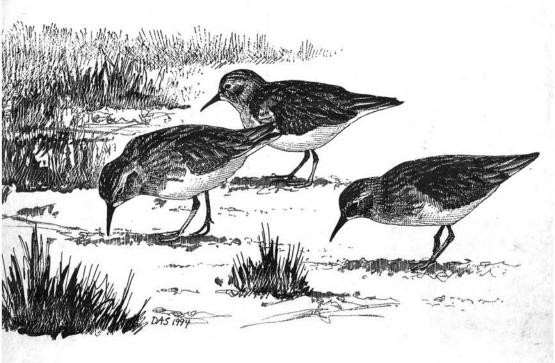
Bird Observer

VOLUME 30, NUMBER 4

AUGUST 2002



HOT BIRDS



While it appeared in Hot Birds in the last issue, the first Massachusetts Eurasian Kestrel since the 1880s deserves another look. This image of the Chatham bird in flight was taken by Shawn Carey on May 5, 2002.

A **Pacific Golden-Plover** was discovered by Rick Heil on April 21 on Plum Island and lingered long enough to satisfy many visitors. Tom Carrolan took this image on April 21.



A very cooperative **Prothonotary Warbler** spent the spring at Triphammer
Pond in Hingham, singing incessantly.
Many birders and photographers visited,
but no female Prothonotaries were
reported. This image was captured by
Shawn Carey on June 1, 2002.

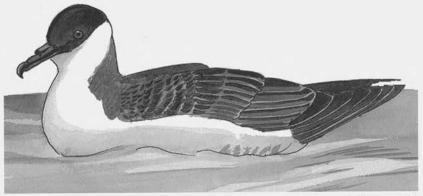


A first state record **Lazuli Bunting** was found and photographed by Edie Ray on Nantucket on May 13.



CONTENTS

BIRDING BAXTER STATE PARK	Jim Sweeney	241
INTERSPECIFIC AND INTRASPECIFIC AGGRESSION AMON	lG	
Foraging Greater and Lesser Yellowlegs	William Moskoff	250
SEEING THE WORLD IN A BIRD	Rob Gough	256
BIRD BEHAVIOR WHEN ENCOUNTERING AIRBORNE HE THE CALIFORNIA COAST	LICOPTERS ALONG	
William Moskoff and Lt. John	Andrew Cromwell	258
WIRED BIRDER Sneaking a Peek at Birds	David M. Larson	260
POCKET PLACES Sanford Ponds Wastewater Recycling Facility	Nancy McReel	266
FIELD NOTES		
A Foot-vibrating Solitary Sandpiper	Richard W. Hildreth	268
Odonate Hunting at Wizard Pond	Richard W. Hildreth	268
ABOUT BOOKS		
Who Are We and What Exactly Are We Doing?	Mark Lynch	270
BIRD SIGHTINGS: March/April 2002 Summary		276
ABOUT THE COVER: Least Sandpiper	William E. Davis, Jr.	295
ABOUT THE COVER ARTIST: David A. Sibley		296
At a Glance	Wayne R. Petersen	297



GEORGE C. WEST



R Bird Observer

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Birding Baxter State Park

Jim Sweeney

On August 31, 1846, Henry David Thoreau left Concord, Massachusetts, via railroad and steamboat, for Bangor and the backwoods of Maine. His destination was Mount Katahdin, Maine's highest peak and enduring symbol of the northern forest. Today access to the wilderness surrounding Mount Katahdin

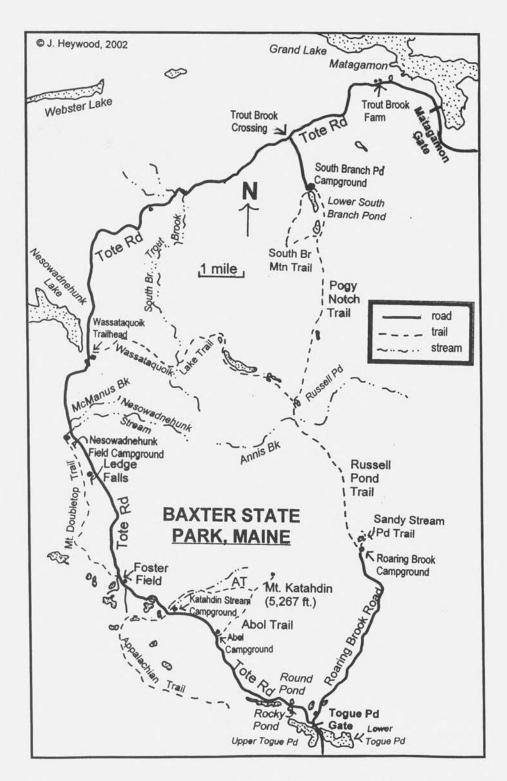


is much more convenient than it was in Thoreau's day. However, the pristine conditions and natural splendor, so beautifully described in his writings, remain unchanged after more than 150 years.

Thoreau made three trips to the Maine woods from 1846 to 1857. A list of the birds he saw on his last visit appears as an appendix in his book *The Maine Woods*. In addition, Thoreau's book provides the reader with florid descriptions of the ethnohistory and sociology of the region in the mid-nineteenth century.

The wilderness below Mount Katahdin lies within the boundaries of Baxter State Park, a 200,000-acre preserve bestowed to the people of Maine by former governor Percivel P. Baxter. The land was purchased in twenty-eight parcels and donated to the state between 1931 and 1962. Baxter State Park covers an enormous area compared with other state parks in New England. The Tote Road, the park's main access road, is primitive and traverses spruce-fir forest, stands of paper birch, moss-clad glacial erratics, gushing streams, and quaking bogs. In some places, when two cars meet on the Tote Road, one vehicle may be required to pull off to the side to accommodate the other. There are no trash receptacles in the park. Visitors are required to carry out what they carry into the woods. Moreover, the amenities frequently associated with family-style camping (e.g., snack bar, arcade) are absent. In short, Baxter State Park is designed for people interested in a pristine experience of the natural world.

The aim of this article is to provide the reader with a sampling of some of the more productive birding areas within Baxter State Park. The species accounts for each site should not be construed as an exhaustive list. Some areas containing the "right" habitat have consistently failed to produce the expected species on more than ten trips to the park. Conversely, unanticipated species have been observed by the author on just about every trip to the park over the past eight years. Therefore, the species described at each site are the ones most likely to be encountered from May to September. The best time to bird the park is from late May to early June, when most of the neotropical migrants have returned to their breeding grounds. Of course, the reason these birds have risked predation, starvation, and exhaustion during their arduous flights is to exploit the swarms of insects that abound at this time of year. Black flies and midges have the capacity to diminish one's enjoyment of spectacular wilderness encounters. The best way to combat these pests is to don a head net at all times.



Because Baxter State Park is so vast, a visitor should plan to spend several days birding this area. A drive from the Togue Pond Gate at the south end to the Matagamon Gate in the northeast corner of the park can take up to two hours. There are many places to stop to view birds between the areas discussed in this article. Stop and explore the pockets of interesting habitat along the road. The birding may be relatively slow for miles, but frequent changes from northern hardwood to boreal forest may yield species such as Black-backed Woodpecker, Boreal Chickadee, and Spruce Grouse. The drive along the Tote Road invariably affords a sighting of Ruffed Grouse.

Sandy Stream Pond

This is one of the most popular areas in the park. Photographers have unparalleled access to Katahdin's aesthetic nuances from the boardwalk at the pond's edge. Naturalists of every stripe can find something of interest in, on, or around this body of water. Furthermore, the pond is one of the best locations in the park for viewing moose. Look for them as they feed on aquatic plants in the early morning and early evening. From the Togue Pond Gate take Roaring Brook Road on the right (at the fork) for 8.1 miles to Roaring Brook Campground. The lot at this campground is large and accommodates day-use hikers who wish to ascend Mount Katahdin from the east. Birding is best at this location before and after mid-August, since there are fewer visitors

Philadelphia Vireos can be found near the parking lot of Roaring Brook Campground. If you are fortunate enough to secure a campsite, you may have the opportunity to view this species in the paper birch crowns directly overhead. Bird the campground carefully since Blue-headed Vireo, Yellow-bellied Sapsucker, American Redstart, Eastern Wood-Pewee, and Least Flycatcher are reliable here. Next, take the Sandy Stream Trail out to the pond. The trailhead is at the north end of the parking lot (near the Ranger's quarters).

The trail forks only a short distance from the trailhead. Be sure to stay on the Sandy Stream Pond Trail (look for the short bridge over Roaring Brook).

This section of the trail usually provides excellent views of Black-throated Blue, Blackburnian, Bay-breasted, and Black-throated Green warblers, and White-throated Sparrow. In late May and early



JIM SWEENEY

Mt. Katahdin from Sandy Stream Pond (May, 1998)

June, the songs of these last two species resonate throughout the dense, wet forest. Continuing along the trail, look for a boardwalk crossing a small cedar swamp. Rubycrowned Kinglets and Northern Waterthrushes can be seen and heard. From this

location it is only a short walk to the edge of the pond. In the spruce-fir forest surrounding the pond there is a good chance of observing Magnolia and Yellowrumped warblers, Cedar Waxwings, and, occasionally, Boreal Chickadees. Look for Lincoln's Sparrows closer to the pond's rocky shore.

Between moose sightings, be sure to look for Ring-necked Ducks and Common Mergansers on the pond. Spotted Sandpipers are sometimes seen on the rocks at the pond's edge. For those birders with a botanical bent, the rocky edge of Sandy Stream Pond is a good place to find the carnivorous pitcher plant.

Round and Rocky Ponds

From the Togue Pond Gate take the Tote Road (Perimeter Road on some maps) on the left at the fork for approximately 1.5 miles. The Tote Road rises above Round Pond to the north and Rocky Pond to the south. There are places to park on the side of the Tote Road if you continue over the ridge toward the northwest sides of the ponds. Park at this location, and walk back up the ridge. There are several places at the top of the ridge that afford great views of Mount Katahdin (to the north) and bird activity on the shores of both ponds. This is a reliable spot to observe Common Loons. Scan the shores of these ponds for Great Blue Heron and American Bittern. Blue-headed and Red-eyed vireos, and Yellow-rumped Warblers are easy to locate in the trees on this ridge.

Nesowadnehunk Field Campground

Continuing north on the Tote Road, travel past the popular Ledge Falls swimming area until you arrive at Nesowadnehunk Field Campground (pronounced Nah-So-Dah-Hunk). There is a parking area located in front of the Ranger's quarters. Be sure to bird the field and edges to the east of the Ranger's quarters. The field has produced



JIM SWEENEY

Nesowadnehunk Field

small clearing northwest of the Ranger's quarters is sometimes teeming with warblers. Later in the summer there are many immature birds quietly skulking in this densely vegetated spot. Species

the area.

sightings of Merlin on a few occasions. Occasionally, black bears are seen ambling across this clearing. Golden Eagles have been observed from this location too. Reportedly, this species has bred on the inaccessible mountain cliffs in

The spruces behind the Ranger's quarters can be very productive. Look for Evening Grosbeak, White-winged

Crossbill, and Pine Siskin in

this area. Furthermore, the

observed with some regularity include Black-throated Blue, Black-throated Green, Blackpoll, Northern Parula, Magnolia, Canada, and Black-and-white warblers.

The campsites at this location are situated at the edge of Nesowadnehunk Stream. Lean-to sites are available for those who prefer awakening to the heavy scent of balsam fir. Philadelphia and Blue-headed vireos, Yellow-bellied Sapsucker, and a variety of warblers can be seen in the vicinity of the camping area. A short hike along the nearby Mount Doubletop Trail may yield sightings of Winter Wren, Veery, and Hermit Thrush. The exceptionally tame Spruce Grouse has been reported from the Nesowadnehunk Campground and environs. Crepuscular birding may provide a glimpse of American Woodcock on the Tote Road north and south of the campground.

There are several interesting mammals in addition to the black bear that are sometimes observed at this location. Coyote, bobcat, and pine marten have been reported in the immediate area. Watch for moose at twilight on the Tote Road north of the campground.

Tote Road South of Nesowadnehunk Lake

Although Nesowadnehunk Lake actually lies outside the boundary of the park, the dense patches of spruce forest just south of the lake's southeastern shore provide excellent opportunities to observe boreal species from the park's Tote Road. About 1.5 miles south of the Wassataquoik Trailhead, there is a small parking area near the entrance to an unmarked dirt road (on the left side of the Tote Road). Park and walk down the road until you reach Nesowadnehunk Stream. Look for Boreal Chickadees in the spruces in this area.

When you return to the Tote Road, walk slowly along the edge of the road listening for the tapping of a Black-backed Woodpecker. In August of 2001, a walk along this stretch of road produced excellent views of a Three-toed Woodpecker.

In the early 1980s, the spruce-fir forest in this part of the park sustained heavy mortality as a result of a spruce budworm outbreak spanning the years 1970-1985. By 1987, all the mature fir and most of the spruce along the Tote Road, from McManus Brook (near Nesowadnehunk Field Campground) to a distance 1600 meters to the north, had died from spruce budworm defoliation, bark beetle infestation, and windthrow (Oliveri 1993).

Since the mid-1980s Black-backed Woodpeckers have not been as common in northern Maine. It appears that these woodpeckers had benefited from the high fir mortality resulting from the spruce budworm outbreak. In the early 1980s, Black-backed Woodpeckers were observed, in the forest along the Tote Road described above, removing the bark from standing dead fir trees to feed on insects. But by 1987 most of these dead firs had been blown down or had lost their bark, and the Black-backed Woodpecker had disappeared from the area. Interestingly, during the same year, Three-toed Woodpeckers were observed foraging on live spruce trees infested with bark beetles along this same section of the Tote Road. The bark beetle infestation was a consequence of the spruce budworm outbreak that affected so much of the park and surrounding areas (Oliveri 1993).

In 1982 Cape May Warblers reportedly held territory in the spruce-fir forest north of McManus Brook (Oliveri 1993). Cape May Warbler populations fluctuate more than the populations of most other warbler species. Throughout its range, the highest breeding densities for this species are reached during spruce budworm outbreaks. Like the Black-backed and Three-toed woodpeckers, this warbler's presence, in the area described, appears to have been connected to the spruce budworm outbreak of the early 1980s.

Opposite the Wassataquoik Trailhead there is a small parking area with a trail leading to Nesowadnehunk Lake. The parking area is a short distance from the park boundary. Birding along the Tote Road in this area can be rewarding. Check the spruces for Boreal Chickadees and Golden-crowned Kinglets. Listen for the raucous caw of the Common Rayens overhead.

Trout Brook Crossing

Located near the access road for South Branch Pond Campground, Trout Brook Crossing is a picnic area that warrants a visit. From the nearby bridge, look for Belted Kingfishers, Barn Swallows, and Spotted Sandpipers. Cross the bridge and scrutinize the birches and maples for Northern Parulas, American Redstarts, Nashville Warblers, Cedar Waxwings, and Yellow-bellied Sapsuckers. Ruby-throated Hummingbirds, Evening Grosbeaks, and Ruffed Grouse may be seen on the stretch of Tote Road for three miles east and west of this location.

South Branch Pond Campground

From the Tote Road take the access road south from Trout Brook Crossing. Keep a careful watch on the road ahead of you, since Evening Grosbeaks have been sighted here. The campground is located at the northern end of Lower South Branch Pond. This camping area is scenic and provides access to low-impact hiking trails close to the pond. The day hiker's parking lot is a good place to start looking for birds. Least Flycatchers, Red-eyed and Blue-headed vireos, American Redstarts, and Yellow-rumped and Black-throated Green warblers are easy to find in this area. As you approach the pond, look for Philadelphia Vireos and Yellow-bellied Sapsuckers. The campground's beach is an excellent spot for viewing Common Loons and, closer to twilight, Common Nighthawks.

The campground is a popular destination for park visitors. Interesting birds can be seen and heard from the comfort of your site. At night, Great Horned Owls may compete with the eerie calls of Common Loons. At dawn, the scratching of a Ruffed Grouse, a few feet from your tent, may alert you to the cacophony of bird song emanating from the treetops. Extensive hiking is not required to experience an impressive array of avian sightings at this location.

If a low-impact hike is desired, take the South Branch Mountain Trail (west of the beach area) over South Branch Ponds Brook. Search the grassy shoreline of the pond for Lincoln's Sparrows. Common Yellowthroats can be found in the tangles along the edge of the brook. Follow the trail as it enters dense stands of birch, maple,

and spruce. Yellow-bellied Sapsuckers are easily detected at this location. Look for the neatly aligned sap "wells" of this species in the paper birches near the trail.

A short hike along this trail is likely to yield a Winter Wren. Listen for the mellifluous rattle of this species in the ravine near the trail. Furthermore, Wood Thrushes, Ovenbirds, Hairy Woodpeckers, and Ruffed Grouse may be observed without hiking too far from Lower South Branch Pond. The hiking becomes much more difficult as you travel farther from the pond.

Mount Katahdin

Mount Katahdin (elevation 5267 feet) is the highest mountain in Maine and one of the highest in New England. The mountain is the northern terminus of the Appalachian Trail and should not be approached casually. If you decide to hike Mount Katahdin, start early, since the entire trip may require a significant amount of time depending on pace, stamina, and weather conditions.

American Pipits breed above timberline. Look for this bird in the alpine plateau known as the Tableland. The Tableland is situated on the northwest slope of Baxter Peak and is one of only two known breeding sites for this species in New England. While exploring this habitat, you may be fortunate enough to see a gray-brown butterfly of the genus *Oeneis*. Lepidopterists know this butterfly as a subspecies of Polixenes Arctic (*Oeneis polixenes katahdin*). Usually found on moist tundra, this arctic species is geographically isolated at the top of Mount Katahdin.

The Appalachian Trail, at higher elevations, is a good place to look for Gray Jays. In general, the park's interior trails are the most reliable places to see this species (the same is true for Spruce Grouse). The Appalachian Trail approaches Mount Katahdin from the west and can be accessed from Katahdin Stream Campground. On some maps this section of the Appalachian Trail is called Hunt Trail. At Abol



JIM SWEENEY

Mt. Katahdin from the Abol Trail

Campground (southeast of Katahdin Stream Campground) there is access to Mount Katahdin from the southwest. The Abol Trail is steep and rocky and requires much physical exertion to ascend. The trail becomes more difficult to negotiate as you approach treeline. Please remember to register at the Ranger's quarters before hiking the mountain. Mount Katahdin can be ascended from the east as well. Several trails can be accessed from Roaring Brook Campground. These trails are popular with day hikers during midsummer, and the parking lot is sometimes full by midmorning.

Directions and Important Information

To reach Togue Pond Gate, take I-95 to Exit 56 in the town of Medway. From the exit ramp, travel west on Route 157-11 into the town of Millinocket. Look for signs for Baxter State Park as you approach downtown Millinocket. Follow Golden Road (the road is a short distance from the downtown area) for approximately sixteen miles to the fork with Millinocket Road on the right. Be sure to follow the signs to the park entrance. If you stay on Golden Road past the fork, you will arrive at a toll booth. This section of Golden Road does not provide access to the park. However, for a fee of several dollars, you may travel on this section to reach productive birding sites southwest of the park.

To enter the park at Matagamon Gate (from the north), stay on I-95 North to Exit 58 in the town of Sherman. Take Route 11 (north) to the town of Patten. Once you reach Patten, look for Route 159 North, a left turn off Route 11. Follow Route 159 to the village of Shin Pond. From there, take Grand Lake Road to the entrance of the park at Matagamon Lake.



JIM SWEENEY

Mt. Katahdin from Sandy Stream Pond

Baxter State Park is open from May 15 to October 15. Moreover, the park is open for day use (depending on weather conditions) from October 15 to December 1 and from April 1 to May 15. A permit is required for winter use from December 1 to April 1. There is a year-round fee of eight dollars to enter the park.

If you visit between May and September, expect some rain. If you plan to hike above treeline, keep a close watch on

the forecast. The weather at Baxter State Park is extremely variable. Be sure to have enough fuel, food, and supplies before entering the park. There are supply stores a short distance from Togue Pond Gate (south) and Matagamon Gate (north), but the drive to these locations from most places in the park is far from convenient.

There are ten campgrounds in the park. Eight of these are accessible by vehicle, and two are backcountry (hike-in only). Because summer camping at Baxter State Park is so popular, reservations are recommended. There are several sites within the park designed for group camping. To make reservations, contact the park headquarters at 64 Balsam Drive, Millinocket, ME 04462, phone 207-723-5140, or visit http://www.baxterstateparkauthority.com. The park headquarters are located at the intersection of Central and Sycamore streets in Millinocket. You will see the headquarters on the left as you travel west on Route 157-11. If you pass the IGA supermarket on the left, you have gone too far.

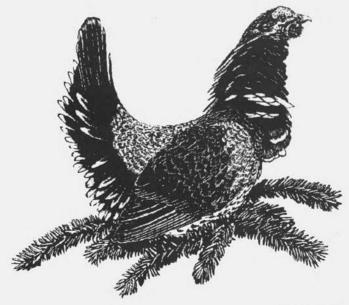
If camping is not an option, there are accommodations on Route 157-11 in Millinocket. There are also several motels in the towns of Patten and Sherman. The motel rates at these last two locations are reasonable, but access to the park may require more than an hour of driving.

For rare-bird information, contact the Maine Rare Bird Alert (operated by the Maine Audubon Society) at 207-781-2332. A good map to have while birding around the park is DeLorme's *Map and Guide of Baxter State Park and Katahdin*. This map is available at most stores and gas stations in Millinocket and other towns near the park.

References and Sources:

- Dunn, J. and K. Garrett. 1997. A Field Guide to Warblers of North America. Boston, MA: Houghton Mifflin Company.
- Oliveri, S. 1993. Bird Responses to Habitat Changes in Baxter State Park, Maine. *Maine Naturalist* 1(3): 145-54.
- Pierson, E., J. E. Pierson, and P. D. Vickery. 1996. A Birder's Guide to Maine. Camden, ME: Down East Books.
- Thoreau, H. D. 1864. *The Maine Woods*. Ticknor and Fields. (Many republications are available.)

An avid birder since 1980, **Jim Sweeney**, of Providence, RI, has birded extensively in New England, the mid-Atlantic states, and Arizona. He wishes to thank Jean Hoekwater, park naturalist, and John Slonina for helpful comments regarding the natural history of the park. This is his first article for Bird Observer.



GEORGE C. WEST

Interspecific and Intraspecific Aggression Among Foraging Greater and Lesser Yellowlegs

William Moskoff

Introduction

Studies of shorebird foraging behavior have largely ignored the implications of mixed-species social associations (but see Burger et al. 1979 and Barnard and Thompson 1985), even though shorebird social organization during migration differs from that of the breeding period (Recher and Recher 1969). Here I examine the influence of intra- and interspecific foraging associations between Lesser Yellowlegs and Greater Yellowlegs on their aggressive interactions during their southward migration. Lesser Yellowlegs (Tringa flavipes) and Greater Yellowlegs (T. melanoleuca) are two shorebirds well known to associate with each other on both their wintering grounds (Dott 1985, Bolster and Robinson 1990, Hayes and Fox 1991) and during migration (Burger et al. 1977, Paulson 1993). From one perspective, the association between the yellowlegs species may seem surprising in view of the substantial overlap in their behavior and habitat use. They use similar foraging techniques, pecking for their prey, making repeated stabs at the water surface, rather than probing in mud or sand for their prey (Zusi 1968, Paulson 1993). They also consume many of the same foods: snails (Physa sp.), dragonflies (Epicordulia princeps and Erythemis simplicicollis), soldier flies (Odontomyia sp.), and predaceous diving beetles (Agabus disintegratus and Hygrotus sp.) (Brooks 1967). In addition, based on studies of migratory shorebird interactions in California, Recher and Recher (1969) predicted that morphologically similar shorebird species such as the yellowlegs should be interspecifically aggressive.

The similarity in prey, foraging microhabitats, and foraging techniques between the two yellowlegs species creates the basis for potential competitive interactions. However, the two species may be different enough in size that competition for food does not occur (Abrams 1975, 1983); Greaters (about 170 g) are about twice the mass of Lessers (about 80 g) (Cramp and Simmons 1983). There is also a difference in absolute bill size, suggesting that the two species may partition prey based upon size. The fact that they regularly differ in the use of vertical habitat suggests that the two species encounter a different category of prey at least part of the time. This is not unusual for species that share the same horizontal habitat (Schoener 1974): for example, in south central Alaska, Greater Yellowlegs eat many small fish, whereas Lesser Yellowlegs concentrate on small invertebrates (L. Tibbitts, pers. comm.).

Study Area and Method

The study was conducted at the Chincoteague National Wildlife Refuge (NWR) on Assateague Island, Virginia (37° 52' N, 75° 22' W), approximately 70 km northeast of Norfolk, Virginia, in July and August 1995, 1996, and 1997. Birds were

observed either through 10 x 40 Zeiss binoculars or a tripod-mounted scope with a 25X lens.

During this three-year period, the foraging activities of 121 Lesser Yellowlegs and 83 Greater Yellowlegs were studied. Observations on focal individuals were made daily during the morning (0630-1130) and late afternoon (1600-1800). Work was not conducted in the early afternoon because birds were seldom seen in open areas, likely because of the high heat and humidity. On the migratory grounds Lessers and Greaters foraged in loosely integrated associations, rather than in dense and highly organized flocks. Flock sizes were generally small, ranging typically from 3-12 individuals. The criterion for selection of a focal animal was that it had to be within 9 m of a conspecific or congener when observations of a foraging bout began. I examined the frequency of aggression when the individual was foraging with conspecifics only, with congeners only, and with both congeners and conspecifics. Aggressive behavior largely took the form of short chases on the water, but in some cases there were aerial chases. Focal animals were observed until an aggressive interaction ended the foraging bout, or for a maximum of 15 minutes. These observations were used to establish the presence or absence of aggression by social association and the number of foraging bouts ended by aggression.

Results

The pattern of intraspecific aggression under the different social associations for Lesser Yellowlegs closely resembled that of Greater Yellowlegs (Table 1). There was no consequential difference in the distribution of aggression by social association

Table 1. Percent of foraging bouts involving intraspecific aggression by social association for yellowlegs (number of foraging bouts involving aggression / total foraging bouts observed)

	Lesser Yellowlegs	Greater Yellowlegs
w/Conspecifics only	40.0 (16/40)	57.9 (22/38)
w/Consp. and Congeners	10.0 (3/30)	13.0 (3/23)
w/Congeners only*	7.8 (4/51)	4.5 (1/22)

^{*}Intraspecific aggression occurred in this foraging association when a conspecific flew in and initiated some form of aggression with the conspecific that had heretofore been the only member of the species present in the group.

between the two species. Intraspecific aggression was high when an individual foraged only with conspecifics. It fell dramatically when foraging with the other yellowlegs species, to about one-fourth the level occurring when foraging only with conspecifics. When there were aggressive interactions, it ended the foraging of the focal animal in 68.8 percent of the conspecifics-only foraging bouts among Lesser

Yellowlegs (11/16) and 81.8 percent of the conspecifics-only foraging bouts among Greater Yellowlegs (18/22).

Discussion

Foraging associations are believed to benefit individuals in two ways: predator avoidance (Waite and Grubb 1987, Lovvorn 1989, Cresswell 1994) and the facilitation of food acquisition (Barnard and Thompson, 1985). Foraging associations in shorebirds have been shown to achieve both of these benefits as well, although not for all species under all conditions (Abramson 1979, Fleischer 1983, Goss-Custard 1984). Goss-Custard (1970) argued that shorebirds flock to protect against predation and increased bird density may lead to a reduction in per capita vulnerability to predators, as Myers (1980) showed for Buff-breasted Sandpipers (*Tryngites subruficollis*). Moreover, for species responsive to alarm calls given by conspecifics, as is the case with both Lessers and Greaters, associating with conspecifics may be justified by the sentinel function. Flocking, however, may also raise interference costs (Puttick 1984). The evidence from the foraging behavior of both yellowlegs species suggests high intraspecific interference costs.

Secondarily, group foraging provides public information about the quality of a foraging patch that may not be found during solitary foraging (Valone and Giraldeau 1993). Sometimes the costs of intraspecific aggression may be less than the costs of searching for one's own patch and having to obtain information on one's own about where food is available. The fact that intraspecific aggression was low when conspecifics associate with at least one congener is an important outcome, because it suggests that yellowlegs can reduce the energy they expend on aggression by foraging with congeners. One possible explanation for reduced aggression when individuals simultaneously associate with conspecifics and congeners is that, because any given patch will permit only a certain number of birds, the encounter rate of an individual with conspecifics is reduced and so too is the opportunity for intraspecific aggression. A second possible explanation is that the foraging behavior of one species facilitates access to food by the other. That is, one species in essence acts as a beater for the other, a phenomenon documented in other waterbirds (Emlen and Ambrose 1970). Nevertheless, the primary way in which yellowlegs probably reduce aggression is by spacing themselves on the migratory grounds, foraging as single individuals, a phenomenon noted among other waders (Vines 1980). When birds avoid each other, as vellowlegs seem to, it decreases the possibility that a foraging individual will be attacked (Puttick 1984).

A possible reason for the absence of interspecific aggression between Greater and Lesser yellowlegs is that, in spite of consuming some of the same foods, their feeding niches are sufficiently different to effectively reduce competition (Connell 1980, Rosenzweig 1991), an outcome facilitated by bill size differences in the two species (Eldridge and Johnson 1988).

Mixed-species foraging may be more efficient because there is less intraspecific aggression for both species, and that, in turn, lowers the expenditure of energy. Why, then, do not all Lessers and Greaters affiliate with their respective congener? The

desirability of associating with congeners may be density dependent. For instance, as the number of Lesser Yellowlegs associating with Greater Yellowlegs in any given patch increases, there may be diminishing marginal returns to additional Lesser Yellowlegs and vice versa. As the latter's numbers increase and density increases, intraspecific aggression will concomitantly rise due to increased competition for the remaining resources in the patch. The high density of Lesser Yellowlegs and the accompanying aggressive behavior would, under these circumstances, swamp out the moderating influence represented by a Greater Yellowlegs. Thus, some Lesser Yellowlegs could be better off foraging alone because of reduced intraspecific aggression and a higher return to their foraging effort. But, all other things being equal, if there were Greater Yellowlegs on one of these patches, Lesser Yellowlegs should use that patch because the number of aggressive encounters will be lower. They can relax with congeners, but not when alone or with conspecifics. Associating with Greater Yellowlegs, in essence, increases the benefit per unit of foraging time. The analysis is the same when assessing Greater Yellowlegs behavior.

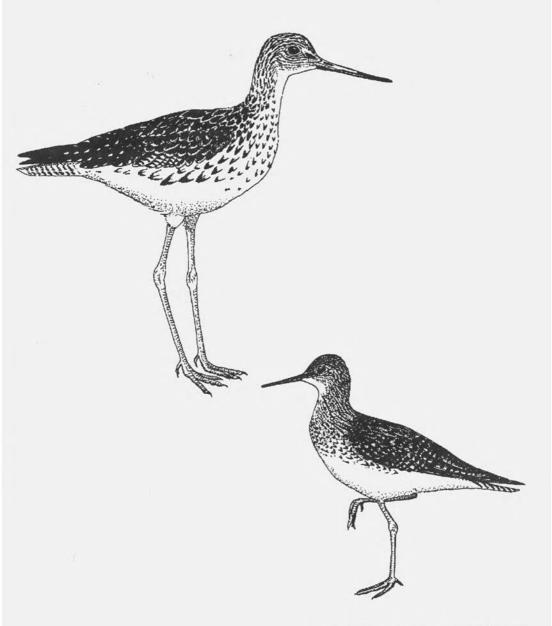
The approach taken in this work has been to measure two effects: that of congeners on a Greater or Lesser Yellowlegs, and that of conspecifics on a Greater or Lesser Yellowlegs. But there are other pathways that may explain yellowlegs behaviors, and therefore additional studies of the Lesser Yellowlegs-Greater Yellowlegs relationship that may be valuable. For example, independent of social association, prey size and distribution may influence the behavior of yellowlegs. Resource depression through either prey depletion or prey exploitation may also be important. This is potentially a two-way relationship. Yellowlegs can depress the level of food abundance through interference behavior and overt aggression. Prey abundance, in turn, can affect the level of vigilance and the peck rate, for example. In view of the evidence on aggressive behavior, it may also be useful to measure the encounter rate of conspecifics per unit time. Since there may also be some behavioral effect of one species upon the other, an effort to control experimentally for this may be in order.

References

- Abrams, P. 1975. Limiting similarity and the form of the competition coefficient. *Theoretical Population Biology* 8: 356-75.
- Abrams, P. 1983. The theory of limiting similarity. *Annual Review of Ecology and Systematics*. 14: 359-76.
- Abramson, M. 1979. Vigilance as a factor influencing flock formation among Curlews (*Numenius arquata*). *Ibis* 121: 213-16.
- Barnard, C. J. and D. B. A. Thompson. 1985. *Gulls and Plovers: The Ecology and Behavior of Mixed-Species Feeding Groups*. New York: Columbia University Press.
- Bolster, D. C. and S. K. Robinson. 1990. Habitat use and relative abundance of migrant shorebirds in a western Amazonian site. *Condor* 92: 239-42.
- Brooks, W. S. 1967. Organisms consumed by various migrating shorebirds. Auk 84: 128-30.
- Burger, J., M. A. Howe, D. C. Hahn, and J. Chase. 1977. Effects of tide cycles on habitat selection and habitat partitioning by migrating shorebirds. *Auk* 94: 743-58.

- Burger, J., D. C. Hahn, and J. Chase. 1979. Aggressive interactions in mixed-species flocks of migrating shorebirds. Animal Behaviour 27: 459-69.
- Connell, J. H. 1980. Diversity and coevolution of competitors or the ghost of competition past. Oikos 35: 135-38.
- Cramp, S. and K. E. L. Simmons. 1983. Handbook of the Birds of Europe, the Middle East and North Africa. Oxford, England: Oxford University Press.
- Cresswell, W. 1994. Flocking is an effective anti-predation strategy in redshanks, Tringa totanus. Animal Behaviour 47: 433-42.
- Dott, H. E. M. 1985. North American migrants in Bolivia. Condor 87: 343-45.
- Eldridge, J. L. and D. H. Johnson. 1988. Size differences in migrant sandpiper flocks: ghosts in ephemeral guilds. *Oecologia* 77: 433-44.
- Emlen, S. T. and H. W. Ambrose. 1970. Feeding interactions of Snowy Egrets and Redbreasted Mergansers. Auk 87: 164-65.
- Fleischer, R. C. 1983. Relationships between tidal oscillations and Ruddy Turnstone flocking, foraging, and vigilance behavior. *Condor* 85: 22-9.
- Goss-Custard, J. D. 1970. Feeding dispersion in some overwintering wading birds. In J. H. Crook, ed. Social Behavior in Birds and Mammals: Essays on the Social Ethology of Animals and Man. London: Academic Press.
- Goss-Custard, J. D. 1984. Intake rates and food supply in migrating and wintering shorebirds, pp. 233-270. In J. Burger and B. L. Olla, eds. Shorebirds: Migration and Foraging Behavior. New York: Plenum Press.
- Hayes, F. E. and J. A. Fox. 1991. Seasonality, habitat use, and flock sizes of shorebirds at the Bahia de Asuncion, Paraguay. *Wilson Bulletin* 103: 637-49.
- Lovvorn, J. R. 1989. Food dependability and antipredator tactics: implications for dominance and pairings in Canvasbacks. Condor 91: 826-36.
- Myers, J. P. 1980. Territoriality and flocking by Buff-breasted Sandpipers: variations in nonbreeding dispersion. *Condor* 82: 241-50.
- Paulson, D. 1993. Shorebirds of the Pacific Northwest. Seattle, WA: University of Washington Press.
- Puttick, G. M. 1984. Foraging and activity patterns in wintering shorebirds. In Shorebirds: Migration and Foraging Behavior, J. Burger and B. L. Olla, eds. pp. 203-231, New York: Plenum Press.
- Recher H. F. and J. A. Recher. 1969. Some aspects of the ecology of migrant shorebirds. II. aggression. Wilson Bulletin 81: 140-54.
- Rosenzweig, M. L. 1991. Habitat selection and population interactions: the search for mechanism. American Naturalist 137 Supplement: S5-S28.
- Schoener, T. W. 1974. Resource partitioning in ecological communities. Science 185:27-39.
- Valone, T. J. and L-A Giraldeau. 1993. Patch estimation by group foragers: what information is used? *Animal Behaviour* 45: 721-28.
- Vines, G. 1980. Spatial consequences of aggressive behavior in flocks of oystercatcher Haematopus ostralegus L. Animal Behaviour 28: 1175-83.
- Waite, T. A. And T. C. Grubb, Jr. 1987. Dominance, foraging and predation risk in the Tufted Titmouse. Condor 89: 936-40.
- Zusi, R. L. 1968. "Ploughing" for fish by the Greater Yellowlegs. Wilson Bulletin 80: 491-92.

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GREATER AND LESSER YELLOWLEGS, GEORGE C. WEST

Seeing the World in a Bird

Rob Gough

It is early August, and right now, somewhere I have never been — on a hillside in the Arctic tundra — there is a bird standing. Its feet are treading lightly upon a boggy ground that I will never tread. Its eyes are seeing a vista that I will probably never see. Its lungs are filling with an air that is clean and crisp beyond that which mine have ever felt. The bird is enjoying days filled with sunlight that never ends.

But in just a few short days, our lives, this bird's and mine, will cross paths right here in Massachusetts. For tomorrow, this bird will lift off and set forth on an incredible journey beyond the horizon and across international borders. It will leave its birthplace beneath the endless sun and venture into a new world, a world where darkness is a part of every day.

Then one day, perhaps this Tuesday, I will be walking beside Joppa Flats near the mouth of the Merrimack River in Newburyport. The tide will be receding, and I will look out over the newly exposed mudflats glistening in the sun. At that moment, I will hear a high-pitched whistling call from the sky above. I will turn in the direction of the sound to see, after many hours of flight, the bird descending upon the mudflats. I will lift my binoculars to my eyes and see the bird begin to probe the mud for tiny invertebrates.

Perhaps I will identify it right away — attach a species name to it. Or perhaps I will need to study it carefully, taking note of its field marks, and flipping through the shorebird section of my field guide. But the inscrutability of many shorebirds is a small price to pay for their aesthetic appeal.

"The restlessness of shorebirds, their kinship with distance and swift seasons, the wistful signal of their voices down the long coastlines of the world make them, for me, the most affecting of wild creatures," writes Peter Matthiessen, a nature writer and naturalist.

To me, shorebirds represent the ends of the earth — brief visitors from lands that I may never see. The Hudsonian Godwits that I will see on the mudflats within the harbor will have just nested on the coast of James Bay and will spend the winter in Argentina. The tiny White-rumped Sandpiper that will be feeding at the edge of a salt panne in the Parker River National Wildlife Refuge will have just arrived from somewhere near the top of the world — Arctic North America. When it flies away, it will be on its way to spend the winter in southern South America.

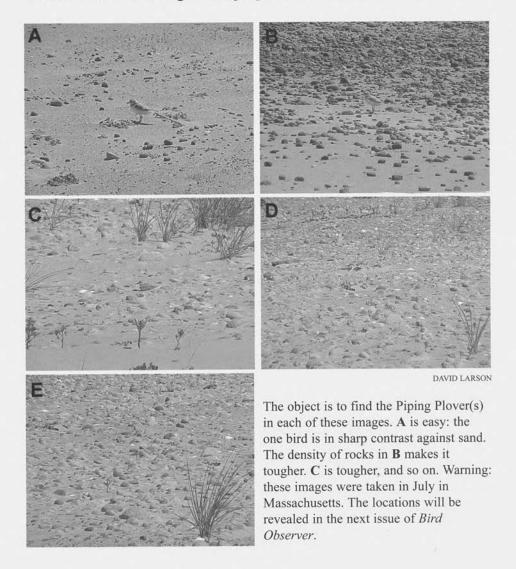
So strong is my affection for these shorebirds that they have become a part of my world. When they arrive near the end of each summer, they enter into my mind and heart. When they fly off, continuing their miraculous journeys, a tiny part of me goes with them to these far-off lands. I marvel at their restless spirit, their incredible will to survive, and their intricate tie to the seasons.

Low tide this Tuesday is going to be just before 1:00 p.m., and I know where I will be: Newburyport, Siberia, Arctic Canada, Guatemala, Tierra del Fuego

Rob Gough works in Salem, Massachusetts, as a Regional Coordinator for the Massachusetts Bays National Estuary Program. He also works as a freelance illustrator and graphic designer from his home in Newbury, Massachusetts. His drawing of a Piping Plover (Charadrius melodus) appeared on the cover of the June 2000 issue of Bird Observer. "Seeing the World in a Bird" was first published as part of the series, Nature In Our Backyard, in the Daily News, Newburyport, Massachusetts, August 4, 2000.

Alternate Photo Quiz: Piping Plovers on the Beach

Here are a series of images of Piping Plovers. Can you find the birds?



Bird Behavior When Encountering Airborne Helicopters Along the California Coast

William Moskoff and Lt. John Andrew Cromwell

Observations of the relationship between helicopters and birds have been confined to the impact of the aircraft on birds that are on the ground, either breeding, in the process of migration, or molting (Miller 1994, Grubb and Bowerman 1997, Ward et al. 1999). But no attention has been given to the interaction between helicopters and birds when both are flying. This is important because, while helicopters are typically less prone to bird strikes than fixed-wing aircraft are, likely because the latter are noisier and fly more slowly, accidents occur, and they can be fatal. On February 3, 1981, a Bell 206 helicopter struck a Common Raven (*Corvus corax*) in Vancouver, British Columbia, and all four occupants were killed when the aircraft crashed (Transport Canada 2000). In Israel, a nation on the migratory path of 500 million birds, military helicopters struck birds 696 times in the quarter century following 1972 (Rosenthal 1998). Canadian military helicopters also experience bird hits (Transport Canada 1993). An understanding of how birds react to helicopters is useful because it may assist pilots in making good decisions on how to avoid collisions.

Based on interviews with three helicopter pilots with a combined total of about twenty-five years of flying helicopters along the California coast, we assembled a picture of the reactions of several bird species encountering helicopters in the area. Two of these pilots flew an H-65 Alpha Dolphin search and rescue helicopter for the United States Coast Guard out of Los Angeles International Airport, one flying between Dana Point on the south to Morro Bay on the north as well as to the Channel Islands, the other flying as far south as 100 miles south of the California-Mexico border and as far north as Morro Bay. The third pilot has flown both a Bell 206 and a Bell 412 for the Los Angeles City Fire Department.

Encounters with gulls (*Larus sp.*) are a daily occurrence for all three pilots. They described gull reactions at altitudes of 150-2500 feet. It is typical of gulls to diverge from aircraft early, without close confrontations. Gulls dive away from aircraft, turning 45-90 degrees, always descending and never climbing. In those instances where gulls maintain their flight line and get close to the helicopter, they generally deviate from their line of flight when they get to within 20-30 m of the aircraft. Then they turn belly up and throw themselves into a dive. Consequently, Coast Guard pilots always flew above gulls once they were sighted because of the predictable response of the birds.

Encounters with raptors yielded a different set of responses on the part of the birds. Coauthor JAC encountered three raptor species. The responses of Red-tailed Hawks (*Buteo jamaicensis*) were extremely predictable. In more than 50 encounters up to altitudes of 4000 feet, the bird would either maintain its flight pattern and the helicopter would be forced to move, or a hawk would move laterally or down, but never climb. The responses of Peregrine Falcons (*Falco peregrinus*) and Bald Eagles

(Haliaeetus leucocephalus) were considerably more confrontational. In a half dozen confrontations with Peregrines, they would often fly directly at the helicopter, bring their legs forward, and bare their talons in an aggressive posture. The same was true of the lone meeting with an eagle. It flew toward the helicopter and, while holding its flight line, turned upside down while baring its talons aggressively. Again, the helicopter was forced to take evasive measures. A second pilot said that while many soaring Red-tailed Hawks would dive downward, turning 45-90 degrees once they became aware of the aircraft, others would stand their ground, and helicopters would often have to maneuver to avoid the hawks. As a result of the greater likelihood that hawks will come closer to a helicopter, this pilot has hit hawks more frequently than gulls, although they were mostly glancing blows. The third pilot also described hawks as much more likely to remain in the air space that they were occupying when the helicopter approached, making little effort to avert a collision with the aircraft, forcing the pilot to do so.

There were approximately 100 encounters with both White and Brown pelicans (*Pelicanus erthyrorhynchos* and *P. occidentalis*). Their behavior depends on whether they are flying in a flock or singly. Pelican flocks hold their flight line, and it is incumbent upon the helicopter to take evasive action. When flying singly, however, a pelican dives straight down to avoid the aircraft in much the same way as it would when it dives into the sea to forage.

The experiences of these pilots suggest that there is no single response by birds. While some species take evasive action to escape from a helicopter, others treat the helicopter as a threat and engage in some form of attack behavior. Birds never seem to climb above a helicopter, so when in doubt, a pilot may be safer if he or she goes above the bird. Pilots may benefit from appreciating the interspecific differences in behavior.

References

Grubb, T. G. and W. W. Bowerman. 1997. Variations in breeding Bald Eagle responses to jets, light planes and helicopters. *Journal of Raptor Research* 31: 213-22.

Miller, M. W. 1994. Route selection to minimize helicopter disturbance of molting Pacific Black Brant — a simulation. Arctic 47: 341-49.

Rosenthal, D. 1998. When birds become missiles. *International Wildlife*. November/December, pp. 34-41.

Transport Canada. 1993.

http://www.tc.gc.ca/aviation/aerodrome/bird/stke/strikes/93/section4.htm.

Transport Canada. 2000. http://www.tc.gc.ca/aviation/aerodrome/birdstke/manual/d/d2.htm.

Ward, D. H., R. A. Stehn, W. P. Erickson, and D. V. Derksen. 1999. Response of fall-staging Brant and Canada Geese to aircraft overflights in southwestern Alaska. *Journal of Wildlife Management* 63: 373-81.

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WIRED BIRDER

Sneaking a Peek at Birds

David M. Larson

If you're wired, you've seen them on the web. Even if you don't have a computer, you've probably heard of them. But what is a web cam? How do they work? Is there a web cam in your future? In this issue the Wired Birder grapples with bird web cams, from cam to web.

Basically, a web cam is a camera connected to the World Wide Web (not really the same as the internet, but close enough for our purposes). Typically, the camera's image is displayed on a web page. Every so often, the image is updated. The frequency of updates can range from whimsical (whenever the originator feels like it) to continuous (streaming video).

The world's first web cam was a small black and white video camera focused on a coffee maker in the hallway outside of the computer lab (the Trojan Room Coffee Machine) at Cambridge University. The service was first set up in 1991 on a local network so that those in distant parts of the building could check the coffee status before heading off for a cup. The service went online on the brand-new World Wide Web in 1993 when a web server became available, and it was an instant hit throughout the world. When it finally went offline in 2001, it had had well over two million virtual visitors. The German magazine *Der Spiegel* bought the broken coffee maker on E-bay, had it repaired, and it lives on.

Clearly, a web cam may be focused on anything from the ridiculous to the sublime. And of course, bird web cams are the most sublime. Many focus on nest sites and are only active during the nesting period. A local example is the nest cam for the Bald Eagle nest at Turners Falls, MA (two young eagles this year!). The Owl Cam, located in Eastern Massachusetts, has been following the antics of Ward and June, a pair of Barred Owls, since 1997. Other well-known nest cams include those of the Cornell Laboratory of Ornithology in New York and several Peregrine Falcon and Osprey nests. Other bird cams focus on feeders or birdbaths. Wild Birds Unlimited claims to have set up the first feeder cam. The listings at the end of this article include these sites and links to lists of many more.

Setting up your own web cam

Setting up a web cam can be as simple as plugging a camera into a computer and installing some software – maybe fifteen minutes or so. Of course, more functional installations will take a bit more time and thought. Fundamentally though, all that is required is a suitable camera and a means of connecting the camera to the web (Figure 1).

First, you will need a camera that has electronic controls (no, your old 35mm will not work). The camera can be a digital still or analog or digital video. Most advertised

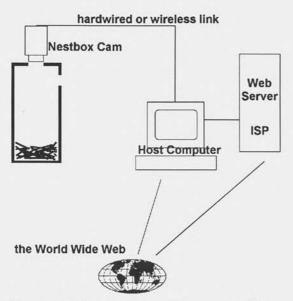


Figure 1: Bird web cams transmit images via cables or radio frequencies to a host computer. The images are available over the web through a web server — either the host computer or the server of an internet service provider.

web cameras are merely low-resolution digital cameras and can cost from thirty to hundreds of dollars. Generally, you get what you pay for: cheap cameras are fixed focus, fixed aperture, low resolution, and may have plastic rather than glass lenses. More expensive cameras will have quality, auto-focusing lenses with aperture adjustment, higher resolution sensors, and adjustable gain. When you get into the thousands-ofdollars range, the cameras have remote control of all of these functions, as well as of tilt, pan, and zoom.

The use of video versus still cameras is a matter of choice, although

video is far more prevalent. While digital still cameras have far higher pixel resolutions than video, this may be largely irrelevant since bandwidth constraints usually limit image resolution to at or below that of standard video (640 x 480 pixels). Although the images sent to the web have to be digital, the original image can be taken through an analog camera and then converted to digital format. Several adapters are available for connecting (for example) an analog video camera to a computer (video capture cards that plug into an expansion slot in your camera, or external video camera adapters like the Snappy Video Snapshot or Buz multimedia producer).

If you are contemplating an outdoors web cam, you will have to consider weather. Ordinary consumer web cams, and digital cameras in general, are anything but weatherproof. Specially weatherproofed cameras exist (and are used widely in security systems — see the NuSpectra web site for a very nice setup), but they are pricey. A less expensive option for feeder cams might be to use an indoor camera with a zoom lens to image the feeder (Figure 2). If you are setting up a nest-box cam, try an attic over the nest box to contain the camera (and low intensity lights, if desired) while protecting it from the elements.

Second, you will need a computer. While cameras with direct cable connections to the web are available (and very pricey), most cameras in the consumer market require the intervention of a local host computer. This computer could be your regular computer (assuming it is a fairly recent PC or Mac) and, depending on the

connections, the web cam functions of grabbing, processing, and uploading images could run unnoticed in the background.

Third, you will need an appropriate connection between the camera and computer. If you want to update your web image frequently, you will need a fast connection. Current cameras and computers mostly communicate via speedy USB (Windows98 or later required) or Firewire cables, rather than the older, slower, serial or parallel cables. Another option (particularly if the camera is distant from the computer) is a wireless

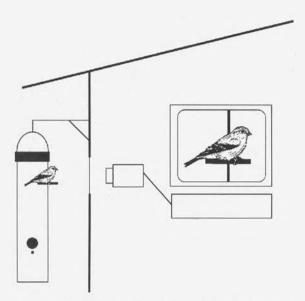


Figure 2: This feeder cam images the feeder through a window, obviating the need for an expensive weatherproof camera. Bird images courtesy of William E. Davis, Jr.

connection. Several wireless cameras are on the market (e.g. the ubiquitously advertised X10), making it possible to free your web cam from its tether. With a wireless web cam, and lots of battery power, you could take your web cam out in the field, or at least the back yard.

Similarly, the connection between the host computer and the web server needs consideration. If you want a rapid refresh rate on images and continuous updates, you will need a cable modem, DSL line, or a dedicated telephone line, since you have to be connected all of the time. Of course, if the link goes down, or the power goes, your viewers will see just the last uploaded image. If you do not want or need to do frequent updates, then manually upload images whenever appropriate or convenient.

Finally, the software that grabs the image from the camera and uploads it to your web server has to be able to work well with all components. Probably the most widely used software is Webcam32. Another, simpler but widely-used package is ISpy. If you do not want to configure your host computer as a server, you will want to make sure that you get software that grabs an image from the camera, processes it to the desired degree, sends it by ftp (file transfer protocol) to an ISP's server, and then repeats the procedure at a specified interval.

If the foregoing seems daunting, one strategy for assembling the package might be to buy a camera that will work with your computer (e.g. one that is Video for Windows compatible if you are in a Windows environment) and then get the software recommended by the camera manufacturer. If you have a digital video camera, another approach would be to get the software (e.g. Webcam32) and necessary cabling and play around with a simple setup until you are ready to try something more elaborate.

While you are trying out options, note that many of the software or hardware suppliers provide server space for displaying your images on the web. They do not do this out of the goodness of their hearts, and so pop-up ads and other annoyances are to be expected. Of course, you can present the images on your own web site, either by hosting it yourself (turning your computer into a web server) or by renting space on a web server (either through your internet service provider or on another commercial service). The Wired Birder uses a paid service for his web sites.

While web-site design is beyond the scope of this article, it should be noted that it is relatively easy to set up a simple web page, with an included image, using any of the commercial, freeware, or shareware web-design programs. Your computer may even come with a simple program, perhaps included with your internet browser or with a software bundle. For a discussion of simple web design and issues of refresh rate and modalities see either of the books noted at the end of this article, or the extensive support pages on the Webcam32 site. As you gain experience, you can add archives of interesting shots or of the most recent images, explanatory materials, or whatever you wish.

On the high end

Once you break into the wonderful world of web cams, you can experiment with upgrades at the higher end. One simple upgrade is to use a camera and software combination that allows for motion detection (e.g. Homewatcher software). Using this strategy, your web page will be updated only when something changes. It is possible to add audio so that your viewers can hear as well as see what the cam is focused on.

With a sufficiently fast connection, you can set up your web cam for streaming video. Check out the Belmar Beach web cam to watch folks stroll the beach and see the gulls fly by. Finally, some of the high-end web sites now allow viewers to control the camera. This feature requires a motorized camera mount with pan, tilt, and scan controls (see the Surveyor Corp. or NuSpectra Corp. web sites). An example of a really neat web cam with this feature is the TundraCam at 11,600' on Niwot Ridge in Colorado.

Web cams can provide a fun adjunct to your birding passion, a potentially useful research tool, or an immense time sink (and maybe all three at once). Try a few of the sites listed below. If you decide to set up your own bird cam, send the address to Bird Observer. We would love to take a look.

Sources and links to interesting sites

Parker, E. and J. Grimes. 1999. *The Little Web Cam Book*. Berkeley, CA; Peachpit Press.

Wang, W. 2001. *Web Cams for Dummies*. Foster City, CA; IDG Books Worldwide.

The Trojan Room Coffee Machine http://www.cl.cam.ac.uk/coffee/coffee.html

Per Spiegel's site http://www.spiegel.de/netzwelt/netzkultur/0,1518,189302,00.html

Lots of web cam sites:

http://www.webcamworld.com/> Web Cam World Earth Cam http://www.earthcam.com/> Cam Central http://www.camcentral.com/> http://www.africam.com/public/index.jsp Africam

More Bird Web Cams:

http://www.nu.com/eagles/> Turners Falls Eagle Cam http://www.nu.com/eagles/eaglewebcam2.pdf schematic of the system http://www.owlcam.com/> The Owl Cam http://birds.cornell.edu/birdhouse/nestboxcam/ Cornell Laboratory of Ornithology nest cams http://www.wbu.com/feedercam home.htm> Wild Birds Unlimited feeder cam Cohasset Bird Houses http://cohassetbirdhouses.com/> http://mrgoodbeer.com/> Mr Goodbeer (honest) http://www.floridagoldrose.com/ Florida Gold Rose Royal Society for the Protection of Birds http://www.rspb.org.uk/> http://www.jamesreserve.edu/ James Reserve http://www.eurobirdwatching.com/ EuroBirdwatching http://www.eko.clara.net/birdvideo.html Simon Knott http://www.cbird.com/cam.html A backvard feeder cam http://ivyjoy.com/webcam/> Ivy's birdfeeder cam

Center for Conservation Biology FalconCam

http://fsweb.wm.edu/ccb/vafalcons/falconcam/falconcam.htm

Osprey cams

http://www.friendsofblackwater.org/camhtm.html Maryland http://www.nhaudubon.org/research/ocam.htm New Hampshire

Cool Nonbird Cams

http://www.science.ksc.nasa.gov/shuttle/countdown/video/ Kennedy Space Center http://www.amnh.org/exhibitions/butterflies/cams.html **Butterfly Conservatory** http://tundracam.colorado.edu/> TundraCam (remote control) http://www.wtsp.com/skycams/clearwater.htm Clearwater Beach, FL (remote control) Belmar Beach cam, NJ (streaming) http://www.belmarbeachcam.com/> http://www.capecodlivecam.com/> Cape Cod cams

Cameras, software, and other useful stuff

http://www.x10.com/> X10 cameras http://www.play.com/> Snappy Video Snapshot (PC)

David Larson is the Production Editor of Bird Observer. He laments the apparent demise of one of his favorites, LobsterCam http://www.midcoast.com/~lobcam/. He can be reached by e-mail at redpoll@attbi.com. He would like to emphasize that mention of goods and services in this articles does not imply endorsement by Bird Observer or the Wired Birder. Web addresses change unpredictably, so if any of the above do not work, try using key words on an internet search engine or find other interesting sites.

Update on Leach's Storm-Petrel Nesting (Bird Observer June 2002)

On June 11, 2002, I returned to Noman's Land Island with Stephanie Koch of the U.S. Fish and Wildlife Service for a

two-night stay. During the first night we located ten nests along one section of wall. Nests were identified by the presence of a storm-petrel calling from under the rocks and by the characteristic storm-petrel odor. After considerable effort, we were able to view three actual nests, two containing a single white egg each, and one that was empty. We captured and banded three of the nesting adults from under the rocks, each of which had a bare and vascular brood patch. We also captured and banded two birds that were presumed to be subadults because they had nearly bare but completely nonvascular brood patches. One of these birds was captured by hand after it landed on the ground by the wall, and the other was captured in a mist net that was set for a short time



GEORGE C. WEST

by the wall with a tape. Considering the numerous other walls that occur across the island that we did not visit, it is very likely that the number of nesting Leach's Storm-Petrels on Noman's Land is much greater than the ten we were able to locate.

Tom French

POCKET PLACES

Sanford Ponds Wastewater Recycling Facility

Nancy McReel

Old weather saw: When ditches and ponds offend the nose, Watch for rain and stormy blows.

A birder soon learns that sewer ponds attract birds. It may be more pleasant to go to a town's sewer ponds in fair weather because birds, especially ducks, like these places for the small plants and microorganisms they find there. The food is great and most birds do not have a keen sense of smell. In Sanford, Maine, there are four ponds with a connecting roadway around each, all inside a gated chain-link fence. The gate is open when the rest of the facility is open. Outside the fence is woodland with the Mousam River running through it.

Migration time is most productive for a visiting birder. Ducks are most abundant from September to freeze-up in early December, with a high concentration in October. There has been a report of a Snowy Owl sitting on a post there in January, gazing silently at the snow- and ice-covered ponds.

Some high counts are 150 Ruddy Ducks, 250 Ring-necks, 50 Green-winged Teal, 10 Blue-winged Teal, 200 Mallards and Blacks. Northern Pintail, Barrow's Goldeneye, Hooded Merganser, Gadwall, American Coot, Pied-billed Grebe, and Wood Duck — all are fairly regular partakers of the available goodies.

Open spaces and mown verges around the ponds appeal to grassland species. Some of the regulars are Horned Larks, Snow Buntings, American Pipits, and a variety of sparrows including Swamp, Lincoln's, Savannah, and Song.

Shorebirds working the edges are Spotted and Pectoral sandpipers. The shrubs and trees bring in Pine Siskins and migrating warblers. Yellow-rumped Warblers in the hundreds may be spouting up from the bushes like popcorn.

Naturally all these birds interest hawks and other predators. Sharp-shinned, Redtailed, and Rough-legged hawks zoom in for a catch, while Northern Harrier, Osprey, or Common Raven may be curious about all the activity.

Inside the entrance gate the driveway curves through acres of lawn with some planted evergreen trees, all surrounded by a maple-oak woodland. This is an appealing invitation to come and see. A number of Maine birders now visit the Sanford ponds regularly and report sightings on maine-birds@mainebirding.net or Maine Audubon birdalert. A trip could be combined with a visit to the Kennebunk Plains or Wells Harbor to cover additional habitats.

Directions: From Wells drive West on Route 109 toward Sanford. At the traffic light at the junction with Route 4, turn North toward Alfred. Go about 1 mile to a

blinker. Turn East on Gavel Rd. and drive another mile to the end, traveling through the open gate of the Wastewater Recycling Facility. The gate is open from 7 a.m. to 3 p.m. Monday through Friday. The first time that you visit, please stop in at the office to sign a liability agreement. The area is not shown on my copy of Delorme. It is, however, on Topozone.com and on the USGS topo map.

Nancy McReel has conducted monthly bird surveys in southern Maine for Woodlot Alternatives, Inc. and the Rachel Carson Wildlife Refuge for 15 years, and has participated in a bird banding project at the Wells Reserve for 10 years. Responsible for all this interest in birding was a small Yellow Warbler that flew by her window thirty years ago.

Note from Arcadia

We have a PhD student who is studying goldfinch mating and nesting behavior, mostly out near the Ibis Pool area. She is recording vocalizations as well as color banding. So if you see some goldfinches with bands, they are her study birds. She has a notebook in the lobby at Arcadia if you have any goldfinch observations. A female kestrel has been hanging out for quite some time now, with multiple observations, including sitting on



GEORGE C. WEST

the kestrel box. But if it is nesting, I'm not sure where. We've also been seeing a female harrier in June and early July. Hopefully they are nesting or considering the area for future nesting. Keep an eye out for the juveniles. There is also a nesting pair of kestrels off Munn's Ferry Road in Gill and by the horse barns near UMass, Amherst.

In the newly planted grasslands, no Bobolinks or Savannah Sparrows nested, only Red-wings and Song Sparrows. I'm advocating for a planting of shorter grasses in the large cucumber field if and when we get that piece. Grasshopper and Vesper sparrows prefer the shorter grasses, rather than the sea of tall Canada wild rye and timothy.

Cooper's Hawk continues to breed here. We had our first nesting pair of Blueheaded Vireos at Arcadia. The Great Blue Heron colony is going strong with over 12 nests. We had 33 Bobolink territories in the older, established grasslands, but only 2 Savannah Sparrows. Eight additional Savannah Sparrows nested in adjacent fields, including the cucumber fields, which weren't cultivated until July. Chestnut-sided Warbler is just hanging on, and Veery was low.

Dave McClain, Conservation Caretaker Arcadia Wildlife Sanctuary, Easthampton, MA

FIELD NOTES

A Foot-vibrating Solitary Sandpiper

Richard W. Hildreth

On August 25, 2001, along Alligator Lake Road in Maine, I stopped near a small beaver pond hoping to find some dragonflies. At the edge of the road is a narrow strip of alders which screens the view of the pond. I walked along the road looking for an opening in the alders so I could peer out over the pond. When at last I found a small opening I saw no dragonflies, but I did see a Solitary Sandpiper, *Tringa solitaria*, busy feeding about fifteen inches away. It did not seem to be disturbed by my presence, so I stopped to watch it for about fifteen minutes.

The sandpiper was wading around in the shallow pond with water up to its knee joint. It was probing with its bill, sometimes deeply so the water surface reached its eye, but mostly just inserting the tip of the bill into the water. The bill was rapidly opening and closing; the bird appeared to be snapping up many small prey items. The water in the pond was very clear so that I could see the bottom, which was muddy. The bird was sinking into the soft mud as it waded along.

What especially caught my attention was the body movement of the bird as it fed. Spotted Sandpipers almost constantly teeter as they feed; Solitary Sandpipers also sometimes teeter. This bird, during feeding or just prior to feeding, appeared to be trembling, the entire body vibrating. Close examination through my ten-power Swarovski binoculars revealed what was going on. Just before and sometimes during feeding episodes, the bird would move its leg up and down in the mud very rapidly. One leg at a time was moved in this manner, and the bird frequently switched legs. The effect of this rapid leg vibration was to shake the entire bird and give the impression that it was trembling.

Since these episodes of foot vibrating were usually immediately followed by vigorous episodes of probing and feeding, it might be that the foot vibrating caused small prey items to move and reveal themselves, to be snapped up by the bird.

Odonate Hunting at Wizard Pond

Richard W. Hildreth

The Maine Public Reserve Land tract at T10 SD includes Black Mountain. The well-maintained and relatively easy trail up the mountain climbs through the woods to a glacially rounded bedrock knob at about 960 feet, descends steeply into a narrow ravine to about 830 feet, and then ascends steeply to the main, bare, rounded bedrock summit of the mountain at 1094 feet. In the ravine, between the two peaks, is a small (about 500 feet long), elongated body of water called Wizard Pond.

On September 1, 2000, at about 10:00 a.m., I was standing on the shore of the pond at the southern end, hunting for odonates. I had already collected one yellow-legged meadowhawk (Sympetrum vicinum), one lake darner (Aeshna eremita), and one variable darner (Aeshna interrupta interrupta). I had netted (and released) six more darners, all interrupta. I saw several pairs fly by in the "wheel" position, also interrupta. From my vantage point I could see the entire pond; about forty large darners, presumably interrupta, were flying just above the water, mostly along the edges of the pond.

I was not the only odonate hunter present. I saw a Merlin (Falco columbarius) fly out of the woods and chase the big darners over the pond. It flew down from the trees and pursued the darners rapidly just above the water. The darners were grabbed in the bird's talons. Not every sortie made by the Merlin was successful, but there was a capture for every two or three attempts. When a darner had been captured, the Merlin flew to a perch and ate it. Through my ten-power binoculars I could see the bird holding the darner with one foot while eating it. I saw the Merlin catch and eat four big darners in about fifteen minutes. It then flew off into the trees and was not seen again.



GEORGE C. WEST

ABOUT BOOKS

Who Are We and What Exactly Are We Doing?

Mark Lynch

Birders: Tales of a Tribe by Mark Cocker. 2001. Boston,

MA: Atlantic Monthly Press. 240 pp. \$24.00



Recently while standing in the early morning cold fog without my coat looking for the Eurasian Kestrel, not visible at the time, with a scrappy bunch of like-minded fanatics, I paused to momentarily reflect. I often do at times like this. What am I doing? Who are these people? What is birding all about? How does this look to the nonbirder? Are we crazy? You probably have had similar flashes of soul-searching. Perhaps while lugging a heavy scope over the soft sands of South Beach in the midsummer sun, causing your back and neck all sorts of expensive trouble. Or while standing on a residential street in the wee hours of a winter morning, waiting for some feeder visitor to show up, while neighbors peer through the blinds. There can be little doubt that birding certainly has its moments of intense eccentricity and just plain weird behavior. But we are hooked body and soul. We are bird junkies. Which is why I love Mark Cocker's *Birders: Tales of a Tribe*. It is always therapeutic to read that others are just as obsessive as you are.

Cocker starts with an account of his search for the Satyr Tragopan high in the Himalayas in 1996. He uses this event to begin his personal history of birders in Britain: "In a sense, the purpose of this book is to explain why that tragopan is so special and to make that moment intelligible to someone who has perhaps never even been birding. It is to let you understand and feel what I felt on that May morning" (p. 3). What follows is Cocker's account of his growing into a life devoted to watching birds, from 1968 when he was a child looking at feral pigeons in Derbyshire, to 1993 when he was in the Extremadura region of Spain admiring displaying Great Bustards. Sightings from his many handwritten journals mark the beginning of each chapter as if they were historical markers to his life. Along the way, he also traces the general history of British birding, discussing topics like twitching and stringing, and telling tales of the birding community. In many ways, *Birders: Tales of a Tribe* is the *Little Black Book* by Bill Oddie (*Bird Observer*, April 2001, pp. 139-140) for this generation.

For American birders reading this very British book, it is interesting to learn about the ways in which birding here and there is both similar and different. As in America, birding in Britain was once solely the realm of the wealthy and the powerful. But probably only a Brit would express this notion of avocation and class in quite this way: "Earlier in the century it was the domain of millionaire bankers, famous explorers, the sons of famous explorers and millionaire bankers, the officer

classes, landed gentry and the odd country vicar. Since then birding has made a long, seemingly irreversible journey down the social ladder" (p. 46).

Cocker dwells on those everyday details that make all birders the eccentric tribe we are. Take our peculiar fashion statement of wearing our bins not only while out birding, but also while in a restaurant, while at a conference meeting, or simply "whenever," just in case something interesting flits by. I immediately identified with this because I confess I wore my bins during my son's wedding a few years back. After all, it was outdoors in spring at Castle Hill and I even ticked a Gannet during the vows. But Brits seem to have some birding obsessions that are particular to that isle. Cocker devotes a chapter to the love of field notebooks. Not just any notebook, mind you, but the "Alwych" black laminated cloth one with the "All Weather Cover." He starts with the small model A 38/90 but soon graduates to the choice of serious field birders, the fatter A68/140 model. This very British tradition of keeping detailed daily notes of what was seen on a birding jaunt and illustrated with field sketches seems to have totally missed New England birders for the most part. How many of us keep regular journals written by hand and keep them filed by year? This is a shame, because Cocker lovingly describes pulling some of these old notebooks off the shelves and describes how they magically evoke the fine details of birding days gone by.

The British also have a genuine oral tradition of classic "ripping yarns" of going through hell and high water for some rarity. Perhaps part of the reason that this body of oral birding lore exists is that British birders seem to be more social than American birders. In the chapter "The Loop, 1," Cocker describes the famous birder's hangout near Cley, a dining room called Nancy's:

Nancy's, which is what everyone called it, was legendary. Every birder knew of it. Most birders of sufficient age visited it. Many went there weekly. Some almost lived there. One or two actually did. And even those who never went there spoke to its occupants on a regular basis. It was routinely mentioned in that naff comedy series about birdwatching set in Liverpool called *Watching*. When the café finally closed, the event was recorded in the press and on regional and national TV. I believe it should have one of those blue English Heritage plaques commemorating its former status (p. 98).

I cannot think of a New England equivalent of Nancy's. I also cannot imagine spending so much time with most birders I know. At Nancy's, birders just hung out. The owners welcomed the muddy, sodden, and bedraggled lot with open arms. The food was cheap and plentiful. The phone was always ringing with the latest birding news, and folks sat around on off moments telling great birding stories.

Cocker includes a chapter on "hitching stories." Apparently, some of the most hard-core listers in Britain did not have a car in the 1970s and 1980s, so when a rarity was sighted in some odd part of the Isles, they just stuck out a thumb and went for it. Or, even if they did have a car and had a flat tire or got into an accident en route, they ended up hitching to the scene of the rarity. And therein lies the start of these sometimes humorous, sometimes scary tales. There are also thrilling stories of birders

being chased off cliffs in Afghanistan or devoured by a tiger in India. These stories are peopled with a wide range of quintessentially British characters. Some of these tribe members Cocker writes about with true respect and awe, legends in the annals of British birding and ornithology. Other people are close birding friends that are remembered fondly after years sharing the joys of the field. Still others are more than a bit odd, which is to be expected, because, after all, this is Britain, a country that has a yearly event consisting of wildly careening down a steep hill chasing after a wheel of cheese.

For me, no person in Cocker's book was more fascinating than the allegedly fictitious composite Robert Barry Shutbill, an archetypal "stringer." A stringer is a birder who purposefully reports rare birds that are not there, the bane of serious birders everywhere. The stories in this chapter are so filled with rich details that seem close to the truth, that this becomes the birder's equivalent of *Primary Colors*. Also in this exposé of a chapter is a nice summary of the infamous Hastings Rarities: "These were 595 records of rarities that were all claimed from one small area of East Sussex between 1892 and 1930" (p. 167). All of these formerly accepted records are now highly suspect, since it is believed that the birds had been "killed in the Middle East and elsewhere and shipped back to Britain on ice, where they were being sold as genuine British vagrants" (p. 168). The Brits seem to go all out in every aspect of birding, even when it is bad birding.

Birders: Tales of a Tribe is also filled with quintessential British birding lingo. New words I learned included "blocker": "a rare bird that a few have seen but most haven t" (p. 121). The Massachusetts equivalent would be the Terek Sandpiper at Plum Island years back. The term "fazed" is something I hope never to experience: "In times of great stress birders usually make one of two responses. Either they temporarily abandon birding — a condition known as having fazed — or they bird more intensively than ever. I've tried both therapies and definitely favor the latter" (p. 214).

Birders: Tales of a Tribe lets you eavesdrop on the inner workings of the mind of a very serious and somewhat obsessive British birder. It explains why nobody birds like the Brits. That said, birders everywhere share this same obsessive and crazy passion for the feathered set. Birders: Tales of a Tribe will resonate with anyone who has ever staked out a feeder or suddenly come across that really good bird. This book is a joy to read whether you are a birder from Aden, a twitcher from Zanzibar, or even a hardcore lister from the rebellious former colonies across the pond.

Mark Lynch is an instructor, trip leader, and ecological monitor at Broad Meadow Brook, Massachusetts Audubon Society property in Worcester. He hosts Inquiry, an interview show of arts and sciences on WICN 90.5 FM. He is also an instructor and docent at the Worcester Art Museum. His list from his son's wedding also included Baltimore Oriole and Cedar Waxwing and many other species.

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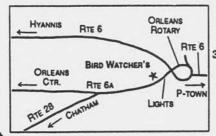
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News from MassWildlife

First Successful Peregrine Nesting. The first cliff-nesting peregrine falcons in more than half a century have produced 4 chicks at the Farley cliffs in Erving. MassWildlife District Manager Ralph Taylor confirmed the successful hatching by using a spotting scope to observe the nest site from Route 2. Peregrines have been displaying territorial tendencies at the cliff for the past two summers but were not known to breed until this year. This represents the first successful peregrine nesting at a natural site in Massachusetts since young were fledged from Hanging Mountain in Sandisfield and Monument Mountain in Great Barrington in 1951. The Farley cliffs aerie last produced chicks in 1942 and the last report of a peregrine on the territory was of a single male in 1957. By that time the pesticide DDT had devastated the peregrine falcon population in Massachusetts and by 1966 there were no nesting peregrines in the U.S. east of the Mississippi River. The banning of DDT in 1972 and subsequent restoration efforts brought the peregrine back from the brink of extinction in Massachusetts and across the country. In 2001, 54 peregrine pairs nested in New England producing 219 chicks. Five of the pairs and 13 of the chicks were found on buildings and bridges in Massachusetts. The peregrine has been removed from the federal Endangered Species list.

Bay State Eagles Fledge 15 Chicks. MassWildlife biologists have completed their annual visits to active bald eagle territories across the state and report 15 eagle (continued on page 275)

chicks produced during the 2002 nesting season. Of the dozen known eagle nesting territories, 8 successfully produced chicks, three failed and one was vacant. From west to east the southern Berkshire pair had two chicks, four pairs nesting along the Massachusetts reach of the Connecticut River had a total of 8 chicks, one Connecticut River territory was vacant, two Quabbin Reservoir pairs had a total of 3 chicks, while two additional Quabbin pairs failed. The Quaboag Pond pair in Brookfield failed while the Assawompsett Pond pair in Middleboro had two chicks. MassWildlife's Connecticut Valley District personnel checked each territory and banded 13 of the chicks. Two chicks were not banded as the nest tree was unsafe to climb

"Eagles continue to make a dramatic comeback in Massachusetts and elsewhere in the United States," said Dr. Tom French, Assistant Director for MassWildlife's Natural Heritage and Endangered Species Program. "People who have followed eagle recovery in Massachusetts will remember that we jump started the process by releasing 41 young eagles at Quabbin Reservoir back in the 1980s, at a time when there were



GEORGE C. WEST

zero nesting eagles in the Commonwealth. Many of those released birds survived, nested and formed the foundation for today's nesting success. The wild nesting pairs have fledged a total of 151 chicks since 1989 and we're now seeing second and third generation nesting birds. I think we'll see the southern New England eagle population increase even more dramatically in the years to come, especially along our larger rivers and lakes." Massachusetts' eagles fared better in 2002 than they did last year, when late season snow and prolonged cold rains caused significant nest failures resulting in only 10 chicks fledged. Massachusetts is a distant second to Maine's 269 nesting pairs of eagles. New Hampshire had 8 pairs in 2001 while Connecticut had 6. Vermont and Rhode Island had no nesting eagles. The bald eagle is slated to come off the federal Endangered Species List once habitat protection issues are resolved in certain parts of the country.

Young Eagles Take a Dive. The two bald eagle chicks banded by MassWildlife biologists at the West Springfield site along the Connecticut River took an unexpected swim when the giant cottonwood tree supporting the eagle nest fell into the River. MassWildlife's Ralph Taylor reports that the tree was uprooted and appeared to have fallen slowly, leaving the nest suspended at a severe angle just 15 feet above the water. Taylor and his District crew located both chicks along the riverbank's floodplain forest and returned them to the nest tree where the adults were still present. The chicks will remain in the vicinity of the nest where the adults will continue to bring food, caring for them through their first flights later in June and until the young disperse from the territory in early October.

BIRD SIGHTINGS

March/April 2002

Richard S. Heil, Seth Kellogg, Marjorie W. Rines, Robert H. Stymeist

March came in like a lamb and the weather continued pleasant through midmonth, but a lion closed the month cold and wet. While the temperature was near normal and precipitation and sunshine close to normal overall, in Boston the temperature averaged 40.2 degrees, 1.3 degrees above normal, making this the eighth above-normal month in a row. The high reached 66 degrees on March 9 with a low of 19 degrees on March 22. Rainfall was recorded at 3.52 inches in Boston with measurable amounts noted on thirteen days. Snowfall was just 1.4 inches, 6.8 inches less than the average for March. The ground was bare all month except for those few days when snow fell. The seasonal total for Boston was 14.8 inches, 25.8 inches below average. Winds were from a southerly direction on eleven days.

April was warm and sunny and unusually dry, despite frequent rain. The temperature averaged 49.8 degrees, 1.5 degrees above normal. A high of 93 degrees on April 17 was 24 degrees above normal for the date and an all-time record high for so early in the year. That afternoon a cold front came in and the temperature plummeted 32 degrees in just one hour. This day was preceded by nine days of above normal temperatures which contributed to advancing the foliage of the trees by nearly three weeks. No birder appreciates this warm weather so early in the season! Rainfall was 2.64 inches, just about an inch under the average, and measurable amounts were noted on twelve days. There was only a trace of snowfall in Boston, but measurable amounts fell in many inland suburbs on April 5 and again on April 23. Thunder was heard on four days in the Boston area, double the average for April, and heavy fog was recorded on three days. Winds were out of the southwest on April 8, 9, 12, 13, 16, 19, and on April 30, with southerly winds noted on April 1, 4, and 24.

LOONS THROUGH ALCIDS

Reports of individual **Pacific Loons** continued to emanate from both the Andrew's Point, Rockport and Race Point, Provincetown areas, both during March. Regular and expected in small numbers in the interior in spring, inland grebes included fourteen Horned and five Rednecked on the Connecticut River at Turners Falls April 15. No large staging flocks of Rednecked Grebes developed along the coast this spring, with the largest assemblages consisting of a meager fifty-seven at Nahant and forty-three at Winthrop. The Gloucester **Eared Grebe** was last reported April 14. Possibly the same bird present along the New Hampshire coast earlier in the winter, a **Western Grebe** loitered off the beach at Plum Island from March 16 into May. The only tubenoses reported were forty Northern Fulmars that were wind-driven past Andrew's Point in Rockport during a modest storm March 15.

The recent increase in the beaver population and the ensuing creation of new wetlands, often containing large stands of dead, waterlogged white pines, has been beneficial to Great Blue Herons who utilize these sites for rookeries and for foraging. One such site in West Boxford contained nearly fifty herons on nests by March 27. The advance front of arriving "southern" herons began early, with the first Snowy Egret at Salem March 14, a Great Egret at Squantum March 16, and a Little Blue Heron at Salisbury March 28. How long before the vanguard begins to arrive in February? Several weeks later, herons counted flying to the Kettle Island, Manchester rookery at dusk the evening of April 13 included 59 Great Egrets, 152

Snowy Egrets, 25 Little Blue Herons, and 31 Glossy Ibis. The sole Tricolored Heron of the period was in Essex April 29. A Cattle Egret that lingered in Amesbury for a week in late April was a surprise, while the one or two pairs of Salem Harbor nesters were seen a couple of times in the Beverly Farms area, as is usual. Three flocks of Glossy Ibis migrating north along Plum Island totaled 109, April 16-17. A kettle of fifty Turkey Vultures was observed along Route 1 in Lynnfield, just before an unseasonable strong thunderstorm April 3.

Up to four Greater White-fronted Geese were reported, but no details that might help determine subspecies, and thereby origin, were submitted. The precise status of the Taiga (gambelli) and Greenland (flavirostris) races in New England is still to be determined, although Greenland birds are thought to predominate. Again, like last year, a "Dark-bellied Brant" (Branta bernicla bernicla) appeared at Newburyport. This spring one was closely studied among the Pale-bellied Brant April 25-26. Peak counts of some dabbling ducks, particularly American Black Duck and Green-winged Teal, appeared somewhat subdued this spring as a mild February apparently resulted in an early movement and a more protracted migration in general. The two drake "Eurasian Teal", singles at Scituate and Plum Island, continued from the winter. A flock of seven Redheads at Cherry Hill Reservoir in West Newbury was a surprise March 14, representing a recent if not all-time high for Essex County. The Worcester area Tufted Duck visited Shrewsbury in mid-March before departing for regions unknown, while a female Tufted was found in Acoaxet March 17, where perhaps the same individual has made several appearances in recent years. A new record count for Harlequin Duck was established with a tally of 116 at Rockport March 6, as the wintering population in the state continues to expand. Excellent counts of Bufflehead were made on Cape Cod during the peak of migration in mid-April, including 1621 in Harwich and 520 in Orleans. A total of only seven Barrow's Goldeneye for the period, although a near-average number for recent years, is only about onehalf to one-third of March/April totals from back in the 1970s and 1980s, indicative of this duck's decline in the state since that time. Perhaps this may be accounted for by the prevailing milder winters, which allow more individuals to remain farther north, rather than representing a true population decline in the Northeast. (Note that 331 Barrow's were recorded on a New Brunswick CBC last winter, a regional record and further evidence of a possible northward winter range shift.)

At least five Broad-winged Hawks were observed during the last week of March, an unprecedented early arrival. In fact, there are only two prior March records in the past fifteen seasons, both of single birds. The largest flight of Broad-winged Hawks detected occurred on April 24 when 478 passed over Barre Falls. Only three Rough-legged Hawks were reported, the lowest for the period in at least ten years. One of the events of the season, a male Eurasian Kestrel was found in Chatham on April 18, along the causeway connecting Morris Island to the mainland. It was originally reported from South Wellfleet on April 14, but word did not reach the birding community until it was rediscovered. Delighting hundreds of journeying birders, the kestrel remained in the vicinity throughout the month, although it became more sporadic in its appearance toward the end of its stay. There are several prior regional records between New Jersey and New Brunswick, including one from Massachusetts, an old record, of a female collected at Nantasket Beach in Hull on September 29, 1887. The prevalence of cold fronts and resultant west and northwest winds, along with expanded coverage, resulted in record counts of migrating American Kestrels along the coast on the Plum Island hawkwatch this spring. A total of 1501 were counted there for the spring season (through May), with 1100 passing by just during April. Some peak single-day counts of raptors during April at the Plum Island vigil, where birds often wing past observers nearly at eye level, included 22 Ospreys and 74 Sharpshinned Hawks April 27, and 29 Northern Harriers and 298 American Kestrels April 4.

Single Clapper Rails arrived in the salt marshes at Eastham and Plum Island by April 20 and 25, respectively. A rare Common Moorhen was found at Amherst April 26. Two Sandhill Cranes were found. One lingered around Nantucket and Muskeget Islands April 8-27, and another was noted over Reading April 27.

Following just three days after the appearance of the Eurasian Kestrel in Chatham, a Pacific Golden-Plover (Pluvialis fulva) was discovered in the salt marsh at Plum Island (just a couple of hundred yards from the famous "salt pans") on the Parker River NWR in Newbury on April 21. It was the first Massachusetts record and only the third for eastern North America. An adult male in alternate plumage, the plover cooperatively foraged and roosted in the vicinity of several small pans about 100 yards from the refuge road for two weeks. Careful and critical observations for the duration of the bird's stay consistently revealed the salient features separating this species, only recently split in 1993, from its very similar congeners, the American (dominica) and European (apricaria) Golden-Plovers. Some of these field marks include the bright golden, coarsely patterned upperparts; the white stripe along the neck and chest extending along the flanks and under the tail; the long bill and the very long, "knittingneedle" legs; the rather short primary extension/ long tertials, with only two primaries apparent beyond the longest tertial; and the grayish underwings, apparent on several occasions when the bird was viewed preening or in flight. This striking bird was enjoyed by hundreds of observers and well photographed. Prior documented records of fulva in the East include an adult in prebasic molt just this past September in New Jersey, and an adult female shot at Scarborough, Maine, September 11, 1911.

It is interesting to note the timing of the prealternate molt among the three species of golden-plovers. The American Golden-Plover begins this molt, on average, up to a month later than the other two species (initiating migration north in the spring while still in basic plumage, whereas Pacifics and Europeans begin their prealternate molt earlier, on the wintering grounds), such that any golden-plover in North America in or near alternate ("breeding") plumage during April is unlikely to be *dominica*. Certainly, all spring golden-plovers in the Northeast warrant detailed scrutiny.

Four Lesser Yellowlegs from the wintering flock continued at Newburyport into March. An extremely early Willet, very likely of the western race *inornatus*, given the date, was found at the Plum Island salt pans March 9. The first eastern Willets, the local breeding form, began to filter in to local salt marshes pretty much on schedule during the latter half of April. Other early shorebird arrivals of note included a Semipalmated Plover in South Dartmouth April 9 and a Least Sandpiper in Essex April 3. In spring, Pectoral Sandpipers are reliably irregular in Massachusetts, sometimes engaging in pronounced eastward incursions, sometimes not. Despite the occurrence of numerous cold fronts and plentiful northwest winds, few Pectoral Sandpipers were deflected to the coast this spring from their normal interior continental migration route. Only five individuals were found in the state during April, a very low number. Only a single Ruff appeared, at the usual Joppa Flats, Newburyport location April 24-28, surely still among the most reliable sites for this species on the continent. Common Snipe made the weakest showing in at least six springs, with the few "high counts" only in the 40-50 range.

The maximum count of Bonaparte Gulls was of a paltry 320 at Nahant April 20, while a flock of seven was a good find inland at Turners Falls April 14. For the second spring, very few bonies appeared at Newburyport. Unlike the previous two Aprils, no Little Gulls were detected in the state. The 35+ Lesser Black-backed Gulls reported included a high proportion of adults. Where and whence will the long overdue first North American breeding record be revealed, the Arctic, Atlantic Canada, or . . . Monomoy? The first-winter "Nelson's Gull", the *nom de guerre* for a Glaucous X Herring hybrid, continued at Plymouth to March 26. Two Caspian Terns

migrating north over the Boxford forests were snagged by a diligent observer April 6. A Common Tern identified at Turners Falls was early April 15, and always rare and unexpected inland. The resident pair of Forster's Terns returned to their lonely Newburyport-Plum Island outpost, the northernmost known breeding site on the East Coast, by April 24. Following a rather poor winter for alcids (or at least for alcid watchers), Razorbills in particular were virtually nonexistent in March and April. Common Murres were the exception: four were still present at Race Point, Provincetown March 2, following the remarkable count of twenty-one there in late February.

R. Heil

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						Hingham		D. Peacock
	4/19	Eastham	171	M. Lynch#	4/6	Acoaxet	35	M. Lynch#

Snowy Egret		25	T. Madleson	3/31	Sunderland	68	M. Williams
4/7	Westport	25 109, 152	E. Neilsen R. Heil	4/19 4/20	Pittsfield (Onata Granville) 5	B. Garver K. + M. Conway
4/9, 13 4/19	Manchester (K.I.) Orleans	13	M. Lynch#		Canada Goose		K. 1 M. Collway
Little Blue H			ivi. Lyncin	4/4	Whately	1	M. Williams
3/28	Salisbury	1	J. Soucy	Brant			
4/9, 13	Manchester (K.I.)	17, 25 ad	R. Heil	3/2	Squantum	145	SSBC (R. Min)
4/29	Essex	1	P. Brown	3/3 3/5	Richmond	600+	E. Nemuth
Tricolored Ho	Essex	1	P. Brown	3/10	Duxbury B. Boston H.	1245	D. Furbish TASL (M. Hall)
Cattle Egret	LSSCA		1. Diowii	3/17	P.I.	250	D. Landry
4/14	Beverly Farms	1	L. Jodrey#	3/24-26	Deerfield	1	I. Dukovski
4/22-29	Amesbury	1 (C. Chapman	3/25	Nahant	380	R. Heil
Green Heron				3/26	Whately	140	M. Williams
4/14	Bolton Flats		. Lockwood	4/7	P'town	140	R. Heil
4/15 4/16	Ashfield MNWS	1	S. Sauter K. Haley	4/19 4/26	Orleans Newbypt.	330 350	M. Lynch# R. Heil
4/16	Salisbury). Tambasco	Dark-Bellied		550	IC. TICH
4/17	Hingham	i	S. Carey	4/25-26	Newbypt.	1	R. Heil#
Black-crown	ed Night-Heron			Tundra Swa			
3/4	Nantucket	12	B. Marks	3/2		ad, 3 juv	R. Sawyer
3/27	W. Harwich	10	M. Dettrey	Whooper Sw		3	I Down
3/30 4/13	Hingham H. Manchester (K.I.)	86+	C. Dalton R. Heil	3/1 Wood Duck	Ipswich	3	J. Berry
4/15	Medford		LaFontaine	3/3	Worcester	14	M. Lynch#
Glossy Ibis	Medicia			3/8	Northfield	100	M. Taylor
3/31	Cumb. Farms	2	R. Heil	3/18	W. Newbury	16	J. Ветту
4/4	W. Bridgewater		l'Entremont	3/24	Southwick	19	J. Weeks
4/5	Ipswich	36	J. Berry	3/24	Bolton Flats	26 100	S. Sutton#
4/8	Petersham Manchester (K.I.)	18, 31	J. Baird R. Heil	3/28 3/31	Northampton Duxbury	15	S. Rayer N. Swirka
4/9, 13 4/11	DWWS	2	D. Furbish	3/31	Sudbury	15+	E. Salmela
4/16	Nantucket	ĩ	E. Ray	4/7	Longmeadow	15	B. Packard
4/16-17	P.I.	109 migr	R. Heil	4/13	Northbridge	12	M. Lynch#
Black Vultur				4/14	Bolton Flats	13	R. Lockwood
3/1	Gr. Barrington		D. St James	4/21	IRWS	20	BBC (F. Vale)
3/3	Granby	1	W. Lafley M. Lynch#	Gadwall 3/2	DWWS	14	SSBC (R. Min)
3/17 3/27-28	Westport Sheffield		D. St James	3/6-4/1	Pittsfield (Onota		
3/28	Ashley Falls	i	T. Collins	3/10	Barnstable	10	G. d'Entremont#
3/30	Raynham		G. LeBaron	3/21	W. Peabody	18	R. Heil
3/31	Sudbury	1	E. Salmela	3/23	Turners Falls	9	H. Allen
3/31	Sunderland		M. Williams	3/24	Cheshire	7 46	K. + M. Conway
4/4	Cumb. Farms	1 M. +	J. Halloran K. Reed	3/28 4/6	Ipswich Acoaxet	12	R. Heil M. Lynch#
4/12 Turkey Vultu	N. Egremont	2	K. Reed	4/14	P.I.	17	P. + F. Vale
3/2	Hardwick	11	C. Buelow	Eurasian Wij			
3/9	Maynard		L. Nachtrab	3/thr	Newbypt.	1 m	V.O.
3/11	E. Sandwich		Manchester	American W			C Tamber
3/23-29	N. Truro		Manchester	3/7	Arlington Res.	5	G. Tepke R. Packard
3/28 3/30	W. Townsend W. Gloucester	17	T. Pirro J. Nelson	3/8 3/10	Northampton Sterling	8	R. Lockwood
3/31	Sunderland		M. Williams	3/10	Barnstable	14	G. d'Entremont#
4/2-30	N. Truro		Manchester#	3/13	Pittsfield (Onata	1) 12	E. Nemuth
4/3	Lynnfield		Saffarewich	3/15	Ludlow	2	H. Allen
4/4	Foxboro	7	C. Buelow	3/16	Newbypt. H.	25	E. Nielsen#
4/4	Nantucket	7 K	D. Peacock	3/17 3/20	Bolton Flats Hadley	4 8	R. Lockwood H. Allen
4/4 4/7	Hingham Westport	12	E. Neilsen	3/24	Cheshire	6	K. + M. Conway
4/8	Barre	19	C. Buelow	4/6	Acoaxet	15	M. Lynch#
4/14	Petersham	9	M. Lynch#	4/17	Turners Falls	1	C. Buelow
4/23	W. Boylston	7	M. Lynch#	American B		400	M. Taulan
	ite-fronted Goose	2 D C+	Tomas days	3/8 3/10	Northfield Boston H.	400 477	M. Taylor TASL (M. Hall)
3/4-5 3/9	Richmond Westwood	2 D. St	James + v.o. J. Nelson	3/31	Cumb. Farms	250	R. Heil
3/25-29	Deerfield		Allen + v.o.	4/6	Acoaxet	234	M. Lynch#
Snow Goose				Mallard			
3/1-6	P.I.	16	R. Heil	3/8	Northfield	350	M. Taylor
3/16	S. Egremont	54	J. Johnson	3/10	Boston H.	124	TASL (M. Hall)
3/16	Westfield	75 275	J. Weeks#	Blue-winged	Chilmark	- 1	A. Keith#
3/22 3/23-24	Northampton Katama	16	G. LaBaron J. Curelli#	3/15	Oxford	1 m	
3/23-24	Warwick	30	M. Taylor	3/29	DWWS	2	B. Machover
3/24	Huntington	100	T. Gagnon	4/7	W. Bridgewater	6	G. d'Entremont
3/26, 4/2	5 DWWS	4, 1	D. Furbish	4/7	Longmeadow	4	B. Packard
3/28	Ipswich	31	R. Heil	4/11	Bolton Flats	3	T. Pirro
3/29	N. Andover	100 D. Di 80	Allen Club	4/15 4/17	Turners Falls Newbury	3	M. Fairbrother R. Heil
3/30	Holyoke	00	Anen Club	7/1/	rewouly	7	IX. IICII

					Marie and the same		
Blue-winged	Teal (continued)	10000	2002002000	3/17	Acoaxet	41	M. Lynch#
4/28	Northampton	7	E. Labato	3/24	Pittsfield (Onata		C. + M. Conway
4/30	GMNWR	5	S. Perkins	3/30, 4/27			G. d'Entremont
Northern Sho				4/6	Acoaxet	34	M. Lynch#
3/16	Arlington Res.	8	A. Ankers	4/8	Cheshire	1	D. St. James
3/26-28	Longmeadow	8 2 3 3 2 2 2 2 3	S. Kellogg	Lesser Scaup		6 (G. d'Entremont#
3/30	Whately	3	H. Allen	3/10	Barnstable		
3/31	Bolton Flats	3	R. Lockwood	3/17	Acoaxet	35 110	M. Lynch# R. Heil
4/1	Turners Falls	2	A. Richards	3/31	Lakeville Wakefield	8	P. + F. Vale
4/7	Topsfield	2	S. Leonard	4/13		9	M. Fairbrother
4/8	GMNWR	2	T. Pirro	4/15	Turners Falls	9	W. Palibiotici
4/14	Pittsfield		Hoffmann Club	King Eider	Gloucester	1 m	T. Pirro
4/26	Nantucket	2 10	N. Slavits	3/3 3/10	Nantucket	1	J. Carlson
thr	Reports of indiv.	from 10	locations	3/25		l ad r	
Northern Pin		10	D. Laslaward	Common Eig	Lynn	i au i	ii K. Heii
3/5	GMNWR	18 22	R. Lockwood K. + M. Conway	3/5	Duxbury B.	1300+	D. Furbish
3/6-7	Pittsfield (Onota)	8	G. d'Entremont#	3/9	Barnstable		G. d'Entremont#
3/10 3/23	Barnstable		SSBC (D. Larson)	3/10		26590	E. Ray
3/28	Westport P.I.	280	B. Miller	3/10	Boston H.	6227	TASL (M. Hall)
3/28	W. Bridgewater	6	G. d'Entremont	4/7	Nahant	630	L. Pivacek
3/28	Newbury	56	R. Heil	Harlequin D			777 (7) 7 (8) (877-5717)
3/28	Chicopee	4	H. Allen	3/2, 16	Rockport (H.P.)	35, 20	BBC (J. Nove)
3/31	Bolton Flats	5	R. Lockwood	3/2	N. Scituate	23	SSBC (R. Min)
4/6	Acoaxet	5	M. Lynch#	3/6	Rockport	116	W. Harrington#
4/30	Hadley	100	C. Gentes	3/9	Orleans	8	T. Prince#
		100	C. Gentes	3/10	Nantucket	30	E. Ray
Green-winge		20	J. Hoye#	3/10	Boston H.	1	TASL (M. Hall)
3/3	Scituate	75, 11		4/14	N. Scituate	14	G. d'Entremont
3/6, 4/16	W. Harwich	35	B. Nikula	Surf Scoter	14. Selluate	2.00	O. a Lina cinom
3/17		24, 17		3/10	Boston H.	96	TASL (M. Hall)
3/17, 4/14				3/10	Fairhaven	100+	J. Sweeney#
3/24, 30	Cumb. Farms	8, 74	R. Heil	3/25	Nahant	80	R. Heil
3/28, 4/3	Ipswich	35, 60 80, 13		4/20	Marblehead	80	R. Heil
3/28, 4/2	Newbury			4/20	Truro	68	M. Lynch#
3/28	Rowley	42 300	R. Heil R. Heil	4/21	Dennis	57	M. Lynch#
3/31	Halifax (C.F.)		W. Petersen	White-winge		57	IVI. Lymon
4/6	W. Bridgewater	250		3/10	Boston H.	279	TASL (M. Hall)
4/15	Turners Falls	102	M. Fairborther	3/10	Fairhaven	150+	J. Sweeney#
Eurasian Te		1	D Min + vo	3/16	P.I.	60	E. Nielsen#
3/2-3	N. Scituate	1	R. Min + v.o.	3/25, 4/20		770, 200	
3/20-4/6	P.I.	1	N. Soulette + v.o.	4/20	P'town	289	M. Lynch#
Canvasback	W Mandage	2-5	I Count	Black Scote		207	IVI. Lyttenii
3/2-16	W. Newbury		J. Soucy#	3/9	Orleans	125	T. Prince#
3/3	Braintree	2	S. Carey L. Ferraresso	3/14	P.I.	75	R. Heil
3/3-23	Arlington Res.	4		4/19	Nauset	157	M. Lynch#
3/14	Cotuit	5 2 4 9	St. Miller		Chatham	450	R. Titus
3/23	Westport	3	SSBC (D. Larson)	4/21 Long-tailed		450	IX. Titus
4/2	Braintree	3	D. Larson	3/3	Gloucester	20	T. Pirro
Redhead	Dommoroll .	4	E. Stromsted	3/24	Boston H.	10	S. Zendeh#
3/1	Pepperell	1	E. Nemuth	3/28, 4/2:		350, 800	
3/3-5	Richmond	7	R. Heil	4/1	Gardner	1 m	Т. Рітто
3/14-19	W. Newbury	1 f		Bufflehead	Gardinei		1. 1 1110
3/16	Boston	1	G. Tepke G. Shampang	3/2	Squantum	273	SSBC (R. Min)
3/17	Pittsfield	3	K. + M. Conway	3/8	Turners Falls	2	W. Lafley
3/24	Cheshire	3	K. I W. Collway	3/10	Boston H.	884	TASL (M. Hall)
Ring-necked	E-minaham	50	E Taylor	3/17	Acoaxet	222	M. Lynch#
3/thr	Framingham W. Newbury	500	E. Taylor J. Soucy#	3/21	Chatham (S.B.)		P. Flood
3/2	W. Newbury		E. Nemuth	3/25	Nahant	630	R. Heil
3/3			L. Nelliutii				J. Berry
3/13, 27	Richmond	138	S Sutton#	4/7	N Andover	2.1	
2/2/	Stow	100, 3		4/7	N. Andover Randolph	27 45	
3/24	Stow Stoughton	100, 3	G. d'Entremont	4/7	Randolph	45	G. d'Entremont
3/26	Stow Stoughton Turners Falls	100, 3 63 116	G. d'Entremont W. Lafley	4/7 4/15	Randolph Orange	45 4	G. d'Entremont W. Lafley
3/26 3/30	Stow Stoughton Turners Falls Holyoke	100, 36 63 116 111	G. d'Entremont W. Lafley C. Gentes	4/7 4/15 4/16	Randolph Orange P.I.	45 4 24	G. d'Entremont W. Lafley R. Heil
3/26 3/30 4/5	Stow Stoughton Turners Falls Holyoke Granby	100, 36 63 116 111 140	G. d'Entremont W. Lafley C. Gentes W. Lafley	4/7 4/15 4/16 4/19	Randolph Orange P.I. Orleans	45 4 24 520+	G. d'Entremont W. Lafley R. Heil M. Lynch#
3/26 3/30 4/5 4/6	Stow Stoughton Turners Falls Holyoke Granby New Salem	100, 36 63 116 111 140 140	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley	4/7 4/15 4/16 4/19 4/20	Randolph Orange P.I. Orleans Harwich	45 4 24	G. d'Entremont W. Lafley R. Heil
3/26 3/30 4/5 4/6 4/7	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls	100, 30 63 116 111 140 140 103	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard	4/7 4/15 4/16 4/19 4/20 Common G	Randolph Orange P.I. Orleans Harwich oldeneye	45 4 24 520+ 1621	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch#
3/26 3/30 4/5 4/6 4/7 4/8	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire	100, 30 63 116 111 140 140 103 100	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James	4/7 4/15 4/16 4/19 4/20 Common Go 3/2	Randolph Orange P.I. Orleans Harwich oldeneye Westboro	45 4 24 520+ 1621	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore
3/26 3/30 4/5 4/6 4/7 4/8 4/11	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR	100, 36 63 116 111 140 140 103 100 48	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.)	45 4 24 520+ 1621	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke	100, 36 63 116 111 140 140 103 100 48 40	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2 3/2 3/2	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum	45 4 24 520+ 1621 3 56 310	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min)
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield	100, 36 63 116 111 140 140 103 100 48	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood	4/7 4/15 4/16 4/19 4/20 Common G 3/2 3/2 3/2 3/8	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls	45 4 24 520+ 1621 3 56 310 28	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield	100, 36 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry	4/7 4/15 4/16 4/19 4/20 Common G 3/2 3/2 3/2 3/8 3/10	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H.	45 4 24 520+ 1621 3 56 310 28 386	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall)
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury	100, 36 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry M. Lynch#	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2 3/2 3/8 3/10 3/14	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury	45 4 24 520+ 1621 3 56 310 28 386 28	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch#
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19 3/17	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury Acoaxet	100, 36 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry	4/7 4/15 4/16 4/19 4/20 Common G 3/2 3/2 3/2 3/8 3/10 3/14 3/16	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury P.I.	45 4 24 520+ 1621 3 56 310 28 386 28 40	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch# E. Nielsen#
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19 3/17 Greater Sca	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury Acoaxet	100, 30 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry M. Lynch# M. Lynch#	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2 3/2 3/8 3/10 3/14 3/16 3/17	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury P.I. Westport	45 4 24 520+ 1621 3 56 310 28 386 28 40 56	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch# E. Nielsen# M. Lynch#
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19 3/17 Greater Scal	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury Acoaxet	100, 30 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry M. Lynch# M. Lynch# TASL (M. Hall)	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2 3/2 3/2 3/10 3/14 3/16 3/17 3/26	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury P.I. Westport Newbypt.	45 4 24 520+ 1621 3 56 310 28 386 28 40 56 185	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch# E. Nielsen# M. Lynch# R. Heil
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19 3/17 Greater Scar 3/10 3/10	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury Acoaxet up Boston H. Barnstable	100, 30 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry M. Lynch# TASL (M. Hall) G. d'Entremont#	4/7 4/15 4/16 4/19 4/20 Common G 3/2 3/2 3/2 3/8 3/10 3/14 3/16 3/17 3/26 3/31	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury P.I. Westport Newbypt. Gardner	45 4 24 520+ 1621 3 56 310 28 386 28 40 56 185 9	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch# E. Nielsen# M. Lynch# R. Heil T. Pirro
3/26 3/30 4/5 4/6 4/7 4/8 4/11 4/17 4/30 Tufted Duc 3/14-19 3/17 Greater Scal	Stow Stoughton Turners Falls Holyoke Granby New Salem Turners Falls Cheshire GMNWR Holyoke Topsfield k Shrewsbury Acoaxet	100, 30 63 116 111 140 140 103 100 48 40 7	G. d'Entremont W. Lafley C. Gentes W. Lafley W. Lafley B. Packard D. St James R. Lockwood B. Bieda J. Berry M. Lynch# M. Lynch# TASL (M. Hall)	4/7 4/15 4/16 4/19 4/20 Common Go 3/2 3/2 3/2 3/2 3/10 3/14 3/16 3/17 3/26	Randolph Orange P.I. Orleans Harwich oldeneye Westboro Chatham (S.B.) Squantum Turners Falls Boston H. Shrewsbury P.I. Westport Newbypt.	45 4 24 520+ 1621 3 56 310 28 386 28 40 56 185	G. d'Entremont W. Lafley R. Heil M. Lynch# M. Lynch# S. Moore P. Flood SSBC (R. Min) H. Allen TASL (M. Hall) M. Lynch# E. Nielsen# M. Lynch# R. Heil

Barrow's Goldeneye	4/20 Pepperell 1 M. Torpey
3/3 Gloucester (E.P.) 1 m T. Pirro	4/29 Newbypt. 1 imm B. Machove
3/10 Barnstable 1 m G. d'Entremont#	4/30 P.I. 1 T. Carrolan#
3/14, 26 Newbypt. 2 R. Heil	Northern Harrier
3/28 P.I. 2 J. Berry#	3/1-2 N. Truro 7 total D. Manchester
4/6-23 Turners Falls 1 f J. Hutchison#	3/2 Salisbury 3 P. Guidetti
Common x Barrow's Goldeneye	3/24-29 N. Truro 12 total D. Manchester
03/26 Newbypt. 1 m ad R. Heil	a la
Hooded Merganser	2/20 4/20
3/3 Ipswich 7 J. Berry	
3/7 Richmond 19 R. Packard	
3/13 Ware 12 D. Norton	All Director
3/19 N. Andover 13 f T. Wetmore	100
	4/25 DWWS 1 pr D. Furbish
	Sharp-shinned Hawk
and the second second	3/7 Groton 2 T. Pirro
4/5 New Salem 6 M. Lynch#	3/17 Bourne 2 J. Sweeney#
4/11 Bolton Flats 8 T. Pirro 4/27 HRWMA 1 C. Caron	3/29-4/30 Barre Falls 103 total B. Kamp#
4/27 HRWMA 1 C. Caron	3/31 Sunderland 3 M. Williams
Red-breasted Merganser	4/2-30 N. Truro 112 total D. Manchester#
3/2 Chatham (S.B.) 700+ P. Flood	4/11 Groton 2 T. Pirro
3/10 Boston H. 1002 TASL (M. Hall)	4/14-30 Ipswich pr n J. Berry
3/21 Turners Falls 1 H. Allen	4/16-30 P.I. 139 total T. Carrolan
3/30 Egremont 2 K. + M. Conway	4/16 Groton 5 T. Pirro
4/6 Acoaxet 166 M. Lynch#	4/16 Newbypt. 34 R. Heil
4/20 Truro 429 M. Lynch#	4/20 P'town (R.P.) 3 M. Lynch#
Common Merganser	4/20 Pepperell 2 M. Torpey
3/1 Turners Falls 150 H. Allen	Cooper's Hawk
3/2 Stoneham 180+ D. + I. Jewell	3/7-4/30 Ipswich pr n J. Berry
3/6 Westboro 424 N. Paulson	3/9 Cumb. Farms 2 R. Titus
3/8 Northampton 134 R. Packard	3/9 Holyoke 4 M. Williams
3/12 Northboro 564 E. Morrier	3/11 Canton 2 ad K. Ryan
3/14 W. Newbury (C.H.) 198 R. Heil	
3/27 Groveland 56 R. Heil	3/14 Stoughton 3 R. Titus 3/15 Sagamore 2 D. Manchester
3/29 Taunton 15 J. Sweeney	3/23 Belchertown 2 M. Faherty
4/4 Leominster 11 C. Caron	3/23, 28 N. Truro 3, 2 D. Manchester
4/14 Bolton Flats 2 R. Lockwood	2/20 4/20 5 5 11
Ruddy Duck	3/29, 4/25 Barre Falls 2, 4 B. Kamp# 3/29 Groton 3 T. Pirro
3/2 Eastham 16 R. Lockwood#	
3/16 W. Newbury 47 E. Nielsen#	
	tion Distriction
3/17 Gloucester 19 P. + F. Vale	4/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil	4/27 P.I. 3 T. Carrolan Northern Goshawk
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye#
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro 3/14 Stoughton 1 R. Titus
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro 3/14 Stoughton 1 R. Titus 3/23 Belchertown 1 M. Faherty
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro 3/14 Stoughton 1 R. Titus 3/23 Belchertown 1 M. Faherty 3/27, 4/21 Whately 1, 2 M. Williams
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro 3/14 Stoughton 1 R. Titus 3/23 Belchertown 1 M. Faherty 3/27, 4/21 Whately 1, 2 M. Williams 3/28 N. Truro 1 D. Manchester
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey	4/27 P.I. 3 T. Carrolan Northern Goshawk 3/3 Scituate 1 J. Hoye# 3/7, 27 Groton 1 T. Pirro 3/14 Stoughton 1 R. Titus 3/23 Belchertown 1 M. Faherty 3/27, 4/21 Whately 1, 2 M. Williams 3/28 N. Truro 1 D. Manchester 3/29 Boxford (C.P.) 2 P. + F. Vale
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 P. Flood 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch#	A/27 P.I. 3 T. Carrolan
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3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester#	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson	A/27 P.I. 3 T. Carrolan
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson B. Kamp	A/27 P.I. 3 T. Carrolan
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3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations Bald Eagle	A/27
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3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/10 Hyannis 3 D. Furbish 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15-30 Barre Falls 69 total B. Kamp 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations Bald Eagle 3/3 Brookfield pr M. Lynch# M. Williams M. Williams	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15 Barnstable (S.N.) 3 G. Ferguson 4/15-30 Barre Falls 69 total B. Kamp 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/27 Silverstein 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/27 Eastham 4/28 G. Hirth 3/4, 4/4 Sunderland 1, 1 M. Williams 3/8 Hadley 1 ad at nest R. Packard 1. M. Williams 1. 1.	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 4/3 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Circle 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 3/17-4/30 Reports of 1-2 indiv. from 36 locations 3/4 4/4 Sunderland 1, 1 M. Lynch# M. Williams 3/8 Hadley 1 ad at nest R. Packard 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/13 M. Newbury 1 ad S. McGrath M. Williams 3/18 M. Newbury 1 ad S. McGrath M. Williams 3/14 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad S. McGrath M. Williams 3/15 M. Newbury 1 ad	A/27
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3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations Bald Eagle 3/3 Sunderland 1, 1 M. Williams 3/8 Hadley 1 ad at nest R. Packard 3/13 Newbyrt 1 ad S. Grinley 3/23 4/30 N. Truro 1, 1 D. Manchester S. Crinley 3/23 4/30 N. Truro 1, 1 D. Manchester S. Grinley 3/23 4/30 N. Truro 1, 1 D. Manchester S. Grinley 3/23 4/30 N. Truro 1, 1 D. Manchester S. Grinley 3/23 4/30 N. Truro 1, 1 D. Manchester 3/24 4/35 M. Truro 1, 1 D. Manchester 3/24 4/35 M. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35 4/35 N. Truro 1, 1 D. Manchester 3/24 4/35	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 4/3 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 4/27 P.I. 22 T. Carrolan 3/17-4/30 Reports of 1-2 indiv. from 36 locations 3/4, 4/4 Sunderland 1, 1 M. Williams 3/13 W. Newbury 1 ad S. McGrath M. Williams 3/23 N. Truro 1, 1 D. Manchester 3/323, 4/30 N. Truro 1, 1 D. Manchester 3/3/29-4/30 Barre Falls 11 total B. Kamp 1. M. S. Grinley 1. M. S. Marroland 1. M. M. S. Marroland 1. M. Marroland 1. M. Marroland 1. M. Marrolan	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 4/27 Eastham 4 G. Hirth 3/3 Reports of 1-2 indiv. from 36 locations 3/3 Silversteind 1, 1 M. Williams 3/8 Hadley 1 ad at nest R. Packard 3/13 N. Furuo 1 ad S. Grinley 3/29,4/30 N. Truro 1, 1 D. Manchester R. Packard 3/23,4/30 N. Truro 1 total B. Kamp 3/30 W. Boylston 1 ad, 1 imm R. Brill#	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Mestport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations Brookfield pr M. Lynch# 3/13 Newbyrt 1 ad S. McGrath Newbyrt 1 ad S. Grinley 3/23 Newbyrt 1 ad S. Grinley 3/23 4/30 Barre Falls 11 total B. Kamp 3/31 Sunderland 1 ad M. Williams R. Brill# 3/31 Sunderland 1 ad M. Williams R. Brill# 3/31 Sunderland 1 ad M. Williams 3/31 M. Wi	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/28 Barnstable (S.N.) 3 M. Dettrey 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 4/3 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 3/17-4/30 Reports of 1-2 indiv. from 36 locations Bald Eagle 3/3 Sunderland 1, 1 M. Williams 3/23 Newbypt. 1 ad S. McGrath Newbypt. 1 ad S. McGrath S. McGrath S. McGrath Newbypt. 1 ad S. McGrath S. McGrat	A/27
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/6 Westport 24 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/15 Barnstable (S.N.) 3 D. Furbish 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 4/27 Eastham 4 G. Hirth 3/3 Reports of 1-2 indiv. from 36 locations 3/3 Sunderland 1, 1 M. Williams 3/23, 4/30 N. Truro 1 ad S. McGrath Newbypt. 1 ad S. Grinley 3/29, 4/30 Barre Falls 11 total B. Kamp 3/30 W. Boylston 1 ad, 1 imm R. Brill# 3/31 Lakeville 1 ad R. Heil 4/7 Gill 1 B. Packard 4/7 Gill 1 B. Packard 4/7 Gill 1 B. Packard 4/7 B. Packard 4/7 B. Packard 4/7 B. Packard 1 B. Packard 4/7 Gill 1 B. Packard 4/7 B. Packard B. Packa	Variable Variable
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations 3/3 Newbypt. 1 ad S. McGrath 3/13 Newbypt. 1 ad S. Grinley 3/23 Newbypt. 1 ad S. Grinley 3/30 N. Truro 1, 1 D. Manchester B. Kamp 3/33 Sunderland 1, 1 M. Williams 3/31 Sunderland 1 ad R. Heil 3/31 Sunderland 1 ad R. Heil 4/7 Gill 1 B. Packard 4/16 Groton 1 imm T. Pirro T. P	Variable Variable
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/28 Barnstable (S.N.) 3 M. Dettrey 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 4/3 M. Lynch# 4/6 Acoaxet 4/3 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 C. Buelow 4/11 DWWS 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 P.I. 22 T. Carrolan 3/17-4/30 Reports of 1-2 indiv. from 36 locations Bald Eagle 3/3 Sunderland 1, 1 M. Williams 3/23 3/23, 4/30 N. Truro 1, 1 D. Manchester Alega 3/23, 4/30 N. Truro 1, 1 D. Manchester 3/30 Sunderland 1, 1 M. Williams 3/31 Sunderland 1 ad M. Williams	Variable Variable
3/17 Gloucester 19 P. + F. Vale 3/21 Danvers 45 R. Heil 3/24 Melrose 43 P. + F. Vale 4/5 Jamaica Plain 17 M. Kanaracus 4/6 Arlington Res. 26 M. Rines 4/14 W. Newbury (C.H.) 28 R. Heil Osprey 3/3 W. Harwich 1 S. McGrath 3/28 Barnstable (S.N.) 3 M. Dettrey 3/29 W. Dennis B. 3 P. Flood 4/4 Mashpee 5 C. Buelow 4/6 Acoaxet 43 M. Lynch# 4/9-30 N. Truro 11 totalD. Manchester# 4/10 Hyannis 3 D. Furbish 4/15 Barnstable (S.N.) 3 G. Ferguson 4/16 Groton 4 T. Pirro 4/24 WBWS 2 pr D. Silverstein# 4/27 Eastham 4 G. Hirth 3/17-4/30 Reports of 1-2 indiv. from 36 locations 3/3 Newbypt. 1 ad S. McGrath 3/13 Newbypt. 1 ad S. Grinley 3/23 Newbypt. 1 ad S. Grinley 3/30 N. Truro 1, 1 D. Manchester B. Kamp 3/33 Sunderland 1, 1 M. Williams 3/31 Sunderland 1 ad R. Heil 3/31 Sunderland 1 ad R. Heil 4/7 Gill 1 B. Packard 4/16 Groton 1 imm T. Pirro T. P	Variable Variable

Broad-winge	d Hawk (continued)		4/5, 15	Essex	1, 1	J. Berry
4/14		M. Lynch#	4/10	Ashfield	3	S. Sauter
4/16	Groton	T. Pirro	4/10	Sunderland	1	M. Williams
4/17		M. Williams	4/11	Lancaster	2	R. Lockwood
4/19		M. Williams	4/14	Northampton	5	C. Gentes#
4/19	Whately 3:		4/14	Stoughton	5 2 3 1	D. + S. Larson
4/20	Pepperell 12	M. Torpey	4/15	Hardwick	3	C. Buelow
4/30		D. Manchester#	4/18	Worc. (BMB)	1	J. Liller
Red-tailed H		D. Wanenestern	4/21	Stow	5	R. Lockwood
3/4		M. Williams	4/27	W. Newbury	2	G. Tepke#
3/9		R. Titus	4/27	Boxford (C.P.)	1	P. + F. Vale
3/14	Sunderland 10		Wild Turke			1. · 1. vaic
			3/20		12	M. Taylor
3/15			3/24	Royalston	8	
3/29	Barre Falls 3		3/27	Bridgewater	67	J. Sweeney#
4/2-30	N. Truro 36 total	D. Manchester#		Sheffield		D. St James
Rough-legge			3/27	E. Longmeadow	8 5	G. Kingston
3/4		l lt E. Morrier	3/28	Essex	2	R. Heil
3/16		S. Perkins#	3/29	N. Plymouth	8	J. Sweeney J. Brown
3/29		P. Guidetti	4/1	Burlington	20	
Golden Eagle		1 1 . D.K. #	4/4	P.I.	8	T. Carrolan
3/31		l ad migr B. Kamp#	4/6	Amherst	36	H. Allen
3/31		M. Lynch	4/6	Stow	21	R. Lockwood
4/19		M. Williams	4/14	Petersham	14	M. Lynch#
	estrel (details submitte	(d) *	4/25	Templeton	14	C. Caron
4/14		l m L. Bostrom#	4/29	Pepperell	43	J. Holmes
4/18-30	Chatham 1 n	ph R. Clem + v.o.	thr	Easton	9-1	13 K. Ryan
American Ke			Northern B			
3/30-4/27	P.I. 106	7 total T. Carrolan	3/9	Wellfleet	2	G. d'Entremont#
3/30-4/15	Barre Falls 3	8 total B. Kamp#	3/28	N. Truro	1	D. Manchester
3/31	Sunderland	 M. Williams 	4/18	Hyannis	2	C. Buelow
3/31	Cumb. Farms	7 R. Heil	4/20	Eastham (F.H.)	8	M. Lynch#
3/31	DWWS 2	 D. Furbish 	Clapper Ra	ul		
3/31	W. Bridgewater 1	0 R. Heil	4/20	Eastham (F.H.)	1	M. Lynch#
4/2-30	N. Truro 122 total		4/25	P.I.	1	R. Heil
4/5		9 S. McGrath	Virginia Ra	ail		
4/6		6 S. Hedman#	4/13	Holyoke	1	T. Gagnon
4/9, 15	Barre Falls 13	, 8 B. Kamp	4/14	Northampton	2	C. Gentes
4/12	Lancaster 1		4/18	Worc. (BMB)	1	J. Liller
4/16		8 T. Pirro	4/20	Salem	1	I. Lynch
4/16	Newbypt. 6		4/23	Bolton Flats	7	C. Buelow
4/21		 S. Donovan 	4/26	GMNWR	3	S. Perkins
Merlin			4/29	Pittsfield	10	D. St James
3/28	Chicopee	2 H. Allen	4/29	Lenox	1	D. St James
3/28, 29	Barre Falls 2	, 3 B. Kamp#	4/30	HRWMA	1	C. Caron
3/29	Salisbury	2 P. + F. Vale	4/30	Pepperell	i	J. Lisk
3/30-4/27		3 T. Carrolan	Sora	терреген		2. 2.0.0
3/31	Rockport (H.P.)	2 S. Mirick#	4/23	Bolton Flats	4	C. Buelow
4/4		2 T. Carrolan	4/29	Pittsfield	3	D. St James
4/8-30	N. Truro 7 total		Common		-	D. St varies
4/11			4/26	Amherst	1	H. Allen
		G. Tepke	American (II. Alleli
Peregrine Fa	C-1:-b	1 I Malaan	3/15	Brookline	3	E. Taylor
3/2		 J. Nelson K. Blackshaw# 	3/13		7	SSBC (D. Larson)
3/10				Westport	52	K. Hartel
3/11		1 ad T. Carrolan	3/23	Arlington	19	M. Kanaracus#
3/24		P. Brown	3/29	Boston		
3/24		1 E. Labato	4/5	Jamaica Plain	21	M. Kanaracus
3/24		1 E. Labato	4/7	Woburn	7	R. LaFontaine#
3/26		1 imm D. Furbish	4/11	DWWS	1	D. Furbish
3/29		1 ad M. Lynch#	Sandhill C			D 1
3/30	Hingham	1 C. Dalton	4/8-27	Nantucket	1	R. Lay + v.o.
4/14-30	P.I.	7 T. Carrolan#	4/20	Muskeget I.	1	I. Nisbet
4/14		1 S. Surner	4/27	Reading	1	M. Daley
4/20	Gloucester (E.P.)	I G. Leet	Black-belli	led Plover		
4/27	Barre Falls	 B. Kamp 	3/2	Chatham (S.B.)	32	P. Flood
4/28	Chatham (S.B.)	1 ad B. Packard#	3/14	Nantucket	30	E. Ray
Gyrfalcon *			3/22	Duxbury	1	D. Clapp
3/1-4/30	Boston	 N. Smith + v.o. 	4/10	P.I.	1	MAS (N. Soulette)
Ring-necked	Pheasant		4/13	Winthrop	25+	
3/17	W. Newbury	 S. Grinley 	4/27	Eastham	6	G. Hirth
3/27		l m R. Heil	4/27	E. Boston	27	R. Stymeist#
3/28	Rowley	l m R. Heil		lden-Plover (detail		
4/13	Boston	M. Kanaracus#	4/21-30			R. Heil + v.o.
4/21	IRWS	BBC (F. Vale)	Semipalma		F F.,	
4/30	Quincy	i K. Ryan	4/7	S. Dartmouth	1	E. Nielsen
Ruffed Grou	ce Carrier		Piping Plo	ver	-	
3/0 14	Westboro	1 S. Sutton#	3/16	P'town (R.P.)	1	J. Hoye#
3/9, 14 3/25	DWWS	D. Furbish	3/17	Chilmark	2	T. Whiting
4/4	Hingham	D. Peacock	3/23	Acoaxet	2	SSBC (D. Larson)
70.7		. D. I CHOOCK			150	selection but build

	r (continued)			4/21	Dennis	108	M. Lynch#
3/24	Mashpee	3 6	C. Buelow	4/21	P'town (R.P.)	25	G. Hirth
3/24	Nantucket	3	E. Ray	4/27	Winthrop	65	R. Stymeist#
3/30	Westport	6	R. Stymeist#	4/28	Chatham (S.B.)	150	B. Packard#
4/4	P.I.	8	T. Wetmore	Least Sandp		322	
4/7	S. Dartmouth	5	E. Nielsen	4/3	Essex	1	R. Heil
4/10	Chatham (S.B.)	16	P. Flood	4/22	P.I.	1	R. Heil
4/15	Barnstable (S.N.)		G. Ferguson	4/25	Newbypt.	3	R. Heil
4/27	W. Dennis B.	7	P. Flood	4/27	W. Dennis B.	3	P. Flood
4/27	Eastham	20	G. Hirth	Pectoral Sar	ndpiper		
Killdeer				3/28	Ipswich	1	R. Heil
3/16	Easton	10	D. Larson	4/4	W. Bridgewater	1	G. d'Entremont
3/16	Concord (NAC)	27	S. Perkins	4/5	Bolton Flats	2	T. Murray
3/16	W. Bridgewater	18	M. Faherty	4/17	Ipswich	1	R. Heil
3/21	Topsfield	22	R. Heil	4/23	Hadley	1	C. Gentes
3/26	Rowley	17	R. Heil	Purple Sand	piper		
3/28	W. Townsend	15	T. Pirro	3/9	N. Scituate	50	J. Hutchison#
3/28	Ipswich	27	R. Heil	3/17	Westport	48	M. Lynch#
American Oy	stercatcher			3/24	Boston H.	30	S. Zendeh#
3/12	Edgartown	1	A. Keith	4/11	Nantucket	40	O. Spalding
3/16, 28	Nantucket	3, 18	E. Ray	4/13	Manchester	60	R. Heil
3/28	Gloucester	2	G. Griffis	4/14	Scituate	150+ 5	SSBC (N. Swirka)
4/6	Winthrop	2	J. Soucy#	4/27	Winthrop	55	R. Stymeist#
4/7	Chatham	10	R. Heil	Dunlin	7.000000000000000000000000000000000000		
4/7	Fairhaven	4	M. Boucher	3/2	Chatham (S.B.)	3500	P. Flood
4/27	Hingham H.	2	R. Carroll	3/25	Nahant	100	R. Heil
4/30	Squantum	4	K. Ryan	3/30	Westport	180	R. Stymeist#
Greater Yello	wlegs			3/30	Lynn B.	300+	P. + F. Vale
3/10	Barnstable	3	G. d'Entremont#	4/7	S. Dartmouth	160	E. Nielsen
3/29, 4/27		3, 24	P. + F. Vale	4/13	Winthrop	100+	P. + F. Vale
3/31	W. Harwich	6	B. Nikula	4/15	Barnstable (S.N.		G. Ferguson
4/3	Newbypt.	12	R. Heil	4/21	Dennis	113	M. Lynch#
4/7	Chatham	21	B. Nikula#	4/28	Newbypt. H.	100+	P. + F. Vale
4/7	Wellfleet	10	R. Heil	Ruff	т		11. 11 / 110
4/14	Newbypt.	27	P. + F. Vale	4/24-28	Newbypt. H.	1 m	R. Heil + v.o.
4/19	Orleans	15	M. Lynch#	Short-billed	Dowitcher		10.11011 1101
4/21	Yarmouth	44	M. Lynch#	4/21	P.I.	2	R. Heil
4/21	Eastham (F.E.)	62	M. Lynch#	4/24	Newbypt. H.	3	M. + J. Halloran
4/27	Squantum	20	G. d'Entremont	Common Sr	nine		ivi v. manoran
4/28	Newbypt. H.	100+	P. + F. Vale	3/8	Newbypt	10	J. Berry
4/28-30	Northampton	4-7	E. Labato		4 Bolton Flats	25, 21	
Lesser Yellov	wleas		L. Labato	3/31	Cumb. Farms	26	R. Heil
3/1	Newbypt.	4	C. Buelow	4/6	Sheffield	12	K. Ryan
3/9	P.I.	1	P. Morlock	4/7	W. Bridgewater	55	G. d'Entremont
4/3	Ipswich	i	R. Heil	4/10	Newbury	40	R. Heil
4/7	Chatham	2	B. Nikula#	4/10	Concord (NAC)	19	G. Ferguson
4/13	Winthrop	4	P. + F. Vale	4/13	Ipswich	50+	J. Berry#
4/27-30	Northampton	2-3	T. Gagnon	American W		50	J. Delly#
4/28	Newbypt. H.	14	P. + F. Vale	3/8	N. Reading	7	D. Williams
Solitary Sand		17	1. 1. vaic	3/9	DWWS	15	P. Guidetti
4/21	Northampton	1	T. Gagnon	3/9	Barnstable	6	T. Prince#
Willet	Northampton		1. Gagilon	3/12	Cambridge	9	M. Rines
3/9	P.I.	1	T. Wetmore	3/14	Sutton	26	
4/21	Yarmouth	3		3/16	Worcester	20	M. Lynch# M. Lynch#
4/21	Chatham	1	M. Lynch# B. Nikula	3/23	Hardwick	6	C. Buelow
4/27	Eastham	3	G. Hirth	3/24	Gloucester	6	J. Barber
4/27	Essex	1	D. + S. Larson	3/24	Taunton	6	J. Sweeney
4/27	W. Dennis B.	13	P. Flood	3/28	Burlington	6	P. + F. Vale
		13	r. 1100u			0	r. + r. vaic
Spotted Sand 4/17	Goshen	1	B. Packard	Laughing G	Dhomouth	1	J. Sweeney
				3/29	Plymouth		
4/20	Northampton	1	T. Gagnon		W. Dennis B.	1 ad	
4/29	Winchester	1	A. Ankers	3/31	Wellfleet H.	1	B. Nikula
4/29	Bolton Flats	1	T. Pirro	4/7	Chatham	65	R. Heil
4/29	Arlington Res.	1	M. Rines	4/7	Wellfleet	7	R. Heil
Upland Sand		4	D T 1 1	4/19	Nauset	200+	M. Lynch#
4/24	Lancaster	4	R. Lockwood	4/28	Chatham (S.B.)	150	B. Packard#
4/24	P.I.	2	S. Grinley	Black-heade			
Ruddy Turns			T. O. O. I. III	4/1-4	Lynn	1.	J. Quigley
3/10	Boston H.	6	TASL (M. Hall)	4/7	Chatham	1 ad	
4/11	Nantucket	30	O. Spalding	4/24	Newbypt. H.	1	M. + J. Halloran
4/13	Winthrop	4	P. + F. Vale	Bonaparte's			
Sanderling	CI 1 (0.D.)	000	p. m.	3/10	Barnstable	. 8	T. Prince#
3/2	Chatham (S.B.)	900+	P. Flood	3/30	Lynn B.	145	P. + F. Vale
3/4	P'town	300	C. Buelow	4/15	Turners Falls	7	M. Fairbrother
3/16	P'Town (R.P.)	100+	J. Hoye#	4/17	Newbypt.	25	R. Heil
3/21	Chatham (S.B.)	263	P. Flood	4/20	Nahant	320	R. Heil
3/25, 4/20		380, 800		Iceland Gull		-	
3/30	Lynn B.	750+	P. + F. Vale	3/6	Newbypt.	3	G. Leet#
					1.57		

Iceland Gu	ll (continued)			Caspian Te	ern		
3/9	P'town (R.P.)	7 G	. d'Entremont#	4/6	Boxford	2	T. Martin
3/11	Nantucket	40	E. Ray	Common 7		~	1. ividitili
3/15	Oak Bluffs	1	A. Keith	4/15	Turners Falls	1	M. Fairbrother
3/15	Lynn	i	J. Quigley	4/18	Nantucket	5	J. Hatch
3/21	Chatham (S.B.)	i IW	P. Flood	4/27	Newbypt.	2	
3/29	N. Truro	2	D. Manchester	Forster's T		4	M. Lynch#
4/7	Chatham	1 IW	R. Heil	4/24		2 - 4	D 11-3
4/20	Gloucester (E.P.)	1 1 1 1	G. Leet	Common 1	Newbypt.	2 ad	R. Heil
	ck-backed Gull	1	G. Leet				D 1 1 10
3/thr	Boston	1	7.444.7	3/2	P'town (R.P.)	4	R. Lockwood#
3/11		27	V.0.	Thick-bille		-	
	Nantucket	27	E. Ray	3/2	Rockport (H.P.)	1	BBC (J. Nove)
3/24, 4/		2, 1	B. Nikula	3/4	P'town	3	C. Buelow
4/7	Chatham	4	R. Heil	3/17	P.I.	1	D. Landry
4/15	Barnstable (S.N.)	1	G. Ferguson	Razorbill			
Glaucous (iull			3/1	Cape Ann	1	C. Buelow
3/10	Boston	1 imm	P. Roberts	3/2	P'town (R.P.)	3	R. Lockwood#
3/14	Nantucket	1	E. Ray	3/31	off West Chop	7	R. Cohen
3/17	Gloucester	1	P. + F. Vale	4/11	Nantucket	3+	O. Spalding
4/13	Manchester	1 1W	R. Heil	Black Guil			o. opaiding
4/14	Wellfleet	1	J. Young	3/1	Cape Ann	13	C. Buelow
4/21	Chatham	1	M. Williams#	3/10	Boston H.	7	TASL (M. Hall)
Nelson's G			141. 111111111111111	3/30	Gay Head	1	V. Laux#
3/23	Plymouth	1	S. Moore	4/7	Marshfield	0	G. d'Entremont
	ed Kittiwake		S. WIOOIC	4/17	Gloucester	1	
3/2	P'town (R.P.)	2	G. Hirth#	4/20		1	R. Heil
3/2		1			Marblehead	1	R. Heil
3/3	Chatham (S.B.)	104	P. Flood	Atlantic Pu			
	Rockport (A.P.)	10+	T. Pirro	3/17	Nantucket	1	J. Hatch
3/31	P.I.	1	P. + F. Vale				

PARAKEETS THROUGH GROSBEAKS

Ah spring! The weather can certainly be a big factor for the success of spring migration; the wrong winds can just frustrate the birding world that anxiously awaits the returning songbirds. This March through April was a birder's dream and hope with lots of southerly winds. March saw winds from the south on eleven days, and in April the winds came from the southwest seven days, those considered the most favorable for migration in the spring. Last year winds out of the southwest were recorded on just one day in March and just one day in April. There were several days in which observers noted an increase in migrants coinciding with the weather. The last five days of March had temperatures above normal with strong southerly winds on March 29-31. Good numbers of Eastern Phoebes, Tree Swallows, Eastern Meadowlarks, and northbound Fox Sparrows were widely reported throughout our area. An Eastern Kingbird was recorded on March 29 in Raynham, a day of a strong south wind that brought the temperature up in the sixties. This represents the earliest arrival date for this species, surpassing a March 30, 1994, bird from Fort Hill in Eastham. On Plum Island, Rick Heil witnessed one of his best ever early spring fallouts on April 16. A front had stalled over our area the previous 36 hours with an easterly wind. This was followed by a surge of warm air from the southwest which saw temperatures rise as much as 11 degrees above normal on April 16 and an amazing 24 degrees on April 17. Reaching the coast overnight, the migrants encountered dense fog and an easterly breeze that resulted in a major spring fallout for several species. Rick recorded 54 Northern Flickers, 11 Eastern Phoebes, 2 Blue-headed Vireos, 60 Tree Swallows, 26 Golden- and 110 Ruby-crowned kinglets, 42 Hermit Thrushes, 120 American Robins, 60 Yellow-rumped, 9 Pine and 130 Palm (hypochrysea or "yellow") warblers, 3 Chipping, 41 Savannah, 2 Seaside and 145 Song sparrows, and 165 American Goldfinches. In addition, Rick noted 4 "western" Palm Warblers; this nominate race (palmarum) is a common fall migrant and occasional winterer in southeastern Massachusetts, but a rare spring migrant in our area. The mild and almost snowless winter was certainly a contributing factor.

The mild weather produced a new early arrival date for several species in western Massachusetts. Seth Kellogg reports the earliest ever arrival dates for Wood Thrush, Gray

Catbird, Northern Waterthush (this bird found in Pittsfield on April 3 was ten days earlier than the previous record of April 13, 1991) and Common Yellowthroat. Seth also reports a tie for the earliest arrival for Warbling Vireo and Rose-breasted Grosbeak (April 25). In eastern Massachusetts some of the early migrants included a Yellow-billed Cuckoo that was banded at Manomet on April 26, a Whip-poor-will calling in Shrewsbury on April 13, and an Orchard Oriole found in Medford on April 27.

Monk Parakeets, now accepted by the Massachusetts Avian Records Committee, were noted from Somerset and in Dartmouth. Red-bellied Woodpeckers and Carolina Wrens, on the other hand, continue to expand their ranges; of note are the nineteen Carolina Wrens in Northbridge in the summary that follows. The invasion of this species has been rapid and unprecedented. Mark Lynch, one of the icons of Worcester County birders, notes that this species was essentially nonexistent in Worcester County until the mid-1990s, but now they are found in increasing numbers. Northbridge, according to Mark "is very much riparian habitat and there are tons of Carolina Wrens there now." Another species increasing into our area from the north and west is the Common Raven. Notice the reports from Boxford, the Blue Hills, and from South Beach in Chatham.

At Daniel Webster Wildlife Sanctuary in Marshfield a single Long-eared Owl continued along the Secret Trail through the end of April; during early March as many as six individuals were present there. Snowy Owls continued through the end of April at Logan Airport and another late Snowy was found on Sandy Neck in Barnstable on April 28. There were many reports of nesting and young Great Horned Owls throughout our area.

Seventeen species of warblers and four species of vireos were noted during the period, compared with a record number of twenty-two species of warblers and all five vireo species last year during the same period. Fallouts of warblers were noted (in addition to the previously mentioned major fallout at Plum Island) from Nahant, Marblehead Neck, and at Mount Auburn, although not at the same magnitude as Plum Island. Five species of warblers were found at Franklin Park on April 30. Nine Orange-crowned Warblers were reported, most of them in March, most likely survivors of the mild winter. A Wilson's Warbler found singing at Fresh Pond in Cambridge on April 10 was most probably another survivor of the winter rather than a neotropical migrant. A Prothonotary Warbler found at Ipswich River Wildlife Sanctuary in Topsfield brightened the early spring landscape as well as the spirits of many birders.

Among the more unusual species reported during this period were Red-headed Woodpeckers (three reports, all holdovers from last year), **Boreal Chickadees** from Granby and Windsor, a **Summer Tanager** in Belmont, a **Harris's Sparrow** in Westport, a **Painted Bunting** in Lexington, and **Yellow-headed Blackbirds** in Northampton and Weymouth.

Flocks of both White-winged and Red crossbills continued in the Salisbury State Park camping area and Common Redpolls were noted in larger numbers, especially in the last few days of March, coinciding with the strong southerly winds sending those birds back north.

R. Stymeist

Monk Para	keet				3/9	Douglas	7	M. Lynch#
3/7	Dartmouth	2	D. + D.	Oliver	3/14	Sutton	7	M. Lynch#
4/7	Somerset	6	5	S. Hunt	3/15	W. Newbury	3	T. Wetmore
	led Cuckoo				4/thr	Rowley	2 pr n	J. Berry#
4/26	Manomet	1 b	T. Lloyd	-Evans	4/thr	Ipswich	pr n	J. Berry#
Eastern Sc					4/4	DWWS	2	D. Furbish
3/2-5	Jamaica Plain	2	M. Kar	naracus	4/17	Hingham	1 ad, 2 y	
3/6	Essex	pr	J.	Berry#	4/20	Westwood	1 ad, 2 y	
4/10	Brewster	2	D. Silve	erstein#	4/21	Northampton	3 ad	T. Gagnon
thr	Reports of indiv	, from 16	locations		4/24	P'town		. Silverstein#
Great Horn					thr	Reports of indiv	v. from 22 loca	ations
3/thr	Westboro	1 ad.	, 1 yg	v.o.				

Snowy Owl		Na ma		3/29	Boxford (C.P.)	3	P. + F. Vale
3/1-14, 4/		2 ad		3/31	Bolton Flats	3	S. Sutton#
3/2 3/2	Chatham	1	P.Trull#	4/6	Medford	3	M. Rines
3/11	Salisbury Duybury B	2	P. Guidetti	4/6	Stow	3	R. Lockwood
3/16	Duxbury B. Boston	5	L. Cleveland C. Cook#	4/14 Northern Fl	Petersham	3	M. Lynch#
3/17	New Salem	1	B. Lafley#	4/7	Holyoke	48	T Comen
3/26	Newbypt.	1 imr		4/10	MNWS	50	T. Gagnon K. Haley
3/28	Ipswich (C.B.)	1	R. Heil	4/11	Blandford	20	K. + M. Conway
4/thr	Boston (Logan)	4 ma		4/12	Lancaster	13	R. Lockwood
4/3	Nahant	1	L. Pivacek	4/16	P.I.	54	R. Heil
4/4	Nantucket	1	K. Blackshaw	Pileated Wo	odpecker		
4/28	Barnstable (S.N.)	1	W. Petersen	3/8	N. Andover	2	J. Berry
Barred Owl	D 1		***	3/10, 25	Stoneham	2 2 2 2 B	D. + I. Jewell
3/9 4/thr	Douglas	3	M. Lynch#	3/24	Magnolia	2 B	BC (D. Peloquin)
4/17	Pepperell Middleton-N. And	15	E. Stromsted	3/29	Hardwick	2	C. Buelow
4/18	Ashfield	. 4-3	J. Berry S. Sauter	4/1-18 4/10	Stoneham Sunderland	2 pr	D. + I. Jewell
thr	Reports of indiv. fi	rom 14		4/11	Lancaster	2	M. Williams R. Lockwood
Long-eared		0111 1 1	iocations	4/14	Petersham	2	M. Lynch#
37thr	DWWS	3-6	D. Furbish	4/14	Chesterfield	4	B. Packard
4/thr	DWWS	1	D. Furbish	thr	Reports of indiv		locations
Short-eared	Owl	W. C.		Eastern Pho			
3/8	Boston (Logan)	5 2 2	N. Smith	3/1	Sheffield	1	T. Collins
3/9	DWWS	2	P. Guidetti	3/12	Plymouth	1	T. Maloney
3/16	Salisbury		P. + F. Vale	3/15	Amherst	1	H. Allen
3/17 3/27	Northampton	1	D. McLain	3/15	Middleboro	1	A. Brissette
4/10	P.I. DWWS	2	M. Resch	3/16	Mt.A.	2	L. Ferraresso
Northern Sa		-1	D. Furbish	3/16	Northfield	2	M. Taylor#
3/9	Douglas	3	M. Lynch#	3/30 3/31	Hingham Mt.A.	15 11	C. Dalton
3/30	Ashfield	2	S. Sauter	4/6	Medford	12	R. Stymeist M. Rines
thr	Reports of indiv. fi			4/7	Holyoke	19	T. Gagnon
	vill		TOGUTTOTIS	4/13	Northbridge	24	M. Lynch#
Whip-poor-v 4/13	Shrewsbury	1	N. Paulson	4/16	P.I.	11	R. Heil
4/16	Nantucket	1	K. Blackshaw	Eastern King			
4/17	Plymouth (MSSF)	2	G. d'Entremont	3/29	Raynham	1	E. Giles
4/18	Lancaster	3	R. Lockwood	4/21	Nantucket	1	E. Ray
4/18	Florence	1	T. Gagnon	4/21	Uxbridge	3	MAS (J. Liller)
4/21	Northampton	2	B. Packard#	4/24	Southwick	1	S. Kellogg
Chimney Sw 4/14		1	D. F. Mile	4/29	Wayland	1	E. Taylor
4/14	Pembroke Braintree	1	D. Furbish	4/29	Winchester	1	A. Ankers
4/20	W. Roxbury	1	D. Larson G. Long	Northern Sh 3/2	Savoy	1.44	T C#
4/21	W. Bridgewater	48	R. Titus	3/6	P.I.	l ad 1 1 W	
4/30	IRWS	40+	J. Berry	3/23	Bolton Flats	1	R. Heil P. Savage#
	d Hummingbird		o. Delity	White-eyed			1. Savagem
4/30	Canton	1 m	M. Ross#	4/17-18	Chatham	1	R. Clem
Belted Kingf	isher			4/20	MNWS	1	R. Heil
3/31	Bolton Flats	3	R. Lockwood	4/20	Medford	1	P. Vale#
4/9	Manchester	3	S. Hedman	4/20-27	P'town	1	B. Nikula#
Red-headed				4/21-25	Mt.A.	1	L. Ferraresso
thr	Melrose		+ I. Jewell + v.o.	Blue-headed			o un
3/1-4/14 3/thr	Weymouth Vineyard Haven	1	R. Min# + v.o. A. Keith	4/14, 18	Hingham	1, 2	G. d'Entremont
Red-bellied	Voodpecker		A. Keitii	4/15 4/16	Arlington P.I.	1	S. Simpson
3/14	Sutton	3	M. Lynch#	4/17	Holyoke	2 2 3 2 5	R. Heil B. Bieda
3/17	Hingham	3	G. d'Entremont	4/27	Medford	3	R. LaFontaine#
4/thr	Mt.A	2-3	R. Stymeist#	4/27	Oxford	2	P. Meleski#
4/13	Medford	6	M. Rines	4/27	Petersham	5	C. Buelow
4/27	Northampton	3	E. Labato	4/27	Boxford (C.P.)	4	P. + F. Vale
Yellow-bellie		2.2	272	4/30	HRWMA	14	C. Caron
	Taunton	l f	J. Sweeney	4/30	Mt.A.	3	L. Ferraresso
3/9	Maynard	1	L. Nachtrab	Yellow-throa			217011
3/31	Mt.A.	2	R. Stymeist	4/20	MNWS	1	R. Heil
4/thr 4/7	Boston IRWS	1-3	G. Tepke	Warbling Vir	reo		*****
4/7-13	Winchester	2	F. Vale# R. LaFontaine#	4/21	Uxbridge	2	MAS (J. Liller) D. St. James
4/10	Sunderland	2 2 3 3 2 3	M. Williams	4/25 4/27	Sheffield	1	D. St. James J. Hutchison
4/17	Goshen	3	B. Packard	4/29	Agawam Bolton Flats	2	T. Pirro
4/17	P.I.	2	R. Heil	4/30	Melrose	3	P. + F. Vale
4/20	Northampton	3	T. Gagnon	Fish Crow	1.1011USC	3	r. r. vale
4/20	Gloucester (E.P.)	3 m	G. Leet	3/15	DWWS	51	D. Furbish
4/thr	Reports of indiv. fro	om 161	ocations	3/16	E. Sandwich	6	D. Manchester
Hairy Woodp	ecker			3/28	WBWS	10+	P. Flood
3/thr	Maynard	3	L. Nachtrab	3/29	Gr Barrington	2	E. Nemuth
3/23	Hardwick	3 3	C. Buelow	4/thr	Mt.A	6-8	R. Stymeist#
3/25	Wayland	3	G. Long	4/3	Stoughton	10	R. Titus

Fish Crow ((continued)			Cliff Swall	ow		
4/4	Weymouth	2	K. Vespaziani	4/18	Pittsfield	2	R. Ferren
4/4	Marshfield	2 28 2 2 2 2 2 2	D. Furbish	4/26	GMNWR		S. Perkins
4/9	Pittsfield	2	D. St. James	4/27	Richmond	1	T. Gagnon
4/13	Boston	2	M. Kanaracus# S. Surner	4/27	Pittsfield	1	T. Gagnon M. Williams
4/14 4/23	Hadley Concord	2	M. Rines	4/28	Haydenville Northampton	i	E. Labato
4/24	Medford	2	M. Rines	Boreal Ch			L. Luouto
Common R		~	III. Itilies	3/1-4	Granby	1	F. Pike
3/2	Plainfield	1	T. Gagnon#	3/18	Windsor	1	C. Blagdon
3/14	Sunderland	2 pr	M. Williams	Tufted Titr			
3/24	Huntington	4	T. Gagnon	4/17	P.I.	2	R. Heil
3/30	Belchertown	2	M. Faherty		ed Nuthatch Ipswich	4	J. Berry
4/3	Turners Falls	4 10	M. Williams B. Packard	3/1 3/9	Wellfleet	2	G. d'Entremont#
4/14 4/17	Chesterfield Worcester	2	M. Lynch#	3/15	Harwich	3	D. Silverstein#
4/17	Boxford (C.P.)	2 2	J. Paluzzi	4/thr	Mt.A	1-3	R. Stymeist#
4/18	Windsor	4	B. Packard#	4/3	P'town	3	P. Flood
4/24-25	Canton	1	K. Ryan	4/10	Ashfield	3 7 5 2 2	S. Sauter
4/25	Barre Falls	2 pr	B. Kamp	4/16	P.I.	7	R. Heil
4/27	Petersham	3	C. Buelow	4/18	Squantum	2	P. O'Neill
4/30	Chatham (S.B.)	1	P. Flood	4/20 4/27	Pepperell Needham	2	M. Torpey G. d'Entremont#
Horned Lar 3/9	Lincoln	36	M. Rines#	4/27	Agawam	5	J. Hutchison
3/9	Cumb. Farms	32	R. Titus	Brown Cre			J. Tratembon
3/9	P'town (R.P.)		G. d'Entremont#	3/15	Harwich	4	D. Silverstein#
3/10	P.I.	10	S. Haydock	3/17	Hingham ONWR	4	G. d'Entremont
3/25	Northampton	200	W. Lafley	3/30		4	E. Neilsen
3/26	Topsfield	150	R. Heil	3/30	Holden	4	M. Lynch#
3/27	Boxford	23	R. Heil	3/31	Sudbury	2	E. Salmela C. Buelow
3/28	Newbury	10 36	J. Berry# B. Miller	4/7 4/8	Hyannis Barre	6	C. Buelow
3/28 4/3	P.I. Ipswich	38	R. Heil	4/9	Wayland	4 5 8 6 5 6	G. Long
4/28	Chatham (S.B.)	10	B. Packard#	4/10	WBWS	6	D. Silverstein#
Purple Mar				4/11	Lancaster	5	R. Lockwood
3/31	DWWS	3	D. Furbish	4/14	Chesterfield	6	B. Packard
4/thr	DWWS	27 max		4/14	Petersham	10	M. Lynch#
4/7	P.I.	1	S. Haydock	4/16 4/20	Boxford Stow	7 5	J. Berry R. Lockwood
4/16	P.I. Rochester	11	T. Carrolan M. Boucher	Carolina V		,	It. Lockwood
4/17 Tree Swall		4	W. Dodener	3/10	Barnstable	6	G. d'Entremont#
3/10	Gill	19	T. Gagnon	3/16	Rockport (H.P.)	7	BBC (J. Nove)
3/17	S. Middleboro	50+	J. Hoye#	3/17	Hingham	6	G. d'Entremont
3/17	GMNWR	80	S. Perkins	3/17	Acoaxet	14	M. Lynch#
3/22	Agawam	100+	G. LeBaron	3/24	Stoughton	8	G. d'Entremont
3/30	Stow	120+	S. Sutton#	3/30	Blackstone	5	M. Lynch# M. Rines
4/4	Southwick	125+ 300	J. Weeks J. Duprey	3/30 3/31	Lexington S. Dartmouth	6	J. Hoye#
4/6 4/6	Ayer New Salem	100	T. Pirro	4/thr	Mt.A	3-6	R. Stymeist#
4/6	Athol	100	T. Pirro	4/6	Westport	16	M. Lynch#
4/21	Wayland	150	G. Long	4/13	Northbridge	19	M. Lynch#
4/21	IRWS	225+	BBC (F. Vale)	4/21	Dennis	6	M. Lynch#
	Rough-winged Swal	low		House Wr			I D
3/30	Turners Falls	3	T. Gagnon	4/12 4/17	Ipswich N. Dartmouth	l m	J. Berry M. Boucher
3/31	Canton	5	J. Young C. Buelow	4/17	Wayland	i	J. Hoye
4/4 4/6	Hyannis Arlington Res.	4	M. Rines	4/17	Worcester	i	M. Lynch#
4/7	Longmeadow	5	B. Packard	4/17	Pittsfield	1	G. Shampang
4/12	Wakefield	40	P. + F. Vale	4/18	Medford	2	M. Rines
4/13	Northbridge	8	M. Lynch#	4/20	Woburn (H.P.)	2 2 5	P. + F. Vale#
4/17	Gloucester	11	R. Heil	4/21	Oxford	5	P. Meleski
4/21	Milton	10	G. d'Entremont	Winter W	ren Hingham	4	D. Peacock
4/27	Oxford	8	P. Meleski#	4/4	Boxford (C.P.)	2	M. + J. Halloran
Bank Swal	Burlington	10	M. Rines	4/11	Lancaster	2	R. Lockwood
4/21	Wayland		G. Long	4/14	Petersham	6	M. Lynch#
4/23	Southwick	2	S. Kellogg	3/27-4/	30 Reports of indivi	duals a	t 11 locations
4/23	Whately	2	M. Williams	Marsh Wr			14.1 14
Barn Swal			D P 111	3/17	Acoaxet	1	M. Lynch#
3/31	DWWS	1	D. Furbish	4/11	GMNWR	2	R. Lockwood SSBC (N. Swirka)
4/4	Ipswich	1	J. Berry	4/14 4/16	DWWS P.I.	2	R. Heil
4/8	ĠMNWR pi	6	T. Pirro R. Heil	Blue-gray	Gnatcatcher	2	10.11011
4/10 4/21	P.I. Uxbridge	3	MAS (J. Liller)	4/11	Gnatcatcher Boxford (C.P.)	2	M. + J. Halloran
4/21	Milton	1 6 3 3 5	G. d'Entremont	4/12	Pittsfield	2	T. Collins
4/23	Whately	5	M. Williams	4/13	P'town	2	P. Flood
4/29	Wayland	15	E. Taylor		Mt.A.	3	M. Rines
				4/17	Montague	4	C. Buelow

D1 /							
Blue-gray (Gnatcatcher (continu	ed)		4/16	Deerfield	1	R. Ranney
4/17	P.I.		R. Heil	4/18, 27	Medford	3, 11	
4/18	Milton (F.M.)	3 2 3 2 4	H. Raymond	4/20	Northampton	3, 11 3 2 2 2 4 3 2	T. Gagnon
4/21		2		4/20		2	
	IRWS	3	BBC (F. Vale)		MNWS	3	K. Haley#
4/23	Bolton Flats	2	C. Buelow	4/20	Truro	2	M. Lynch# I. Lynch
4/27	W. Newbury	4	T. Raymond	4/20	Salem	2	I. Lynch
Golden-cro	wned Kinglet			4/20	P.I.	2	T. Wetmore
3/13	Taunton	18	R. Titus	4/21	Uxbridge	4	MAS (J. Liller)
3/14	Sutton	11	M. Lynch#	4/21	Wellfleet	3	MAS (J. Liller) M. Lynch#
			M. Lynch	4/21		3	D Strangist
3/31	S. Quabbin	20	M. Lynch		Mt.A	4	R. Stymeist
4/4	Ashfield	12	S. Sauter	4/21	Oxford	4	P. Meleski
4/7	Hyannis	18	C. Buelow	American Pi	ipit		
4/7	Oxford	12	P. Meleski	3/9	Cumb. Farms	2	R. Titus
4/7	P'town	20	R. Heil	3/31	DWWS	3	D. Furbish
4/8		18	C. Buelow	4/8	Hadley	150	W. Lafley
	Barre					130	
4/9	Petersham	35	C. Buelow	4/11	Orange	10	W. Lafley
4/10	Mt.A.	11	R. Stymeist	4/26	Bolton Flats	11	T. Murray
4/11	Medford	18	M. Rines	4/30	Hadley	100	C. Gentes
4/16	P.I.	26	R. Heil	Cedar Waxv	ving		
	ned Kinglet			3/2	S. Lancaster	75	S. Sutton#
Ruby-crow		1	J. Hutchison#	3/2	Rockport (H.P.)	58	S. Sutton#
3/9	Weymouth	1					
3/17	Westport	1	M. Lynch#	3/4	Taunton	40	G. d'Entremont
3/20	Norton	2	D. Janas	3/20	Lancaster	35+	S. Sutton#
4/1	Belchertown	1	M. Faherty	4/4	Hingham	215	D. Peacock
4/7	Holyoke	4	T. Gagnon	4/4	Belmont	40	B. Miller
		12	LI Allen	4/7	Manchester	26	L. Fatalo
4/10	Amherst	10	H. Allen				
4/14	Petersham	10	M. Lynch#	4/11	Ipswich	60	J. Berry
4/16	P.I.	110+	R. Heil	4/15	Winchester	30	M. Rines
4/16	Nahant	19	L. Pivacek	4/30	N. Hadley	20	C. Gentes
4/20	Truro	13	M. Lynch#	Orange-croy	wned Warbler		
4/21	IRWS		BBC (F Vale)	3/4	Nantucket	1	B. Kennedy
		10 B	BBC (F. Vale) BBC (P. + F. Vale)	3/10	Saugus	î	D. Horvath
4/26	Mt.A.	10 0	BC (r. + r. vale)			2	
Eastern Bli		3		3/10-15	Chappaquiddick	1	R. Potter#
3/6	Newbury	6	S. McGrath	3/23	Everett	1	R. Stymeist
3/22	Longmeadow	17	G. LaBaron	3/23	Lynnfield	1	P. + F. Vale W. Cox
3/31	Sudbury	6	E. Salmela	4/4	Boston	1	W. Cox
3/31	DWWS	10	D. Furbish	4/5-10	Somerville	1	J. Trimble
		12	K. Vespaziani	4/11	MNWS	î	K. Haley
4/4	Weymouth						
4/12	Lancaster	6	R. Lockwood	4/21-24	Medford	1	M. Rines#
4/21	Hingham	8	S. Donovan	Nashville W			The second second
Hermit Th	rush			4/21	Stow	1	R. Lockwood
3/19	Melrose	2	D. + I. Jewell	4/21		1	MAS (J. Liller)
3/19	Melrose	2	D. + I. Jewell	4/21	Uxbridge		
3/25	DWWS	2	D. Furbish	4/21 4/28	Uxbridge Medford	1	MAS (J. Liller) M. Rines
3/25 4/14	DWWS Petersham	2 2 9	D. Furbish M. Lynch#	4/21 4/28 Northern Pa	Uxbridge Medford arula	1	M. Rines
3/25 4/14 4/15	DWWS Petersham Upton SP	6	D. Furbish M. Lynch# M. Lynch#	4/21 4/28 Northern Pa 4/30	Uxbridge Medford arula Boston (F.Pk)	1	M. Rines J. Young
3/25 4/14	DWWS Petersham	6	D. Furbish M. Lynch# M. Lynch# L. Pivacek	4/21 4/28 Northern Pa 4/30 4/30	Uxbridge Medford arula Boston (F.Pk) Mt.A.	1	M. Rines
3/25 4/14 4/15 4/16	DWWS Petersham Upton SP Nahant	6	D. Furbish M. Lynch# M. Lynch#	4/21 4/28 Northern Pa 4/30	Uxbridge Medford arula Boston (F.Pk) Mt.A.	1	M. Rines J. Young
3/25 4/14 4/15 4/16 4/16	DWWS Petersham Upton SP Nahant P.I.	6 11 42	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil	4/21 4/28 Northern Pa 4/30 4/30	Uxbridge Medford arula Boston (F.Pk) Mt.A.	1	M. Rines J. Young
3/25 4/14 4/15 4/16 4/16 4/16	DWWS Petersham Upton SP Nahant P.I. Hingham	6 11 42 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20	Uxbridge Medford arula Boston (F.Pk) Mt.A. bler Nantucket	1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider
3/25 4/14 4/15 4/16 4/16 4/16 4/16	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS	6 11 42 8 10	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21	Uxbridge Medford arula Boston (F.Pk) Mt.A. bler Nantucket Wayland	1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins
3/25 4/14 4/15 4/16 4/16 4/16 4/16 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke	6 11 42 8 10 6	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25	Uxbridge Medford arula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick	1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF	6 11 42 8 10 6	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25	Uxbridge Medford Irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield	1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich	6 11 42 8 10 6 7) 8 12	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry#	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26	Uxbridge Medford irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats	1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF	6 11 42 8 10 6 F) 8 12	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/26	Uxbridge Medford arula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield	1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish)
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17 4/18 4/18	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield	6 11 42 8 10 6 F) 8 12	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26	Uxbridge Medford irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats	1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17 4/18 4/18	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston	6 11 42 8 10 6 F) 8 12	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I.	1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17 4/18 4/18 4/20	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow	6 11 42 8 10 6 7 7	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood	4/21 4/28 Northern Pa 4/30 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/26 4/27 4/27	Uxbridge Medford irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton	1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish)
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield Boston Stow Boxford (C.P.)	6 11 42 8 10 6 F) 8 12	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27 Yellow-rum	Uxbridge Medford arula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton aped Warbler	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont#
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thri	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield Boston Stow Boxford (C.P.) ush	6 11 42 8 10 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27 4/27 Yellow-rum 3/10	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton pped Warbler Barnstable	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont#
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord	6 11 42 8 10 6 7 8 12 6 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen	4/21 4/28 Northern Pa 4/30 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton ped Warbler Barnstable W. Newbury	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# S. Grinley
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thri	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord	6 11 42 8 10 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale	4/21 4/28 Northern Pa 4/30 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/26 4/27 Yellow-rum 3/10 3/17 3/25	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton pped Warbler Barnstable	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/18 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.)	6 11 42 8 10 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi	4/21 4/28 Northern Pa 4/30 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17	Uxbridge Medford irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton iped Warbler Barnstable W. Newbury DWWS	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# S. Grinley
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS	6 11 42 8 10 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley#	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton pped Warbler Barnstable W. Newbury DWWS Hingham	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# S. Grinley D. Furbish D. Peacock
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/17 4/17 4/17	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland	6 11 42 8 10 6 7 7 8 12 6 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton sped Warbler Barnstable W. Newbury DWWS Hingham Holyoke	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/17 4/18 4/18 4/19 4/20 4/27	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield	6 11 42 8 10 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley#	4/21 4/28 Northern Pa 4/30 4/30 4/30 Yellow War 4/20 4/21 4/25 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16	Uxbridge Medford irrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton iped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/20 4/21 4/20 4/21 4/20 4/21	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin	6 11 42 8 10 6 7 8 12 6 7 7 8	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/7	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton pped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/20 4/27 4/27 4/20 4/21 4/26 American 3/1	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth	6 11 42 8 10 6 7 7 7 8 12 6 7 7 7 8	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hoye#	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton sped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/20 4/27 4/27 4/20 4/21 4/26 American 3/1	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin	6 11 42 8 10 6 7 8 12 6 7 7 8	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins	4/21 4/28 Northern Pa 4/30 4/30 4/20 4/21 4/25 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/16 4/20 4/20	Uxbridge Medford rrula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton sped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thri 4/16 4/17 4/20 4/21 4/20 4/21 4/26 American 3/1 3/2	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth Boxboro	6 11 42 8 10 6 6 7 7 7 8 1 1 1 1 1 1 1 100+ 250+	D. Furbish M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hoye# S. Sutton#	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton pped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes
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3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/20 4/27 Wood Thru 4/20 4/21 4/26 American 3/1 3/2 3/30 Gray Catb 3/28 3/30 4/6 4/12	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth Boxboro Methuen Ashley Falls Holden ird Longmeadow N. Truro Marblehead Medford Manchester	6 11 42 8 10 6 7 7 7 8 1 1 1 1 1 100+ 250+ 2000+ 250+	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover E. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hogan# J. Hogan# T. Collins M. Lynch# J. LaPointe D. Manchester P. + F. Vale M. Rines J. Nelson	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/20 4/20 4/21 4/21 4/29 Black-throa 4/20 4/20 4/21 4/21 4/21 4/20 4/21 4/21 4/21 4/22 4/23	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton sped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town Longmeadow IRWS Stow Winchester sted Green Warbler tided Green Warbler Hingham Oxford Sunderland P.I. Boxford (C.P.)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# G. d'Entremont# D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes BBC (F. Vale) R. Lockwood A. Ankers G. Tepke# P. Meleski# S. Rayer T. Seiter# P. + F. Vale
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/20 4/21 4/26 American 3/1 3/2 3/30 Gray Catb 3/6 3/28 3/30 4/6	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSI Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth Boxboro Methuen Ashley Falls Holden ird Longmeadow N. Truro Marblehead Medford	6 11 42 8 10 6 6 7 7 8 1 1 1 1 1 1 100+ 250+ 2000+ 250+ 1 1 1 1 1	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hoye# S. Sutton# J. Hogan# T. Collins M. Lynch# J. LaPointe D. Manchester P. + F. Vale M. Rines J. Nelson BBC (F. Vale)	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/20 4/21 4/29 Black-throa 4/20 4/21 4/27 4/27	Uxbridge Medford mula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton nped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town Longmeadow IRWS Stow Winchester ated Green Warbler Hingham Oxford Sunderland P.I. Boxford (C.P.) Petersham	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes BBC (F. Vale) R. Lockwood A. Ankers G. Tepke# P. Meleski# S. Rayer T. Seiter# P. + F. Vale C. Buelow
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thri 4/16 4/17 4/20 4/27 Wood Thri 4/16 4/17 4/20 4/27 4/20 4/27 3/1 3/2 3/30 Gray Catb 3/6 3/28 3/30 4/6 4/12 4/21	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth Boxboro Methuen Ashley Falls Holden ird Longmeadow N. Truro Marblehead Medford Manchester IRWS	6 11 42 8 10 6 6 7 7 8 12 6 6 7 7 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover E. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hogan# J. Hogan# T. Collins M. Lynch# J. LaPointe D. Manchester P. + F. Vale M. Rines J. Nelson	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/20 4/20 4/21 4/21 4/29 Black-throa 4/20 4/20 4/21 4/21 4/21 4/20 4/21 4/21 4/21 4/22 4/23	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton sped Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town Longmeadow IRWS Stow Winchester sted Green Warbler tided Green Warbler Hingham Oxford Sunderland P.I. Boxford (C.P.)	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# G. d'Entremont# G. d'Entremont# D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes BBC (F. Vale) R. Lockwood A. Ankers G. Tepke# P. Meleski# S. Rayer T. Seiter# P. + F. Vale
3/25 4/14 4/15 4/16 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thru 4/16 4/17 4/20 4/21 4/26 American 3/1 3/2 3/30 Gray Catb 3/28 3/30 4/6 4/12 4/21 4/25	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ISH Concord Boxford (C.P.) MNWS Sunderland Prittsfield Robin S. Dartmouth Boxboro Methuen Ashley Falls Holden ird Longmeadow N. Truro Marblehead Medford Manchester IRWS Gloucester (E.P.)	6 11 42 8 10 6 6 7 7 8 12 6 6 7 7 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hoye# S. Sutton# J. Hogan# T. Collins M. Lynch# J. LaPointe D. Manchester P. + F. Vale M. Rines J. Nelson BBC (F. Vale)	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/26 4/27 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/20 4/20 4/21 4/21 4/21 4/21 4/21 4/27 4/27 4/27 4/27 4/27	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton hed Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town Longmeadow IRWS Stow Winchester tted Green Warbler tted Green Warbler tted Green Warbler Hingham Oxford Sunderland P.I. Boxford (C.P.) Petersham Hardwick	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes BBC (F. Vale) R. Lockwood A. Ankers G. Tepke# P. Meleski# S. Rayer T. Seiter# P. + F. Vale C. Buelow
3/25 4/14 4/15 4/16 4/16 4/16 4/17 4/17 4/18 4/18 4/18 4/20 4/27 Wood Thri 4/16 4/17 4/20 4/27 Wood Thri 4/16 4/17 4/20 4/27 4/20 4/27 3/1 3/2 3/30 Gray Catb 3/6 3/28 3/30 4/6 4/12 4/21	DWWS Petersham Upton SP Nahant P.I. Hingham MNWS Holyoke Plymouth (MSSF Ipswich Ashfield Boston Stow Boxford (C.P.) ush Concord Boxford (C.P.) MNWS Sunderland Pittsfield Robin S. Dartmouth Boxboro Methuen Ashley Falls Holden ird Longmeadow N. Truro Marblehead Medford Manchester IRWS Gloucester (E.P.) rasher	6 11 42 8 10 6 6 7 7 8 12 6 6 7 7 8 8 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. Furbish M. Lynch# M. Lynch# M. Lynch# L. Pivacek R. Heil B. Machover K. Haley B. Bieda G. d'Entremont J. Berry# S. Sauter G. Tepke R. Lockwood P. + F. Vale E. Neilsen J. Paluzzi K. Haley# S. Rayer T. Collins J. Hoye# S. Sutton# J. Hogan# T. Collins M. Lynch# J. LaPointe D. Manchester P. + F. Vale M. Rines J. Nelson BBC (F. Vale)	4/21 4/28 Northern Pa 4/30 4/30 Yellow War 4/20 4/21 4/25 4/26 4/27 Yellow-rum 3/10 3/17 3/25 4/4 4/7 4/16 4/17 4/20 4/21 4/29 Black-throa 4/20 4/21 4/27 4/27	Uxbridge Medford rula Boston (F.Pk) Mt.A. bler Nantucket Wayland Southwick Sheffield Bolton Flats N. Marshfield P.I. Newton hed Warbler Barnstable W. Newbury DWWS Hingham Holyoke P.I. Arlington Res. P'town Longmeadow IRWS Stow Winchester tted Green Warbler tted Green Warbler tted Green Warbler Hingham Oxford Sunderland P.I. Boxford (C.P.) Petersham Hardwick	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	M. Rines J. Young L. Ferraresso R. Rider D. Diggins S. Kellogg D. St James T. Murray MAS (D. Furbish) J. Nelson G. d'Entremont# S. Grinley D. Furbish D. Peacock T. Gagnon R. Heil M. Rines B. Nikula C. Gentes BBC (F. Vale) R. Lockwood A. Ankers G. Tepke# P. Meleski# S. Rayer T. Seiter# P. + F. Vale C. Buelow

22 22 73	25 525 525						
Pine Warbler		- 6	2012 72	Eastern Tow	hee		
3/28	Pepperell	1	M. Resch	3/5	Westboro	1 m	S. Sutton#
3/30 3/30	Holden Weymouth	1	M. Lynch#	3/13	Taunton	1	R. Titus
3/31	Maynard	1 8	D. + S. Larson	3/20	Medford	1 f	M. Rines
4/13	P'town	20+	L. Nachtrab P. Flood	3/26 3/30	Ipswich	1 m	R. Heil
4/14	Hyannis	15	C. Buelow	4/6	Randolph Westport	2 m	G. d'Entremont
4/14	Hingham	13	G. d'Entremont	4/14	Paxton	3	M. Lynch#
4/14	Holyoke	18	S. Surner	4/16	P.I.	8	M. Lynch# R. Heil
4/17	Plymouth (MSSF		G. d'Entremont	4/17	Plymouth (MSSF)	8	G. d'Entremont
4/21	Stow	15	R. Lockwood	4/18	Hyannis	10	C. Buelow
Prairie Warble				4/20	Stoughton	22	G. d'Entremont#
3/10	Rockport 1	BB	C (B. Drummond)	4/20	Truro	11	M. Lynch#
4/27	P.I.	1	T. Seiter#	4/21	Stow	28	R. Lockwood
Palm Warbler			H DIE	American Tr	ee Sparrow	-	
3/1 4/3	Orleans	1	H. D'Entremont#	3/9	Cumb. Farms	25	R. Titus
4/6, 16	Easthampton Arlington	2, 25	E. Labato S. Simpson	3/20	Bolton Flats	70+	S. Sutton#
4/7	Holyoke	24	T. Gagnon	3/26 3/27	Ipswich	28 27	R. Heil
4/16	Woburn	56	M. Rines#	3/31	N. Andover W. Bridgewater	43	R. Heil
4/16	Nahant	140	L. Pivacek	4/12	Sunderland	2	R. Heil H. Allen
4/16	P.I.	130+	R. Heil	4/16	P.I.	ĩ	R. Heil
4/16	MNWS	100	K. Haley	Chipping Spa		100	It. Hen
4/16	Wakefield	23 20	F. Vale	3/31	W. Gloucester	1	J. Nelson
4/20	P'town	20	B. Nikula	4/2	Sunderland	1	M. Williams
4/21	Stow	24	R. Lockwood	4/4	Boston	2	W. Cox
4/21	IRWS	25	BBC (F. Vale)	4/13	Northbridge	9	M. Lynch#
4/22	Winchester	14	R. LaFontaine	4/17	Holyoke	8	B. Bieda
4/25	Mt.A.	15 1	BBC (P. + F. Vale)	4/17	Plymouth (MSSF)		G. d'Entremont
4/27 Western Palm	Boxford (C.P.)	15	P. + F. Vale	4/18	Hingham	10	G. d'Entremont
	P.I.	4	R. Heil	4/21 4/24	Mt.A Stoughton	14	R. Stymeist
	MNWS	1	R. Heil	4/30	Stoughton HRWMA	20 14	D. Cabral
Black-and-wh			K. Hell	Clay-colored	Sparrow	14	C. Caron
	Newbypt.	1	T. Wetmore	3/8	Oak Bluffs	1	M. Pelikan
	Andover	1	T. Wetmore	3/22	Pembroke	i	D. Clapp
	Ashfield	2	S. Sauter	3/27	N. Andover	i	R. Heil
	Gr. Barrington	2	J. Johnson	4/6	N. Dartmouth	1	M. Boucher
	Manchester	3	J. Berry#	Field Sparrov			
	IRWS	2 2 3 3 2 2 2 2	BBC (F. Vale)	3/9, 4/24	Stow	2, 17	R. Lockwood
	Templeton	2	C. Caron	3/13	Taunton	4	R. Titus
	W. Newbury	2	G. Tepke#	3/22	Bolton Flats	3	T. Murray
	Petersham	2	C. Buelow	3/24 3/27	Bedford	5	M. Rines
Prothonotary	Boston (F.Pk)	2	J. Young	3/28	N. Andover Falmouth	5 15	R. Heil
	IRWS	1 m	F. Vale + v.o.	4/14	Oxford	7	C. Buelow
Ovenbird	III		1. 1410 . 1.0.	4/16	P.I.	11	P. Meleski R. Heil
	Boxford (C.P.)	1	P. + F. Vale	4/20	Northampton	5	T. Gagnon
Northern Wate				Vesper Sparre	OW	-	1. Oughon
	Pittsfield	1	T. Collins	4/7	Hatfield	2	C. Gentes
	Middleboro	1	K. Anderson#	4/12	Lancaster	2 7 2 1	R. Lockwood
	Manchester	4 m	J. Berry#	4/12	Sunderland	2	H. Allen
	Oxford	1	P. Meleski#	4/13	Winchester	1	R. LaFontaine#
	Stow	2	R. Lockwood	4/14	Hadley	4	T. Gagnon
4/30 Louisiana Wa	W. Bridgewater	1	K. Ryan	4/21	Wellfleet	4	G. Hirth
		2	D. Peacock	4/24	Medford	1	M. Rines
	Hingham W. Springfield	1		4/25 4/30	Gardner	i	T. Pirro
	Boxford (C.P.)	1	S. Kellogg P. Arrigo	Savannah Spa	P.I.	1	T. Wetmore
	Bolton	i	R. Lockwood	3/9	Cumb. Farms	18	R. Titus
	Holyoke	2	B. Bieda	3/28	Falmouth	18	C. Buelow
	Haydenville	1	M. Williams	4/16	P.I.	41	R. Heil
	Oxford	1	P. Meleski	4/16	Stoneham	10+	D. + I. Jewell
	Hardwick	1	C. Buelow	4/17	Boston	10	G. Tepke
	Agawam	3	J. Hutchison	4/27		35	R. Stymeist#
Common Yell		2	27272	4/28		35	K. Ryan
	DWWS	1 m	D. Furbish	Ipswich Span			12 2 N
	Chatham	1	M. Dettrey	3/6	P.I.	1	G. Leet#
	Medford Longmendow	1	F. Vale#	3/9	Cumb. Farms	18	R. Titus
	Longmeadow Worc. (BMB)	1	C. Gentes J. Liller	3/21	Nantucket	1	E. Ray
Wilson's Wart	oler (DIVID)	T.	J. Liner	Grasshopper 3/28	Sparrow Falmouth	2	C Dualas
	Cambr. (F.P.)	1	J. Trimble	3/31	W. Bridgewater	1	C. Buelow
Yellow-breast		2	J. ITHIOTE		arp-tailed Sparrow	52	R. Heil
	Marblehead	1	K. Haley		P.I.	1	M. Lynch#
Summer Tan	ager			Seaside Sparr			2)1101111
4/20	Belmont	1	O. Russo	4/17	P.I.	3	R. Heil

Fox Sparrow				3/16	Southwick	2	S. Kellogg
3/8-31	Maynard	3	L. Nachtrab	3/28	Essex	12	R. Heil
3/18	Washington	3 7 5 6 3 5 7 3 5 3 3 3 3 3 3 3 3	E. Nemuth	3/31	DWWS	15	D. Furbish
3/18	Northfield	5	M. Taylor	3/31	S. Dartmouth	6	J. Hoye#
3/22	Belchertown	6	M. Faherty	4/12	ONWR	3	C. Caron
3/23	Everett	3	R. Stymeist	4/13	Ipswich	3 8	J. Berry#
3/27	Hardwick	5	C. Buelow	4/13	Bedford	4	M. Rines
3/30		3	M. Rines	4/14	W. Newbury	2	R. Heil
4/2	Lexington P.I.	2	T. Wetmore	4/14	Hadley	3 7	T. Gagnon
		2	W. Cox	4/24		9	R. Lockwood
4/4	Boston	2			Lancaster	9	K. Lockwood
4/4	Burlington	3	J. Mullen		ded Blackbird	1.1	
4/5	Paxton	- 3	M. Lynch#	3/thr	Northampton		rA. Magee + v.o.
4/6	Salem	3	I. Lynch	3/10	Weymouth	1 m	H. Blackburn
4/7	Woburn	3	R. LaFontaine#	Rusty Black	kbird	212	0.00
4/12	Mt.A.	4 B	BC (P. + F. Vale)	3/2	Bolton Flats	15	S. Moore
Song Sparrov	W			3/12, 4/9	Wayland	36, 79	G. Long
3/20	Bolton Flats	80	S. Sutton#	3/25	New Braintree	15	C. Buelow
3/31	Cumb. Farms	113	R. Heil	3/27	Groveland	10+	R. Heil
4/16	P.I.	145	R. Heil	3/30	Longmeadow	30	S. Kellogg
Swamp Span				3/31	Sudbury	50+	E. Salmela
3/3	Westfield	1	S. Kellogg	4/3	Easthampton	29	E. Labato
3/21	Natick	i	D. Gibson	4/14	W. Newbury	12	R. Heil
3/27	N. Andover	3	R. Heil	4/22	Gardner	43	T. Pirro
3/31	Cumb. Farms	16	R. Heil	4/29	Northampton	23	E. Labato
4/14	Bolton Flats	5	R. Lockwood	Common G		23	D. Laudio
		5 12				700, 800	F Taylor
4/14	Oxford	12	P. Meleski	3/3, 4/13	Framingham	3000	E. Taylor R. Lockwood
4/14	Petersham	.8	M. Lynch#		Littleton		
4/16	Nahant	12	L. Pivacek	3/14	W. Newbury	340	R. Heil
4/30	HRWMA	6	C. Caron	3/16	W. Bridgewater	2200	M. Faherty
White-throat		212	2923.00	3/17		0,000+	J. Hogan
4/10	Cambr. (F.P.)	35	J. Trimble	3/23	Bolton Flats	5200	S. Sutton#
4/18	Boston	40	G. Tepke	3/23	Boston N.C.	300+	M. Kanaracus
4/20	Truro	127	M. Lynch#	4/17	P.I.	1950 mig	
4/21	Mt.A	51	R. Stymeist	4/17	Plymouth (MSS)	F) 400	G. d'Entremont
Harris's Spa	arrow			Brown-head	ded Cowbird	A .	
3/24-4/7	Westport	1	S. Bolton + v.o.	3/8	DWWS	6	D. Furbish
White-crown		-		3/11	Woburn	20	E. Taylor
3/thr	Chilmark	1	A. Keith#	3/16	W. Bridgewater	100	M. Faherty
3/23	Lexington	i	M. Rines	3/17	Bolton Flats	75	R. Lockwood
3/31	Cumb. Farms	2	R. Heil	Orchard Or		15	It. Dock wood
		4		4/27	Medford	1	M. Rines#
4/1	Westport	1	P. Brown	Baltimore (IVI. ICIIICom
4/29	Pittsfield	1	T. Collins			1	WInflow
Dark-eyed Ju		251	C C	3/17	New Salem		W. Lafley
3/9	Westboro	35+	S. Sutton#	4/26	Southwick	1	S. Kellogg
3/24	Stoughton	37	G. d'Entremont	4/30	Georgetown	1	T. Wetmore#
4/12	Mt.A.	27 B	BC (P. + F. Vale)	Pine Grosb			
4/16	P.I.	95	R. Heil	3/2	Becket	1	R. Laubach
Lapland Lon	gspur			3/7	Windsor	9	R. Packard
3/8	P.I.	3	C. Buelow	3/22	Royalston	1 f	B. Stevens
3/17	Newbury	6	S. Grinley	Purple Find	h		
4/22-24	P.I.	1 ma	le R. Heil	3/21	Ipswich	4	J. Berry#
Snow Buntin				4/12	Lancaster	5	R. Lockwood
3/2	P'town (R.P.)	20	G. Hirth#	4/14	Petersham	5 3	M. Lynch#
3/10	Salisbury	4	S. Walch#	4/16	E. Longmeadow	5	G. Kingston
3/10	Boston H.	91	TASL (M. Hall)	4/16	P.I.	5 11	R. Heil
4/10	P.I.		AS (N. Soulette)	4/18	Ashfield	4	S. Sauter
	Ipswich (C.B.)	1 1		4/18	Hingham	4 4 3 2 7 4	G. d'Entremont
4/10 Rose-breaste		1	J. Berry	4/10	MNWS	3	R. Heil
		- 1	D Ti			2	B. Nikula
4/21	W. Bridgewater		R. Titus	4/20	P'town	2	
4/25	Montague	1	K. Ryan	4/20	Stow	4	R. Lockwood
4/26	Deerfield	1	R. Ranney	4/21	IRWS	16	BBC (F. Vale)
4/27	Worc. (BMB)	1	J. Liller	4/25	Gardner	15	Т. Рітто
4/29	Northboro	1	B. Volkle	Red Crossb	oill		1. m
4/29	Beverly	1	G. Leet	3/13	Salisbury	12	M. Taylor
Indigo Bunti	ing			4/13	Florence	1	T. Gagnon
4/20	Nantucket	1	R. Rider	4/13	Holyoke	1	T. Gagnon
Painted Bur				White-wing	ged Crossbill		
3/28	Lexington	1 m	R. Gantside	3/2	Nantucket	15	S. Langer
Dickcissel				3/6	Andover	3	A. Bennet
	Westwood	1	T. Raymond	3/8	Salisbury	3	C. Buelow
			Woodbury + v.o.	3/22	Concord	í	J. Ames
3/21		m J.	woodbury + v.o.			3	T. O'Neil
3/21 3/27-30		1000	I D	4/3	N. Weymouth	3	I. O IVEII
3/21 3/27-30 Red-winged			J. Berry	Common R		0.0	
3/21 3/27-30 Red-winged 3/18	W. Newbury	1000+		2/1			
3/21 3/27-30 Red-winged 3/18 3/20	W. Newbury Bolton Flats	15,000	S. Sutton	3/1	Ipswich	80	J. Berry
3/21 3/27-30 Red-winged 3/18 3/20 3/27	W. Newbury Bolton Flats N. Andover	15,000 850	S. Sutton R. Heil	3/2	Blandford	4	K. + M. Conway
3/21 3/27-30 Red-winged 3/18 3/20 3/27 3/31	W. Newbury Bolton Flats N. Andover W. Bridgewater	15,000 850	S. Sutton	3/2 3/2	Blandford Lenox	4	K. + M. Conway R. Laubach
3/21 3/27-30 Red-winged 3/18 3/20 3/27	W. Newbury Bolton Flats N. Andover W. Bridgewater	15,000 850	S. Sutton R. Heil	3/2	Blandford	4 1 30	K. + M. Conway

Common Re	edpoll (continued)			3/31	Halifax	7+	R. Heil
3/6	Melrose	6	B. Hodson	4/thr	Bolton	5 max	
3/6	Westboro	6	N. Paulson	4/2	Hingham	4	C. Nims
3/10	Shutesbury	2	L. de la Flor	4/18	Ashfield	60	S. Sauter
3/10	Cambridge	10	Sa. Miller#	4/20	Pepperell	4	M. Torpey
3/12	Worc. (BMB)	22	J. Liller	4/28	Sunderland	5	M. Williams
3/24	Bolton Flats	5	S. Sutton#	American C			The Williams
3/25	DWWS	40	D. Furbish	4/16	P.I.	165	R. Heil
3/27	Hardwick	6	C. Buelow	Evening Gr	osbeak		
3/30	ONWR	15	E. Neilsen	3/1-31	Blandford	8-20 K	. + M. Conway
3/31	S. Quabbin	7	M. Lynch	3/2	Windsor	6	T. Gagnon#
4/3	Pittsfield	7	T. Collins	3/2	Savov	6	T. Gagnon#
4/3	Hardwick	1	C. Buelow	3/20	Royalston	12	M. Taylor
Pine Siskin				3/27	Washington	22	E. Nemuth
3/1	Stoughton	8	A. Johnston	4/10	Ashfield	4	S. Sauter
3/5	Middleboro	28	J. Mason	4/14	Petersham	6	M. Lvnch#
3/16	New Salem	10	B. Lafley#	4/20	Westminster	4	C. Caron
3/17	Pepperell	5	E. Stromsted	4/21	Nantucket	1	E. Ray
3/20	Royalston	20	M. Taylor	4/28-30	Stoughton	1 f	R. Titus

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>.

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

Bird Observer prints compilations of birds reported in Massachusetts and offshore waters. Our compilers select and summarize for publication reports that provide a snapshot of bird life during the reporting period.

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



DAVID LARSON

LIST OF ABBREVIATIONS

	LIST OF A	IDDKE VIAI	IONS
a	adult	L.	Ledge
alt	alternate	M.V.	Martha's Vineyard
b	banded	Mt.A.	Mount Auburn Cemetery, Cambridge
br	breeding	Nant.	Nantucket
dk	dark (phase)	Newbypt	Newburyport
f	female	P.I.	Plum Island
fl	fledged	Pd	Pond
imm	immature	Pont.	Pontoosuc Lake, Lanesboro
ind	individuals	P'town	Provincetown
juv	juvenile	Ouab.	Ouabbin Reservoir
loc	location	Res.	Reservoir
lt	light (phase)	R.P.	Race Point, Provincetown
m	male	S.B.	South Beach, Chatham
max	maximum	S. Dart.	South Dartmouth
migr	migrating	S.N.	Sandy Neck, Barnstable
n	nesting	Stellw.	Stellwagen Bank
ph	photographed	Worc.	Worcester
pl	plumage	Barre F.D.	Barre Falls Dam, Barre, Rutland, Oakham
pr	pair	ABC	Allen Bird Club
S	summer (1S = first summer)	BBC	Brookline Bird Club
thr	throughout	BMB	Broad Meadow Brook, Worcester
vid	videotaped	CCBC	Cape Cod Bird Club
V.O.	various observers	DFWS	Drumlin Farm Wildlife Sanctuary
W	winter (2W = second winter)	DWMA	Delaney Wildlife Management Area
w/	with		Stowe, Bolton, Harvard
yg	young	DWWS	Daniel Webster Wildlife Sanctuary
#	additional observers	EMHW	Eastern Massachusetts Hawk Watch
A.A.	Arnold Arboretum, Boston		Great Meadows National Wildlife Refuge
A.P.	Andrews Point, Rockport	HRWMA	High Ridge Wildlife Management Area,
A.Pd	Allens Pond, S. Dartmouth	22777772	Gardner-Westminster
Arl.	Arlington	IRWS	Ipswich River Wildlife Sanctuary
B.	Beach	LBS	Local Bird Survey
B.I.	Belle Isle, E. Boston	LCES	Lloyd Center for Environmental Studies
B.R.	Bass Rocks, Gloucester	MARC	Massachusetts Avian Records Committee
Cambr.	Cambridge	MAS	Massachusetts Audubon Society
C.B.	Crane Beach, Ipswich	MBO	Manomet Observatory
Corp. B.	Corporation Beach, Dennis	MBWMA	
C.P.	Crooked Pond, Boxford	11120 1111111	Newbury
	rms Cumberland Farms, Middleboro-	MDFW	MA Division of Fisheries and Wildlife
	Halifax	MNWS	Marblehead Neck Wildlife Sanctuary
E.P.	Eastern Point, Gloucester	MSSF	Myles Standish State Forest
F.E.	First Encounter Beach, Eastham	NAC	Nine Acre Corner, Concord
F.H.	Fort Hill, Eastham	NBC	Needham Bird Club
F.M.	Fowl Meadow, Milton	NEHW	New England Hawk Watch
F.P.	Fresh Pond, Cambridge	ONWR	Oxbow National Wildlife Refuge
F.Pk	Franklin Park, Boston	SRV	Sudbury River Valley
G40	Gate 40, Quabbin	SSBC	South Shore Bird Club
G45	Gate 45, Quabbin	TASL	Take A Second Look Harbor Census
H.P.	Halibut Point, Rockport	USFWS	US Fish and Wildlife Service
Н.	Harbor	WBWS	Wellfleet Bay Wildlife Sanctuary
I.	Island	WMWS	Wachusett Meadow Wildlife Sanctuary
***	10 min	1111113	radiabett ineadow midnie balletdary



GEORGE C. WEST

Get involved!



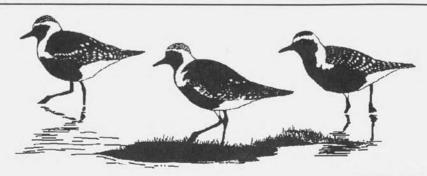
Bird Observer is created entirely by volunteers: people who want to give something back to the birding community. We have several opportunities available for you to join us. If you have extra time available, however limited, and would enjoy the chance to meet a new group of people, there may well be a position for you.

Managing Editor. Are you good at managing details, deadlines, and follow-up? You could be just the person we are looking for. Our editorial staff is responsible for bringing in and editing articles, but the Managing Editor pulls the pieces together and makes them into an issue of *Bird Observer*. It is definitely time consuming and requires excellent organizational skills. Preference will be given to someone with editorial experience, but it is not a necessity.

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If you want to find out more, call or e-mail Marj Rines at 781-643-6128, marj@mrines.com.



GEORGE C. WEST

ABOUT THE COVER

Least Sandpiper

The Least Sandpiper (Calidris minutilla) is the smallest sandpiper in the world, slightly smaller than the Semipalmated Sandpiper with which it frequently associates. It can be separated from the latter by its generally browner color, more slender bill, and by its yellowish or greenish legs. Juvenile birds in fresh plumage are more brightly colored than adults. Bright rufous edges to the crown feathers and upperparts create an orange-brown appearance, and they have a creamy white, incomplete V pattern on the sides of the back. This bright plumage rapidly wears and fades, so that by late October most Least Sandpipers are in drab winter plumage. Least Sandpipers are easily separated from other North American peeps, but closely resemble Temminck's and Long-toed stints, and provide a significant challenge to birders who think they may be viewing one of these, or other vagrant stint species.

Least Sandpipers show very little geographic variation and no subspecies are recognized. They are most closely related to the Long-toed Stint (Calidris subminuta), with which they constitute a superspecies. Their breeding range extends across subarctic North America from Alaska to Nova Scotia. The single lower forty-eight states' breeding record is from Monomoy in 1979. They winter from the southern United States to central South America, with some populations making transoceanic flights of more than 2000 miles. Birds using New England as a staging area probably winter mostly in the Lesser Antilles and northeastern South America. Least Sandpipers are considered locally abundant to very common coastal migrants in spring and fall, and common inland. In Massachusetts they are largely May spring migrants, arriving again in early July and leaving by the end of September, with highest counts in late July. In fall adults migrate earlier than juveniles.

Least Sandpipers are monogamous and produce a single brood. They nest in subarctic tundra and boreal forests, and exhibit breeding site fidelity. They prefer wet sedge and mossy, grassy bogs. Males establish a breeding territory that they advertise with shrill, repetitive *treees*, chatterings, and rich, complex song. In courtship these songs accompany hovering display flights or are given from a perch or from the ground. Males often chase each other and fight with feet extended toward each other in the air, or with one male landing on the back of another and attacking with its beak. Threat displays may include raised wings and tail. In nonbreeding season Least Sandpipers have a flight call described as *kreeep* or *threeep*, uttered singly or in a short series.

The male makes several nest scrapes and the female selects the final nest site. The nest is a simple scrape, lined with dead vegetation, in short marsh grass or in a damp area, usually near water. The clutch is typically four blotched buff-colored eggs. Both males and females develop brood patches and share incubation for the about three weeks to hatching. The young are precocial and downy, and have left the nest by the end of the first day. The chicks feed themselves and parental duties are limited to

brooding, leading chicks to good foraging habitat, and warning chicks of approaching predators. The male takes increasing responsibility for the young as nesting progresses. Adults and chicks eventually move to communal feeding grounds. Young birds can fly after about two weeks, but stay with their parents for a few additional days.

Least Sandpipers forage by probing, or more commonly pecking small food items from the substrate. Their major food consists of small invertebrates including gastropods, amphipods, isopods, and dipterans. In coastal areas they feed mostly on mudflats and in marsh vegetation. They tend to forage farther from the water than other peeps, often at the vegetation-mud flat interface.

The populations of Least Sandpipers appear to be fairly stable, although they are difficult to census due to their occurrence in mixed-species flocks, remote breeding habitat, and tendency to disperse on wintering grounds. They suffer extensive egg and young predation from foxes, gulls, corvids, and raptors, and extensive mortality from raptors during migration and on the wintering grounds. Large numbers were shot by market hunters in the early twentieth century, but populations recovered after the Migratory Bird Convention of 1916. The species appears secure on its remote and widespread breeding grounds, but habitat alteration on its stopover sites and wintering grounds may pose a long-term threat. They remain the tame little brown sandpipers that roam the Spartina edges of the shallow pannes at Plum Island and in similar habitats.

William E. Davis, Jr.



About the Cover Artist

David Sibley has written and illustrated articles on bird identification for *Birding* and *North American Birds* as well as regional publications, and books including *Hawks in Flight* and *The Birds of Cape May*. Since 1980 David has traveled the continent watching birds on his own and as a tour leader for Wings, Inc. He wrote and illustrated the monumental *Sibley Guide to Birds*, a comprehensive guide to North American birds, which has been followed by a companion volume, *The Sibley Guide to Bird Life & Behavior* (illustrated by David A. Sibley, edited by Chris Elphick, John B. Dunning, Jr., and David A. Sibley). You can see more of David's artwork at his website http://www.sibleyart.com. He lives in Concord, Massachusetts, with his wife and two sons.

AT A GLANCE

June 2002



DAVID LARSON

Through the years of selecting suitable photos for this column, I have usually tried to choose photos that would hopefully offer some particular identification challenge for the reader. Sometimes this has been done by depicting a seldom seen plumage (e.g., juvenile Snow Bunting), a plumage anomaly (e.g., leucistic Common Grackle), an interesting posture (e.g., Yellow-headed Blackbird with its head hidden by its wing), or simply a poor photograph (e.g., We won't go there!). In a few cases, with assistance from the printer, I have even depicted birds upside down (e.g., Blackheaded Gull)! In most cases, however, I have tried not to lose sight of the reality that the images need to be at least potentially identifiable by the thoughtful reader. Even on this point, however, there have been exceptions (e.g., a possible hybrid shorebird on Martha's Vineyard). So what does all this have to do with this month's mystery photo? Everything.

June's challenge photo clearly depicts a "departing" species, that is, a bird taking flight. While it should be obvious to most readers, in order to properly unravel the identification problem presented in the photograph, it is critical to have the picture properly oriented. A close look at the position of the bird's legs and feet, as well as the fact that the photograph depicts the underside of its wings, indicates that the bird

is flying away from the photographer. A closer inspection reveals that the bird is clearly a long-legged species, such as a heron or egret, whose legs and feet are fairly stout, not slim and delicate as would be the case with most shorebirds. Also, with close scrutiny, it is just possible to see the suggestion of a slight palmation (web) between the inner and middle toe on the bird's right foot. This feature further suggests that the bird is a heron or egret of some sort.

Given the mystery bird's long leg length, coupled with the absence of complete webs between the toes, a feature that would be typical of a number of waterbirds other than herons and shorebirds, it is fair to assume that the bird is indeed a long-legged wader. Either because the pictured bird's lower back and tail are obviously not dark in color, or because the leg color is obviously pale with little contrast between the color of the legs and the feet, it is variously possible to eliminate species such as American Bittern, Least Bittern, Great Egret, Snowy Egret, Tricolored Heron, adult Little Blue Heron, Green Heron, and Glossy Ibis as possibilities. The white "thighs," instead of rusty-brown, combined with the relative shortness of the legs, serve to remove Great Blue Heron as a candidate. The fact that the tail, lower back, and rump appear light gray instead of white takes immature Little Blue Heron and Cattle Egret out of the running.

Having thus substantially reduced the list of possibilities, the remaining candidates are either Black-crowned Night-Heron or Yellow-crowned Night-Heron. Since the underwings and ventral areas of a Yellow-crowned Night-Heron would be substantially darker than those of a Black-crowned Night-Heron, at this point it is safe to assume that the departing heron in the photograph is an adult Black-crowned Night-Heron (Nycticorax nycticorax).

Black-crowned Night-Herons are locally common coastal breeders in Massachusetts, and they regularly occur inland, especially in late summer after nesting. Small numbers occasionally winter along the coast from Boston to Cape Cod and the Islands. David Larson photographed the night-heron in the picture with a digital camera at World's End Reservation in Hingham.

* Wayne R. Petersen

Letter to the editor:

I have been reading the latest issue of Bird Observer and in my opinion it is the best magazine yet . . . The pictures inside the front cover are wonderful. I read from beginning to end the article on Charles Maynard. Hell, he was alive when I was 7 years old. The article on birds nesting in Essex County was damned interesting. I enjoyed the article on the Tree Swallow nesting, the At A Glance I BLEW. Never in a million years would I have guessed Blue Teal. During the many years I was birding with Margaret Argue we would often climb the tower at the South Pool and all these ducks would be in eclipse plumage — July/August. "Miserable things," Margaret muttered. "I'm not going even to look at you until you have changed into a plumage a normal person can identify." And she didn't!

Sincerely, Henry Wiggin

AT A GLANCE



WAYNE R. PETERSEN

Can you identify this bird?

Identification will be discussed in next issue's AT A GLANCE.

Contribute to Bird Observer

Bird Observer gladly considers for publication manuscripts or article proposals from any member of the birding community. We are also interested in considering quality photographs with avian themes. The only requirement is that material be relevant to New England birds and birders.

Among the types of material we'd like to see:

Articles presenting original scientific research
Documentation of significant records
"Hot Birds" photographs of rare or unusual birds in New England
Field notes describing interesting encounters with birds
Biographies of ornithologists or birders with regional ties
Results of surveys and censuses
"Where to Go" articles describing good birding locales
"Pocket Places," brief descriptions of small hotspots
Articles on birding equipment or methods
Notices and news items

Send manuscripts or proposals to the Editor: Brooke Stevens, 5 Hemlock Road, Cambridge, MA 02138, or via e-mail attachments in Word doc or txt or rtf formats to brookestev@aol.com. Send photographs (prints or slides) to the Production Editor: David Larson, 1921 Central Street, Stoughton, MA 02072, or for digital images, via email at davlars@bu.edu.

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CONTENTS

BIRDING BAXTER STATE PARK	Jim Sweeney	241
INTERSPECIFIC AND INTRASPECIFIC AGGRESSION AMON	IG	
Foraging Greater and Lesser Yellowlegs	William Moskoff	250
SEEING THE WORLD IN A BIRD	Rob Gough	256
BIRD BEHAVIOR WHEN ENCOUNTERING AIRBORNE HE THE CALIFORNIA COAST William Moskoff and Lt. John		258
Section and the section of the secti	i Andrew Cromwen	230
WIRED BIRDER Sneaking a Peek at Birds	David M. Larson	260
POCKET PLACES Sanford Ponds Wastewater Recycling Facility	Nancy McReel	266
FIELD NOTES		11 0
A Foot-vibrating Solitary Sandpiper	Richard W. Hildreth	268
Odonate Hunting at Wizard Pond	Richard W. Hildreth	268
ABOUT BOOKS		
Who Are We and What Exactly Are We Doing?	Mark Lynch	270
BIRD SIGHTINGS: March/April 2002 Summary		276
ABOUT THE COVER: Least Sandpiper	William E. Davis, Jr.	295
ABOUT THE COVER ARTIST: David A. Sibley		296
At a Glance	Wayne R. Petersen	297