# **Bird Observer**

## VOLUME 34, NUMBER 3

JUNE 2006



## **HOT BIRDS**



Scott Surner found this subadult **Whitetailed Hawk** (left) in Hadley on April 22, 2006. This photograph was taken by Shawn Carey on April 24. This species has never been recorded in the U.S. outside of Texas and Louisiana. Very strange!

This adult **Golden-crowned Sparrow** (right) was found by Bill Courmier in Sturbridge on April 25, 2006, and photographed by Bruce deGraaf on the next day (© Bruce deGraaf).





Edie Ray digiscoped this apparent Little x Snowy Egret hybrid (left) on May 21, 2006, on Nantucket.

Edie Ray strikes again! This time with a rare spring **Northern Wheatear** (right) at Quaise Point on Nantucket on May 30, 2006.



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**Erratum:** The website for The Bird Screen Company was incorrectly reported on page 78 of the last issue of *Bird Observer*. The correct website is <a href="http://www.birdscreen.com/">http://www.birdscreen.com/</a>>.

## Rare Bird Inspires Exhibition

The Isabella Stewart Gardner Museum in Boston will be featuring an exhibit by Henrik Hakånsson (Artist-in-Residence) from June 30 – September 17, 2006.

The conceptual visual and sound exhibition was inspired by the tragic story of the Spix's Macaw and its elimination from the wild (today it survives only in private collections); the work is the first in a series of Hakånsson projects centering on the Spix's Macaw and efforts to combat its extinction. The centerpiece of the installation is an exceedingly rare specimen of the Spix's Macaw, on loan from Harvard's Museum of Comparative Zoology and never before displayed outside their private collection. For more details, visit the Isabella Stewart Gardner Museum's website at <a href="http://www.gardnermuseum.org/>">http://www.gardnermuseum.org/></a>.



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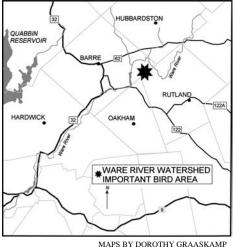
## Breeding Birds Of The Ware River Watershed Important Bird Area (IBA)

## Mark Lynch

**SUMMARY:** The Ware River Watershed Important Bird Area (IBA) is a large tract of mostly preserved land in Worcester County, Massachusetts. The total watershed area is 62,270 acres, of which the former Metropolitan District Commission (MDC), now part of the Department of Conservation and Recreation (DCR), owns 27,000 acres and is acquiring more as time goes on. The size of the IBA itself is somewhere between the two numbers, closer to the acreage of the MDC.

Fully eighteen species of warblers breed in the IBA. Other common breeders include Red-breasted Nuthatch, Brown Creeper, Veery, Hermit Thrush, four species of vireo, Scarlet Tanager, and Rose-breasted Grosbeak. Uncommon or local breeders include Great Blue Heron, Wood Duck, Northern Goshawk, Broad-winged Hawk,

Ruby-throated Hummingbird, both cuckoos, Common Raven, Goldencrowned Kinglet, Indigo Bunting, Whitethroated Sparrow, and Dark-eyed Junco. Owls found in the park include Great Horned, Barred, and Northern Saw-whet. It is strongly suspected that Evening Grosbeaks breed here, since territorial males, mating, and young birds have been noted in the watershed. A parking area near the Barre Falls Dam has proved a good hawk-watching spot. Spring and especially fall migration are also exciting times to bird here. Winter finches and Boreal Chickadees have been found in season.

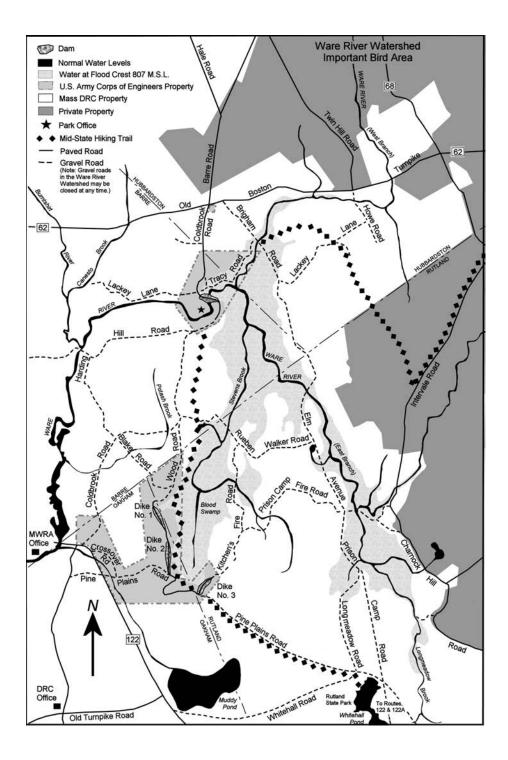


The entire area is outstanding for a wide variety of butterflies, including Harris' checkerspot, northern pearly-eye, Appalachian brown, fritillaries, and at least one recent record of roadside skipper. Among the various reptile species found here are recent (2005) reports of wood turtle and box turtle, both extremely rare, state-listed species. Mammals include the ever-present beaver, red-backed (Gapper's) vole, fisher, white-tailed deer, and moose. Numerous wildflowers are also found here and include such attractive species as bottle gentian, nodding ladies' tresses, painted and purple trilliums, bloodroot, turtlehead, and rose pogonia. Gas and food can be found in Barre Center (junction of Routes122 and 62) or Rutland Center (Route 122A).

## INTRODUCTION

The Ware River Watershed IBA is a large parcel of land that is part state park (with a small beach), part United States Army Corps of Engineers (ACE) flood

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control project (with dam), part DCR Ware River Watershed, and part state wildlife management area. A sizable section of the Mid-State Hiking Trail crosses this area near the Barre Falls Dam; it runs from Douglas State Forest on the Rhode Island line to Mount Watatic near the New Hampshire line. This unique IBA lies in the towns of Hubbardston, Barre, Oakham, and Rutland. The main area discussed in this article is bordered by Routes 122 and 122A to the south, southwest, and southeast, Route 62 along the northern edge, and Charnock Hill and Intervale Roads along the eastern edge. Other posted areas of the Ware River watershed, with trails, lie on the other side of Route 122, and a very large and wild tract of wildlife management land can be found adjacent to this property along Route 62. All these areas are part of the IBA. Although the Barre Geological Survey topographical map contains most of the area, certain critical corners are found on the Sterling, Worcester North, and North Brooklfield topo maps. Fortunately, the U.S. Army Corps of Engineers has produced a very clear and helpful map that is available free at the Barre Falls Dam area. Birders should not begin to explore without this map. (It has been adapted for use in this article by *Bird Observer* staff.)

The whole area is crisscrossed with fair-to-good-quality dirt roads, all of which have gates. From the end of April or beginning of May (depending on the conditions) through the end of the shotgun deer season (November 21-December 9, 2006), several of the major roads are open to cars, although some of these same roads may be closed due to flood control at any time. All roads are gated, i.e., closed, during the winter, although Cold Springs Road is sometimes open in January if the snow has been light. When birding along these roads and stopping your car, *please pull as far* off to the side as possible! There is always some traffic even though the roads may often seem deserted. Other gated roads are almost never open to cars but may be explored on foot or bike. During the shotgun deer season, some typically gated roads have been open to cars. In years past, these have included Harding Hill Road and Longmeadow Road. As you can imagine, this is a popular recreation area for swimming (at the Rutland State Park beach only), fishing, hunting, biking, and horseback riding. Because this forest is managed by the DCR, at certain times various logging projects may be underway. An early start is essential to getting the most out of birding this area.

Biting insects are numerous in the summer, with black flies, deer flies, and mosquitoes in abundance, especially on the "Three-Dike Hike" described below. Dog and deer ticks are also found. Birders are warned NOT to leave valuables in an untended car and to take all the normal precautions one would take when out along deserted wooded roads. Avoid this area during the two-week shotgun deer-hunting season (November 21–December 9, 2006) unless you wear the requisite amount of hunter's orange on head, chest, and back.

Barre Falls is also a pheasant stocking area where an orange cap is required during pheasant season (October 14–November 25, 2006). The area is also popular with Wild Turkey hunters in the spring (April 24–May 20, 2006) and fall (October 30–November 4, 2006) seasons. Hunting season dates change annually and can be found on the MassWildlife web site: <a href="http://www.mass.gov/dfwele/dfw/dfwrec.htm">http://www.mass.gov/dfwele/dfw/dfwrec.htm</a>>.

Hunter orange is not required during the Wild Turkey or archery deer season (e.g. October 14–November 25, 2006).

Since this is so large an area, only a few different car routes will be detailed here, enough to allow birders to sample some of the best birding spots. Keep in mind that exploration on foot is always exciting; plan on making frequent stops and getting out of the car and poking around where it looks good. A good knowledge of birdsong is essential to getting the most out of any spring or summer trip here.

## TRIP 1: LONG POND TO RUTLAND STATE PARK BEACH

Begin this trip at the intersection of Routes 122 and 122A in Rutland (just south of the accompanying map but shown well on page 37 of the DeLorme Massachusetts Atlas). You can pull off at the small picnic area right off the intersection on 122A or park in the boat launch just west and north of the intersection on Route 122 to check the ponds. Breeding Great Blue Herons, Wood Ducks, and Hooded Mergansers are typically present. The section of Long Pond to the south of Route 122 usually is of little interest since it is often filled with fishermen in all seasons. Migrating swallows often rest on the phone lines here.

Continue west and north on Route 122 about 0.8 mile, and you will see a sharp, paved right-hand turn. This road is a shortcut through the southeast corner of Rutland State Park connecting Routes 122 and 122A, emerging on 122A 0.5 mile from the 122-122A intersection. There is a lot of traffic on this shortcut, so make sure you pull completely off the road when you stop. As you follow this cutoff, you will again see Long Pond on both sides. Pull off on the dirt on the right 0.5 mile from your turn off Route 122. This is a great place to scope some of the more marshy and hidden corners of Long Pond. The western, very marshy end often has Wood Ducks and Hooded Mergansers. Breeding passerines in the immediate area include Red-Eyed and Yellow-throated vireos (local within this IBA), Least and Great Crested flycatchers, and Pine Warblers. A walk down this road to the causeway over two sections of the pond can sometimes yield good numbers of fall migrants (warblers, vireos, orioles), which seem to concentrate in this area. Be very careful of the traffic.

Back in your car, continue driving east, and in very short order you will see a



HERMIT THRUSH BY DAVID LARSON

paved road (Whitehall Road) on the left that is signed for Rutland State Park, and the beach. Whitehall Road runs through interesting forest for nearly a mile along both Long Pond and Whitehall Pond before coming to the small swimming area. Birding can be very good here early in the morning. In breeding season one should hear or see Eastern Wood Pewees, Least Flycatchers, Blue-headed and Red-eyed vireos, Hermit Thrushes, Veerys, Scarlet Tanagers, and several species of warblers. Usually at least one nesting pair of Winter Wrens can be heard singing in the woods here. A dirt road on the right, 0.6 mile from the beginning of Whitehall Road, winds through more forest and in short order exits onto Route 122A. A very small wooded marsh on the right side of Whitehall Road, just before you come to Whitehall Pond, can be good for fall migrants.

Whitehall Pond will come into view on the left as you cross a small spillway and a stream. Normally, there is nothing on Whitehall Pond but fishermen and bathers. Watch for a dirt road with a gate on the right just as the paved road swings left around Whitehall Pond, however. This will be the starting point for Trip 2.

## **TRIP 2: PRISON CAMP ROAD TO ROUTE 62**

This is one of the best bird tours of the area. Start as early as possible to take advantage of birdsong as well as to avoid crowds that can be significant in midsummer. Plan on spending at least two to three hours along this one road. From Rutland State Park and Whitehall Road (see above for directions), start by driving through the gate and down the dirt road known as Prison Camp Road. Keep mileage from the gate.

The first section of this road is mostly flat and straight as an arrow, i.e., a typical Army Corps road. It passes through deep deciduous and mixed forest. Stop often, and get out of the car and explore, but be sure to pull far to the side of the road and watch for oncoming cars. Common songs heard in an early morning chorus here include Eastern Wood Pewee, Blue-Headed Vireo, Red-Eyed Vireo (very common), Hermit Thrush, Veery, Black and White Warbler, Ovenbird (very common), and Scarlet Tanager. In areas of conifers, especially hemlock and White Pine, listen for Blue-headed Vireo, Red-breasted Nuthatch, and Pine, Black-Throated Green, and Blackburnian warblers. The latter species is local in hemlock stands only. In areas with good understory, listen for the jumbled notes of the Canada Warbler. A Winter Wren or two can usually be heard anywhere along this stretch. Spring and fall bring numerous migrants to this forest like Blackpoll and Bay-Breasted Warblers. However, getting good views of these species in the tall forest can be frustrating.

After 1.3 miles, pull over on the left by the gated Longmeadow Road. During shotgun deer season this gate is sometimes open, and the road open to cars. Otherwise, you will have to hike or bike this road. Longmeadow Road parallels Prison Camp Road and connects back to Whitehall and Pine Plains roads (see Tour 3) after about 1.5 miles. Halfway down Longmeadow Road you will find another road that goes uphill to the north through fields and forest to the top of Oak Hill (not on Corps map; see topo map). This area can be productive for sparrows in fall and early winter, and the fruiting trees attract lots of waxwings and robins. Common Redpolls can be found here in December in flight years. Northern Goshawks sometimes breed in the vicinity of the marsh, so keep an eye and ear peeled.

With your car parked well off the road, explore the intersection of Longmeadow Road and Prison Camp Road on foot. The dead trees around the beaver swamp at the corner often host noisy crowds of Common Grackles and Red-winged Blackbirds as well as Downy and Hairy woodpeckers, Brown Creepers, and nuthatches. Watch for Olive-Sided Flycatchers late in May and again toward the end of August and the very beginning of September. Migrant warblers often feed in and around this area of wooded swamp. Across the road and through the brushy tangles are the marshes of the confluence of the East Branch of the Ware River and Longmeadow Brook. From the road you can sometimes hear Alder and Willow flycatchers and Swamp Sparrows singing or calling from the edge of the marsh. You will certainly note numerous Common Yellowthroats and Chestnut-sided Warblers. In late summer, be sure watch for the spectacular deep purple blooms of bottled gentian.

Continue driving down Prison Camp Road. After another quarter-mile, or 1.5 miles from Whitehall Road, you will notice fields on both sides of the road. This entire area was once comprised of large stands of red pines that had been planted in the 1930s and 1940s by what was then called the Metropolitan District Commission. During the 1980s, this area was cleared completely as part of the forest management plan. In what is now an open area of fields and marsh, you can find Bobolinks and Eastern Bluebirds. This is also a premier summer butterfly spot.

From here to the intersection with the Prison Camp Fire Road is 0.4 mile. This is another good stretch to bird on foot, since it has both field and forest edge. Migrant warblers, particularly in the fall, can be found in numbers at first light among the birches and alders. Raptors are often seen overhead in migration, especially Ospreys, Broad-winged and Sharp-shinned hawks, and American Kestrels. Watch the exposed bare tops of trees for migrating Olive-Sided Flycatchers. Breeding birds in this area of fields include Northern Flickers, Tree Swallows, House Wrens, Warbling Vireos, Yellow and Chestnut-sided warblers, and Black-Billed Cuckoos. Try to walk down to the edge of the Ware River Marsh on the east side of the road. This is easier in spring but can be downright difficult by midsummer because of the thick growth of shrubbery. Watch for some overgrown deer trails to help you, but mostly you will be bushwhacking toward a raised area of rocks right at the edge of the marsh. Here Virginia Rails are often heard, as well as the occasional Sora and American Bittern. Marsh Wren, a rare and local breeder in Worcester County, was found here in 1999, and a Little Blue Heron was spotted at the end of April in 2004. More likely, you will have to be satisfied with seeing or hearing Wood Ducks, Willow and Alder flycatchers, Eastern Kingbirds, Common Yellowthroats, Swamp Sparrows, and throngs of Red-winged Blackbirds. In late summer, dense flocks of early-migrating swallows of several species can be found hawking for insects over the marsh. Keep an eye peeled for moose, which have been seen around this spot.

At the intersection of Prison Camp Road and Prison Camp Fire Road, pull off on the left road, and get out and explore the area. Here is the site of the old prison farm, where the remnants of a few of the buildings can still be seen, most notably the small solitary confinement cellblock. The state purchased 914 acres of land here in 1903 to establish "an industrial camp for prisoners to reclaim and improve wastelands." The plan was to rehabilitate long-term prisoners who were approaching discharge. Later, a thirty-bed isolated hospital for tubercular prisoners was also built. Dairy cattle, goats, and vegetables were raised by the prisoners. The prison farm existed until the end of 1934, when the MDC purchased the land as part of the Quabbin Watershed land acquisition plan. The open, scrubby aspect of the immediate area makes it good for Warbling Vireos, Prairie Warblers, Eastern Towhees, and Brown Thrashers. The latter is a species very uncommon in the rest of this IBA. From November into December, flocks of Common Redpolls have been found here and Northern Shrikes find the snags around the marsh attractive. At all times, listen for Evening Grosbeaks flying overhead.

The Fire Road to the west (left) goes up a small hill, passing one of the prison root cellars, and soon hits a gate. If you follow the Fire Road to the east (right), it will cross the East Branch of the Ware River, another good place to get out and bird. Watch and listen for Black-billed Cuckoos, Alder Flycatchers, Yellow Warblers, Pine Warblers, and Swamp Sparrows. Continuing over the Ware River, in very short order you will come to a fork in the road. Taking either option will promptly bring you out of the park and onto Charnock Hill Road.

Back at the intersection where you parked, continue driving straight through on Prison Camp Road, keeping mileage from this point. Prison Camp Road becomes Elm Avenue at this juncture. At first, you will continue to pass areas of fields where you can find Bobolinks and Eastern Bluebirds. After 0.3 mile you will pass under some power lines. Pull off on the west (left) side and park. The area along the power lines is good for Eastern Towhees and Field Sparrows. Crossing the road, you will find a rough foot path across the field and under the power lines that ends shortly at an interesting and birdy overlook of the Ware River where you can sometimes find breeding Hooded Mergansers and Wood Ducks.

Continuing on Elm Avenue, pull over on the right after another 0.6 mile, and walk down the path toward the conifers. This is a good spot for breeding Red-Breasted Nuthatches, White-Throated Sparrows, Magnolia Warblers, and Golden-Crowned Kinglets. After 0.8 mile, Elm Avenue intersects with Reuben Walker Road, which enters from the left (west). Reuben Walker Road connects with Coldbrook

Road, which is the subject for another birding excursion (see Tour 4 below). For now, continue straight through a gate where Elm Avenue becomes Brigham Road. This road runs though good stretches of mature deciduous forest. Sometimes birds seem few and far between in these mature, cool woods, but you will certainly hear Red-Eyed Vireos, Black-and-white and Black-throated Green warblers, Ovenbirds, Scarlet Tanagers, and Rose-Breasted Grosbeaks.

One mile from the prison camp you will cross a small bridge over the Ware River. As you might expect, Eastern



ROSE-BREASTED GROSBEAK BY DAVID LARSON

Phoebes breed here. After this bridge the forest becomes decidedly rocky with several good-sized outcroppings. The road becomes more uneven, and cars with low carriages should be careful. Among the numerous stone walls in this shady stretch listen for Winter Wrens. On your right, at 2.1 miles, will be a rough parking area where you will notice an old foundation partly obscured by trees and bushes. A pipe coming from this foundation usually has water bubbling up from it, and in early mornings, landbirds can be seen coming to drink here. Ruffed Grouse are often in the area as well.

From here to the next bridge (0.5 mile) there are good stretches of hemlock. Unfortunately, most of these are now infested with wooly adelgid. Listen around the boggy spots here for Red-Breasted Nuthatches, Black-throated Green and Blackburnian warblers, and Northern Waterthrushes. Barred Owls also breed in the vicinity. Recently, beavers have caused some flooding over the road at the low spots.



BARRED OWL BY DAVID LARSON

The area by the bridge over the West Branch Ware River (2.6 miles from the prison camp) can sometimes be alive with spectacular concentrations of ebony jewelwing damselflies in mid- to late summer. Watch for areas of cardinal flower along the river, which in late summer are attractive to Ruby-Throated Hummingbirds. The bridge is no longer usable by cars, so you now have to cross on foot if you want to continue. Otherwise, drive back to Reuben Walker Road.

If you continue on foot, cross the remnants of the bridge, and take a sharp left onto Tracy Road. This is an attractive road that initially runs right along the bank of the West Branch of the Ware River. It's a perfect place for a picnic lunch. Listen and watch for Louisiana Waterthrushes, Winter Wrens, and Blue-headed Vireos. In short order, the road will turn and start to rise to an area of red pines and young deciduous trees. Here, fall migrants often gather along the edge of the road to feed on aphids in the alder and birch saplings. The road will emerge from the forest across the river from the Barre Falls Dam itself and end in a dirt parking lot, an excellent hawkwatching spot detailed in Trip 4.

## **TRIP 3: WHITEHALL ROAD AND PINE PLAINS ROAD**

From the intersection of Whitehall Road and Prison Camp Road, continue west on Whitehall Road around Whitehall Pond, passing the entrance to the beach on your left. Blue-gray Gnatcatchers often nest somewhere along this stretch. Soon thereafter, the road becomes dirt and turns north (right) into the forest. Within 0.4 mile you will come to an intersection. On your right will be Longmeadow Road, which is usually gated at this end except during deer-hunting season. Longmeadow eventually connects to Prison Camp Road in the vicinity of a wooded marsh (see Tour 2). The road on your left is the continuation of Whitehall Road. Driving straight takes you down the 1.2 mile-long, dead-end, Pine Plains Road, through mostly deciduous forest that holds the typical Barre Falls Dam breeding

species: Eastern Wood Pewee, Hermit Thrush, Red-Eyed Vireo, Ovenbird, and Scarlet Tanager. This road is also a section of the Mid-State Hiking Trail. At the road's gated terminus, listen for Black-Throated Blue Warblers, which are local here. This stretch of road can also be good for woodland species of butterflies like red-spotted and white admirals, and northern pearly-eye. If you park at the road's end, walking through the gate will bring you to the Three Dike area (Trip 5).



BLACK-THROATED BLUE WARBLER BY DAVID LARSON

Returning to the intersection with Longmeadow Road, drive right (west) down the continuation of Whitehall Road. Near the beginning of the road on the right (north) side, you will see an interesting small marsh. Often migrants are in this area, and Virginia Rails are here on occasion. Also, look for the small patch of northern pitcher plants out among the cattails.

After 1.2 miles along this section of Whitehall Road you will reach Route 122 just west of the junction with Route 148. This area is generally drier than other roads in the IBA and still has some substantial stands of red pine left. Pine Warblers and Eastern Towhees are more common here than in other sections of the park. You will also find some interesting hiking trails over old railroad beds. Just before the road rises to meet Route 122, Muddy Pond will be on your right. This pond looks promising, but often only holds a Great Blue Heron, a few Wood Ducks, and lots of Red-winged Blackbirds in breeding season, but in migration watch for Ring-necked Ducks and Common Mergansers.

## **TRIP 4: FROM BARRE FALLS DAM DOWN COLDBROOK ROAD**

This route has lots of birds and several side roads to explore. A small drawback is that there is slightly more car traffic here, especially later in the morning. Allow a minimum of three hours to bird this route thoroughly.

The starting point for this tour is the intersection of Route 62 in Hubbardston and Coldbrook Road. This intersection is 4.3 miles east of Barre center. The Dam area is clearly posted. Keep mileage from this intersection. Be sure to pull well off to the side of the road when stopping. Coldbrook Road, the entrance road to Barre Falls Dam, is paved. Check for breeding Ruby-throated Hummingbirds perched along the wires or on the tips of exposed bare branches. There are several hummingbird territories along here. In fall and spring, migrant sparrows find the edges of the bushes attractive.

A dirt parking lot on the left, at the edge of a field just before the road starts to descend to the dam, should be your first stop. Watch for Tree Swallows, Eastern Bluebirds, Indigo Buntings, Blue-winged Warblers, Prairie Warblers, and Chipping Sparrows. This unassuming dirt lot is an excellent hawk-watch location in both spring and fall: a good spot for seeing numbers of migrating Sharp-shinned, Broad-winged, and Red-tailed hawks as well as Ospreys and the odd Rough-legged Hawk or Golden Eagle. Three Wood Storks, which had put in a brief appearance at a small farm in Barre in late August of 2003, were last spotted by hawk-watchers here as they soared in and put down somewhere in the marshes below. Even between migrations, this high spot is a good place to scope the horizon in the morning for locally breeding hawks



like Red-tailed, Red-shouldered, and Broad-winged, as well as Northern Goshawk. Turkey Vultures and Common Ravens are always expected. In migration, watch for Olive-sided Flycatchers perched atop snags at the edge of the fields, and much later in the year watch for Northern Shrikes. The fields around this lot are part of a disc golf course on the ACE property but are also great for a large variety of butterflies. A gated dirt road, open in summer, at the far end of the lot is the beginning of Tracy Road mentioned at the end of Trip 2 (see above).

INDIGO BUNTING BY DAVID LARSON

Continuing along paved Coldbrook Road, at 0.9 mile you will pass over an overflow spillway. For the last several years, a pair of Common Ravens has nested under this bridge. These birds are very wary and will probably not approach the nest if you hang around the spillway. No matter how hard you try, you cannot get a view of the nest since it is far up and under the bridge, but watch for the birds from your car in the vicinity. In midsummer, if you look down at the wet spillway bed below this bridge, watch for the hot pink blooms of the rose pogonia orchid.

Soon after, the road crosses the Barre Falls Dam. The Army Corps of Engineers constructed this dam in the late 1950s as part of a plan to reduce the potential of damage from floods. The dam area can temporarily store water, but most often is a "dry reservoir." It is interesting to imagine what the area you now see would look like flooded with water. (See the printed map for more details and some nice color photographs). This whole area around and immediately after the dam is a popular recreation area, with picnic tables, bathrooms, and parking. Listen for Eastern Phoebes, Pine Warblers, Wood Thrushes, Chipping Sparrows, and other common birds in this area. Generally, the road from Route 62 to the recreation area is open yearround. Sometimes in early spring, Coldbrook Road will be open all the way to Route 122, but this is dependent on snowfall and road conditions.

Coldbrook Road continues past a small graveyard and then becomes a dirt road all the way (4.5 miles) to Route 122. The area of tall evergreens immediately on either side of the road is excellent for hearing Blackburnian, Pine, Black-throated Green, and Black-throated Blue Warblers. After 1.5 miles you will pass through a gate where the road starts to climb a hill. Many of the birds of forest and field along this road are the same as those mentioned in the other sections. However, there are several unique features of this route.

At 2.4 miles you will come to an intersection with Reuben Walker Road on your left. This road connects after 1.5 miles to Elm Avenue (see above) and the Prison Camp route. If you have the time, Reuben Walker Road is worth a detour. After 0.2 mile on it you will see a small pond on the right. Listen for breeding Winter Wrens and Pine, Black-throated Green, and Yellow-rumped warblers. The pond is often alive with various dragonfly and damselfly species; look also for greater bladderwort. Also look carefully at the water's edge among the emergent vegetation for a tiny fish with a single black stripe running down its body from its tail to the tip of its head. This is the state-listed bridle shiner (*Notropis bifrenatus*). This disjunct population was only recently documented here. As you continue down Reuben Walker Road, it takes a sharp right turn at a scrubby field and soon crosses Stevens Brook. This is a good place to check for nesting Brown Creepers, Swamp Sparrows, and White-throated Sparrows, and, during migration, for Olive-Sided Flycatchers. The rest of Reuben Walker passes through interesting forest filled with breeding warblers and vireos and is worth a look anytime of the year.

Continuing south and west on Coldbrook Road, just past the intersection with Reuben Walker Road you will see another left onto Wood Road. Wood Road connects with Blake Road and forms a 1.5-mile long "V" that reconnects with Coldbrook Road farther along. This is a nice road to take to get away from people. There are lots of breeding birds like Eastern Wood Pewees, Hermit Thrushes, Yellow-rumped and Black-throated Green warblers, Ovenbirds, and American Redstarts. The stands of red pine hold good numbers of Pine Warblers and Red-Breasted Nuthatches. Listen for Evening Grosbeaks. Where Wood Road connects to Blake, you will find a gated road on your left (south). Hiking down this will bring you over one of the flood control dikes (see Three-Dike Hike below) and eventually to Pine Plains Road (see Trip 3).

Where Blake Road intersects with Coldbrook, pull off on the gated Harding Hill Road opposite Blake and explore the area of hemlocks that run along Coldbrook. This is a great place to search for breeding Magnolia Warblers and Golden-crowned Kinglets. Evening Grosbeaks have often been heard and seen in this vicinity, and Boreal Chickadees have been seen here in late fall and winter. In 2004, Red Crossbills lingered here at least until mid-May.

On Coldbrook Road, between the intersections of Wood and Blake roads, look for a single-car pull-off on the south side of the road. If you park here, and follow a rough trail down the hill to the edge of the marsh of Potash Brook, approaching very quietly, you will find a small Great Blue Heron rookery. *Do not approach any closer than the bottom of this hill, keep quiet, and stay in and among the trees!* Through the summer you can watch as many as fourteen pairs of herons raise their young. Sometimes a Great Horned Owl takes over one of the nests. The small marsh in front of you has breeding Wood Ducks, Eastern Kingbirds, and Tree Swallows as well as the usual googolplex of Red-winged Blackbirds. The mosquitoes here can be positively daunting. Continue down Coldbrook Road, stopping where it looks good. From the intersection with Blake Road to the gate that is closed in winter is 1.5 miles, and an additional 0.3 mile brings you out to Route 122. If you would like one more short drive through some good habitat, drive left along the dirt road before going out onto Route 122, and you will see the entrance for Crossover Road on the left. This pleasant route has a lot of interesting species along its short half-mile length. Pine, Magnolia, Canada, and Black-throated Green warblers have all bred here, as well as Winter Wrens and Golden-Crowned Kinglets. At the bend in the road you will see a gated path that leads also to Pine Plains Road and the Three-Dike Hike. Crossover road ends back at Route 122.

## **TRIP 5: THE THREE-DIKE HIKE**

This is my favorite hike in the Ware River Watershed IBA, and it offers some nice views of treetop nesters like Blackburnian Warbler and Scarlet Tanager from atop several flood-control dikes and along some areas of Blood Swamp. A serious caveat is that these marshy woods can be rife with mosquitoes in summer. Bring plenty of repellent, wear long sleeves and long pants, and even consider wearing a bug shirt or mosquito netting. The hike is about two miles round-trip: perfect for a bicycle, but equally great for just "hoofing it." If you are hiking in here at dusk, be sure to listen for the small breeding population of Whip-poor-wills.

Though there are several ways to enter the dike area, my favorite is to park the car at the intersection of Blake Road and Wood Road. You will find an obvious spot to park near a gate. (Do not block the gate.) Walking through the gate, you will soon find yourself on a Corps-built elevated dike (Dike No. 1) running south through wet mixed forest. Watch for moose. In the area of Dike No. 2 listen and watch for Ruffed Grouse, Pileated Woodpeckers, Winter Wrens, Hermit Thrushes, Veerys, and a number of warbler species. Because the dikes are at a height above the forest floor, you can sometimes have nice views of species that stick to the upper canopy during the nesting season. These include Magnolia, Yellow-rumped, Black-throated Green, and Blackburnian warblers.

At the southern end of Dike No. 2, the road will "T" at Pine Plains Road. If you go right (west), the road descends a long hill with plenty of breeding birds along the way and ends at the gate at the bend of Crossover Road. Instead, swing left (east). South of the road there is a small area of sandy soil with scattered pines and shrubs. Chipping and Field sparrows, Prairie Warblers, and Eastern Towhees breed here.

Eventually you will arrive at the southern end of Dike No. 3. If you continue on the road to the east (straight) you will descend the edge of the dike, pass through some excellent hemlock forest with all the species associated with that habitat, and end up at the gate at the end of the drivable stretch of Pine Plains Road. This southern end of Dike No. 3 is a great place to pause, have a snack, and watch and listen for passing birds, like hawks and even the odd gull, duck, or Killdeer. There is a nice view of the southern, boggy end of Blood Swamp, and this habitat often has breeding Nashville Warblers and Swamp Sparrows. Other species to expect in the breeding season along this interesting hike include Black-capped Chickadee, White-breasted and Red-breasted nuthatches, Black-throated Blue Warbler, Pine Warbler, American Redstart, Purple Finch, and Evening Grosbeak (uncommon in breeding season).

## OTHER AREAS IN THE WARE RIVER IBA

This article has only detailed the most accessible core area of this IBA, which actually extends north of Route 62 all the way to Route 68 in Hubbardston. There are also several trailheads on the north side of Route 62 which explore deep, hilly forests, but perhaps the best access to this section is by way of a gated dirt road, sometimes open in summer, that runs north of Route 62. This dirt road is 1.5 miles west of the entrance to Barre Falls Dam, or 2.8 miles east of Barre Center (see topo map or page 37 of the DeLorme Atlas). At times, there are two roads running parallel to each other, one of which is an old railroad grade that runs close to the Burnshirt River all the way to Williamsville. The habitat is mixed hilly forest with plenty of the same species

found in the other sections of this IBA, although your chances for turning up such breeding species as Broad-winged Hawk, Ruffed Grouse, Yellow-bellied Sapsucker, Pileated Woodpecker, Winter Wren, and Evening Grosbeak are slightly better here. The main downside of this section of the IBA is that there are often ATVs around, so try these roads early in the morning.

Back at Route 62 you can cross the paved road and enter another network of



ELLOW-BELLIED SAPSUCKER BY DAVID LARSON

dirt roads and railroad beds, this time heading south partly along the Ware River. Using the Barre quad topo map, you will see that you can drive south along Granger Road, take a left down to the campground, and just before you get there, another left to the Coldbrook Cemetery and finally out to Route 122 at Coldbrook Springs. This is another massive chunk of deep mixed-forest habitat filled with breeding warblers, thrushes, vireos, and tanagers. There is a lot to explore, and birding just along these two sets of dirt roads will likely take you an entire morning from dawn till noon.

**EDITOR'S NOTE**: This is a revised and expanded version of the essay Mark wrote for the Bird Finding Guide to Western Massachusetts, Jan Ortiz, et al., editors, published by University of Massachusetts Extension, Amherst, 2002.

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## Massachusetts Important Bird Areas (IBAs) – The Central Region

## Wayne R. Petersen and Brooke Stevens

This issue of *Bird Observer* examines three large IBAs located in the Worcester and western Middlesex County region of Massachusetts, a region with a diverse natural landscape, including large tracts of extensive and generally under-developed forested landscape. Although not as rich in unusual northern breeding species as northern Franklin and Berkshire counties, this region of Massachusetts is not without interesting birdlife. The IBAs featured in this issue include the third largest Grasshopper Sparrow breeding locality in Massachusetts; a site with an impressive assemblage of breeding neotropical migrants, all within a large and fortuitously protected landscape; and an IBA with a legacy of nearly twenty years of hawk migration data.

## Nashua River Watershed IBA

Located on the border of Middlesex and Worcester counties and in parts of Harvard, Lancaster, Bolton, Shirley, and Ayer, this large IBA includes several sites well known to birders. These are the Oxbow National Wildlife Refuge (Oxbow NWR), the Devens Reserve Forces Training Area (Devens RFTA), and Bolton Flats Wildlife Management Area (Bolton Flats WMA). Also included are the Nashua Greenway, Lancaster State Forest, and various private landholdings along the Nashua River contiguous with the publicly owned areas. Fortunately, most of the land in this IBA is either well protected or federally owned. By virtue of its large size, this site supports interesting birdlife year-round, although some of the more significant bird species are present only in summer or during migration. Oxbow NWR and the Bolton Flats WMA are open to the public. Access is generally limited and restricted, however, at the Devens RFTA.

Because of its overall size and the varying nature of the habitats, it is difficult to characterize the birdlife of this IBA. The Oxbow NWR consists of approximately



GRASSHOPPER SPARROW BY DAVID LARSON

1667 acres of upland, southern New England flood-plain forest, and wetland communities that are part of nearly eight miles of the Nashua River corridor. Acquisition of this refuge was made possible by three land transfers (1974, 1988, and 1999) from the U.S. Army (the former Fort Devens Military Installation) and a recent purchase of private land in Harvard, MA. A final parcel of approximately 120 acres was added in April 2001, when the Watt Farm property in Harvard was acquired. This IBA is a perfect example of a federal agency working with the private sector to create and protect high quality habitat for birds and other wildlife. Beaver activity is obvious at the refuge, and several large beaver flowage areas are among the more important habitats at the site. The more interesting wetland birds periodically inhabiting and possibly nesting in these wetland areas include Pied-billed Grebe, American and Least bitterns, King Rail, and Common Moorhen. In the future, systematic wetland bird monitoring at this site would be highly desirable.

Long-term bird monitoring of the Turner Drop Zone portion of the Devens RFTA has revealed grasslands that support the third largest population of Grasshopper Sparrows in Massachusetts, along with lesser numbers of other state-listed species including Upland Sandpiper and Vesper Sparrow. The Whip-poor-will, a species clearly declining in many areas of Massachusetts and New England, maintains a population at the Devens RFTA that is as robust as anywhere in the state, with up to seventy-five calling birds recorded during roadside surveys. In addition to grassland birds and the high density of Whip-poor-wills, the Devens RFTA has also been the site of a long-standing hawk banding operation, particularly Red-tailed Hawks.

The Bolton Flats WMA is known among birders for its early spring concentrations of geese and other waterfowl; shorebirds such as yellowlegs, Pectoral Sandpipers, and Wilson's Snipes in early spring; and a number of songbird species typically associated with riparian alder and willow thickets. Willow Flycatcher is a common breeding species in early summer. Waterbirds are drawn to Bolton Flats by high water levels, caused either by heavy rains or by flooding from the Nashua River.

In addition, this IBA is home to other unusual organisms, most notably healthy populations of Blanding's, wood, and spotted turtles. The Oxbow NWR and the neighboring U.S. Army Training Area are said to support the highest density of nesting Blanding's turtles anywhere east of the Mississippi River.

**Conservation:** The most serious conservation issue at this IBA is encroachment by non-native invasive plants. Spotted knapweed and autumn olive are colonizing the Turner Drop Zone at Devens RFTA, the place where the greatest concentration of grassland species occurs. Despite efforts to control these plants by mowing and burning, the knapweed continues to spread and threaten the habitat. Japanese knotweed is also present in some areas of the IBA. Natural succession is a potential threat to grasslands on the Turner Drop Zone. To date, the Army has kept the drop zone clear of successional vegetation, a procedure that is fortunately expected to continue. Because the Army actively trains on portions of the Devens RFTA, much of the habitat has remained in early successional stages, a situation no doubt responsible for the high density of Whip-poor-wills at the site.

A variety of wetland habitat types are maintained and protected at Oxbow NWR. Beavers play an important role in the formation and succession of some of these wetlands, and their activities are welcomed but managed by use of exclosures and perforated pipes to prevent damage to other habitat or refuge facilities. Some areas of wetland on the refuge are experiencing

invasion by non-native species, including the common reed (phragmites) and purple loosestrife. Active management of these invasive species has been initiated using a host-specific beetle on the loosestrife and water level changes for the phragmites. Additional control methods are being evaluated. Open fields on the refuge are maintained by mowing every three to five years to benefit species that require this habitat type. Mowing and disking certain areas provide nesting habitat for the state-threatened Blanding's turtle.

## Ware River Watershed IBA

As noted in Mark Lynch's article on page 145 of this issue, the Ware River Watershed IBA is comprised of an extensive area of mixed forest including sizeable stands of hemlock and is laced with a complex of dirt and paved roads, some of which are gated for portions of the year. Near the site of an old prison camp are several large fields where red pine once stood. There are numerous woody and shrubby marshes along the banks of the Ware River and several small ponds in the southeast sections. The Ware River watershed is located between the Quabbin and Wachusett reservoirs, mainly in the towns of Barre, Rutland, Oakham, and Hubbardston in Worcester County. The watershed is managed by the Department of Conservation and Recreation (DCR) and includes all the land and water that drains to the diversion facility of the Massachusetts Water Resources Authority (MWRA) on the Ware River in Barre. Located within the IBA are the Barre Falls Dam (an Army Corps of Engineers flood control project), Rutland State Park, the Midstate Hiking Trail, and the Barre Falls Wildlife Management Area. Ownership of this extensive IBA represents an interesting combination of federal, state, municipal, and private lands.

Of foremost importance at this IBA is the extensive mix of upland habitats combined with a rich diversity of breeding neotropical migrant species. At least eighteen species of breeding wood-warblers nest at this site along with healthy populations of vireos of several species, thrushes, and Scarlet Tanagers. An early morning drive in May or June along one of the dirt roads that crisscross the area will invariably produce an interesting variety of species typical of central Massachusetts. Among the more uncommon birds believed to be nesting at the site are Northern Goshawk, Red-shouldered Hawk, Northern Saw-whet Owl, Common Raven, and in



VIRGINIA RAIL BY DAVID LARSON

recent years, Evening Grosbeak. Pockets of freshwater marsh adjacent to the Ware River regularly host American Bittern, Virginia Rail, Sora (less common), and Alder and Willow flycatcher. At least one beaver pond within the IBA supports a Great Blue Heron colony, and Hooded Merganser is almost certainly a nesting species.

In addition to breeding species, migrating birds are attracted to the region. The IBA is important as a stopover site for many species passing through central Massachusetts in both spring and fall. Regular monitoring at the site has also demonstrated its excellence for observing hawk migration. Although access to the site is somewhat limited during late fall and winter, Northern Shrike and "winter finches" appear with some regularity during these seasons.

Besides hosting interesting birds, this IBA is a fine area for a possible sighting of moose or of one of several species of mustelids such as fisher, weasel, mink, or river otter. The site also supports a healthy population of Harris' checkerspot butterflies, a species generally uncommon throughout most of Massachusetts.

Conservation: Because a large portion of the IBA is managed by the DCR as part of its ongoing water management, various areas of the site are periodically cut and cleared. The effects of cutting and clearing on bird populations are uncertain, but fortunately they are being carefully monitored. Forest clearing potentially increases habitat for the brood-parasitic Brownheaded Cowbird and, locally at least, has the effect of degrading the habitat. Although dirt bikes and ATVs are specifically banned from the site, they are nonetheless present, and enforcement by the DCR is difficult due to understaffing. In some places there are also threats from illegal campsites and fires. As in many forested regions throughout the Commonwealth, stands of hemlock are increasingly vulnerable to invasion by wooly adelgids, a pernicious scale insect that is threatening to kill hemlock trees wherever they are found. The possible impact of the ravages of adelgids on nesting Blackburnian, Magnolia, and Black-throated Green warblers, which nest in hemlocks, has yet to be determined. The impact of snowmobilers in winter and the many hikers, bikers, horseback riders, and car drivers in the warmer seasons is not yet known. Fortunately, the IBA is monitored on a regular basis and is the site of an official Breeding Bird Survey (BBS) route.

#### Mount Watatic IBA

Undoubtedly one of the more scenic IBA sites in Massachusetts, 1832-foot high Mount Watatic is located in the Wapack Range on the border of northern Worcester and Middlesex County in the towns of Ashburnham and Ashby. Mount Watatic is owned by six partners: the State Department of Conservation and Recreation (DCR), the Division of Fisheries and Wildlife (DFW), the Ashby Land Trust, the Ashburnham Conservation Trust, and the towns of Ashby and Ashburnham. Part of a larger state reservation, Mount Watatic possesses diverse ecological features including a bald summit, rocky outcrops, forested slopes, and various seeps and wet lowlands. It abuts additional lands managed by the DCR in the Ashburnham State Forest as well as the Watatic Mountain Wildlife Sanctuary and Ashby Wildlife Management Area, which are managed by the DFW.

Because the mountain shares geologic and vegetative characteristics with Wachusett Mountain to the south and Pack Monadnock to the north, its birdlife is somewhat similar to those sites. Comprised of 1535 acres, this spruce-topped mountain is home to a number of breeding species having northern affinities: Yellow-



RED-TAILED HAWK BY DAVID LARSON

bellied Sapsucker, Olive-sided Flycatcher (rare), Common Raven, Winter Wren, Golden-crowned Kinglet, Magnolia Warbler, and White-throated Sparrow. In this IBA Yellow-bellied Sapsucker, Black-throated Blue Warbler, and Magnolia Warbler are at the extreme eastern edge of their nesting range in Massachusetts.

In addition to the unusual summer breeding species, autumn hawk migration often attracts birders willing to hike to

the summit. In October and early November one can often observe modest flights of late-migrating raptors like Northern Goshawk, Red-shouldered Hawk, Red-tailed Hawk, and, on good days, a Golden Eagle or two. In addition, on cool late-fall days when the foliage is fading and the wind is brisk from the north, flights of Snow and Canada geese are frequently seen winging southward, and occasionally Pine Siskins or Evening Grosbeaks are heard passing overhead.

In the early spring, vernal pools at this site often resonate with the clucking calls of wood frogs, and red efts, the terrestrial stage of the red-spotted newt. Such calls are common along the wooded trails after a heavy rain. For those seeking early spring woodland wildflowers, a visit in April will not disappoint.

**Conservation:** As the last undeveloped mountain east of the Connecticut River, Mount Watatic is a jewel among Massachusetts' natural resources. Its permanent protection in July 2002, following a vigorous local fund-raising effort combined with town and state initiatives, ended threats of locating a telecommunications tower on the summit and a residential subdivision at the base of the mountain. A Watatic Land Management Committee was formed to discuss management issues and to establish guidelines for future cooperation between partners along with coordinated land stewardship.

Since the nomination of Mount Watatic as an IBA, threats resulting from habitat conversion, residential development, and the construction of a telecommunications tower no longer exist. Nonetheless, issues such as forestry regulation, water pollution, and excessive soil erosion require continued vigilance. The use of four-wheel-drive vehicles on old ski slopes is causing soil erosion that is resulting in siltation problems on the eastern side of the mountain. Gates have been installed to discourage vehicle use on the mountain. Friends of the Wapack effectively monitor trail use, as well as camping and fire building. Members of the Eastern Mass Hawkwatch monitor raptor migration in autumn.

## Research Summary: Shrubland-Nesting Birds in Powerline Rights-of-Way in Western Massachusetts

## David I. King, Thomas E. Lautzenheiser, and Jeffrey M. Collins

Through the 2002 and 2003 field seasons, staff of the USDA Forest Service's Northeast Research Station and Mass Audubon's Ecological Extension Service investigated the contribution of powerline rights-of way (ROWs) to early successional shrubland-nesting bird habitat in western Massachusetts. We were particularly interested in the extent to which powerline ROWs provide quality habitat for shrubland birds.

Throughout New England, the population of approximately two-thirds of early successional shrubland-nesting bird species has been declining over the past few decades. One factor contributing to this decline is the loss of suitable habitat in the region, particularly as abandoned agricultural lands revert to forest and as fewer forests are logged. The loss of shrubland habitat and subsequent decline in shrubland-nesting bird population raises this group to a high level of conservation concern.

In New England, shrubland-nesting birds are largely disturbance-dependent, and for the past 200 years or more, through agriculture and silviculture, humans have been the primary cause of landscape disturbance in this region. Prior to European settlement, the population of shrubland-nesting birds in the region was relatively small and patchy, distributed across the landscape where fire, flood, or wind opened gaps in the dominant forest. During the 18th and 19th centuries, increasing areas of land were cleared for human use, and shrubland became a much more important component in the landscape. When this habitat increased, so did populations of birds and other animals that depend on these early-successional areas.

One could argue that because the population of early-successional shrublandnesting birds in New England was historically small, but only recently increased here due to landscape changes brought about by European settlers, that the present decline only reflects a return to more natural conditions. According to this view, the decline in the shrubland-nesting bird population in the region does not merit conservation action. Three factors undermine this interpretation. Firstly, the downward trend is more than regional: based on 40 years of Breeding Bird Survey data, populations of many shrubland-nesting bird species are declining throughout North America. Secondly, most shrubland-nesting bird species are neo-tropical migrants, overwintering in Latin and South Americas. While research into this aspect of songbird decline is still developing, there are strong reasons to believe that habitat losses in their wintering grounds and along their migration routes further contribute to the population decline. Thirdly, shrubland-nesting bird species evolved in this region during various Pleistocene interglacial periods; although those conditions have largely disappeared, these species persist in their specialized habitats. Therefore, any regional action that can bolster these species' success will contribute to a global effort to conserve a native species. It is insufficient to assume that other regions, where populations of these

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birds may have historically been higher than in New England, will take responsibility for their conservation.

As shrubland habitat now decreases in the region, areas such as powerline ROWs that are human-maintained in an early-successional state comprise an increasing proportion of potential habitat for shrubland-nesting bird species. It is important, then, to be able to estimate the quality of the habitat that these areas provide for shrubland-nesting birds and to understand the factors that contribute to its quality.

Electric transmission line ROWs cross the landscape throughout western Massachusetts. The Western Massachusetts Electric Company, the largest power distributor in western Massachusetts, for example, maintains 3300 miles of overhead poles. Some of these miles are along roads or in other built areas, but many extend through otherwise forested lands. Electric utility companies maintain their ROWs to prevent trees from growing up into and interfering with the powerlines. Vegetation management in ROWs is accomplished through a variety of means, including cutting, herbicide application, mowing, and reseeding with low-growing species. All management methods are intended to discourage the long-term presence of tree species and encourage a stable shrub or herbaceous cover. Typically maintenance proceeds on a multi-year cycle, so at any given time some sections of the ROWs have just been treated, some sections are growing out, and the remainders are due to be treated. Shrubland-nesting birds use the resulting shrub-dominated areas, just as these birds would have used hedgerows, overgrown fields, and other shrubby areas resulting from agricultural activity.

To study the use of powerline ROWs in western Massachusetts by shrublandnesting birds, we chose ROW sites across a study area defined by the Millers River to the north, the Quabbin Reservoir to the east, the Holyoke Range to the south, and the Westfield River to the west. All ROW sites within the study area that consisted of shrubby successional upland (as opposed to wetland forest or agricultural field), bisected mature forest, and were accessible by road were identified, with the constraint that they were located at least 10 km from other sites. Subsequently, these sites were numbered and 15 sites were randomly selected for study. These sites averaged approximately 50 meters in width and represented the full range of available powerline corridor widths in the study area, from the narrowest (about 15 meters) to the widest (nearly 80 meters). Ten sites were studied in 2002 and again in 2003. In 2003, five additional sites located in managed wildlife openings on state Wildlife Management Areas were added for comparison.

The ROW sites in the study were generally hilly and often had areas that were shallow to bedrock. Frequently the sites were droughty except where they included intermittent streams or small wetlands in lower-lying areas. Vegetation within the ROWs included mountain laurel, spiraea, blackberries, blueberries, juniper, sweetfern, and tree saplings, along with little bluestem and other graminoids, wintergreen, milkweed, goldenrods, asters, and bracken fern. Most of the sites were situated within a matrix of mature forest, typically a mixed-hardwood forest consisting of maples, oaks, beech and birches, with hemlock and white pine. Bird abundance and species composition were quantified by counting numbers of birds seen or heard during 10-minute point count surveys at 5 point-count stations per site, for a total of 50 stations in 2002 and 75 in 2003. During each survey, all birds detected on a 100 m section of the ROW or wildlife opening centered on the observer were recorded, including birds on the edge of the adjacent forest. Point count stations were flagged at 10-m intervals along perpendicular transects extending along the central axis of each point, as well as to the forest edge on either side, to permit estimation of distance of the bird from the observer. Each point-count station was surveyed three times during June and early July, which corresponded to the height of the breeding season.

Over the course of the study, the team detected a total of 1639 individuals of 64 species during 375 point count surveys. Four species — Chestnut-sided Warbler (242 observations), Common Yellowthroat (212), Eastern Towhee (153), and Prairie Warbler (151) — comprised nearly half of the birds detected (Table 1). Populations of the Common Yellowthroat, Eastern Towhee, and Prairie Warbler have significantly

**Table 1.** Mean number, standard error, frequency, total detections, and earlysuccessional habitat association of 20 most frequently-encountered breeding bird species detected within 15 powerline rights-of-way, Franklin and Hampshire counties, Massachusetts, 2002-2003. Species in bold are those experiencing significant estimated population declines based on North American Breeding Bird Survey results for southern New England, 1966-2003. Early-successional habitat associations are from DeGraaf and Yamasaki, 2001.

Species	Mean	SE	Frequency	Sum	ES
Chestnut-sided Warbler	1.90	0.10	0.74	242	Yes
<b>Common Yellowthroat</b>	1.70	0.09	0.77	212	Yes
Prairie Warbler	1.16	0.11	0.54	151	Yes
Eastern Towhee	1.14	0.10	0.60	153	Yes
Gray Catbird	0.71	0.10	0.45	93	Yes
Field Sparrow	0.58	0.11	0.34	73	Yes
Black-capped Chickadee	0.568	0.082	0.472	71	No
Indigo Bunting	0.38	0.11	0.25	45	Yes
Red-eyed Vireo	0.232	0.098	0.192	29	No
Black-and-white Warbler	0.232	0.098	0.192	29	No
Cedar Waxwing	0.224	0.104	0.168	28	Yes
Ruby-throated Hummingbird	0.208	0.094	0.176	26	No
American Goldfinch	0.208	0.101	0.168	26	Yes
American Redstart	0.208	0.135	0.112	26	No
American Robin	0.208	0.107	0.16	26	No
Brown-headed Cowbird	0.208	0.104	0.16	26	No
Song Sparrow	0.176	0.130	0.096	22	Yes
Mourning Dove	0.160	0.104	0.128	20	No
Blue Jay	0.160	0.092	0.144	20	No
<b>Rose-breasted Grosbeak</b>	0.112	0.091	0.104	14	No

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declined in southern New England over the past few decades, based on Breeding Bird Census results. The population of Chestnut-sided Warbler has also declined over this period, but not significantly. Of the top 20 species detected during the study, half are early-successional habitat specialists, while the other half are not (Table 2). Of the early-successional habitat species, 60 percent are experiencing population declines, versus 20 percent of those species that do not depend on early-successional habitats.

**Table 2.** Distribution by habitat association, and percentage of those that aresignificantly declining, of 20 most frequently-encountered breeding bird speciesdetected within 15 powerline rights-of-way, Franklin and Hampshire counties,Massachusetts, 2002-2003. Significant estimated population declines based on NorthAmerican Breeding Bird Survey results for southern New England, 1966-2003. Early-successional habitat associations are from DeGraaf and Yamasaki. 2001. NewEngland Wildlife: Habitat, Natural History, and Distribution. Hanover, NH:University Press of New England.

Habitat	Species	Species significantly declining
ES	10 (50%)	6 (60%)
Not ES	10 (50%)	2 (20%)

**Table 3.** Mean, standard error, and number of 20 most abundant species detected at point counts at 5 wildlife openings in western Massachusetts, 2003.

Species	Mean	SE	Ν
Common Yellowthroat	2.92	0.45	65
Chestnut-sided Warbler	2.7	0.84	59
Eastern Towhee	1.48	0.72	37
Song Sparrow	1.34	0.47	28
White-throated Sparrow	1.04	0.93	26
Gray Catbird	1.04	0.29	24
Indigo Bunting	1.02	0.48	23
Field Sparrow	0.84	0.42	21
American Goldfinch	0.84	0.36	17
Prairie Warbler	0.56	0.33	14
American Robin	0.46	0.15	11
Cedar Waxwing	0.44	0.24	11
Red-eyed Vireo	0.46	0.05	11
Black-and-white Warbler	0.28	0.11	7
Magnolia Warbler	0.28	0.18	7
Blue-winged Warbler	0.32	0.18	6
Veery	0.2	0.18	5
Black-capped Chickadee	0.18	0.07	4
Nashville Warbler	0.16	0.09	4
Northern Cardinal	0.16	0.14	4

These results demonstrate that early successional birds do occupy powerline ROWs. Furthermore, the species using ROWs included most (70 percent) of those species we encountered in the five managed wildlife openings that were studied in 2003 (Table 3). In comparison, bird surveys using similar methodology at points in forest interior 300 m from ROWs revealed a striking contrast in bird community composition. Only the Eastern Towhee and Gray Catbird occurred at the forest points, and were the 10th and 19th most common species in the forest, respectively (Table 4). In contrast, towhees and catbirds were the 4th and 5th most abundant species in

**Table 4.** Mean, standard error, and number of 20 most abundant species detected at point counts at 10 sites within mature forest in western Massachusetts, 2004.

Species	Mean	SE	Ν
Ovenbird	0.94	0.22	47
Red-eyed Vireo	0.92	0.19	46
Black-capped Chickadee	0.42	0.13	21
Veery	0.40	0.17	20
Black-throated Green Warbler	0.28	0.12	14
Eastern Wood Pewee	0.28	0.08	14
American Robin	0.22	0.13	11
Black-throated Blue Warbler	0.22	0.09	11
Hermit Thrush	0.18	0.06	9
Eastern Towhee	0.18	0.10	9
Scarlet Tanager	0.18	0.10	9
Rose-breasted Grosbeak	0.16	0.07	8
Wood Thrush	0.16	0.07	8
Blue Jay	0.12	0.05	6
Pine Warbler	0.12	0.05	6
Yellow-rumped Warbler	0.12	0.06	6
Black-and-white Warbler	0.10	0.05	5
Cedar Waxwing	0.08	0.04	4
Gray Catbird	0.08	0.05	4
Tufted Titmouse	0.08	0.06	4

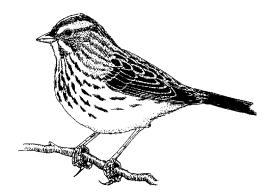
ROWs. It is clear that few of the shrubland birds we encountered during this study would have been present if not for the open, maintained condition of the ROWs. Therefore, while linear features such as powerline ROWs cutting through intact forest can fragment habitat, reduce forest interior, and serve as corridors for predators and invasive species, it must be recognized that such human-managed early successional communities do serve as breeding habitat for these birds.

## Acknowledgments

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SAVANNAH SPARROW BY GEORGE C. WEST

## Bird Observer Web Content

Which are the best areas for spring birding at Wompatuck State Park?

I want to explore new birding trails and habitat in Worcester County — where should I go?

I misidentified a Lincoln's Sparrow today and am wondering if there's an "At A Glance" article to help me identify this bird.

I know Barry Van Dusen sketched a Carolina Wren for one of *Bird Observer*'s covers, but which issue?

I want to increase my knowledge of raptors — I wonder if *Bird Observer* has recommended any good hawk field guides or videos?

These and other questions can be quickly answered by using *Bird Observer*'s online indices at <http://massbird.org/birdobserver/BOIndex/index.htm>. Each of *Bird Observer*'s four regular features — "Where to Find Birds," "At a Glance," "About Books," and "About the Cover" — are indexed back to the 1970s or 1980s and are easily searchable by keyword. Check out this web feature, give it a try, and you may find your back issues of *Bird Observer* getting dusted off and used more than ever!

## The Urban Ecology Institute Teaches Local Youth About the Birds of Boston

## Annie Cardinaux and Andrew Breck

I used to be scared of crows, they're all black... but not anymore. When you grow up you mature more. I remember my favorite experience seeing birds, it was with my Aunt, and it was night and we saw all the birds flying in the sunset and it was mad pretty, and we saw mad Blue Jays.

Jennifer Cooke, age 13, New Boston Pilot Middle School, Dorchester, MA

On a clear day in February at New Boston Pilot Middle School in Dorchester, Ms. Malden's seventh grade class is returning to class after walking a bird biodiversity transect behind the school. At the last moment, one student notices a different bird perched among a flock of starlings. A group of students breaks off from the rest to get a closer look, and sure enough, it's slightly bigger.

Three students, a student teacher, and an Americorps\*VISTA field assistant all race to fumble through field guides....bigger than a starling...light, spotted breast...white cheeks, black marks below the eyes...the hooked bill of a predator...an American Kestrel!

"Come back inside! It's time to go in!" says Ms. Malden, glancing at her watch.

A group of students remains apart from the rest, motionless and focused on the bird, uncharacteristically disobeying their teacher's instructions. The kestrel, much like Ms. Malden, sternly surveys the scene with an authority that belies his small size.

"It's time to go IN!"

Ms. Malden is not upset with her students. She smiles as they head back inside, and it's clear that she too, would prefer to stay outside and ignore the bell.

Every week, hundreds of middle and high school students throughout Greater Boston venture outside their classrooms in search of birds. Equipped with binoculars and decibel meters, they jot down notes about the number, type, calls, and behavior of the birds they observe in the urban environment. The students are part of the Urban Ecology Institute (UEI) Field Studies Program.

The Institute was founded in 1998 with a mission to "cultivate healthy, safe, and vibrant cities by improving science and civic education for middle and high school youth, and by working with urban communities to understand, advocate for, and transform natural resources" <a href="http://www.urbaneco.org">http://www.urbaneco.org</a>. The UEI Field Studies Program emphasizes ecological study in urban areas. The curriculum uses a field-based, hands-on approach to science that allows students to investigate ecological questions using the city as a lab. Some classes collect data in parks, but many others conduct studies right in the schoolyard, impelling students to a greater awareness of their own environment, at once familiar but as yet unexplored.

In the course of their studies, the students learn math and science skills and apply lessons they've learned in the classroom. Each lesson is linked to state curriculum frameworks, so that teachers can always find ways to make connections between their outdoor field studies and subjects like biology, chemistry, physics, and even social studies.

During their first years participating in the program, UEI teachers receive logistical support when taking their students outside; each teacher is paired with an Americorps\*VISTA volunteer who accompanies them and their students in the field to collect data on bird biodiversity or other topics such as water quality, urban trees, and other locally relevant environmental subjects.

## **Bioacoustics at Charlestown High School**

Charlestown High School stands near the Little Mystic Channel, an inlet across the water from East Boston. The area around the school is open and urban, with industrial buildings abutting the sports fields. Black-backed and Herring gulls soar over this scene, but they are outnumbered by flocks of European Starlings, noisily perched on the lights of the high school football field. Below the bleachers tittering House Sparrows scold one another above the background hum of nearby industry.

There aren't many rare birds here to add to a life-list. Nevertheless, mystery and questions abound for the UEI students: What are the House Sparrows urgently saying to one another all at once? Why do the starlings sing many variations while the gull is so repetitive? Are there Mallard Ducks in the channel today? Why weren't there any last month?

At 7:20 a.m. a bell sounds from the recesses of the school building and first period begins. Christina Yee, high school math and physics teacher, has the attention of twenty-two budding urban ecologists, all immigrants from China. Most have a very limited proficiency with English, and Yee herself speaks Cantonese.

This is Yee's third-year as a UEI teacher using the Bird Biodiversity Field Studies Curriculum. Two years ago she taught biology, but last year she began teaching physics. Despite switching disciplines, however, Yee has maintained a direct connection between her classroom instruction and the UEI field studies by joining a pilot Bioacoustics program. When she takes her classes outside to walk a transect looking for birds around the schoolyard, they bring digital recorders and microphones along with their binoculars and field guides. Armed with this high-tech equipment, courtesy of Boston College, they record all of the bird sounds they encounter. Back indoors, the students use a program called Raven to view visual representations of the sound files, called "spectrograms," or "sonograms." They apply what they've learned in class about the physics of sound to analyze the files, answering questions such as: "Do all Blue Jays sing at the same frequency?"

Meredith Houle, doctoral student at Boston College in the Lynch School of Education and curriculum consultant at UEI, is developing the bioacoustics curriculum as part of her PhD dissertation. In collaboration with the field assistants, she is bringing the program to several schools throughout Greater Boston.

#### After-school birding at the Hernandez

"I like to think of birds as a litmus test to help the kids see what's going on in their environment," says Beth Boates of the Hernandez School OST (Out-of-School Time) program in Roxbury. Together with Andrew Breck (Americorps\*VISTA volunteer), she and her group have been investigating bird biodiversity in the area surrounding the school. Their focus on birds allows for hands-on activities such as birdhouse and feeder construction and helps students make connections to the environmental condition of their neighborhood.

In the after-school time, getting students excited about learning can sometimes be a challenge. "Sometimes we're practically dragging them outside at first," Breck admits, "but we keep working on them, get them outside doing an activity, and then when it's time to go back in, they want to stay outside!" On one occasion, the students went out to check on their peanut butter pinecone bird feeders, and they wanted to play on the playground afterwards. Breck agreed with the caveat that they would play only bird-related games. The students got creative and came up with ways to show what they had learned by shouting out a particular threat to urban birds as they each slid down the slide, stacking up one after another at the bottom, until the threats were too many and they all slid off the slide. "Cats!" one girl shouted, as the others paused to emit an "awww" as they realized that even their pets have a place in the food chain.

"The students really like the field trips," Anita Torres, the OST Program Director at the Hernandez tells us, referring to trips to nearby parks, to the Harvard Museum of Natural History, or to tap maple trees in Jamaica Plain. The group has the entirety of Franklin Park to range over if they please. Located at the northern end of the park near White Stadium and the abandoned bear cages (a vestige of of a bygone era at the Franklin Park Zoo), the group has ventured into the park throughout the year to study the many House Sparrows, starlings, doves, pigeons, and Blue Jays that can be reliably found there.

The Hernandez OST is also a pilot site for the LEAH (Leadership, Education, Action and Hope) Youth Mentoring Program, which UEI started this past fall in collaboration with the Boston Public Schools to honor Leah Deni, UEI's former OST program director, who passed away last year at the age of twenty-five. The program employs talented and inspiring high school students to act as mentors for middle school students in after-school programs. Mentors at the Hernandez, Marie Cejour and Windy Senecharles, have grown tremendously since beginning in January. Not only are they teaching and learning about birds and urban ecology, but they're also acting as role models for the younger kids. "I want to be the best student teacher ever," says Windy.

#### The Gifford School: A stunning array of birds

Steve Scobie is the science teacher at The Gifford School in Weston, which provides educational and clinical services for students with special academic, behavioral, and emotional needs. Nestled between two rows of white pines, the campus buildings look out over a large pond. The 26-acre campus stands in stark contrast to schools in more urbanized areas.

Ten students at the Gifford School walk the circumference of the school grounds weekly, stopping to fill each of three bird feeders along the wooden fence. One particularly sunny morning in late February, Scobie's class ventured outside and encountered signs of renewed bird activity near the campus pond. A Red-tailed hawk perched in a tree, a pair of Mute Swans and several Buffleheads milled about in the water below, American Crows swooped among the surrounding white pines, and a Great Blue Heron perched astutely in an island rookery. In March, the infamous flock of campus Canada Geese reappeared on the sports field, much to the dismay of some students, but to the delight of others who were enraptured by their courting and territorial behavior.

Attached to Scobie's main classroom is a small greenhouse where he has started seeds of cosmos, sunflowers zinnias, purple coneflowers, and other seed-bearing flowers to attract birds. His students are involved in the process of researching plants that will attract birds with their seeds and flowers (or the insects that are drawn to the flowers).

For Scobie's students, as for many students in the Field Studies program, time spent outside studying birds is an opportunity for them to cultivate new skills and to demonstrate existing ones. The activities foster creativity, as well as organizational and social skills. Some students are in charge of keeping data sheets, others fill feeders or look for tracks in the snow. One unbearably cold day, when asked to make "Wanted" posters for birds seen on their campus, the students responded with a witty poster of a Blue Jay that reads, "Wanted...for jay walking."

## Birding in the classroom: Challenges and opportunities

Beth Boates from the Hernandez School comments on some of the challenges: "Birds are great for this (the UEI) approach, because they appeal to kids. In some ways, though, it's trickier for the instructors, because it's not predictable." The students might see many birds one day, but then very few the next week. The following week they might not even be able to go outside at all, due to bad weather. Brenda Rodriguez, age 13, a student at the Hernandez School, knowingly confides: "There's a lot of birds in the world. There's a lot of birds in Franklin Park. But they're not easy to spot."

The keys to making it all work are: flexibility — if it's snowing outside, there's always work to be done on designing the bird feeders inside; relevance — the biodiversity data collected on birds has big implications for the health of the urban environment in the neighborhood; and last but not least, having fun!

## How to get involved:

The Urban Ecology Institute is growing and experimenting with an increasing array of projects ranging from standard bird biodiversity studies, to bird-friendly gardens, to bioacoustics. The organization is also reaching out to communities by inviting volunteers to take part. Currently, there are several volunteers who go out regularly with classes at Newton North High School and Charlestown High School to help the students and teachers count the birds they find on their transects. Some volunteers are experienced birders, while others have very little background but are interested and enthusiastic. Anyone wishing to get involved is invited to contact the Institute (see contact information below).

For more information about the Urban Ecology Institute's Field Studies Program, please visit <http://www.urbaneco.org>, or call 617-552-1563. If you are a teacher and would like to participate in the UEI Field Studies Program, please contact Dawn Chavez at chavezda@bc.edu or 617-552-1473. The dates for our annual Summer Institute (a training program in field studies methods for educators and future educators) have been set. The class will run from July 10 to August 3, 2006.

Annie Cardinaux is currently an Americorps\*VISTA at the Urban Ecology Institute. She is a recent graduate of Tufts University and has held positions at outdoor education programs and environmental nonprofits in her native Ohio and in Maine and Massachusetts. She hopes to continue contributing to Boston's urban environmental movement through innovative work with youth and nonprofits. Andrew Breck is nearing the end of his year-long term as an Education Program Associate (an Americorps\*VISTA-funded position) at the Urban Ecology Institute. As a relatively new birder he has avidly taken to the pursuit and plans to continue this enjoyable past-time. He would like to thank UEI for this opportunity and the students and teachers he visits for all their hard work. He can be reached at ahbreck@gmail.com.



## The Arnold Arboretum: A Century of Birders and Breeding Bird Data

## Robert Mayer

The landscape of the Arnold Arboretum was a draw for resident and migrating birds long before it was officially established in 1872. Birds beget birders, who in turn keep records of what species visit, and nest, in a given location. All but 18 acres of the Arboretum's current 265-acre land holdings were incorporated by 1895, and while there have been modifications to the landscape over the century, much of the living collection has remained unchanged. The variety of woody plant taxa numbers over 4500, and the habitat is diverse, including marsh, established deciduous woods, coniferous areas, streams, and three man-made ponds surrounded by lawns, allowing diverse species to find hospitable sites for raising young. A review of reports over the last century by regular birders of the Arboretum shows both the changes and relative stability of breeding birds there. This article will review this data and comment on the changes in the breeding population over time and speculate on what might be in store in the future.

In 1895, Charles E. Faxon published a short article documenting his bird sightings in the Arboretum over a period of several years. In it, he declares that fifty species of birds were determined to be nesting there. In a subsequent report (1911) he added another five species to his list. Joining the staff of the Arnold Arboretum in 1882, Faxon was in charge of the library and herbarium, which he managed until his death in 1918. He distinguished himself as a botanical illustrator, publishing nearly



Yellow Warbler on nest. All photographs by the author.

two thousand drawings. In a 1903 review of The Silva of North America, where many of Faxon's drawings were published, naturalist John Muir declared him "the foremost botanical artist in America." Like many other scientists of that era. Faxon's interest in natural science was broad, and he was an enthusiastic birder. Recognizing the importance of the Arboretum as a birding site, he set about to "put on record a statement of the present bird population of the place" so as to allow future observers "to see how many of the present feathered tenants will remain." He was Curator of the Arboretum from 1882 to 1893 and is memorialized by having one of the three man-made ponds near the Bradlev Collection of Rosaceous Plants named after him.

Miriam E. Dickey, who was head of the Education Department of the Boston Children's Museum, led bird walks in the Arboretum nearly every Saturday for thirtyfive years, from 1939 to 1976. Her observations were set down in an article in *Bird Observer* (1976), in which she lists nearly 150 species of birds that she and her group of regular birders saw in the arboretum. In the article, she identifies 45 of the listed species as having been "seen on a nest with eggs or young" during her observation period. Many of her observers were children as she ran a summer day camp for nearly thirty years. She also worked with the Massachusetts Audubon Society, teaching inner-city children about science and taught natural science in the Boston Public School System. She remained active in these endeavors until her retirement in 1997 at the age of ninety and was the recipient of the Massachusetts Hall of Fame for Science Educators in 1998.

A subsequent report on birds breeding in the arboretum was published by Richard E. Weaver in the journal *Arnoldia* in 1971. In this well-written overview of birding in the Arboretum, he includes a list of breeding birds drawn from Faxon and Dickey and adds some observations of his own. His list includes forty-four species, of which two were additions he made to Dickey's list (Great Horned Owl and Purple Finch). He was a Horticultural Taxonomist and Assistant Curator of the Arnold Arboretum for thirteen years (1970-1983) and played a key role in shaping the collections during that period.

This observer has been birding the Arnold Arboretum almost weekly for nearly five years. During that time, and with the contribution of several other experienced birders in the area, I have documented forty-six confirmed breeders and another five that are probable, within the Arboretum, using the definitions applied in the Massachusetts Breeding Bird Atlas. The listings over the century are presented in Table 1.

#### Losses

The absolute number of breeding birds has decreased somewhat over the century. Regarding individual species, twenty-seven that were recorded by Faxon or the mid-

twentieth century observers are most likely no longer nesting on the property. Two game birds, Bobwhite and Ruffed Grouse, may have been removed by hunting early on as well as by habitat loss, and Ring-necked Pheasant, introduced around 1900, was last seen in 2000 and is probably gone from the grounds. In addition, Spotted Sandpiper, both cuckoo species, Least Flycatcher, Barn Swallow, and Eastern Bluebird have not nested there since mid twentieth century, probably due to loss of habitat and suitable nesting sites as well as a reduction in the population of some of



Young Eastern Kingbirds

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**Table 1:** Breeding Birds of the Arnold Arboretum as described by Faxon (F), Dickey (D), Weaver (W), and Mayer (M).

Species	F	D	W	Μ	Species	F	D	W	Μ
Green Heron				Х	Cedar Waxwing	Х	Х		
Mallard		Х	Х	Х	European Starling		Х	Х	Х
American Black Duck		Х	Х		Yellow-throated Vireo	Х			
Wood Duck		Х			Warbling Vireo	Х	Х	Х	Х
Cooper's Hawk				Х	Red-eyed Vireo	Х	Х	Х	Х
Red-tailed Hawk			X*	Х	Blue-winged Warbler				Х
American Kestrel			X*		Golden-winged Warbler	Х			
Ring-necked Pheasant	Х	Х	Х		Brewster's Warbler	Х			
Ruffed Grouse	Х				Yellow Warbler	Х	Х	Х	Х
Northern Bobwhite	Х				Chestnut-sided Warbler	Х			
Spotted Sandpiper	Х				Black-throated Green Warbler	Х	Х		$X^*$
Rock Pigeon		Х	Х	Х	Pine Warbler				$X^*$
Mourning Dove		Х	Х	Х	Prairie Warbler	Х	Х		
Yellow-billed Cuckoo	Х				Black-and-White Warbler	Х			
Black-billed Cuckoo	Х				American Redstart	Х			
Eastern Screech-owl	Х	Х		Х	Ovenbird	Х	Х	Х	$X^*$
Great Horned Owl			X*	Х	Common Yellowthroat	Х	Х	Х	Х
Chimney Swift	Х	Х	Х	X*	Yellow-breasted Chat	Х			
Ruby-throated Hummingbird	Х				Scarlet Tanager	Х	Х	Х	
Downy Woodpecker	Х	Х	Х	Х	Northern Cardinal		Х	Х	Х
Northern Flicker	Х	Х	Х	Х	Rose-breasted Grosbeak	Х	Х	X*	X*
Eastern Wood-Pewee	Х			X*	Indigo Bunting	Х	Х	Х	Х
Least Flycatcher	Х				Rufous-sided Towhee	Х	Х	Х	Х
Eastern Phoebe	Х	Х	Х	Х	Chipping Sparrow	Х	Х	Х	Х
Great Crested Flycatcher		Х	X*	Х	Field Sparrow	Х			
Eastern Kingbird	Х	Х	Х	Х	Vesper Sparrow	Х			
Barn Swallow	Х				Song Sparrow	Х	Х	Х	Х
Blue Jay	Х	Х	Х	Х	Bobolink	Х			Х
American Crow	Х	Х	Х	Х	Red-winged Blackbird	Х	Х	Х	Х
Black-capped Chickadee	Х	Х	Х	Х	Common Grackle		Х	Х	Х
Tufted Titmouse				Х	Brown-headed Cowbird	Х	Х	Х	Х
White-breasted Nuthatch		Х	Х	Х	Orchard Oriole				Х
Carolina Wren	Х			Х	Baltimore Oriole	Х	Х	Х	Х
House Wren		Х	X*	Х	Purple Finch	Х		Х	
Eastern Bluebird	Х				House Finch				Х
Veery	Х				American Goldfinch	Х	Х	Х	Х
Wood Thrush	Х	Х	Х	Х	House Sparrow		Х	Х	Х
American Robin	Х	Х	Х	Х					
Gray Catbird	Х	Х	Х	Х		55	45	44	51
Northern Mockingbird		Х	Х	Х					
Brown Thrasher	Х	Х	Х	Х	* = probable breeder				

these species overall. Of the seven warbler species no longer nesting in the arboretum, as well as Yellow-throated Vireo and Veery, some have experienced significant population decreases throughout Massachusetts while others may no longer find the increasingly urban habitat hospitable for nesting. Ground-nesting species have lost habitat due to closer cutting of grass since the turn of the century and may also have been discouraged from nesting by dogs and walkers in the meadows. The recent documentation of Bobolinks breeding in the Peter's Hill section of the arboretum, discussed below, indicates that such trends can be reversed.

### Gains

Seven species are confirmed or probable nesters in recent years that were not present in the past. Green Herons nested near the ponds for several years but have not nested since 2003. A pair of Cooper's Hawks was seen together throughout the summer of 2004, and later with a juvenile, in the Hemlock Hill area. There is speculation that the diminishing density of the hemlocks due to the wooly adelgid infestation may have fostered nesting of this species, although the general population increase of this raptor in Massachusetts may also account for the new record. Tufted Titmice now nest commonly in the state as they extend their range northward. A pair of Bluewinged Warblers nested in a shrub in the



Female Bobolink with food

rosaceous collection in 2003, but it is not known whether they fledged young, and they have not been found nesting since then. Pine Warblers have shown a trend toward nesting in both coastal and interior areas of Massachusetts; in the Arboretum they are probable nesters in the conifer collection as well as in the pines on Peter's Hill.

An Orchard Oriole nest was discovered in June 2004 in a small stewartia next to the wet meadow near the main entrance; that pair or another returned in 2005 to nest in an adjacent katsura-tree less than fifteen feet away. Another nest was located on Peter's Hill in 2005 as well. The species had been recorded several years earlier in late May, suggesting that nesting may have occurred prior to 2004.

Finally, House Finches have replaced Purple Finches as nesters in the Bradley

Collection of Rosaceous Plants as they have throughout much of the eastern United States. In late May 2005, a flock of forty or more Bobolinks was noted on the grassy slopes of Peter's Hill, considerably more migrants than usual for that area. Based on this observation, a plan to encourage nesting began, and Arboretum staff stopped mowing the grass in the area and posted signs urging dog walkers to avoid the tall grass and to keep their dogs leashed. This effort was rewarded with at least one pair of Bobolinks nesting near the top of the hill.



Gray Catbird fledgling

With continued protection and delayed mowing, it is hoped that one or more pair will return next year to firmly reestablish Bobolink breeding in the Arboretum after more than a century.

Other species recorded in the past but not recently may simply have been missed in the surveys conducted over the last five years. Cedar Waxwing and Scarlet Tanager are both likely species for breeding in the Arboretum but were not confirmed in recent breeding bird surveys. Other candidates for nesting records in the near future include Red-bellied Woodpecker, since it is known to nest in nearby Franklin Park, and Willow Flycatcher, which is heard increasingly late into the spring, especially in the new Stony Brook Marsh section of the Arboretum.

This review of breeding bird species in the Arnold Arboretum captures data at several points of time over more than a century. It reveals that many species found earlier no longer nest there but others have appeared to take their place, resulting in a fairly constant overall breeding species count of around fifty.

**Bob Mayer** is a semiretired psychiatrist who has lived and birded in Boston for over thirty-five years, and who moved to Jamaica Plain in 2000. He is a docent and children's field study guide at the Arnold Arboretum and has been birding there regularly year-round for over five years. He would like to thank Glenn d'Entremont for reviewing a draft of this article, and Andrew Joslin and Jake Miller for contributing several breeding bird observations.

### **References:**

Dickey, M.E. 1976. The Arnold Arboretum as a Birding Area. *Bird Observer* (4)1: 4-7.
Faxon, C.E. 1895. Birds of the Arnold Arboretum. *Garden and Forest* (8) 387: 292-93.
Faxon, C.E. 1911. *Birds in the Arboretum: A Guide to the Arnold Arboretum*: 31-33.
Muir, J. 1903. Sargent's Silva. *Atlantic Monthly* (July).
Weaver, R.E. 1971. Birds in the Arnold Arboretum. *Arnoldia* (31) 6: 349-65.
Weaver, R.E. Papers of Richard E. Weaver, Jr., 1970-1983. *Arnold Arboretum Archives*.

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# FIELD NOTE

## The Problem with Eating Catfish

### William E. Davis, Jr.

On the morning of February 2, 2003, I was walking along Anhinga Trail in Everglades National Park, Florida, when a Great Egret (Ardea alba) flew toward me across the waterfilled ditch that runs beside the trail and landed about 15 feet away. It was carrying a walking catfish, an introduced species, about eight inches in length. The walking catfish, like the two species of bullheads that occupy Everglades National Park, has sharp, rigid, inch-long pectoral spines. The fish was thrashing about but was held firmly in the bird's bill; it had probably been caught less than a minute earlier. The egret dropped the fish on the ground and stabbed it repeatedly with its bill, then picked it up by one of the fish's pectoral spines (Figure 1) and carried it to the water's edge, where it repeatedly washed the fish, shaking it by the spine. The bird



Fig. 1: All images by the author bird repeated this three or four times, and after



about six minutes, flew with the fish to the other side of the ditch where it began a sequence in which it would try to swallow the fish headfirst, then release it, grab it by a spine, shake it, and wash the fish. It sometimes washed the fish three or four times between attempts to swallow it. Eventually, the protruding pectoral spines had been broken and hung limply at the sides of the now-dead fish. The egret finally swallowed the catfish on its seventeenth attempt, more than fifteen minutes after the bird first arrived with its meal.

Fig. 2

Why did it take so long for the egret

to process the fish? The pectoral spines, when extended, made it impossible for the egret to swallow the fish, the rigid spines protruding out either side of the egret's bill (Figure 2). Only after the spines had been neutralized was it possible to swallow (Figure 3). Further, many catfish have a toxic substance in the slime secreted by their



skin, and the constant washing (more than thirty times) was probably an attempt to remove the poison.

William E. Davis, Jr. is Professor Emeritus from Boston University and a long-time staff member of Bird Observer. He wishes to thank Jerome A. Jackson for helpful suggestions on the original manuscript.

Fig. 3

This red-throated loon was resting or dying on the bank of Ipswich River's Bunker Meadow. A visitor called the office on his cell phone and reported a loon laying eggs at our canoe landing. I went down to check it out and this is what I found.

I asked one of our property volunteers, a retired veterinarian, to inspect the bird. He said there was no visible injury and after handling the bird it flew into the meadow and preened. It hasn't been seen since.



Scott Santino, Mass Audubon's Ipswich River Wildlife Sanctuary

BIRD OBSERVER Vol. 34, No. 3, 2006

# Yellow-Legged Claphangers: The Image of the Birder in Film and Television

Mark Lynch

Ralph Kramden (Jackie Gleason): "Why are you sure it's a Yellow-bellied Sapsucker?" Ed Norton (Art Carney): "Cuz it's got a yellow belly and it sucks sap." — The Honeymooners

Ed Norton, dressed in his signature rumpled hat, white T-shirt, and striped vest enters from the left onto a Central Park set, an unusual outdoor location for this normally claustrophobic show. Flowers bloom; birds sing. He puts his lunch pail down, raises a pair of heavy binoculars, and utters the immortal phrase: "As I live and breathe, a Yellow-bellied Sapsucker!" The audience howls.

This short scene that opens a classic *Honeymooner*'s episode titled "Ralph Kramden, Inc." is forever etched in my mind because it was the first time I saw birdwatchers on television. As a child I was keenly interested in nature, the outdoors, and birds and dinosaurs in particular, and so any scene in a film or TV show that featured anyone doing anything like birding was of special interest to me. It was only later, as an adult, that I realized that many of the characterizations of birders I had grown up with were not positive. In fact, the birder — especially in TV programming — has typically been cast as a comic icon of nerdish, goofy behavior.

Birding, birdwatching, or "bird spotting" in movies and TV is usually portrayed as a fringe avocation, something not done by "normal," red-blooded American adults. In the scene mentioned earlier, Kramden disgustedly says to Norton, "I don't know why a man of your age watches birds." The implication is that bird watching is something only a Boy Scout might do and even then just for the Merit Badge. On television, birders consistently appear to be out of the mainstream, dressed in their frumpy clothes, with tattered floppy hats, parading about with outsized binoculars and shouting out absurd names that only a very silly person could care about.

Birders in film and TV are archetypical dweebs: childish, petulant, often sexually inexperienced or altogether asexual. This is part of a wider typecasting of natural historians in film as sexual naifs. Consider Cary Grant as paleontologist Dr. David Huxley in Howard Hawks's screwball *Bringing Up Baby* (1938) or Henry Fonda as Amazonian herpetologist Charles Pike in Preston Sturges' *The Lady Eve* (1941). Comedy is elicited by the bookish naturalist's wide-eyed sexual inexperience, colliding with free-spirited Katharine Hepburn (*Baby*) or the predatory Barbara Stanwyck (*Eve*). Birders are usually even more blatantly typecast as sexually dysfunctional; they hardly ever "get the girl," or boy.

The epitome of the sexless nerd birder is the *Beverly Hillbillies*' Jane Hathaway, played to perfection by Nancy Kulp. With the clipped nasal enunciation of a Vassar graduate, her closely cropped hair, hopeless fashion sense, and perpetual failure at dating, Hathaway is a classic TV spinster. That she is also a birdwatcher is just

another aspect of her comical sexlessness. Her bird club is the Biddle Birdwatchers (note the silly alliterative name), and her hero is the founder of the club, Professor P. Caspar Biddle, played by none other than the actor who made a career out of playing geeks and milquetoasts: Wally Cox (nerd squared).

This dated stereotype of the birder as sexually and socially inept persists even today. On a recent *Will And Grace* episode ("The Birds and The Bees" aired 2/17/05) Luke Perry plays Aaron, an avid birder who finds a Golden-cheeked Warbler (correctly described with its correct Latin name, *Dendroica chrysoparia*) next to Karen's (Megan Mullally) building. Jack (Sean Hayes) angrily confronts Aaron, thinking he is a Peeping Tom because Aaron happens to be aiming his binoculars at Karen's window. But as Aaron starts to wax poetic about the bird, Jack excitedly takes Karen aside and says: "Do you know what we have here? The rarest of all gay subspecies: The Hot Gay Nerd." (Jack abbreviates this title to "HGN" for the rest of the episode). Even though Aaron is not as goofy as your typical TV birder, he is still ignorant of the obvious fact that Jack is trying to pick him up because he is lost in rapture at the sight of the warbler. To further emphasize his dorkiness, Aaron is shown using an asthma inhaler.

One refreshing exception to this sad trend is the Michael Apted film *Continental Divide* (1981), in which Blair Brown plays the ravishing Nell Porter, a government ornithologist studying breeding Bald Eagles in the Rockies. She is rugged, self-sufficient, dresses correctly for the outdoors, and even has hot sex with an "off the grid" mountain man who was a former football player. In a role reversal, it is reporter Ernie Soucher (a woefully miscast James Belushi) who, though tough on his home turf in downtown Chicago, becomes the helpless wimp in the great outdoors.

In some films, the icon of the birder as harmless and kooky social misfit serves a deeper cultural significance. In the classic film *The Great Escape*, one of the subtexts of the film is the clash between American and British attitudes. The English P.O.W., Lt. Colin Blythe, (Donald Pleasence) doesn't look like he even belongs in the same war as his foil and friend, the strapping, manly, all-American Lt. Hendley (James Garner). Blythe had been a desk jockey working in "photographic reconnaissance interpretation" who decided to take a plane ride into enemy territory and was shot down. He is balding, meek, and wears a nightshirt to bed; and of course, to add to his list of un-American male ways, Blythe is also an avid birder and bird photographer. In one scene, Hendley picks up Blythe's binoculars, and Blythe explains simply: "you know…the birds." Thinking he finally has a manly point of reference for communicating with Blythe, Hendley replies: "Oh, I used to do a little hunting myself."

Blythe: "Oh! Not hunting ... watching."

Hendley (a bit incredulous): "oh...a birdwatcher?"

Blythe: "watching them and drawing them. I suppose you have birdwatchers in the States?"

Hendley (at a loss): "yeah...some."

There is a brief but gratifying scene in *The Great Escape*, in which Blythe is pretending to teach a bird identification and drawing class in the prison camp as a cover for planning the escape. He is standing in front of a spectacularly welldone colored chalk drawing of a Masked Shrike (*Lanius nubicus*) that is clearly labeled as such. Blythe gives a decent mini-lecture on the species as well as a fair description of its call. He even imitates a Bonelli's Warbler (*Phylloscopus bonelli*)! Surely someone on the set had access to a good field guide, or was even a birder?



Still from *The Great Escape*, courtesy of the Academy of Motion Picture Arts and Sciences

### **INSULT TO INJURY**

"I didn't know that Yellow-legged Claphangers got this far west." – Martin Turner (John McGiver) in *Mr. Hobbs Takes A Vacation* 

As if the stereotypes of birders in film and television aren't bad enough, the details of what they are searching for are often maddeningly confused, full of errors, or downright fictitious. It bothers me that screenwriters will do a little research, get some of the information right, and then just make up the rest, often for comic effect. They'll get a bird's name right but then show the wrong bird. They'll use some real bird's names, and then just make up a ridiculous name for cheap laughs. They'll come up with a real bird, but then supply totally fictional sounds or behavior. To a birder watching the film or TV show, this is a sin of the highest order, veritable fingernails dragging across a chalkboard. To put it bluntly: we don't mind being made fun of but can't they at least get the #%@#@(&^## bird right? Some examples:

In the Honeymooner's episode mentioned earlier, Norton is amazed to see a sapsucker because it's not found within "3000 miles" of Central Park. Later, Ralph ups the distance to "300,000 miles." To make the rarity of this find more plausible, Norton changes the location of his sighting in his birder's notebook to "Albuquerque, New Mexico." This will come as quite a surprise to the sapsuckers that nest in New York (the forest near Cornell's Lab of Ornithology is called "Sapsucker Woods") as well as to birders in New Mexico where *Sphyrapicus varius* is a real rarity.

The irascible recluse author of *Finding Forrester* (Sean Connery) also has a passion for birding. Apparently, chalking up a big list from his apartment window is a symptom of his severely agoraphobic and antisocial behavior. He is shown videotaping what he calls a Connecticut Warbler in a tree outside his Brooklyn apartment, a long shot, yes, but still possible. He correctly notes how rare the sighting is, then holds up the camera to reveal that the bird he has recorded is a male Yellow Warbler. Hey, everyone makes that mistake in the field!

In the film *Mr. Hobbs Takes A Vacation*, boorish boss Martin Turner (John McGiver) reveals that his only passion in life is to birdwatch, after seeing a

photograph taken by Peggy Hobbs (Maureen O'Hara) of a fictional "Yellow-legged Claphanger." The name is likely inspired by "Yellow-bellied Sapsucker," the quintessential silly bird name. Roger Hobbs (Jimmy Stewart) consents to go "birdspotting" with him the next morning. In a classic bit that emphasizes the geekiness of birdspotting, they leave at 4:30 a.m. on an empty stomach because Turner states coffee and food will only "slosh around while hiking," and they don't want that, do they? He demonstrates to Stewart the correct way to walk in the field, with the knees deeply bent, feet pointed in, and looking so ridiculous they almost cause a car of locals to crash. While tromping over hill, dale, and swamp, Turner vocally imitates a Barn Swallow, (which he pronounces with disdain as "Bahn Swalla") sounding like a fifty-pound Peacock in heat. Every time Hobbs thinks he's spotted a new bird, Turner flatly states that it's only another dirt common "Bahn Swalla," (even when Hobbs points out a tree full of blackbirds). Hobbs finally finds a bird that is identified by Turner as a Great Blue Heron, which he is ecstatic about seeing. What is shown on screen though, appears at first to be a small captive African crane species. This is followed by a very brief shot of an actual Great Blue flying away.

In the *Will and Grace* birding episode, the Golden-cheeked Warbler is lured into Karen Walker's apartment with crumbs of Mint Milanos. OK, that is so preposterous as to be funny, but the fact that hardcore birder Aaron has found a Golden-cheeked Warbler in Central Park in February and has not contacted any other birders in New York is grotesquely unbelievable.

One of the most glaring examples of "getting the bird wrong" for me is the otherwise delightful independent film *Rare Birds* (2001), directed by Sturla Gunnarsson, based on the Edward Riche novel and screenplay. Filmed entirely in Newfoundland, where Riche is from, this is a story of odd relationships among the odder inhabitants of a remote village on the Newfoundland coast. Dave (William Hurt) owns a restaurant called "The Auk" that is about to go the way of that extinct flightless alcid. Dave and his conspiracy theory-driven friend Phonce (Andy Jones) falsely report a rare bird sighting off the cliff next to the restaurant so that birders will flock to the area and hopefully then also patronize The Auk. "We'll be maggoty with birdwatchers!" Phonce declares.

The film is beautifully shot on the Newfoundland coast, so when Dave and Phonce need to come up with a seabird they can report, one that is supposed to be extinct, it shouldn't take David Attenborough to think that the obvious, indeed the perfect choice, would be the extinct Labrador Duck (*Camptorhynchus labradorius*). Unfortunately, they come up with the blatantly fictitious Tasker's Sulphureous Duck, which looks something like a hybrid Steller's Eider x Harlequin Duck. Phonce even makes a decoy of the bird to encourage the birders to keep coming. The writer certainly has done some research. In one scene at a phone-in radio show about birds, the expert talks about Hairy Woodpeckers with aberrant yellow crowns being confused with Three-toed Woodpeckers. This is a legitimate, albeit rather obscure field problem. While they get that bit of ID trivia right, in the next sentence they talk about "Rose-crested Grebes." When the birders do show up in the film, scanning the sea through their scopes, they look...like "real birders" using genuine gear. (I'll bet those were real birders in the film because it isn't your typical group of comic stereotypes.) The birders are shown to be passionate, maybe even a bit obsessive (one dies falling off a cliff), but ultimately a varied lot enjoying their avocation. Some of them even know about fine wines. I have actually read complaints from birders about this aspect of the film; as one person wrote: "What birder dresses for dinner?" Nothing like living down to the stereotype!

What the otherwise credible birders are all searching for, however, the central plot contrivance of the film, is something no birder or ornithologist has ever heard of because it's just another "claphanger." Why make that choice? A clue may be found in an interview Riche did in August of 2004 with Penguin/Canada Publishers and which is printed on their web site. In talking about *Rare Birds*, the novel and the film, Riche says:

Readers are active participants, using their imagination to expand what you've given them. They typically make a painting of what you have sketched. It is altogether more rewarding for the writer than dealing with people who mostly want a spoon feeding. This isn't a condemnation of the motion picture media. There are many times, after a long day, when I want nothing more than to sit down and, making no effort, have the story wash over me. For children, it's just plain dangerous, limiting their ability to imagine and then to think at all.

Riche seems to have purposely avoided the obvious choice of Labrador Duck for artistic reasons, to confound expectations and make an appeal to the imagination. As much as I enjoy *Rare Birds*, this still leaves me, as a birder, frustrated.

Does any of this matter? Compared with the larger issues of quality writing, acting, and directing, maybe not, but like any other passionate group, like trout fishermen, boxing fans, ardent golfers, or NASCAR nuts, birders pay attention to those details in movies that are about their interests, and when the film or television show gets them wrong it can seem like the writer or director just doesn't care enough to get it right.

### GETTING IT ALMOST RIGHT

"Steed watches birds. Emma goes hunting."

- subtitle of Episode #90 The Avengers "Silent Dust"

Sometimes a film or TV show does get it almost right. In the classic British TV series, *The Avengers*, birders and ornithologists are portrayed in several episodes as eccentrics. But I find these stereotypes less irksome than those in American series because EVERYONE in an *Avengers* episode is an eccentric. The whole raison d'etre of *The Avengers* is a vision of Britain as the Great Ward for the Chronically Obsessive, and birders are only a few of its many inmates. In "The Winged Avenger," the great character actor Jack MacGowran hilariously portrays the ornithologist, Professor Poole. Obsessed with flight, Poole lives in a house stuffed to the gizzards

with pictures of planes and birds as well as numerous live and mounted specimens. He even hangs about, upside down like a bat. When introduced to Mrs. Peel (Diana Rigg) he absentmindedly repeats their two names: "Peel-Poole, Peel-Poole, Peel-Poole...sounds like the Indonesian Marsh Rambler." OK, that's a "claphanger" name, but the genuine eccentric quality of MacGowran's character makes the scene really quite funny.

*The Avengers* will always remain dear to my heart for a bit of dialogue only a true twitcher could appreciate. In the episode "Silent Dust," all the birds in a town have disappeared. Steed (Patrick Macnee) notes the complete absence of the "martlets" (old name for *Delichon urbica*: House Martin). Steed opines with mock sympathy, "Think of all the poor birdwatchers, their gum boots and disappointed faces." Mrs. Peel discovers a birder named Quince (Aubrey Morris, another great character actor) spying on them and sternly confronts him. Testing her, Quince sneeringly says he is looking for a Black-capped Petrel (*Pterodroma hasitata*). At this point, most serious birders in the audience would groan and think that the writers have pulled just another random bird name out of a book, with no regard for its real occurrence in Britain, but Mrs. Peel snaps back that the only Black-capped Petrel seen in Britain "was in 1850 in Norfolk," and at the time of the airing of the show, that was entirely correct. Mrs. Peel then adds sternly: "Let's assume we both know something about birds." Trust me, I do.

It should come as no surprise that the country that "invented" birding seems to get the portrayal of birders and birding right more often than American television. In Episode 13 of the BBC comedy about social class, To The Manor Born, Audrey fforbes-Hamilton (Penelope Keith) decides to augment her income by raising bees only to find her apiary visited by breeding Eurasian Bee-eaters (Merops apiaster). This species is a vagrant from the Mediterranean and is unknown in Britain as a breeder. Concern is raised that hordes of "twitchers" might descend on the estate and both trespass and disturb the birds. The venerable Royal Society for the Protection of Birds (RSPB) is contacted, and with the help of the new estate owner Richard DeVere (Peter Bowles), volunteers guard the nests round the clock. The birders are not forgotten, however; a viewing hide is erected and the expected crowds of birders are given a carefully controlled viewing of what would certainly be a nice "tick." Everything about this light comedy creates a more realistic view of birding than we typically find on most American TV series. A nice touch is that DeVere is shown using The Larousse Guide to Birds of Britain and Europe in his attempt to identify the common birds on his estate, something he thinks all landowners should be able to do.

One of the most fully realized portrayals of a birder, and also one of the most damning, appears in British-born Alfred Hitchcock's *The Birds* (1961). In the seminal restaurant scene, which occurs after the crows have attacked the Bodega Bay School children, a crowd of characters gather at the diner while Melanie Daniels (Tippi Hedren) calls her father at his newspaper to report the incident. It becomes a virtual roundtable of feelings about birds, ranging from an appreciation of our feathered friends to disgust at the mess those damned pests make. Mrs. Bundy, played by one of the British grande dames of the stage Ethel Griffies, is the classic "bird person."

Dressed in a beret, a tweed jacket, and black gloves, she has that imperious birder's attitude you do sometimes come across in real life. "Ornithology happens to be my avocation," she haughtily announces to Daniels by way of saying that she knows more about birds than Daniels could ever hope to, and that the very idea of an attack by crows is just ridiculous. She unapologetically interrupts Daniels on the phone when Daniels is heard to say to her father: "Is there a difference between crows and blackbirds?" "There is very definitely a



Still from *The Birds*, courtesy of the Academy of Motion Picture Arts and Sciences

difference, ma'am," and with that Bundy proceeds to launch into an impromptu lecture to no one in particular about "*Corvus brachyrhynchos*" and "*Euphagus cyanocepahlus*." Mrs. Bundy condescends to Daniels at every turn, playing on her lack of knowledge of birds, using terms like "brain pans" and "Christmas Counts." Bundy belittles what Daniels claims to have witnessed by referring to it as "the bird war." When a fisherman chimes in that one of his boats was attacked by gulls, Bundy asks the quintessential birder's one-upmanship question: "What kind of gulls?" When the fisherman says he didn't know there were different kinds, it's another cue for Bundy to jump on his ignorance and launch into another unwanted lecture: "There are several varieties of gulls...." This hits home with me because, embarrassingly, I have "been there, done that." With all her knowledge garnered from decades of field experience, Bundy should be a comforting voice of reason in this anarchic situation, but instead, Hitchcock shows her to be just another ignorant victim. It is only after the gulls attack the gas station and many of the patrons of the restaurant that Mrs. Bundy is finally cowed into silence.

I am very clear that I don't want to become a Mrs. Bundy type of birder in my old age. Until someone makes the film that is the birding equivalent of *The Life Aquatic with Steve Zissou*, I would have to say my favorite example of a celluloid birder is a character who is in fact only posing as a birder. In *The Dogs of War*, Christopher Walken plays Jamie Shannon, a cool, cynical, and brilliant mercenary on a dangerous reconnaissance mission to the mythical West African nation of Zangaro. Shannon poses as ornithologist and bird photographer working for an undisclosed "nature magazine." (There is a brief scene of him on a plane intently studying *A Field Guide To The Birds of West Africa* by Serle et al., a book I have to confess to buying after seeing it in this movie.)

In the film's best scene (from a birder's perspective) Walken is having drinks in the bar of a ramshackle hotel, after a day outing tromping around the forest with an unwanted guide foisted on him by the Zangaran Government. An army Commander and four soldiers saunter into the bar, and it's obvious they suspect Shannon of being something other than a birder on a holiday. For one thing, he is dressed too well, and



Still from The Dogs of War, courtesy of the Academy of Motion Picture Arts and Sciences

for another: he is in a bar drinking when he could be out ticking birds. The Commander begins to test Shannon's knowledge of the rare birds of Zangaro all the while plying him with drinks.

Zangaro Commander: "It would please the President enormously if you could tell him the scientific name of the Great Crested Grebe."

Shannon (cool, not missing a beat): "Yeah?" (classic Walken pause). "Maybe some other time." He begins to walk away from the bar but turns suddenly. "Just for you...(loudly) *Podiceps cristatus*. (smugly) Right?"

Commander (Surprised but not giving up. Perhaps it was a lucky guess): "And the Storm Petrel?"

Shannon (really enjoying this now): "*Hydrobates*....(pause) there's more...*pelagicus*."

Shannon walks back to bar, pours a drink. "And what about the Bubbling Cisticola? The *Esmeralda troglodytes*. And my absolute favorite....and yours...the *Nectarinia famosa*. Here's to 'em, God bless 'em."

And the Zangaran army thugs angrily leave beaten by his superb birding knowledge.

What is amazing about this scene is that the "scientific" names are for the most part correct, though "*Esmeralda*" is not now the genus name of the Bubbling Cisticola. *Nectarinia famosa* is commonly known as the Malachite Sunbird. Indeed the species of petrel, grebe, cisticola, and sunbird mentioned are found in Africa but are rare in West Africa. What is also so satisfying and amusing about this vignette is watching Christopher Walken, perhaps the last actor you would ever associate with birding, rattling off with a reckless joie de vivre, the Latin names of birds, like he was naming girls who dumped him in college. Part of this scene's appeal lies in the fantasy of being like Walken's character, especially at those times you find yourself standing on some roadside doing some birding when a carload of nimrods roars by screaming rude birdcalls at you. Wouldn't it be just great to be only posing as a birder when in fact you are really a ruthless killer for hire on a sinister mission? The kind of person who could easily do something very bad to that carload of nimrods, but won't...for the moment at least. And THAT, after all, is the ultimate power fantasy of a true birding geek.

### **BIBLIOGRAPHY:**

Serle, W., G.J. Morel, W.A. Hartwig. 1977. *Field Guide to the Birds of West Africa*. William Collins Sons & Co Ltd. London, United Kingdom.

Dymond, J.N., P.A. Fraser, S.J.M Gantlett. 1989. *Rare Birds In Britain and Ireland*. T & A D Poyser. Staffordshire, United Kingdom.

Bruun, B. 1970. *The Larousse Guide To Birds of Britain and Europe*. The Hamlyn Publishing Group. Middlesex, United Kingdom.

### FILM:

Bringing Up Baby (1938, Howard Hawks) Continental Divide (1981, Michael Apted) Finding Forrester (2000, Gus van Sant) Mr. Hobbs Takes A Vacation (1962, Henry Koster) Rare Birds (2001, Sturla Gunnarsson) The Birds (1961, Alfred Hitchcock) The Dogs of War (1981, John Irvin) The Great Escape (1963, John Sturges) The Lady Eve (1941, Preston Sturges) The Life Aquatic With Steve Zissou (2004, Wes Anderson)

### **TV SERIES:**

### The Avengers:

Episode 90: "Silent Dust" UK Premiere 12/31/65 "Steed watches birds — Emma goes hunting"
Episode 107: "The Bird Who Knew Too Much" UK premiere 2/10/67 "Steed fancies pigeons — Emma gets the bird"
Episode 110: "The Winged Avenger" UK Premiere 2/17/67 "Steed goes birdwatching —Emma does a comic strip"

### The Beverly Hillbillies:

Episode: 4.29 (135) "The Bird Watchers" 4/13/66 Episode: 4.31 (137) "Granny Tonics a Birdwatcher" 4/27/66

*The Honeymooners:* Episode 98: "Ralph Kramden, Inc." 2/4/56

*To The Manor Born* Episode 17/18 (according to fan site): 11/8/81 see also episode: 13

*Will and Grace* "The Birds and the Bees" 2/17/05



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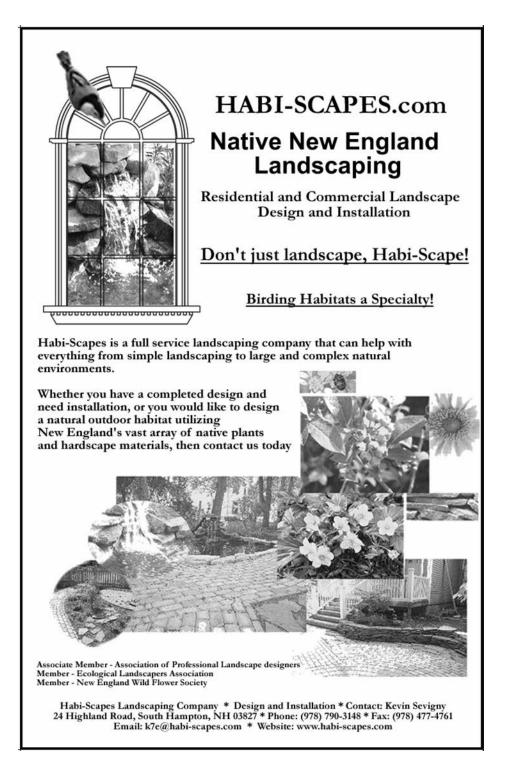
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# **BIRD SIGHTINGS**

## January/February 2006

# Seth Kellogg, Marjorie W. Rines, Robert H. Stymeist, and Jeremiah R. Trimble

It was not exactly the weather most birders wanted on Opening Day 2006. New Year's Day was cold and a little snowy with some drizzle and no sunshine anywhere in the state. Things improved during the month, and January 2006 emerged as the sixth warmest on record with an average of 36.5° in Boston (the warmest January in Boston was 39.2° in 1913). Despite the warmth, no records were broken. The highest temperature was 60° on January 18 and 21, 20° degrees above average for those dates. Precipitation in the form of rain measured 4.60 inches, 0.68 inch above normal for Boston. Measurable rain fell on 15 days, which was four over par. Of the five weekends only one Saturday had rain, but four of the five Sundays had rain or snow. A total of 8.1 inches of snow was recorded in Boston during the month, 5.2 inches below normal. This was in significant contrast to January 2005, when the great blizzard on January 22-23 left Boston with 22.5 inches in 24 hours.

The month of February was dry, snowy, and sunny and averaged near normal temperatures. The month opened with mild temperatures running more than  $10^{\circ}$  above normal. In Boston the high for the month was  $57^{\circ}$  on the 17th, and the low was a frigid  $7^{\circ}$  on the 27th. Rainfall totaled 2.64 inches, 0.66 inch below the average, with measurable amounts falling on eight days. Snowfall totaled 20 inches in Boston, 8.4 over normal. The season total for Boston was 39.9 inches, 6.3 inches above normal, but 32.2 inches less than last winter at the end of February. Considerable wind damage was noted across the state on February 17, with a peak gust of 58 mph out of the west. *R. Stymeist* 

### WATERFOWL THROUGH ALCIDS

An adult **Greater White-fronted Goose** was discovered in Concord in early February, where it lingered for only a few days. Two individual Eurasian Wigeons were observed at three separate locations during January, although only the two in Falmouth were observed into February. Decent numbers of Northern Shovelers were observed during January and February including one inland at Longmeadow on January 24 and nine at Newburyport on February 5. The latter total represents one of the highest counts for this species in February in Massachusetts, while the Longmeadow individual was only the second record for western Massachusetts since 1993 (including a record last year). Reports of 180 and 130 Northern Pintails at Plum Island and Ipswich, respectively, were impressive for the dates and locations. These represent some of the highest winter totals for northern Massachusetts. One Eurasian Teal was discovered at West Harwich on January 28, but it did not remain. Decent numbers of Redheads were found throughout the eastern half of the state, including traditional winter strongholds such as Nantucket, where 45 were observed on New Year's Day, and Falmouth, where nine lingered throughout the period.

**Pacific Loons**, now annual both in the fall and as an overwintering species, were observed at Rockport, Gloucester, and Race Point in Provincetown. Similarly, *the* annual **Eared Grebe** was in Gloucester throughout the reporting period. Individual American Bitterns, an uncommon species in the state during the winter months, were found at Plum Island during the first half of January and at Acoaxet in mid-February. The recent annual sightings of wintering Black

Vultures in the state continued this year with one at Westfield on February 16 and four at Sheffield on February 17. The increase in numbers of wintering Turkey Vultures has been just as impressive, especially in the northeastern part of the state. This year many were observed in towns such as Ipswich and Newburyport.

A **Common Moorhen**, unusual in the state during the winter, was found on Nantucket on January 1 but was not reported subsequently. Some interesting shorebirds lingered during the season. Black-bellied Plovers were found throughout the period, including a good total of fifty-three at South Beach in Chatham in early February. Single Semipalmated Plovers were observed in the first few days of January at Dennis and Plum Island. A Marbled Godwit, possibly a holdover from the Christmas Bird Count season, was observed in East Wareham on January 8 and February 8. This represents only the third record for the state for January and February. The Red Knot found at South Beach in Chatham on February 7 was a significant record for the date. As many as two Long-billed Dowitchers were found and photographed during January at Edgartown on Martha's Vineyard.

Interesting for the time of year, if increasingly detected, was the unidentified jaeger seen at First Encounter Beach in Eastham on January 4. For the second year in a row a **California Gull** was found on Nantucket. Its age and plumage suggest that this may have been the same individual. This year it lingered into early January for only a few days. Numbers of Glaucous Gulls were seen during the reporting period, including a few at inland localities such as Turner's Falls and Fitchburg. At Fitchburg, a "Nelson's Gull" (the hybrid between Glaucous and Herring Gull) was also discovered. Multiple sightings of Forster's Terns, following several December records in the state, were very noteworthy. These included three individuals on Nantucket on January 16, three individuals at Provincetown on February 4, and one individual at Truro on the very late date of February 19. There are only a handful of previous January records for this species in the state and none from February.

Greater Whit	te-fronted Goos	e		1/7	Northbridge	7	M. Lynch#
2/8-11	Concord	1 ad D	Sibley + v.o.	1/16	E. Harwich	10 prC	. + S. Thompson
Snow Goose			•	2/16	GMNWR	2 *	S. Perkins
thr	P.I.	2-4	v.o.	2/16	P.I.	pr	T. Wetmore
1/2-7	Plymouth	2	D. Clapp#	2/20	Agawam	pr 5	S. Kellogg
1/2	Rochester	1	F. Smith	Gadwall	U		00
1/6	Nantucket	15	K. Beattie	thr	Gloucester	34 may	v.o.
1/19	Fairhaven	3	R. Stymeist#	thr	P.I.	22 may	v.o.
1/29, 2/26	Gloucester	1, 1	Heil, BBC	1/1, 2/5	Shrewsbury	3, 7	M. Lynch#
1/29	Chilmark	1 "blue"	' A. Keith	1/1	Nantucket	6	G. d'Entremont#
2/8	Truro	1 imm	M. Tuttle	1/12	Barnstable	24	M. Keleher
2/18	Southwick	1	S. Kellogg	1/19	Fairhaven	10	R. Stymeist#
2/24	Wayland	1	G. Long	1/29	Swansea	11	M. Lynch#
Brant	•		-	2/24	Marstons Mills	10	J. Malin
1/2	Osterville	300	M. Keleher	2/25	Somerset	12	R. Stymeist#
1/12, 2/2	Barnstable	125, 68	M. Keleher	Eurasian Wig	eon		
1/15	Oak Bluffs	100+	J. Liller#	thr	Falmouth	1-2	V.O.
1/19	Fairhaven	140	R. Stymeist#	1/7	Nantucket	2	S. Wheelock#
1/24	Lynn/Nahant	172	R. Heil	1/29	Swansea	2 m	M. Lynch#
1/29, 2/26	Boston H.	718, 780	TASL (Hall)	American Wi			
1/31	W. Dennis	280	M. Keleher	1/1	Boston	3	J. Miller
2/4	Dartmouth	66	R. Stymeist#	1/1	Nantucket		G. d'Entremont#
2/26	Swampscott	53	P. + F. Vale	1/7, 2/25	W. Barnstable	45, 10	Nikula, Malin
Cackling Goo	se			1/24, 2/16	Falmouth	7, 45	M. Keleher
thr	Plymouth	1 W. I	Petersen + v.o.	1/29	Swansea	131	M. Lynch#
Mute Swan				2/8	Concord (NAC)		S. Perkins
thr	Turners Falls	20	v.o.	2/9	Waltham	3	J. Forbes
1/29	Boston H.	22	TASL (Hall)	2/25	Somerset	116	R. Stymeist#
1/29	Swansea	142	M. Lynch#	American Bla			
2/4	Westport	64	M. Lynch#	1/2, 2/2		2630, 511	
2/20	Falmouth	42	P. + F. Vale#	1/8	Fairhaven	387	M. Lynch#
2/25	Somerset	35	R. Stymeist#	1/29, 2/26		528, 516	
Wood Duck	_			2/20	Ipswich	300+	BBC (J. Berry)
thr	Boston	17 max	V.O.	2/25	Wellfleet	250	G. d'Entremont#
thr	Waltham	2	J. Forbes#				

Northern Sho	veler			1/24	Nahant	46	R. Heil
1/1-8 1/1-2/4	E. Harwich Cambridge	3 1 m	E. Banks# v.o.	2/15 2/19	Lakeville Falmouth	4 50+	M. Sylvia J. Liller#
1/1-2/19	Boston	2-4	v.o.	2/20	Westport	26	E. Nielsen
1/2 1/8	W. Barnstable Nantucket		C (S. Kellogg) S (Wheelock)	King Eider thr	Rockport	1-3	V.O.
1/21	P.I.	1	S. McGrath	1/22	Boston (Deer	I.) 1 m	C. Jackson
1/24	Longmeadow	1 9 Bl	E. Rutman	1/29, 2/20			Heil, Kartel
2/5 2/6	Newbypt Lexington	9 Б 1	BC (J. Center) K. Hartel	1/29 2/2-15	Squantum P.I.	1 m T 1 m	ASL (Furbish) v.o.
Northern Pint	ail	100		2/16	Newbypt H.	1	S. McGrath
thr 1/1, 2/15	P.I. Turners Falls	180 max 1, 2 0	v.o. Gentes, Martel	Common Eide 1/2, 2/2	er P.I.	1850, 1300	R. Heil
1/3	Attleboro	21	K. Ryan	1/7	Bourne	400	SSBC (GdE)
1/7, 2/20 1/8	Westport 82. Brighton	, 113 Sty 2 B	meist, Nielsen BC (Stymeist)	1/12, 2/2 1/24	Barnstable Lynn/Nahant	600, 1000 780	M. Keleher R. Heil
1/8, 2/15	Longmeadow	1, 3	Titus, Allen	1/28	N. Truro	475	B. Nikula#
1/19 2/15	Yarmouth Amherst	8 2	M. Keleher R. Packard	1/29, 2/16 1/29, 2/26	Cape Ann Boston H.	1060, 830 8157, 4048	R. Heil TASL (Hall)
2/10			BBC (J. Berry)	2/4	Westport	931	M. Lynch#
Green-winged 1/1-2/11	l Teal Cloucester	1-2	N O	Harlequin Du	ck E. Orleans	7 max	M. Tuttle#
1/1-2/11	Gloucester Worcester	2	v.o. M. Lynch#	thr thr	Rockport	135 max	V.O.
1/2	Westport	6	M. Boucher	1/thr	N. Scituate	21 max	L. Tyrala#
1/7 1/13, 2/10	W. Barnstable PI	14 12, 45	B. Nikula# T. Wetmore	1/7 1/7	Bourne Westport	1 m 2 m B	SSBC (GdE) BBC (Stymeist)
1/21-23	Longmeadow	ĺ	L. Atkinson	1/8	Nantucket	13	E. Ray
1/28 2/11	W. Harwich Plymouth	20 9	A. Curtis K. Hartel#	Surf Scoter 1/8	Fairhaven	112	M. Lynch#
2/17	Arlington	5	J. Sharp	1/24	Lynn/Nahant	250	Ř. Heil
2/23 Eurasian Teal	Amherst	1	G. Martel	1/29	Cape Ann	85 250, 61	R. Heil TASL (Hall)
1/28	W. Harwich	1	A. Curtis	2/4	Boston H. Westport	41	M. Lynch#
Canvasback	E.L. d	10		White-winged	l Scotêr	(5	•
thr 1/1	Falmouth Cambr. (F.P.)	10 max 3	v.o. L. Drane#	thr 1/3	P.I. Rockport (A.	65 max P.) 570	v.o. R. Heil
1/1	Nantucket	60 G.	d'Entremont#	1/8	Fairhaven	51	M. Lynch#
1/7 1/14	Westport Turners Falls	18 B	BC (Stymeist) L. Rock	1/24 1/29, 2/26	Lynn/Nahant Boston H.	265 952, 289	R. Heil TASL (Hall)
2/4	Acoaxet	2	M. Lynch#	1/29	Cape Ann	345	R. Heil
2/6-16 2/9	Belmont Cotuit	$\frac{2}{26}$	v.o. E. Foster	2/4 2/19	Westport Truro	74 11	M. Lynch# J. Liller#
2/18	Mashpee		CBC (Keleher)	Black Scoter			J. Linei#
Redhead thr	Folmouth	9 max	N O	thr 1/2	P.I. Nantucket	47 max 100 G	v.o. d'Entremont#
1/1	Falmouth Nantucket		v.o. d'Entremont#	1/2 1/3	Rockport (A.		R. Heil
1/1-24	Cambr./Arlington		V.O.	1/24	Lynn/Nahant	14	R. Heil
1/1 1/2	Worcester Newbypt	2 2 m	M. Lynch# R. Heil	2/25 Long-tailed D	Orleans luck	250 G	d'Entremont#
1/7	Westport	2 B	BC (Stymeist)	thr	P.I.	62 max	V.O.
1/7 1/7, 2/6	Plymouth Sandwich	4 3, 2	SSBC (GdE) Hoye, Furbish	1/6 1/8	Nantucket Fairhaven	80,000 MA	AS (Wheelock) M. Lynch#
1/8, 2/18	N. Truro	4, 4	B. Nikula	1/25, 2/15	Newbypt	90, 100	Ř. Heil
1/13 1/27	Eastham Lynn	7 3	D. Furbish P. Meleski#	1/29, 2/16	Cape Ann Boston H.	32, 36 164, 85	R. Heil TASL (Hall)
2/15	Lakeville	7	M. Sylvia	Bufflehead		, i i i i i i i i i i i i i i i i i i i	mol (min)
Ring-necked 1 thr	Duck Waltham	30 max 2	/17 v.o.	thr 1/8	P.I. E. Falmouth	110 max 350	v.o. G. Hirth
1/1	Nantucket		d'Entremont#	1/8	Fairhaven	227	M. Lynch#
1/2, 2/19 1/7	E. Sandwich	21, 12 12	D. Furbish	1/24	Lynn/Nahant	$225 \\ 100, 60$	R. Heil R. Heil
1/24, 2/16	Uxbridge Falmouth	37, 44	M. Lynch# M. Keleher	1/25, 2/15 1/29	Swansea	238	M. Lynch#
1/27	Marstons Mills	27	S. Jurkowski		Boston H.	1939, 604	TASL (Hall)
2/15 2/17	Southwick	13	M. Sylvia S. Kellogg	1/31 2/4	Winchester Westport	283	M. Rines M. Lynch#
2/25	Brewster	50+	S. Finnegan	Common Gol	deneyê		•
2/28 Greater Scaup	Concord (NAC)	46	S. Perkins	thr 1/2	Newbypt Nantucket	140 max 1 300 G	1/25 v.o. d'Entremont#
1/1	Gloucester	15	R. Heil	1/8	Fairhaven	1092	M. Lynch#
1/2 1/8	Nantucket 8 E. Falmouth	800 G. 50	d'Entremont# G. Hirth	1/24, 2/16	Falmouth Boston H.	48, 75 909, 306	M. Keleher TASL (Hall)
1/8	Fairhaven	132	M. Lynch#	1/29	Swansea	296	M. Lynch#
1/29		974 289, 238	M. Lynch# TASL (Hall)	2/11 2/17	Turners Falls Waltham	45 12	J. P. Smith M. Rines
2/25		289, 238 261	R. Stymeist#	2/25	Somerset	12	R. Stymeist#
Lesser Scaup				Barrow's Gol	deneye		-
thr 1/24	P.I. Lynn	1-5 8	v.o. R. Heil	1/1-2/4 1/2	Gloucester Nantucket	1 m 1 m G	v.o. d'Entremont#
	-						

Barrow's Goldeneye (continued)		2/25	P'town (R.P.)	1	G. d'Entremont#
1/1, 19 Turners Falls	1 Allen, Taylor	Common Loon			or a Billionian
	1 Hirth, Keleher 1 Mills, Stymeist	1/1-2/3 1/2, 2/15	Cambr. (F.P.) P.I.	1-3 73, 15	v.o. R. Heil
1/22-2/24 Newbypt	1 Mills, Stymeist 1-2 v.o.	1/2, 2/13	Bourne	23	SSBC (GdE)
1/26 New Bedford	1 m C. Longworth	1/7	Wachusett Res.	3	M. Lynch#
	1 m M. Lynch# 1 m M. Lynch#	1/12, 2/2 1/24	Barnstable	20, 32 43	M. Keleher R. Heil
	1 m M. Lynch# 1 M. Keleher	1/29, 2/16	Lynn/Nahant Cape Ann	122, 11	
2/19 Agawam	1 G. Kingston	1/29, 2/26	Boston H.	35, 11	
Hooded Merganser		2/22	P'town (R.P.)	23	O. Spalding#
	24 max v.o. 35 G. d'Entremont#	Pied-billed Gr 1/2	ebe Marstons Mills	2	G. Hirth
	12 M. Taylor	1/12	Barnstable	2	M. Keleher
	8,40 M. Keleher	1/24	Falmouth	3	M. Keleher
	1, 30 P. Roberts 30 M. Keleher#	1/29 2/6	Swansea Orleans	4 2	M. Lynch# D. Furbish
	M. Lynch#	thr	Reports of indi		
2/20 Agawam 1	10 S. Kéllogg	Horned Grebe	-		
	28 G. d'Entremont#	1/2, 2/15	P.I.	59, 10	
Common Merganser thr Arlington 20	)1 max v.o.	1/12 1/19	Barnstable Fairhaven	24 46	M. Keleher R. Stymeist#
	25 G. d'Entremont#	1/24	Lynn/Nahant	55	R. Heil
1/7 Westport 14		1/29	Swansea	176	M. Lynch#
	6, 32 D. + I. Jewell 50+ S. Ellis#	1/29, 2/26 1/29	Winthrop	375, 25 17	TASL (Hall) P. + F. Vale
	76 M. Keleher#	2/16	S. Quabbin	2	L. Therrien
1/31 Belmont 16	55 M. Rines	Red-necked G	rebe		
	H. Allen	1/24	Lynn/Nahant	8 12	R. Heil SSBC (C. Nims)
2/8 Easthampton 5 Red-breasted Merganser	50 C. Gentes	1/28 1/28	N. Scituate P.I.	12	SSBC (C. Mins) S. Perkins#
	0 R. Heil	1/28	P'town	2	B. Nikula#
	10 K. Anderson	1/29	Boston H.	5	TASL (Hall)
	1 J. P. Smith 3, 363 TASL (Hall)	1/29 1/29	Winthrop Cape Ann	38 59	P. + F. Vale R. Heil
	5 M. Lynch#	Eared Grebe		59	K. Hell
1/29, 2/16 Cape Ann 175	5, 67 Ř. Heil	thr	Gloucester	1	v.o.
	66 M. Keleher 35 M. Lynch#	Northern Gani 1/2		2500	C d'Entrement#
	M. Lynch# M. Keleher	1/2, 28	Nantucket Rockport (A.P.)		G. d'Entremont# 5 R. Heil
2/25 P'town 40		1/4, 15	Eastham (F.E.)	250, 24	0 B. Nikula
Ruddy Duck	2.6	1/6	Gloucester (E.F		M. Daley
	3-6 v.o. 70 G. Hirth	1/13 1/28, 2/4	P.I. N. Truro	12 ad 100, 75	
	7 SSBC (GdE)	2/4	P'town (R.P.)	250	B. Nikula#
	M. Keleher	2/7	Chatham (S.B.)	1000	M. Sylvia
	3, 31 M. Keleher 4 S. Perkins#	Double-crester	Gloucester	4 1 W	V R. Heil
	22 D. Furbish	1/1	Nantucket	2	G. d'Entremont#
	1 J. Miller	1/29	Boston H.	1	TASL (Hall)
Ring-necked Pheasant 2/16 Mattapan	3 A. Birch	1/29 2/15	Swansea Worcester	$^{2}_{1}$	M. Lynch# M. Lynch#
Ruffed Grouse	J A. Difei	2/13	Cambridge	1	R. Stymeist#
1/1 Belchertown	2 L. Therrien	Great Cormor	ant		-
	<ol> <li>D. Berard</li> </ol>	1/18	Merrimac		MAS (B. Gette)
				10	
	2 C. Buelow	1/24	Lynn/Nahant	23	R. Heil
Wild Turkey 1/1 Gloucester 2	2 C. Buelow 20 MAS (Larson)	1/24 1/28 1/29	Lynn/Nahant N. Scituate Boston H.	23 28 18	R. Heil SSBC (C. Nims) TASL (Hall)
Wild Turkey 1/1 Gloucester 2 1/20 Hardwick 6	2 C. Buelow 20 MAS (Larson) 51 C. Buelow	1/24 1/28 1/29 1/29, 2/16	Lynn/Nahant N. Scituate Boston H. Cape Ann	23 28 18 127, 86	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil
Wild Turkey 1/1 Gloucester 2 1/20 Hardwick 6 1/29 Newbury 2	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley)	1/24 1/28 1/29 1/29, 2/16 2/4	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls	23 28 18 127, 86 1	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain1	2 C. Buelow 20 MAS (Larson) 51 C. Buelow	1/24 1/28 1/29 1/29, 2/16	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford	23 28 18 127, 86	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain12/2Deerfield22/4Royalston1	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley) 29 H. Allen 25 P. + F. Vale	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I.	$23 \\ 28 \\ 18 \\ 127, 86 \\ 1 \\ 8 \\ 1$	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o.
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain12/2Deerfield22/4Royalston12/6Lexington1	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           29         P. Peterson           29         H. Allen           55         P. + F. Vale           00         R. Hodson	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet	$23 \\ 28 \\ 18 \\ 127, 86 \\ 1 \\ 8$	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain12/2Deerfield22/4Royalston12/6Lexington12/19Hawley6	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley) 2 P. Peterson 29 H. Allen 5 P. + F. Vale 0 R. Hodson 57 M. Lynch#	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet	$23 \\ 28 \\ 18 \\ 127, 86 \\ 1 \\ 8 \\ 1$	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch#
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain12/2Deerfield22/4Royalston12/6Lexington12/19Hawley62/25Worcester4Northern Bobwhite6	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           29         P. Peterson           29         H. Allen           25         P. + F. Vale           20         R. Hodson           37         M. Lynch#           42         J. + M. Nelson	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt	$23 \\ 28 \\ 18 \\ 127, 86 \\ 1 \\ 8 \\ 1 \\ 1 \\ 4 \\ 4 \\ 4$	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins#
Wild Turkey       1/1       Gloucester       2         1/20       Hardwick       6         1/29       Newbury       2         1/31       Jamaica Plain       1         2/2       Deerfield       2         2/4       Royalston       1         2/6       Lexington       1         2/19       Hawley       6         2/25       Worcester       4         Northern Bobwhite       1/7       Rockport (H.P.)       1	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley) 2 P. Peterson 29 H. Allen 5 P. + F. Vale 0 R. Hodson 57 M. Lynch# 42 J. + M. Nelson 11 S. Moore#	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea	23 28 18 127, 86 1 8 1 1 1 4 4 5	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch#
Wild Turkey         1/1       Gloucester       2         1/20       Hardwick       6         1/29       Newbury       2         1/31       Jamaica Plain       1         2/2       Deerfield       2         2/4       Royalston       1         2/6       Lexington       1         2/19       Hawley       6         2/25       Worcester       4         Northern Bobwhite       1/7       Rockport (H.P.)       1         1/7-30       Marstons Mills       1	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           29         P. Peterson           29         H. Allen           25         P. + F. Vale           20         R. Hodson           37         M. Lynch#           42         J. + M. Nelson	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet	$23 \\ 28 \\ 18 \\ 127, 86 \\ 1 \\ 8 \\ 1 \\ 1 \\ 4 \\ 4 \\ 4$	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch#
Wild Turkey         1/1       Gloucester       2         1/20       Hardwick       6         1/29       Newbury       2         1/31       Jamaica Plain       1         2/2       Deerfield       2         2/4       Royalston       1         2/6       Lexington       1         2/19       Hawley       6         2/25       Worcester       4         Northern Bobwhite       1/7       Rockport (H.P.)       1         1/7-30       Marstons Mills       Red-throated Loon       1/2, 2/15       P.I.       6	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           29         P. Peterson           29         H. Allen           15         P. + F. Vale           10         R. Hodson           57         M. Lynch#           51         S. Moore#           1         CCBC (Jurkowski)           6, 11         R. Heil	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crowned	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge d Night-Heron	23 28 18 127, 86 1 1 1 4 4 5 5 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch# K. Sheridan
Wild Turkey         1/1       Gloucester       2         1/20       Hardwick       6         1/29       Newbury       2         1/31       Jamaica Plain       1         2/2       Deerfield       2         2/4       Royalston       1         2/6       Lexington       1         2/19       Hawley       6         2/25       Worcester       4         Northern Bobwhite       1/7       Rockport (H.P.)         1/7-30       Marstons Mills       Red-throated Loon         1/2, 2/15       P.I.       6         1/3       Rockport (A.P.)       1	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley) 2 P. Peterson 29 H. Allen 15 P. + F. Vale 10 R. Hodson 71 M. Lynch# 12 J. + M. Nelson 11 S. Moore# 1 CCBC (Jurkowski) 6, 11 R. Heil 13 R. Heil	1/24 1/28 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crownee 1/29	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge	23 28 18 127, 86 1 1 1 4 4 5 5 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch#
Wild Turkey           1/1         Gloucester         2           1/20         Hardwick         6           1/20         Newbury         2           1/31         Jamaica Plain         1           2/2         Deerfield         2           2/4         Royalston         1           2/6         Lexington         1           2/6         Lexington         1           2/5         Worcester         4           Northern Bobwhite         1         1           1/7         Rockport (H.P.)         1           1/7-30         Marstons Mills         Red-throated Loon           1/2, 2/15         P.I.         0         1/3           1/3         Rockport (A.P.)         1           1/2, 2/26         Boston H.         4/2	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           2         P. Peterson           29         H. Allen           29         H. Allen           20         R. Hodson           37         M. Lynch#           1         CCBC (Jurkowski)           6, 11         R. Heil           3         R. Heil           2, 5         TASL (Hall)	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crowne 1/29 Black Vulture	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge d Night-Heron Winthrop	23 28 18 127, 86 1 8 1 1 4 4 5 5 4 4 4 7 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch# M. Lynch# K. Sheridan
Wild Turkey           1/1         Gloucester         2           1/20         Hardwick         6           1/29         Newbury         2           1/31         Jamaica Plain         1           2/2         Deerfield         2           2/4         Royalston         1           2/6         Lexington         1           2/19         Hawley         6           2/25         Worcester         4           Northern Bobwhite         1/7         Rockport (H.P.)           1/7-30         Marstons Mills         Red-throated Loon           1/2, 2/15         P.I.         6           1/3         Rockport (A.P.)         1           1/29, 2/26         Boston H.         42           2/4         Acoaxet         2/19           2/19         Truro         Truro	2 C. Buelow 20 MAS (Larson) 51 C. Buelow 24 BBC (S. Grinley) 2 P. Peterson 29 H. Allen 15 P. + F. Vale 10 R. Hodson 71 M. Lynch# 12 CCBC (Jurkowski) 6, 11 R. Heil 13 R. Heil	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crowned 1/29 Black Vulture 2/16 2/17	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge d Night-Heron Winthrop Westfield	23 28 18 127, 86 1 1 1 4 4 5 5 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Perkins# M. Lynch# K. Sheridan
Wild Turkey           1/1         Gloucester         2           1/20         Hardwick         6           1/29         Newbury         2           1/31         Jamaica Plain         1           2/2         Deerfield         2           2/4         Royalston         1           2/6         Lexington         1           2/19         Hawley         6           2/25         Worcester         4           Northern Bobwhite         1/7         Rockport (H.P.)         1           1/7-30         Marstons Mills         Red-throated Loon         6           1/2, 2/15         P.I.         6         1/2           1/3         Rockport (A.P.)         1         1/29, 2/26         Boston H.         4/2           2/4         Acoaxet         2/19         Truro         Pacific Loon (no details) *	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           2         P. Peterson           29         H. Allen           15         P. + F. Vale           10         R. Hodson           15         P. + F. Vale           16         R. Hodson           17         J. + M. Nelson           11         S. Moore#           12         CCBC (Jurkowski)           6, 11         R. Heil           2, 5         TASL (Hall)           2         S. Moore#	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crownee 1/29 Black Vulture 2/16 2/17 Turkey Vultur	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge d Night-Heron Winthrop Westfield Sheffield e	23 28 18 127, 86 1 8 1 1 4 4 5 5 4 4 4 4 7 4 1 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland V.O. M. Lynch# S. Hedman# S. Perkins# M. Lynch# K. Sheridan ASL (P. + F. Vale) J. Zepko D. St James
Wild Turkey1/1Gloucester21/20Hardwick61/29Newbury21/31Jamaica Plain12/2Deerfield22/4Royalston12/6Lexington12/6Lexington12/79Hawley62/25Worcester4Northern Bobwhite11/7Rockport (H.P.)11/7-30Marstons MillsRed-throated Loon1/2, 2/15P.I.1/2, 2/15P.I.61/3Rockport (A.P.)12/24Acoaxet2/192/19TruroPacific Loon (no details) *1/7-29Rockport (A.P.)1	2         C. Buelow           20         MAS (Larson)           51         C. Buelow           24         BBC (S. Grinley)           29         P. Peterson           29         H. Allen           15         P. + F. Vale           10         R. Hodson           57         M. Lynch#           12         J. + M. Nelson           11         S. Moore#           12         CCBC (Jurkowski)           6, 11         R. Heil           2, 5         TASL (Hall)           2         M. Lynch#	1/24 1/28 1/29 1/29, 2/16 2/4 2/18 American Bitt 1/1-15 2/4 Great Blue He 1/22 1/28 1/29 2/4 2/19 Black-crowned 1/29 Black Vulture 2/16 2/17	Lynn/Nahant N. Scituate Boston H. Cape Ann Turners Falls Medford ern P.I. Acoaxet ron Boston Newbypt Swansea Acoaxet Cambridge d Night-Heron Winthrop Westfield	23 28 18 127, 86 1 8 1 1 4 4 5 5 4 4 4 7 4	R. Heil SSBC (C. Nims) TASL (Hall) R. Heil L. Therrien J. Sutherland v.o. M. Lynch# S. Hedman# S. Hedman# S. Hedman# M. Lynch# K. Sheridan ASL (P. + F. Vale) J. Zepko

Turkey Vultur		2	I Malaan	
1/7 1/29	P.I. Uxbridge	3 3 7	J. Nelson E. Taylor	Vi
2/5	Millbury	7	J. Rees	• 1
2/6	Ipswich	18	B. Weatherall	
2/19	E. Sandwich	5 8	D. Furbish	
2/19 Bald Eagle	Worcester	8	J. P. Smith	Co
1/2	Ouabbin Pk	2 ad	M. Lynch#	cu
1/6	Lakeville	5	Eagle Counters	Ar
1/10	W. Newbury	2 ad	R. Heil	
1/28 2/15	Amesbury P.I.	4	J. Berry# R. Heil	
2/13	Marstons Mills	2 ad 5 2 ad 4 5 2	M. Keleher	
2/26	Newbypt	6	J. Sutherland	
Northern Har		6 16	. 11	
thr thr	Reports of indiv. DWWS	10 10 10 10 10		
thr	P.I.	21 max		Bl
1/1. 2/9	Northampton	1, 1	Gentes, Smith	
1/13	Eastham	2	D. Furbish D. Furbish	
1/15 1/23	Cumb. Farms	4 1	D. Furbish B. Volkle	
2/15	Northboro Sandwich	3	D. Furbish	
2/20	Ipswich	3 3	BBC (J. Berry)	
2/21	Sheffield	1	D. St. James	Se
Sharp-shinned		from 25	locations	
thr 1/19	Reports of indiv. Fairhaven	3	R. Stymeist#	Ki
2/15	Newbypt	2	MAS (Larson)	111
Cooper's Hav	vk			
thr	Reports of indiv.			0
1/4 1/19	Boston Fairhaven	$\frac{2}{2}$	T. Martin R. Stymeist#	Gr
2/19	Westport	2	G. d'Entremont#	
Northern Gos	hawk			M
1/16	E. Middleboro	1 ad	K. Anderson	р.
1/18 1/25	Boxford Gr Barrington	1 ad 1	D. Martin	Ru
2/11	Medfield	1	C. Barrett J. O'Connell	
2/15	Westhampton	1	C. Horn	
2/23	Harvard	1	S. Hardy	
Red-shoulder thr	DWWS	1-3	D. Furbish	Re
1/2	Marstons Mills	1	G. Hirth#	nu
1/22	Easton	3	K. Ryan	Sa
1/28	Newbury	1 imn		
2/4-20 2/4	Dartmouth Westport	1 ad 2	v.o. M. Lynch#	
2/18	Plympton	ī	G. d'Entremont	
Red-tailed Ha		,	<b>N N V V</b>	
1/1 1/28	W. Newbury	6 7	P. + F. Vale	
2/thr	Sheffield DWWS	8	M. Lynch# D. Furbish	Pu
2/15	Newbypt	ő	R. Heil	1 4
2/15	P.I.	6	R. Heil	
2/20 Rough lagged	Lincoln	6	P. + F. Vale#	
Rough-legged thr	P.I.	1 lt	v.o.	
thr	DWWS	1-2 lt		
1/7	Deerfield	1	W. Lafley	
1/7	Nantucket		IAS (Wheelock)	Dı
1/12 1/19	Ipswich Newbypt	1 imn 1	1 lt R. Heil S. McGrath	
American Ke	strel			
thr	Reports of indiv.			
1/1 Merlin	Nahant	2	D. Wilkinson	
thr	Reports of indiv.	from 22	locations	
1/1, 2/4	P.I.	2, 4	Heil, Wetmore	
1/28	Newbury	2	P. Roberts	<b>C1</b>
	Newbypt	2	T. Bronson	Sh
2/2 Peregrine Fal				
2/2 Peregrine Fale thr	con	from 16	locations	Lo
Peregrine Fale thr thr	con Reports of indiv. P.I.	2-4	v.o.	Lo
Peregrine Fale thr thr 1/10	con Reports of indiv. P.I. Lawrence	2-4 2 ad	v.o. R. Heil	Lo Wi
Peregrine Fale thr thr	con Reports of indiv. P.I.	2-4	v.o.	

2/16 2/16	Belchertown Deerfield	$\frac{2}{2}$	S. Surner D. Minnear
Virginia Rail 1/1	Mashpee	7	M. Keleher
1/1	Nantucket	7 5	G. d'Entremont
1/7 1/28	Northbridge	1	M. Lynch#
Common Mo	IRWS	1	J. MacDougall#
1/1	Nantucket	1 imm	G. d'Entremont#
American Co		22	
thr thr	Boston Eastham	22 ma 75 ma	
1/1	Nantucket	44	G. d'Entremont#
1/1 1/24	Southwick	$2^{2}_{20}$	S. Kellogg
1/24	Lynn Swansea	14	R. Heil M. Lynch#
2/20	Westport	35	E. Nielsen
2/26	Falmouth	30	G. d'Entremont#
Black-bellied 1/6	Nantucket	2	MAS (Wheelock)
1/29	Sandwich	ĩ	M. Tuttle
1/29	Swansea	1	M. Lynch#
2/4 2/7	Westport Chatham (S.B.)	1 53	A. Morgan# M. Sylvia
2/22	P'town (R.P.)	3	O. Spalding#
Semipalmated	Plover		· ·
1/1 1/2	Dennis (Corp. E		R. Everett#
Killdeer	P.I.	1	R. Heil
1/8	Fairhaven	4	M. Lynch#
2/4	Turners Falls	1	R. Palmer
2/23 Greater Velloy	Scituate	1	D. Furbish
Greater Yellov 1/7, 2/4	W. Harwich	2	B. Nikula
1/29	Squantum	1	TASL (Furbish)
Marbled God	wit E Worshow 1	Minia	hialla Languarth
1/8, 2/8 Ruddy Turnst	E. Wareham 1	winne	hiello, Longworth
1/6	Nantucket	2	MAS (Wheelock)
1/7, 2/23	Osterville	1, 8	Nikula, Curtis
1/21 1/29	P'town Hull	8 17 1	M. Lynn TASL (Fitzgerald)
2/2	Barnstable	5	M. Keleher
Red Knot 2/7	Chatham (S.B.)	1	M. Sylvia
Sanderling	Chathani (S.D.)	1	Ivi. Sylvia
1/2, 2/2	P.I.	20,20	
1/2 1/29	Nantucket	9 35	G. d'Entremont#
1/29	Quincy W. Dennis	250	TASL (Joslin) M. Keleher
2/2, 26	Barnstable	14, 30 62	
2/7	Chatham (S.B.)		
2/18 Purple Sandpi	P'town	50+	B. Nikula
thr	P.I.	15 m	ax v.o.
1/7, 28	Scituate	36, 50	Ellis, Nims
1/8, 28 1/29	P'town H. Boston H.	7,4 90	B. Nikula# TASL (Hall)
2/4	Westport	30	A. Morgan#
2/16	Cape Ann	540+	R. Heil
2/26 Dunlin	Falmouth	6	G. Hirth#
1/1	Duxbury	8	R. Bowes
1/8	Fairhaven	2	M. Lynch#
1/10	P.I.	15	B. Packard#
1/31 2/4	W. Dennis Westport	36 72	M. Keleher M. Lynch#
2/7	Chatham (S.B.)	2000	M. Sylvia
2/13	Brewster	107	G. Gove#
2/18 2/26	P'town Sandwich	40+ 11	B. Nikula G. d'Entremont#
Short-billed E		11	G. u Entremont#
2/22	P'town (R.P.)	2	O. Spalding#
Long-billed E 1/7-20	owitcher Edgartown	1-2	ph L. Reese#
Wilson's Snip	e	1-2	PI D. Recse#
1/15	Cumb. Farms	4	D. Furbish
1/20	Chilmark	1	S. Hughes#

Wilson's Snir	be (continued)		Glaucous Gull
1/28	Newbypt	1 S. Grinley#	thr Gloucester 2-4 v.o.
		2 P. Peterson	1/8 Wachusett Res. 1 1W T. Pirro
$\frac{2}{11}, 18$	Mattapan		
2/20	Lynnfield		
2/25	Harwich	2 CCBC (Silverstein)	1/21 Hubbardston 1 J. Fuller
American Wo			2/18 Fitchburg 1 1W T. Pirro
1/7	Nantucket	1 K. Blackshaw	2/22 P'town (Ř.P.) 2 M. St. Sauveur
1/30	Gay Head	1 A. Fischer	Nelson's Gull
2/4	DWWS	1 D. Furbish	2/18 Fitchburg 1 T. Pirro
2/6-7	Ipswich	1 m J. Tarr	Black-legged Kittiwake
2/21	Lenox	1 D. St James	1/2, 2/6 P.I. 27 ad, 3 ad R. Heil
Jaeger specie	s		1/3, 18 Rockport (A.P.) 13, 57 R. Heil
Ĭ/4	Eastham (F.E.)	2 B. Nikula	1/4, 2/13 Eastham (F.E.) 270, 12 B. Nikula
Little Gull	. ,		1/6 Gloucester (E.P.) 10+ M. Daley
1/16	Nantucket	1 K. Blackshaw#	1/28 N. Truro 620 B. Nikula#
Black-headed		1 III Blackshall	2/4 P'town (R.P.) 400 B. Nikula#
thr	Gloucester	3-4 v.o.	2/7 Chatham (S.B.) 32 M. Sylvia
1/1	Nantucket	2 1 1W d'Entremont#	Forster's Tern
1/12	Osterville	1 M. Keleher	1/16 Nantucket 3 K. Blackshaw#
Bonaparte's		i wi. Kelenei	2/4 P'town (R.P.) 3 ph B. Nikula#
1/29	Boston H.	1 TASL (Hall)	2/19 Truro 1 J. Liller#
2/5	Gloucester	1 J. Robinson	Common Murre
2/19	Truro	2 J. Köbilisöli 2 J. Liller#	
	ull (details submit		
1/1-2	Nantucket 12	2W ph B. Harris + v.o.	
Iceland Gull			2/4, 25 P'town (R.P.) 3, 1 Nikula, GdE
1/thr	Cambr. (F.P.)	1 ad L. Ferraresso#	Thick-billed Murre 1/1 P'town (R.P.) 3 D. Clapp#
1/1-2/11	Gloucester	5 R. Heil	
1/1-2/15	P.I.	1-3 v.o.	1/3, 18 Rockport (A.P.) 4, 1 R. Heil
1/1, 2/28	Turners Falls	3, 2 J. P. Smith	1/6 Hyannis 1 MAS (Wheelock)
1/1	Rockport	1 1W R. Heil	1/28, 2/4 P'town 2, 4 B. Nikula#
1/2	Nantucket	7 G. d'Entremont#	Razorbill
1/10	Lawrence	1 1W R. Heil	1/1-2/15 P.I. 40-86 R. Heil
1/15-2/25	Newbypt	2 v.o.	1/3, 18 Rockport (A.P.) 505, 418 R. Heil
1/20	W. Newbury	1 2W R. Heil	1/7 Nantucket 500+ MAS (Wheelock)
2/4	P'town (R.Þ.)	16+ B. Nikula#	1/9, 2/26 Falmouth 10, 12 G. Hirth
2/4	Fitchburg	1 ad, 1 1W T. Pirro	1/28 Orleans 100+ M. Tuttle
2/25	N. Truro	5 B. Nikula	1/28 N. Truro 8400 B. Nikula#
Lesser Black	-backed Gull		1/28, 2/22 P'town 225, 137 Nikula, Spalding
thr	Boston	1 ad v.o.	1/29, 2/16 Cape Ann 37, 169 R. Heil
1/2	Nantucket	11 G. d'Entremont#	Black Guillemot
1/7	Dennis	1 J. Hoye#	1/1-2/4 Gloucester 32 max v.o.
1/14	Gloucester	2 MAS (S. Ellis)	1/15 Eastham (F.E.) 1 B. Nikula
	Turners Falls	1 Galbraith, Taylor	1/24 Lynn/Nahant 2 R. Heil
1/21, 2/4	Fitchburg	1 ad T. Pirro	1/29, 2/16 Cape Ann 59, 25 R. Heil
2/13	Brewster	1 3W G. Gove#	1/29, 2/26 Boston H. 16, 4 TASL (Hall)
2/18	Hyannis	1 M. Keleher	2/5 P.I. $4$ T. Wetmore
2/10	11 junits		2/19 P'town (R.P.) 2 J. Liller#
			217 I town (K.I.) $2$ J. Linei#

#### **OWLS THROUGH FINCHES**

The sighting of a Barn Owl in Edgartown raises hope that this species may yet survive in Massachusetts. The past two winters have been unusually cold and snowy, especially on Cape Cod and the Islands, where Barn Owls have had a small breeding population, notably on the Vineyard. As many as five Snowy Owls were reported from Plum Island during the period, and the same number occurred at Logan Airport. One Snowy Owl was seen at the Oakley Country Club in Watertown in January. This was the only report away from the coast; it was color-marked with blue dye and had been caught earlier this year at Logan. Great Horned, Barred, and Northern Saw-whet owls were reported in better-than-average numbers for the period; the Long-eared Owls first noted in mid December from Dunback Meadow in Lexington were well documented through at least January 12.

As many as fifteen Yellow-bellied Sapsuckers from twelve areas were reported during the period, seven more localities than last year. There appears to be a growing tendency for this species to overwinter in our area, with more and more reports in the last several years. It was the third good year in a row for Northern Shrikes, with as many as twenty-six individuals noted statewide. American Crow numbers were up in some areas although they certainly have a long way to go to reach the magnitude of the roosts three to five years ago. In Watertown over eighty

Fish Crows were noted, enjoying the trash bins behind Friendly's Restaurant as they have for years. Ravens continue to show up in non-traditional locations. One was reported from Framingham, and there were several reports from the Cape Ann area where a nest was located recently. The **Boreal Chickadee** is an irruptive visitor to our area, and this year there were four individuals reported at feeders in Orange, Plympton, Becket, and Brookfield.

Among the semi-hardy lingering birds, the Gray Catbird was most reported with the best showing in recent memory. The numbers remained high in February, which often shows a marked decrease. Other hardy birds included many Eastern Phoebes, good numbers of Winter Wrens, more than normal numbers of House Wrens, and a very strong showing of Eastern Bluebirds, Hermit Thrushes, and Eastern Towhees.

The most unusual birds included the very cooperative **Varied Thrush**, first found on December 2, 2005, in the Fenway area of Boston and last noted on January 29. Another Varied Thrush was seen in Edgartown on February 7 and remained until the end of the month. **Bohemian Waxwings** were noted in seven different localities. Cape Cod was host to four different **Western Tanagers**, including two birds in Orleans. A **Yellow-headed Blackbird** was found in a large flock of blackbirds in West Bridgewater at the end of February. Good groups of Common Redpolls were moving though the area, but very few were noted at feeding stations; most of the reports were of roving flocks in the wild. Sightings of Pine Siskins were very much reduced. The largest group from a single location was five individuals. Only two Red Crossbills were seen, and Evening Grosbeak numbers were only slightly better than last year. *R. Stymeist* 

Dame Oral				Shart and C	1		
Barn Owl 1/14	Edgartown	1	J. Liller#	Short-eared C	P.I.	1-3	
Eastern Scree		1	J. LINCI#	1/1	Hadlev	1-5	v.o. C. Gentes
thr	Reports of indiv	from 16	locations	1/17	Gay Head	1	A. Fischer
1/15	Medford	2	J. Sutherland	1/17-2/28	DWWS	1-2	D. Furbish
2/8	Arlington	Dr	D. Bean	1/22	Southwick	1-2	S. Kellogg
2/28	Malden	2 gray		Northern Saw		1	5. Kenogg
Great Horned		2 gray	y = D. + 1. Jewell	thr	Lexington	3	M. Rines
thr	Reports of indiv	from 14	locations	thr	Waltham	1	M. Rines#
thr	DWWS	2-3	D. Furbish	1/2	Nantucket	1	G. d'Entremont
1/7	Douglas SF	4	M. Lynch#	1/2	Ware R. IBA	1	M. Lynch#
1/8	Hardwick	2	C. Buelow	1/2	Douglas SF	2	M. Lynch#
2/14	Medfield	2	J. O'Connell	1/28	Newbypt	ĩ	S. McGrath
2/17	Leicester	$\frac{2}{2}$	M. Lynch#	1/28, 2/26		1	P. Ippolito#
2/21	Stoneham	$\tilde{2}$	D. + I. Jewell	2/24	Burlington	1	M. Rines
2/24	Burlington	pr n	R. LaFontaine#	2/26	HRWMA	1	T. Pirro
Snowy Owl	Durington	ргп	R. Lai olitamen	Belted Kingfi		1	1.11110
thr	P.I.	3-5	V.O.	1/8	Gloucester	2	D. Chickering
thr	Nahant	1	D. Wilkinson	1/28	Sheffield	2	M. Lynch#
1/5	Watertown	î	B. Stout	2/11	Medford	2 3	M. Rines#
	Boston (Logan)	5, 2	N. Smith	2/15	Milton	2	P. O'Neil
1/17	Ipswich (C.B.)	1	R. Heil	2/19	E. Sandwich	$\overline{2}$	D. Furbish
1/19, 2/8	Duxbury B.	2, 2	N. Smith	Red-bellied W			
1/27, 28		ad, 1 <sup>′</sup> imm	F. D'Amico#	1/1	Pepperell	4	E. Stromsted
2/11	Sandwich	1	K. Doyon	1/2	Framingham	5	J. Hoye#
2/26	Eastham (F.E.)	1 ad C	. + S. Thompson	1/7	Westport	4	BBC (Stymeist)
Barred Owl			*	1/22	Falmouth	4	R. Stymeist#
thr	Lexington	1	M. Rines	1/28	Sheffield	4	M. Lynch#
thr	DWWS	1	D. Furbish	1/29	Yarmouth	3	M. Keleher#
1/2	Medford	1	A. + G. Gurka	2/4	Wayland	3	G. Long
1/2	Ware R. IBA	2	M. Lynch#	2/4	Dartmouth	6	R. Stymeist#
1/3	Ipswich	1	S. McGrath	Yellow-bellie	d Sapsucker		
1/6	Salem	1	S. McGrath	thr	Gloucester	1-2	D. Sandee#
1/7	Douglas SF	1	M. Lynch#	thr	Mt.A.	1-3	R. Stymeist
1/14	IRWS	1	J. MacDougall	1/1	Sandwich	1	D. Člapp#
2/13	Pepperell	1	D. Fallon	1/7	Westport	1	BBC (Stymeist)
2/14	Newton	1	P. Gilmore	1/29	W. Concord	1 m a	
2/25	Stoneham	1	D. + I. Jewell	2/11	Mattapan	1	A. Birch
Long-eared O				2/13	Shutesbury	1	K. Weir
1/1-12	Lexington	3	M. Rines#	2/13	W. Tisbury	1	A. Keith
1/6	Fairhaven	1	D. Zimberlin#	2/14	Amherst	1	H. Allen
1/24	Westport		dkill F. Thurber	2/16	Medford	l imr	nR. LaFontaine#
2/20	E. Falmouth	1	M. Kasprzyk	2/19	Northampton	1	B. Hart
2/20, 27	DWWS	1	D. Furbish	2/19	S. Dartmouth	1 m	G. d'Entremont#

	1			2/15 29	Due alsfield	1	M M:11.4
Hairy Woodp 1/1	Pepperell	4	E. Stromsted	2/15-28 2/19	Brookfield Becket	1 1	M. Mills# J. Babcock
1/20	W. Newbury		R. Heil	Red-breasted		1	J. Dabcock
1/20	Lexington	3 4	M. Rines	1/1	Mashpee	5	M. Keleher
1/22	Hardwick	3	C. Buelow	1/1	Turners Falls	6	C. Gentes
1/29	Yarmouth	4	M. Keleher#	1/8	Boston (A.A.)	8	J. Miller
2/4	Woburn	3	M. Rines	1/12	Barnstable	3	M. Keleher
2/12	Warwick	3	M. Chase#	1/20	W. Newbury	4	R. Heil
Northern Flic	ker			Brown Creep	ber		
1/1	Nantucket	7	G. d'Entremont#	1/8	Fairhaven	4	M. Lynch#
1/24	Falmouth	4	M. Keleher	1/8	Longmeadow	4	R. Titus
1/28	Sheffield	4	M. Lynch#	1/21	Lexington	5	M. Rines
2/4	Belmont	4	M. Rines#	2/4	Wayland	4	G. Long
2/11	Marstons Mills		CBC (Jurkowski)	2/4	Woburn	4	M. Rines
2/25	Truro	8	G. d'Entremont#	2/18	Mashpee	6	CCBC (Keleher)
Pileated Woo	New Salem	2	M. Laurah#	Carolina Wre		16	DDC (Champing)
1/2 1/2	IRWS	2 3	M. Lynch#	1/7 1/19	Westport	16 17	BBC (Stymeist)
1/2 1/8	Hardwick	1	J. MacDougall# C. Buelow	1/21	Fairhaven Lexington	5	R. Stymeist# M. Rines
1/12	Salisbury	1	S. McGrath	1/21	Falmouth	23	R. Stymeist#
1/13	Paxton	1	B. Mulhearn	1/29	Swansea	25	M. Lynch#
1/28	W. Gloucester	1	S. Grinley#	2/4	Dartmouth	$\frac{20}{20}$	R. Stymeist#
2/4	Boxford	ĩ	T. Martin#	2/8	Boston (A.A.)	6	J. Miller
2/4	Royalston	1 m		House Wren		-	
2/4	Ware	1 m		1/2	Fairhaven	1	M. Maurer
2/11	Lincoln	1	J. Forbes#	1/21	Dorchester	1	P. + F. Vale
Eastern Phoe	be			1/29	Yarmouth	1	M. Keleher#
1/2	Westboro WMA	1	N. Paulson#	2/4	Westport	1	M. Lynch#
1/7	Westport	1	BBC (Stymeist)	Winter Wren			
1/9	Nantucket	1	M. Aquire	1/2	Petersham	2	M. Lynch#
1/10	Mattapan	1	L. Ferraresso	1/2	Ware R. IBA	4	M. Lynch#
1/10	Boston (BNC)	1	L. Ferraresso	1/9	IRWS	2	J. MacDougall
1/11	W. Tisbury	1	L. McDowell	1/19	Fairhaven	3	R. Stymeist#
1/12	Sutton	1	D. Berard	1/22	Falmouth	2	R. Stymeist#
1/13	Paxton	2 1	B. Mulhearn	1/29	Yarmouth	3	M. Keleher#
1/15 1/21	Chappaquidick	1	J. Liller#	2/4 2/4	Wayland W. Tishuru	2 3 5 3 2 3 2 3 2	G. Long
2/11	Truro Rockport (H.P.)		M. Lynn D. Sandee#	2/4 2/6	W. Tisbury Winchester	2	M. Pelikan M. Rines
2/11	Jamaica Plain	1	P. Peterson	2/19	E. Sandwich	$\frac{2}{3}$	D. Furbish
2/25	Lakeville	1	M. Sylvia	Marsh Wren		5	D. Puroisii
Northern Shr		1	WI. Sylvia			2.4	TW
						/-4	I wermore
		2-4	V O	1/thr 1/1	P.I. Mashnee	2-4	
thr thr	P.I.	2-4 . from 2	v.o. 22 locations	1/1	Mashpee	2-4 2 4	M. Keleher
thr	P.I. Reports of indiv					2	
thr thr	P.I. Reports of indiv ow			1/1 1/1	Mashpee Nantucket E. Sandwich	$^{2}_{4}$	M. Keleher G. d'Entremont
thr thr American Cr 2/4 2/6	P.I. Reports of indiv ow Fitchburg	r. from 2	22 locations	1/1 1/1 1/2 1/7 1/8	Mashpee Nantucket E. Sandwich Westport Fairhaven	2 4 1 1 7	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch#
thr thr American Cru 2/4 2/6 Fish Crow	P.I. Reports of indiv ow Fitchburg Springfield	r. from 2 1500+ 1200	22 locations T. Pirro I. Lynch	1/1 1/1 1/2 1/7 1/8 1/20	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury	2 4 1 1 7 1	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil
thr thr American Cru 2/4 2/6 Fish Crow thr	P.I. Reports of indiv ow Fitchburg Springfield Watertown	r. from 2 1500+ 1200 80 m	22 locations T. Pirro I. Lynch ax R. Stymeist	1/1 1/1 1/2 1/7 1/8 1/20 2/25	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset	2 4 1 1 7	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch#
thr thr American Cr 2/4 Fish Crow thr thr	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham	2 from 2 1500+ 1200 80 m 22 m	22 locations T. Pirro I. Lynch ax R. Stymeist ax J. Forbes	1/1 1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset rned Kinglet	2 4 1 7 1 1	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist#
thr thr American Cr 2/4 2/6 Fish Crow thr thr 1/10	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence	x from 2 1500+ 1200 80 m 22 m 12+	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil	1/1 1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset med Kinglet Westport	2 4 1 7 1 1 8	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist)
thr thr American Cre 2/4 2/6 Fish Crow thr thr 1/10 1/12	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan	x from 2 1500+ 1200 80 m 22 m 12+ 2	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso	1/1 1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven	2 4 1 7 1 1 1 8 18	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch#
thr American Cru 2/4 2/6 Fish Crow thr thr 1/10 1/12 1/22	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills	x from 2 1500+ 1200 80 m 22 m 12+ 2 1	22 locations T. Pirro I. Lynch ax R. Stymeist ax J. Forbes R. Heil L. Ferraresso R. Stymeist#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset 'ned Kinglet Westport Fairhaven W. Newbury	2 4 1 7 1 1 1 8 18 7	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil
thr American Cro 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1	22 locations T. Pirro I. Lynch ax R. Stymeist ax J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset med Kinglet Westport Fairhaven W. Newbury Falmouth	2 4 1 7 1 1 8 18 7 7	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist#
thr thr American Cr 2/4 2/6 Fish Crow thr thr 1/10 1/12 1/22 1/24 2/26	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields	x from 2 1500+ 1200 80 m 22 m 12+ 2 1	22 locations T. Pirro I. Lynch ax R. Stymeist ax J. Forbes R. Heil L. Ferraresso R. Stymeist#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick	2 4 1 7 1 1 8 18 7 7 15	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow
thr American Cr 2/4 2/6 Fish Crow thr thr 1/10 1/12 1/22 1/24 2/26 Common Rav	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven	x. from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch#	1/1 1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/30	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Mestport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin	$2 \\ 4 \\ 1 \\ 7 \\ 1 \\ 1 \\ 1 \\ 8 \\ 18 \\ 7 \\ 7 \\ 15 \\ 6 \\ 15 \\ 6 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 \\ 10 $	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien
thr American Cro 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Ray 1/2	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Keleher M. Lynch# J. Hoye#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/30 2/5	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA	$     \begin{array}{c}       2 \\       4 \\       1 \\       1 \\       7 \\       1 \\       1 \\       8 \\       7 \\       7 \\       15 \\       6 \\       6     \end{array} $	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch#
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Ray 1/2 1/7	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester	x. from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1	22 locations T. Pirro I. Lynch ax A. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/30 2/5 2/8	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford	$     \begin{array}{c}       2 \\       4 \\       1 \\       7 \\       1 \\       1 \\       8 \\       7 \\       7 \\       15 \\       6 \\       6 \\       14 \\       \end{array} $	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell
thr American Cro 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Ray 1/2	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/30 2/5	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee	$     \begin{array}{c}       2 \\       4 \\       1 \\       1 \\       7 \\       1 \\       1 \\       8 \\       7 \\       7 \\       15 \\       6 \\       6     \end{array} $	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch#
thr American Cr 2/4 2/6 Fish Crow thr thr 1/10 1/12 1/22 1/24 2/26 Common Ray 1/2 1/7 1/11	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester Maynard Athol	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 1 22+	22 locations T. Pirro I. Lynch ax A. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/30 2/5 2/8 2/18	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee	$     \begin{array}{c}       2 \\       4 \\       1 \\       7 \\       1 \\       1 \\       8 \\       7 \\       7 \\       15 \\       6 \\       6 \\       14 \\       7 \\       7     \end{array} $	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher)
thr American Cru 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester Maynard	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 1	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/20 1/22 1/30 2/5 2/8 2/18 Ruby-crowno	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford	2 4 1 7 1 1 8 8 8 8 8 7 7 15 6 6 14 7 from 2	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher)
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester Maynard Athol Beverly	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 1 22+ 2	22 locations T. Pirro I. Lynch ax R. Stymeist X. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/30 2/5 2/8 2/18 Ruby-crowno thr thr 1/8	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Mestport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv.	2 4 1 7 1 1 8 8 8 7 7 15 6 6 14 7 from 2 2	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/18 2/10	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester Maynard Athol Beverly Pepperell	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 1 1 1 1 22+ 2 1	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/30 2/5 2/8 2/18 Ruby-crowna thr	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset Med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford	2 4 1 7 1 1 8 8 8 8 8 7 7 15 6 6 14 7 from 2	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + 1. Jewell CCBC (Keleher) 16 locations R. LaFontaine
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thr American Cr 2/4 2/6 Fish Crow thr thr 1/10 1/12 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28 2/10 2/11 2/22 2/26 Horned Lark thr thr 1/1 1/7 1/28 1/28 1/28 1/28 1/28 1/28	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields ven Framingham Gloucester Maynard Athol Beverly Pepperell Manchester Easton Royalston Gloucester P.I. Sheffield Westport Hadley Ipswich Deerfield Sandwich	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 22+ 2 1 1 8 55 m 190 m 162 167 250	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted D. Duxbury-Fox K. Ryan T. Pirro ax v.o. ax v.o. ax v.o. BBC (Stymeist) C. Gentes S. Perkins#	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/22 1/30 2/5 2/8 2/18 Ruby-crownd thr thr 1/8 1/10 1/19 Eastern Blue 1/7 1/12 1/12 1/12 1/12 1/20 1/20 1/21 2/4 2/4	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford Fairhaven Rockport (H.P.) Fairhaven Boxford Marstons Mills Essex Whately Worcester W. Newbury DWWS Shelburne Amherst	$\begin{array}{c} 2\\ 4\\ 1\\ 1\\ 1\\ 7\\ 1\\ 1\\ 8\\ 18\\ 7\\ 7\\ 15\\ 6\\ 6\\ 6\\ 14\\ 7\\ 15\\ 6\\ 6\\ 14\\ 7\\ 15\\ 10\\ 20\\ 10\\ 10\\ 10\\ \end{array}$	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations R. LaFontaine M. Lynch# R. Stymeist# CCBC (Jurkowski) R. Heil J. P. Smith B. Mulhearn R. Heil SSBC (S. Avery) T. Gagnon C. Gentes
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28 2/10 2/11 2/22 2/26 Horned Lark thr 1/1 1/7 1/28 1/31 2/11 Tree Swallow 1/14	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields Ven Framingham Gloucester Maynard Athol Beverly Pepperell Manchester Easton Royalston Gloucester P.I. Sheffield Westport Hadley Ipswich Deerfield Sandwich Y Tuckernuck	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 22+ 2 1 1 8 55 m 190 m 160 157 250 100	22 locations T. Pirro I. Lynch ax R. Stymeist ax J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted D. Duxbury-Fox K. Ryan T. Pirro ax v.o. ax v.o. R. Packard BBC (Stymeist) C. Gentes S. Perkins# B. Ranney	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/30 2/5 2/8 2/18 Ruby-crowna thr thr 1/8 1/10 1/19 Eastern Blue 1/7 1/12 1/120 1/20 1/20 2/5	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford Fairhaven Rockport (H.P.) Fairhaven Boxford Marstons Mills Essex Whately Worcester W. Newbury DWWS Shelburne	$\begin{array}{c} 2\\ 4\\ 1\\ 1\\ 1\\ 7\\ 7\\ 15\\ 6\\ 6\\ 14\\ 7\\ 7\\ 15\\ 10\\ 20\\ 10\\ 10\\ 10\\ 10\\ \end{array}$	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations R. LaFontaine M. Lynch# R. Stymeist# CCBC (Jurkowski) R. Heil J. P. Smith B. Mulhearn R. Heil SSBC (S. Avery) T. Gagnon
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28 2/10 2/11 2/22 2/26 Horned Lark thr thr 1/7 1/7 1/7 1/7 1/7 1/28 2/10 2/11 1/7 1/28 1/28 1/28 1/31 2/11 Tree Swallow	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields Ven Framingham Gloucester Maynard Athol Beverly Pepperell Manchester Easton Royalston Gloucester P.I. Sheffield Westport Hadley Ipswich Deerfield Sandwich Y Tuckernuck	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 22+ 2 1 1 1 8 55 m 190 m 162 160 157 250 100 15	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted D. Duxbury-Fox K. Ryan T. Pirro ax v.o. ax v.o. ax v.o. BBC (Stymeist) C. Gentes S. Perkins# B. Ranney K. Doyon	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/22 1/22 1/22 1/22	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford Fairhaven Rockport (H.P.) Fairhaven bird Marstons Mills Essex Whately Worcester W. Newbury DWWS Shelburne Amherst Dartmouth Charlemont Boston	$\begin{array}{c} 2 \\ 4 \\ 1 \\ 1 \\ 7 \\ 1 \\ 1 \\ 8 \\ 18 \\ 7 \\ 7 \\ 15 \\ 6 \\ 6 \\ 6 \\ 14 \\ 7 \\ 7 \\ from \\ 2 \\ 2 \\ 2 \\ 2 \\ 2 \\ 10 \\ 15 \\ 15 \\ 10 \\ 20 \\ 12 \\ 10 \\ 16 \\ \end{array}$	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# BBC (Stymeist) M. Lynch# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations R. LaFontaine M. Lynch# R. Stymeist# CCBC (Jurkowski) R. Heil J. P. Smith B. Mulhearn R. Heil SSBC (S. Avery) T. Gagnon C. Gentes R. Stymeist#
thr American Cra 2/4 2/6 Fish Crow thr 1/10 1/12 1/24 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28 2/10 2/11 2/22 2/26 Horned Lark thr thr 1/1 1/7 1/7 1/1 1/28 2/10 2/11 1/7 1/7 1/7 1/7 1/7 1/7 1/7 1/7 1/7	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields Yen Framingham Gloucester Maynard Athol Beverly Pepperell Manchester Easton Royalston Gloucester P.I. Sheffield Westport Hadley Ipswich Deerfield Sandwich Y Tuckernuck cadee Orange	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 22+ 2 1 1 1 22+ 2 1 1 1 8 55 m 190 m 162 160 157 250 100 15 8 1 157 157 157 157 157 157 157	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted D. Duxbury-Fox K. Ryan T. Pirro ax v.o. ax v.o. ax v.o. BEC (Stymeist) C. Gentes S. Perkins# B. Ranney K. Doyon R. Veit	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/30 2/5 2/8 2/18 Ruby-crowne thr 1/8 1/10 1/19 Eastern Blue 1/7 1/12 1/12 1/12 1/12 1/12 1/12 1/12	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset med Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford Fairhaven Rockport (H.P.) Fairhaven bird Marstons Mills Essex Whately Worcester W. Newbury DWWS Shelburne Amherst Dartmouth Charlemont Boston Sh	$\begin{array}{c} 2\\ 4\\ 1\\ 1\\ 7\\ 7\\ 1\\ 1\\ 8\\ 18\\ 7\\ 7\\ 7\\ 15\\ 6\\ 6\\ 6\\ 14\\ 7\\ 7\\ from\\ 2\\ 2\\ 2\\ 2\\ 2\\ 10\\ 15\\ 15\\ 10\\ 20\\ 12\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10$	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# BBC (Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations R. LaFontaine M. Lynch# R. Stymeist# R. Stymeist# CCBC (Jurkowski) R. Heil J. P. Smith B. Mulhearn R. Heil SSBC (S. Avery) T. Gagnon C. Gentes R. Stymeist# M. Lynch# B. Mayer
thr American Cr 2/4 2/6 Fish Crow thr 1/10 1/12 1/22 1/24 2/26 Common Rav 1/2 1/7 1/11 1/16 1/28 2/10 2/11 2/22 2/26 Horned Lark thr thr 1/1 1/7 1/28 1/31 2/11 Tree Swallow 1/14 Boreal Chiel	P.I. Reports of indiv ow Fitchburg Springfield Watertown Waltham Lawrence Mattapan Marstons Mills Mashpee Brookfields Yen Framingham Gloucester Maynard Athol Beverly Pepperell Manchester Easton Royalston Gloucester P.I. Sheffield Westport Hadley Ipswich Deerfield Sandwich Y Tuckernuck Kadee	x from 2 1500+ 1200 80 m 22 m 12+ 2 1 1 1 1 22+ 2 1 1 1 22+ 2 1 1 1 8 55 m 190 m 162 160 157 250 100 15 8 1 157 157 157 157 157 157 157	22 locations T. Pirro I. Lynch ax R. Stymeist J. Forbes R. Heil L. Ferraresso R. Stymeist# M. Keleher M. Lynch# J. Hoye# T. Spahr N. Schaub# P. + F. Vale S. Perkins# E. Stromsted D. Duxbury-Fox K. Ryan T. Pirro ax v.o. ax v.o. R. Packard BBC (Stymeist) C. Gentes S. Perkins# B. Ranney K. Doyon R. Veit	1/1 1/2 1/7 1/8 1/20 2/25 Golden-crow 1/7 1/8 1/20 1/22 1/22 1/22 1/22 1/22 1/22 1/22	Mashpee Nantucket E. Sandwich Westport Fairhaven W. Newbury Somerset ned Kinglet Westport Fairhaven W. Newbury Falmouth Hardwick W. Quabbin Westboro WMA Boxford Mashpee ed Kinglet Reports of indiv. Medford Fairhaven Rockport (H.P.) Fairhaven bird Marstons Mills Essex Whately Worcester W. Newbury DWWS Shelburne Amherst Dartmouth Charlemont Boston	$\begin{array}{c} 2\\ 4\\ 1\\ 1\\ 7\\ 7\\ 1\\ 1\\ 8\\ 18\\ 7\\ 7\\ 7\\ 15\\ 6\\ 6\\ 6\\ 14\\ 7\\ 7\\ from\\ 2\\ 2\\ 2\\ 2\\ 2\\ 10\\ 15\\ 15\\ 10\\ 20\\ 12\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 10\\ 16\\ 25\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10\\ 10$	M. Keleher G. d'Entremont D. Furbish BBC (Stymeist) M. Lynch# R. Heil R. Stymeist# BBC (Stymeist) M. Lynch# BBC (Stymeist# C. Buelow L. Therrien M. Lynch# D. + I. Jewell CCBC (Keleher) 16 locations R. LaFontaine M. Lynch# R. Stymeist# R. Stymeist# CCBC (Jurkowski) R. Heil J. P. Smith B. Mulhearn R. Heil SSBC (S. Avery) T. Gagnon C. Gentes R. Stymeist# M. Lynch# B. Mayer

TT : (70)	1 (			1/10	F · 1	07	D G
Hermit Thrus		4	M Dince#	1/19	Fairhaven	27	R. Stymeist#
1/1	Medford	4 3	M. Rines#	2/4 2/22	Dartmouth P'tourn (P, P)	14	R. Stymeist#
1/7 1/7	Bourne	14	SSBC (GdE)	Pine Warbler	P'town (R.P.)	100	M. St. Sauveur
1/10	Westport Cape Ann	13	BBC (Stymeist) R. Stymeist#	2/2	Barnstable	1	M. Keleher
1/10	Fairhaven	9	R. Stymeist#	2/2 2/thr	Marion	2	
1/21	Lexington	4	M. Rines	Palm Warbler		2	M. Maurer
1/21	Falmouth	16	R. Stymeist#	1/2	Nantucket	6	G. d'Entremont#
2/4	Dartmouth	3	R. Stymeist#	1/2	Dorchester	1	P. Peterson
American Ro		5	R. Stylicisti	1/13	Rockport	1 wes	
1/1		2000+	M. Lynch#	1/19	Fairhaven	1	R. Stymeist#
1/1	Essex	300+	R. Heil	1/25	Tisbury	ĩ	P. Uhlendorf
1/7	Westport	290	BBC (Stymeist)	Ovenbird			
1/8	Fairhaven	253	M. Lynch#	1/1-2/13	Mashpee	1	M. Malin
1/8	P'town	225+	B. Ňikula	2/15	Nantucket	1	E. Ray#
1/10	W. Newbury	200	R. Heil	Common Yell	lowthroat		•
1/12		0000	J. P. Smith	1/8	Fairhaven	1	M. Lynch#
1/20	Dorchester	1500+	P. Peterson	Yellow-breast	ted Chat		
1/22	Bolton	450+	M. Lynch#	1/2	Sandwich	1	D. Clapp#
2/11	Falmouth	200	R. Hodson	1/2	Westport	1	M. Boucher
Varied Thru			<i>.</i>	1/7	Chappaquiddick	1	D. Carter
1/1-29	Boston (Fens)	1	G. Jones $+$ v.o.	1/10	Nahant	1	T. Martin#
2/7-28	Edgartown	I f ph	P. Spencer + v.o.	1/13	E. Gloucester	1	R. Heil
Gray Catbird	D	1. 6	441	1/16	Dorchester		E. Curley $+$ v.o.
$\frac{\text{thr}}{1/2}$ 25	Report of 1-3 in			1/27	Edgartown	1	K. Upson
1/2, 25	P.I. Northerland	4, 5 8	R. Heil	1/28	Rockport (H.P.)	1	B. Krisler#
1/2 1/7	Nantucket Nahant	8 4	G. d'Entremont#	Western Tan	Orleans	1 ph	J. + S. DeWitt
1/7	Westport	16	J. McCoy BBC (Stymeist)	thr 1/1-2	Chatham	1	P. Bailey $+$ v.o.
	Cape Ann	14, 5	R. Heil	1/16-2/28	N. Truro	1 ph	C. Skowron
1/16	Squantum	7	J. Young	2/4-28	Orleans (2 <sup>nd</sup> ind	liv)1 ph	M. O'Connor
1/19	Fairhaven	12	R. Stymeist#	Eastern Towh		nv)i pii	M. O Collifor
1/22	Falmouth	25	R. Stymeist#	thr	Reports of indiv	from 10	locations
2/2	Barnstable	6	M. Keleher	1/7	Westport		BBC (Stymeist)
2/4	Dartmouth	12	R. Stymeist#	1/7	Bourne	4	SSBC (GdE)
2/20	S. Dart. (A.Pd)	12	E. Nielsen	1/7	Boston	2	M. Emmons#
Brown Thras				1/19	Fairhaven	8	R. Stymeist#
1/1	P.I.	1BB	C (L. de la Flor#)	1/22	Falmouth	10	R. Stymeist#
1/1-2/28	Hancock	1	K. Wiencke	American Tre			2
1/23-30	Westboro	1	P. Kirk	1/1	Pepperell	20	E. Stromsted
2/19	S. Dartmouth	2	G. d'Entremont#	1/6, 2/15	P.I.	26, 46	R. Heil
2/20	Falmouth	1	D. Berard#	1/15	Cumb. Farms	40+	D. Furbish
American Pip				1/19	Fairhaven	28	R. Stymeist#
2/4	Westport	45	M. Lynch#	1/28	Everett	30	J. Young
Bohemian W				2/4	Belmont	20	M. Rines#
1/1-2	Marlboro	1	M. Lynch#	2/5	Westboro WMA		M. Lynch#
1/2	Northboro	1	N. Paulson#	2/6	Bolton Flats	20+	S. Sutton
1/7-8	Rockport (H.P.)	2	T. Murray + v.o.	Chipping Spa		1	$\mathbf{D} + \mathbf{E} \mathbf{V}_{2}$
1/8	Georgetown	$\frac{2}{1}$	T. Martin	1/1	Rowley	1	P. + F. Vale
2/7 2/28	Royalston	2	D. Berard#	1/1-10 1/2	Harwich Port IRWS	$5 \max_{1}$	
2/28	Turners Falls Williamsburg	5	J. P. Smith J. Wilder	$\frac{1}{2}$ , $\frac{2}{1}$	Marstons Mills		J. MacDougall# . + S. Jurkowski
Cedar Waxwi		5	J. WIIdel	1/8	Fairhaven	1	M. Lynch#
1/1	Marlboro	250+	M. Lynch#	1/11	Woburn	1	M. Rines
1/1	Gloucester (E.P.		R. Heil	1/25	Lincoln	1	N. Soulette
1/7	Athol	200	W. Lafley	2/4	Dartmouth	3	K. Hartel#
1/8	Rockport (H.P.)		P. + F. Vale	Field Sparrow			
1/8	Georgetown	80+	T. Martin	1/2	Mashpee	3	M. Keleher
1/8	Ipswich	400	N. Berry	1/2	IRWŚ	2	J. MacDougall#
1/12	Ŵhately	150	J. P. Smith	1/8	Sterling	2	T. Pirro
1/12	IRWS	60	J.Nelson	1/10	Bolton Flats	3	C. Buelow
1/21	Turners Falls	160	H. Allen	1/15	Cumb. Farms	2	D. Furbish
1/21	Manchester	80	S. Hedman	2/4	Dartmouth	9	R. Stymeist#
Orange-crow				2/15	Lakeville	9	M. Sylvia
1/1-28	Beverly	1	V.O.	2/15-28	Marion	17 max	M. Maurer
1/2-8	Fairhaven	1	M. Maurer	Vesper Sparro		2	14.14
1/24	Melrose	1 m	K. + R. Barnes	1/2	Fairhaven	2	M. Maurer
Nashville Wa		1	TT I T T	1/15	Cumb. Farms	2	D. Furbish
	E. Falmouth d Blue Warbler	1	H. + L. Lane	2/4 Savannah Sno	Westport	1	M. Lynch#
		1	I Stondler	Savannah Spa	Gloucester	4, 5	S. Hedman#
1/1-2/13 Vellow-rupp	Annisquam ad Warbler	1 m	J. Standley	1/2, 29 1/9			
Yellow-rump thr	P.I.	6-12	v.o.	1/9	Hadley Fairhaven	3 31	H. Allen M. Lynch#
1/1	Nantucket	135	G. d'Entremont#	1/15	Cumb. Farms	5	D. Furbish
1/1	Bourne	62	SSBC (GdE)	2/4	Westport	21	M. Lynch#
1/7				5/11		14	
	Saugus	12	J. Young	2/11	IDSWICH	14	N. HEU
	Saugus Rockport	12 6	J. Young R. Stymeist#	2/11 Ipswich Spari	Ipswich row	14	R. Heil
1/10 1/16	Saugus Rockport Squantum					3	R. Bowes

Inswich Spar	row (continued)			Eastern Mead	lowlark		
1/15	Salisbury	2	P. + F. Vale	1/2, 2/4	Gloucester	1, 1	Hedman, Barber
2/4	Westport	1	A. Morgan#	2/7	Fairhaven	10	N. Carvalho
2/20 Grasshopper S	Duxbury B.	1	R. Bowes	2/16 2/28	Easthampton DWWS	1 13	C. Gentes D. Furbish
2/13-20	Scusset B.	1	D. Ludlow	Yellow-head		15	D. Puroisii
Saltmarsh Sha	arp-tailed Sparrow	v		2/26	W. Bridgewater	1 f	J. Hoye#
1/2, 22	P.I.	1, 1	Heil, Vale	Rusty Blackb		10	D D 11
Sharp-tailed S	Sparrow species Edgartown	1	A. Keith	1/1 1/2	Sheffield Westboro	12 1	R. Packard N. Paulson#
Seaside Sparr		1	ni nemi	1/7	Northbridge	6	M. Lynch#
1/2, 25	Newbypt	2, 1	R. Heil	1/10	Northboro	1 f	B. Volkle
Fox Sparrow	$\mathbf{Poston}(\mathbf{A}, \mathbf{A})$	3, 1	P. Peterson	2/4 2/7	Northampton	5 1	J. Wojtanowski D. Berard#
1/2, 2/2 1/2, 2/2	Boston (A.A.) Barnstable		M. Keleher	2/23	Royalston DWWS	5	J. Hoye#
1/15, 2/19	W. Gloucester	2, 3 2, 2	S. Hedman	2/25	Salisbury	2 m	P. + F. Vale
	Stoughton	2, 4	A. Johnston#	Common Gra			
1/19 1/22	Fairhaven Falmouth	3 3 7	R. Stymeist# R. Stymeist#	1/8 2/5	Fairhaven Whately	$\frac{11}{2}$	M. Lynch# R. Packard
2/4	Dartmouth	7	R. Stymeist#	2/17, 22	DWWS	4, 14	D. Furbish
2/11	Bourne	4	R. Stymeist#	2/18	Chatham	10	B. Nikula
Lincoln's Spa		2	M	2/25	Salisbury	3	L. Ferraresso#
1/2 Swamp Sparr	Fairhaven	2	M. Maurer	2/25 2/26	Mattapan Northboro	3 3	A. Birch S. Moore#
1/1	P.I.	4	T. Wetmore	2/26	Worc. (BMB)	80	W. Howes
1/1	Mashpee	8	M. Keleher	Brown-heade	d Cowbird		
1/9 1/28	IRWS	5 6	J. MacDougall	1/thr	Harwich Port	25 ma 30+	
1/28	Longmeadow Yarmouth	4	T. Gagnon M. Keleher#	1/2 1/7	P.I. Westport	200+	R. Heil BBC (Stymeist)
2/4	Dartmouth	4	K. Hartel#	1/8	Rowley	100+	D. Chickering
2/5	Westboro WMA		M. Lynch#	1/8, 2/22	DWWŚ	2 f, 7	0 D. Furbish
2/19	Harwich Port	4	B. Nikula	1/12	Whately	55	J. P. Smith
White-throate 1/22	Falmouth	82	R. Stymeist#	2/1 Baltimore Or	Sheffield	60	D. St James
2/4	Dartmouth	155	R. Stymeist#	1/1	Nantucket	2	G. d'Entremont#
2/4	Westport	84	M. Lynch#	1/2	Sandwich		ABC (S. Kellogg)
2/5 White around	Westboro WMA	53	M. Lynch#	1/2-2/12 1/12	Bradford Woods Hole	1 imi 2	m D. Larson G. Hirth#
White-crowne 1/5	Cumb. Farms	1	K. Anderson	1/12	N. Truro	1	I. Giriunas#
1/22	Everett	1 imr		2/7	Ipswich	i	S. McGrath
1/24	Nantucket	3	B. Vigneau	Purple Finch	- 		G 17
2/1 2/11	Chilmark Westboro	1 1 imr	A. Keith n T. Spahr	1/thr 1/1	E. Longmeadow Easton	1	G. Kingston K. Ryan
2/24	Salisbury	1	T. Bronson#	1/1	Essex	1	R. Heil
Lapland Long	spur			1/7	Mattapoisett	4	F. Smith
thr	Gloucester	1-2	V.O.	1/12	Ipswich	1	R. Heil
1/6 1/7	Hadley Scituate	$\frac{1}{2}$	C. Gentes MAS (S. Ellis)	1/12 1/15	IRWS Monterey	3 4	J.Nelson K. Ryan
1/13, 21	P.I.	ĩ	T. Wetmore	1/28	Groveland	3	D. Chickering
1/17	Newbypt	4	R. Heil	2/11	Williamstown	2	G. Soucie
1/22	Newbury	12 2	P. Meleski#	Red Crossbill		2	D. Laubaah
1/27 Snow Bunting	Ipswich	Z	J. Berry#	1/1 Common Red	Gr. Barrington	2	R. Laubach
1/1	P.I.	100	MAS (Larson)	1/2	Plainfield	45	J. Williams
1/1	Duxbury	18	R. Bowes	1/2	Hinsdale	114	L. Roberson
1/7 1/7	Cummington Savoy	200 90	T. Gagnon T. Gagnon	1/8 1/10	Rockport Bolton Flats	15 70	D. Chickering C. Buelow
1/16	Hadley	40	D. Mako	1/15	Whately	56	B. Banner
1/19	Fairhaven	35	R. Stymeist#	1/16	Gloucester (E.P.)	20	L. Ferraresso
2/4	Truro	30	B. Nikula#	1/16	Amherst	38	J. Marcum
Northern Care 1/7	Westport	58	BBC (Stymeist)	1/19 1/24	Brewster Nantucket	16 10	M. Keleher fide E. Ray
1/19	Fairhaven	70	R. Stymeist#	2/5	Hadley	90	C. Gentes
1/22	Falmouth	135+	R. Stymeist#	2/19	Agawam	55	S. Kellogg
2/4 Diabaiasal	Dartmouth	82	R. Stymeist#	2/21	Washington	35	M. Wiley W. Howes
Dickcissel 2/2-8	Edgartown	1	R. Culbert + v.o.	2/22 2/25	Hubbardston ONWR	50 25	M. Small
Red-winged I				Pine Siskin	ontin		in binni
1/1	Nantucket		G. d'Entremont#	1/1	Gr. Barrington	5	R. Laubach
1/7 1/15	Westport Cumb. Farms	252 250	BBC (Stymeist) D. Furbish	1/1 1/14, 2/25	Westhampton Athol	$^{4}_{2,2}$	J. Lynes D. Small
2/5	Westboro WMA		M. Lynch#	1/14, 2/23	Melrose		D. + I. Jewell
2/11	Bolton Flats	330	S. Sutton#	1/28	Groveland	$2 \\ 2 \\ 4$	D. Chickering
2/17	DWWS Brimfield	150	D. Furbish	2/16	Amherst		J. P. Smith
2/20 2/25	Brimfield Salisbury	75 55 m	I. Lynch P. + F. Vale#	2/19 Evening Gros	Peru sbeak	3	M. Lynch#
2/26	W. Bridgewater		J. Hoye#	1/7	Savoy	13	T. Gagnon
	č		-	1/21	Hinsdale	5	L. Roberson

Evening G	rosbeak (continued	)		2/18	Ashfield	15	S. Sauter
1/24	Orange	3	T. Sharp	2/19	Peru	40	M. Lynch
1/29	Royalston	11	G. d'Entremont	2/19	Hawley	3	M. Lynch#
2/12	Warwick	11	M. Chase#				•

### ABBREVIATIONS FOR BIRD SIGHTINGS

Taxonomic order is based on AOU checklist, Seventh edition, 42nd, 43rd, 44th, 45th, and 46th Supplements , as published in *The Auk* 117: 847-58 (2000); 119:897-906 (2002); 120:923-32 (2003); 121:985-95 (2004); 122:1026-31 (2005).

ABC	Allen Bird Club	ONWR	Oxbow National Wildlife Refuge
A.P.	Andrews Point, Rockport	P.I.	Plum Island
A.Pd	Allens Pond, S. Dartmouth	Pd	Pond
B.	Beach	P'town	Provincetown
Barre FD	Barre Falls Dam.	Pont.	Pontoosuc Lake, Lanesboro
	Barre, Rutland	R.P.	Race Point, Provincetown
B.I.	Belle Isle, É. Boston	Res.	Reservoir
B.R.	Bass Rocks, Gloucester	S. Dart.	South Dartmouth
BBC	Brookline Bird Club	S.B.	South Beach, Chatham
BMB	Broad Meadow Brook, Worcester	S.N.	Sandy Neck, Barnstable
C.B.	Crane Beach, Ipswich	SRV	Sudbury River Valley
CGB	Coast Guard Beach, Eastham	SSBC	South Shore Bird Club
C.P.	Crooked Pond, Boxford	TASL	Take A Second Look
Cambr.	Cambridge		Boston Harbor Census
CCBC	Cape Cod Bird Club	WBWS	Wellfleet Bay WS
Cumb. Farms	Cumberland Farms,	WMWS	Wachusett Meadow WS
	Middleboro	Wompatuck SP	Hingham, Cohassett,
DFWS	Drumlin Farm Wildlife Sanctuary	1	Scituate, and Norwell
DWMA	Delaney WMÅ	Worc.	Worcester
	Stow, Bolton, Harvard		
DWWS	Daniel Webster WS	Other Abbreviations	
E.P.	Eastern Point, Gloucester	ad	adult
EMHW	Eastern Mass. Hawk Watch	alt	alternate
F.E.	First Encounter Beach, Eastham	b	banded
F.P.	Fresh Pond, Cambridge	br	breeding
F.Pk	Franklin Park, Boston	dk	dark (morph)
G40	Gate 40, Quabbin Res.	f	female
GMNWR	Great Meadows NWR	fl	fledgling
H.	Harbor	imm	immature
H.P.	Halibut Point, Rockport	juv	juvenile
HRWMA	High Ridge WMA, Gardner	lt	light (morph)
I.	Island	m	male
IRWS	Ipswich River WS	max	maximum
L.	Ledge	migr	migrating
M.V.	Martha's Vineyard	n	nesting
MAS	Mass. Audubon Society	ph	photographed
MBWMA	Martin Burns WMA, Newbury	pl	plumage
MNWS	Marblehead Neck WS	pr S	pair
MSSF	Myles Standish State		summer $(1S = 1st summer)$
N.C. A.	Forest, Plymouth	V.O.	various observers
Mt.A.	Mt. Auburn Cemetery, Cambr.	W	winter $(2W = second winter)$
NAC	Nine Acre Corner, Concord	yg #	young
Newbypt	Newburyport	Ŧ	additional observers

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

Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or e-mail. Send written reports to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. 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 e-mail submission, visit: <a href="http://massbird.org/birdobserver/sightings/">http://massbird.org/birdobserver/sightings/</a>.

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* Marjorie Rines, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773, or by e-mail to <marj@mrines.com>.

# **ABOUT THE COVER**

## Dark-eyed Junco

Dark-eyed Juncos (Junco hyemalis) are the original "snowbirds," a familiar sight dotting the snow below bird feeders across Canada and the northern United States. The taxonomy of this medium-sized sparrow has been characterized as a "nightmare." Until the 1970s the Dark-eyed Junco was split into five species, three of which were polytypic, having two or more subspecies. When these five species were lumped by the American Ornithologists' Union (AOU) Check-list Committee in 1973, the resulting species was so diverse in morphology and color patterns that the AOU established five distinguishable "groups" corresponding to the original species. The "Slate-colored Junco" (hyemalis group), for example, consists of three subspecies that breed in the boreal forests of Canada and as far south as the Appalachians of Georgia. Birds of this group are largely gray above, including breast and flanks, and white below with white outer tail feathers that flash when the birds fly. The eight subspecies of the "Oregon Junco" (oreganus group) have black (male) or gray (female) hoods and reddish-brown backs and flanks, and are largely birds of western North America. The "Gray-headed Junco" (caniceps group) has two subspecies, and the "Whitewinged Junco" (aikeni group) and "Guadalupe Junco" (insularis group) are represented by a single subspecies. The consolidated Dark-eyed Junco is most closely related to the Yellow-eyed and Volcano juncos, the three forming a superspecies.

Although some populations are sedentary, most northern populations migrate south in winter and are found scattered through all forty-eight contiguous states. In Massachusetts juncos are considered very common to abundant migrants in both spring and fall. The migrants begin to appear in late March and again in late September, with peak fall numbers in mid-October. They are common winter residents that often congregate at bird feeders. Dark-eyed Juncos are fairly common monogamous breeders in western Massachusetts, initiating nesting in late May to mid-June. They often produce two broods during a nesting season.

Juncos breed in a bewildering assortment of habitats, including parkland; coniferous, deciduous, and mixed woodlands; and habitats from sea level to 10,000 feet in the Rocky Mountains. Juncos are highly territorial. Resident males chase off conspecifics that wander into their territory and may attack other small bird species such as warblers and vireos. Territorial defense includes hopping or fluttering at opponents and supplanting attacks. Although highly gregarious in winter, often forming large flocks, they are very aggressive in areas of concentrated food such as bird feeders; chases and supplanting are common events. The winter flocks have social hierarchies in which males, larger on average, tend to dominate females, and adults tend to dominate young birds. Territorial and courtship song, given only by males, is a series of trills that last several seconds. Other songs and calls are given by both sexes and include various warbles, whistles and trills. Calls have been variously described as *kew*, *tik*, *tsip*, and twitters. Courtship displays include fanning wings and tail, displaying the white outer tail feathers prominently. In experiments where white

on the tail was enhanced, females preferred males with the extra white. Other courtship displays include fluffing feathers, hopping, and picking up nesting material. Juncos display site fidelity to their breeding territory and commonly show up at the same bird feeders winter after winter.

The female chooses the nest site, and she alone builds the nest. The nest site is highly variable and usually on the ground, although juncos will build in trees. Nests are placed on sloping ground or in cavities in rock faces, at the base of shrubs, or under roots or fallen logs. The nest is also variable, reflecting differences in nest sites, but usually consists of a woven cup of vegetable material lined with very fine grass or rootlets. The clutch is three to five heavily spotted white eggs. Only the female has a brood patch and she alone does the incubation until hatching occurs in twelve to thirteen days. The female also does the brooding during the ten to twelve days to fledging. Both parents feed the nestlings until they are about a month old.

On the breeding grounds juncos forage mostly on the ground and in leaf litter, taking mostly small invertebrates, including beetles, moths, butterflies, caterpillars, ants, and wasps. They will glean insects and spiders from foliage and will occasionally eat fruit. In winter they also forage predominantly on the ground, eating a diet largely of seeds.

Because juncos are abundant, easily caught, and tolerant of experimental procedures, they have been commonly used in both theoretical and field research, contributing data to a spectrum of ecological, physiological, neurological, and behavioral experiments. As a result, the junco is one of our best-known and best-understood birds. Because juncos are largely nocturnal migrants, many are killed in collisions with towers. As ground nesters they are subject to nest predation by a host of mammalian and avian predators and in some areas suffer from cowbird nest parasitism. Their concentration at winter bird feeders subjects them to predation by accipiters. But "snowbirds" are such habitat and food generalists and are so widespread and abundant that they are not considered a conservation problem. *William E. Davis, Jr.* 

## About the Cover Artist: David A. Sibley

David A. Sibley, artist and author, is one of the best-known names in birding today. His comprehensive guide to bird identification, *The Sibley Guide to Birds* (National Audubon Society), was first published in the fall of 2000, and a companion volume, *The Sibley Guide to Bird Life and Behavior*, appeared the following year. In the fall of 2002 *Sibley's Birding Basics*, an introduction to bird identification, was published, and in spring 2003 the Sibley guides to Eastern and Western birds were released. Son of the well-known ornithologist Fred Sibley, David began seriously watching and drawing birds in 1969, at age seven. Since 1980 he has traveled throughout North America in search of birds, both on his own and as a leader of birdwatching tours. David Sibley has lived in California, Arizona, Texas, Florida, Georgia, New York, Connecticut, and New Jersey. He now lives in Concord, Massachusetts, where he continues to study and draw birds. You can learn more about his work at <htp://www.sibleyguides.com>.

## AT A GLANCE

## April 2006



DAVID LARSON

The April issue's bird of the month is unequivocally a sparrow. If there's anything comforting about sparrows, it's that for the most part they are easy to recognize as such, even when the specific species presents a challenge. Other sparrowlike species are readily recognized; female Purple and House finches have heavier and more extensive ventral streaks than most sparrows, and their bills are heavier with a greater curvature to the upper mandible (the culmen). Similarly, female Rose-breasted Grosbeaks may look like oversized sparrows, but their massive pale bill alone serves to distinguish them. Although Pine Siskins may resemble certain sparrows, the flash of yellow in their wings, overall streaky plumage, and more pointed bill serve to differentiate them from sparrows. In addition, all of these species tend to spend more time than most sparrows foraging and perching in trees.

Since the pictured sparrow is clear-breasted, it is possible to eliminate a number of species right away. Even a cursory look at a field guide shows that some sparrows (e.g., Savannah, Fox, and Song) have prominently streaked breasts as do certain plainbreasted species in their juvenal plumage (e.g., Field, Chipping, and White-throated sparrows). Since the mystery sparrow is plain-breasted, it is safe to assume that it is probably not a juvenile. Likewise, because of the tiny bill and overall delicate

structure, it is safe to assume it is not one of the more robust, plain-breasted sparrows in the genus *Zonotrichia* (e.g., White-throated or White-crowned sparrow). Nor is it a Dark-eyed Junco, since it lacks the sharp demarcation between the dark breast and the white lower belly so typical of juncos.

Once we have eliminated the sparrows with streaked underparts and all the juveniles, the choices are narrowed considerably. The mystery bird almost certainly belongs in the genus *Spizella*, a group of small, clear-breasted, and relatively long-tailed sparrows, which in Massachusetts includes American Tree, Chipping, Clay-colored, and Field sparrows. With this in mind, the American Tree Sparrow can at once be eliminated by the absence in our mystery bird of a dark central spot on an otherwise plain breast and by the suggestion of a light stripe running down the middle of the lightly streaked crown. Tree Sparrows have solid rusty crowns. Field Sparrow is also out of the running since it possesses a distinct white eye-ring and would not have such strongly patterned facial stripes. The choice is thus between Chipping and Clay-colored sparrow.

In breeding plumage adult Chipping and Clay-colored sparrows are quite distinctive and can readily be distinguished. Chippies exhibit a solid rusty cap and have a bold white stripe over the eye (the supercilium) and a distinct black line through the eye. Clay-colored Sparrows tend to be much paler with a distinct stripe down each side of the throat (the malar stripe). They have pale lores (the area between the eye and the base of the bill) instead of black as does a Chipping Sparrow. Since the bird in the photograph does not have a solid cap, a broad white supercilium, or a black line running through the eye, it is not an adult Chipping Sparrow. However, Chippies in their first-winter plumage, and, to a lesser extent, all adults in winter, do look like Clay-colored Sparrows. Despite any similarity, however, the prominent facial stripes, dusky malar stripes, thin white median stripe on the crown, absence of a crisp black eye-line and the presence of a broad, pale gray nape all indicate that the mystery bird is a Clay-colored Sparrow (*Spizella pallida*) and not a Chipping Sparrow in first-winter plumage. If it were visible, the rump of the pictured sparrow would be buff-colored, not gray as in a Chipping Sparrow.

In Massachusetts Clay-colored Sparrows are very uncommon fall migrants and rare spring migrants. They are most often found in flocks of other sparrows, especially Chipping Sparrows. They occasionally appear at winter bird feeders and in brushy fields in early summer, where a first nesting in Massachusetts should be confidently expected. David Larson obtained this digital image of a Clay-colored Sparrow in midfall on the Parker River National Wildlife Refuge on Plum Island.

Wayne R. Petersen

# AT A GLANCE



DAVID LARSON

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



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