and may roost in the hundreds or thousands in grass or shrubs, often near rice fields. They also occasionally visit birdfeeders.

Indigo Buntings are subject to the usual avian, reptilian, and mammalian nest predators, such as Blue Jays, snakes, and raccoons; Brown-headed Cowbirds will parasitize their nests. On their wintering grounds Indigo Buntings are often captured for the pet trade. Fortunately Breeding Bird Survey data indicates that their population density and range in North America are increasing, so this gorgeous songster has an optimistic future. 

William E. Davis, Jr.

## About the Cover Artist: Barry Van Dusen

Once again, *Bird Observer* offers a painting by the artist who has created many of our covers, Barry Van Dusen. Barry is well known in the birding world, especially in Massachusetts, where he lives in the central Massachusetts town of Princeton. In the spring of 2009 Barry had an exhibition at Massachusetts Audubon's Joppa Flats Education Center in Newburyport, MA, and during the 2010 season he was artist-in-residence at Fruitlands Museum in Harvard, MA. Barry continued his association with Fruitlands during the 2011 season, when he conducted several workshops and displayed his work in the museum's store. In July 2011 Barry was an artist-in-residence again, this time at the Coastal Maine Botanical Gardens in Boothbay, Maine.

Barry has illustrated several nature books and pocket guides, and his articles and paintings have been featured in *Birder's World*, *Birding*, and *Bird Watcher's Digest* as well as *Bird Observer*.

Barry is currently at work on illustrations for the second volume of *Birds of Brazil* by John Gwynne, Robert Ridgely, Guy Tudor, and Martha Argel, published by Comstock Publishing, a division of the Cornell University Press. For this work he is illustrating the shorebirds and their allies along with the gulls and terns. In addition, Barry continues to enjoy teaching workshops at various locations in Massachusetts.

For more information about Barry's many achievements and activities, see <http://www.barryvandusen.com>. 

## AT A GLANCE

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April 2012



WAYNE R. PETERSEN

This month readers are presented with an unobstructed view of the mystery species with no *obvious* ambiguities visible in the photograph. Discerning observers will at once recognize the challenge species as a flycatcher—a fact evidenced by its erect posture, large head, prominent wing bars, and wide bill that is fairly large commensurate with the bird's size. There are no other species or species groups regularly occurring in Massachusetts that exhibit this combination of features.

Recognition of the mystery bird as a flycatcher, however, solves only half the problem; flycatcher identification can be notoriously challenging. At least in this instance we have many characteristics to work with. Beyond the flycatcher's obvious wing bars, the pictured bird shows no trace of an eye ring; it has a fairly broad tail and a slightly crested appearance to the head. This combination removes the Eastern Phoebe as a possibility. Although juvenile phoebes can occasionally exhibit faint wing bars, the tail is always noticeably longer in proportion to the wing tips. The broad tail and total absence of an eye ring eliminate all of the small *Empidonax* flycatchers except the Willow Flycatcher, which generally shows at least the semblance of an eye ring and has noticeably shorter primaries than the mystery species. An Olive-sided Flycatcher presents a much more robust appearance, has a much longer bill and a relatively shorter tail, and may display prominent white tufts at the sides of the rump.

The very long primaries extending nearly halfway down the relatively short tail is a key feature in identifying this mystery flycatcher. This feature, combined with the flycatcher's total lack of an eye ring, the slightly crested head, and obvious wing bars, clearly marks the bird as a wood-pewee. There's a caveat to this identification, however; which wood-pewee species are we looking at? This is where the challenge begins and ends.

The Western Wood-Pewee is generally darker on the underparts and less greenish on the back than the Eastern Wood-Pewee, and the somewhat indicative lower mandible coloration (not visible in the photograph) is sufficiently variable in both species. These features are of no use in a black-and-white photograph, so there is no way to tell with certainty which wood-pewee species is represented. Accordingly, readers are best left with the identification as simply wood-pewee because the bird cannot be heard uttering its distinctive *peer* vocalization, subtle coloration differences are not discernible in the photo, and it is not known where the image was captured. In the interest of full disclosure, the flycatcher in the picture is a Western Wood-Pewee (*Contopus sordidulus*) that was heard calling and was photographed by the author in Montana in June 2010. 🐦

Wayne R. Petersen



HORNED GREBE BY SANDY SELESKY

## AT A GLANCE

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DAVID LARSON

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

## BIRDERS!

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<http://massbird.org/birdobserver/>