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Birding Close to Home



Assistant Clerk

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CONTENTS

POCKET PLACES					
Groton Place, Groton	Lisa Clark	5			
Nelson Island, Rowley	Jim Berry				
The Trails at Pickering Ponds, Rochester, New I	Hampshire				
	Stephen R. Mirick	8			
Sapowet Fishing Area, Tiverton, Rhode Island	Rachel Farrell	10			
Upper Charles River Greenway Path	Robert H. Stymeist	11			
West Brook, Whately	Matthew Williams	13			
A QUADDING 2000 DIARY Marjorie Ri					
DATA COLLECTING AT YOUR FAVORITE LOCAL BIRDING	G SPOT John Liller	22			
ZERO-IMPACT BIRDING: THE HUMAN-POWERED YEAR	LIST Tony Federer	27			
SIGNIFICANT RECENT NESTING RECORDS FROM ESSEX	COUNTY,				
PART 2	Jim Berry	29			
THE WIRED BIRDER					
Group Coordination	David M. Larson	36			
YARD BIRDS					
Fifty Years at Wolf Trap Hill	Kathleen S. Anderson	39			
HOT BIRDS		42			
Young Birders					
Northern Hawk Owl	Will McCumber	43			
Mallard Ducks	Gareth Perkins	44			
FIELD NOTES					
The Unexpected Bluebird	Marjorie Rines	46			
ABOUT BOOKS					
A Task of No Small Difficulty: A Critical Histor	ry of				
the North American Field Guide	Mark Lynch	47			
BIRD SIGHTINGS: September/October 2000 Summary	•	58			
ABOUT THE COVER: Bufflehead William E. Davi					
ABOUT THE COVER ARTIST: David Sibley		80			
AT A GLANCE	Wayne R. Petersen 81				

Corrigendum: In Hotbirds Vol 28(6) page 395, the photo caption for Yellow-nosed Albatross should read "It is unclear how many of these south Atlantic birds were present."

Birding Close to Home

"Although the search for rarities does bring personal enjoyment, I find that regularly monitoring a single site is just as rewarding, if not more so. Becoming familiar with a location and watching the avian life change, both seasonally and over many years, adds considerable information to my understanding of the life of birds. What's more, ornithology is very dependent on data gathered by amateurs, and thus the information collected is quite valuable to the scientific community." — John Liller

A bright beginning to what some of us think of as the "true" new millennium could mean simply opening the door and stepping outside to take stock of the feeder birds, or driving to a local patch to look for the birds within. Taking stock of the locals is not just a form of building one's year list but of creating an intimacy with our immediate surroundings — getting acquainted with the resident species as well as seasonal visitors, nesters, and sometimes, with a sharp rush of adrenaline, coming upon the unexpected.

The feature articles in this issue of *Bird Observer* were brought together around the idea of birding close to home, something that we all can do whether we have an hour to spare or a day to splurge, and we hope that they will enrich the local birding experience.

Marj Rines is out and about a lot, poking around a fairly extensive area which, defined by a topographic map, she calls her "quad." Her "Quadding 2000 Diary" provides a representative (and fascinating) sampling of discoveries and observations throughout the year.

What do we really know about our favorite patch? John Liller gets down to the nitty-gritty: "Do we know that the Gray Catbird in late October is an unusual occurrence? Do we know that the large number of Golden-crowned Kinglets in November is an exceptional number, or that it actually corresponds to counts typically found in the area? Do we know what birds use our patch to breed in and what birds only use it as a place to feed while raising young elsewhere?" In "Data Collecting at Your Favorite Local Birding Spot," Liller describes the censusing methods used at Broad Meadow Brook Sanctuary that can be applied to your own local spot.

How about a Big Day by bike? Make that a rusty old Schwinn. New Hampshire resident Tony Federer, inspired by a birder who had flown from Washington State to tick Little Egret "all in one day!" introduces the ecological merits of Human-Powered Birding. The Big Day results? Ninety-Eight species. In "Zero-impact Birding," he describes a few simple rules for counting species in a human-powered year list.

And finally, in place of a Where to Go article, we offer a selection of Pocket Places, favorite local spots of some of our readers in Franklin County; northwest Middlesex County; Essex County; suburban Boston; Tiverton, Rhode Island; and Rochester, New Hampshire. Enjoy.

Brooke Stevens, Managing Editor

POCKET PLACES

Groton Place, Groton

Lisa Clark

I've only been birding seriously for about five years, but my husband and I have enjoyed the Groton Place for at least ten. On the Nashua River near the Groton School, it is a mixed, young forest that is either part of, or adjacent to, a tree farm, but we've only heard saws once. It is lovely and, near the beginning of the woods, features a touching memorial of stone benches and a sculpture of a reclining dog. You can walk for many miles through these woods, and you can feel away from it all, including your own species.

I've never seen anything spectacular at the Groton Place, but I have had my best looks at many more-often-heard-than-seen forest birds there. Each spring this is my most reliable place to *see* Eastern Wood-Pewee, Scarlet Tanager, Rose-breasted Grosbeak, and Red-eyed Vireo. Dead trees with large, rectangular holes abound, and I've heard that Pileated Woodpeckers breed here, although I've never been fortunate enough to see them. Hermit and Wood thrushes and Veeries sing here every spring, as do forest-loving warblers and other visitors from the tropics. We see Cooper's Hawks cruise low overhead on many of our spring and summer walks. But in the summer, most of our sightings are of mosquitoes and their allies. In the fall, the conifers lining the field near the entrance are my most reliable place for Red-breasted Nuthatches, and in the pines near the boat ramp, the odd White-winged Crossbill appears from time to time. I've also seen Fox Sparrows scratching around under the first large conifers you encounter along the river. In the winter, of course, you can see the usual hardy forest denizens.

I've never seen anything exciting *in* the river (which is used regularly both by Groton School crew and recreational canoers and kayakers; there's a rental place down the street), but I have seen Common Loons, Great blue and Green herons, Redtailed Hawks, and Turkey Vultures flying above. The river has a fairly brisk current belied by its smooth surface.

Our usual route is to enter around the gate, walk over the stone bridge, check for flycatchers, kingfishers, and ducks depending on the season, and take a right onto a path through the field and toward the river. In the conifers to the left of the path are nuthatches, kinglets, chickadees, and titmice. Song Sparrows and others of that niche enjoy the weedy field on the right. Along the river, one might hear one or more species of sparrows

scratching beneath the tall conifers. There's a bench at the river where you can sit and take in the view. Then take a left onto a path through a field with the river on the right. You will come very shortly to woods and a main trail, which eventually has several branches. The trails closest to the river are the birdiest. As you enter the woods, you'll come to the stone bench and charming dog sculpture.

Shortly thereafter the main trail branches, and then the choice is yours. You can follow the main trail along the river through the woods to the boathouse (a bit more than half a mile) and loop back on the slightly more upland trail. This is the birdiest part. Just before the boathouse are trees in which I saw at least fifteen Red-eyed Vireos one day a couple of Septembers ago. (All those little red eyes were strangely compelling.) The open area just past the boathouse can be very good for seed-eaters (and accipiters looking for seed-eaters), as well as phoebes and kingbirds in season. From the boathouse, we often head back in the direction we've come, but you can continue on.

There are many trails at the Groton Place, so enjoy exploring. You can get in a good, long walk. There aren't any trail maps available, but it would be pretty hard to become lost. Basically, follow the songs, calls, and drumming, and enjoy.

Directions: From Exit 31 on I-495, take State Route 119 west to Groton center. From the center, turn left onto Route 225, and follow signs to West Groton. A small parking area for the Groton Place is on the left, a few hundred yards before a bridge that crosses the Nashua River.

NELSON ISLAND, ROWLEY

Jim Berry

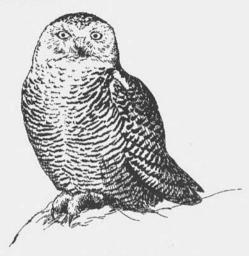
Nelson Island in Rowley is part of the Parker River
National Wildlife Refuge in northeastern Essex County. It
lies along the western shore of Plum Island Sound, and
is one of several waterfowl hunting areas in the
western section of the refuge. It is a club-shaped,
almost treeless island completely surrounded by salt
marsh, and is thus an excellent place to see
waterbirds and raptors. The island itself is perhaps a
hundred acres or so, and is primarily a hayfield,
mowed annually after the nesting season of the grassland
birds that use it. There is a small fresh-water pond tucked
into the northeast corner of the island, probably artificial, since it
is separated from the salt marsh by a dike. On the dike is an osprey platform.

Nelson Island is a good place to watch birds year-round. Late fall, winter, and

early spring are especially nice because of the possibility of seeing Short-eared and Snowy owls, which hunt either the island itself or the vast salt marsh all around it. I see Short-ears more often than Snowys, sometimes two or three, often engaging in aerial acrobatics. They do this also with Northern Harriers, which they sometimes follow around as if hoping to steal food from them.

Other raptors to be seen from the island in winter are Rough-legged and Red-tailed Hawks, any of the falcons, occasional accipiters or Bald Eagles, and Northern Shrikes (if the latter can be considered raptors). The interactions among the various raptors are my favorite events on this wonderful island.

Salt pans abound on both sides of the causeway and all around the island, except at the east end, which overlooks the sound and Plum Island itself. (Nelson is opposite the north impoundment at Hellcat Swamp; the osprey platform is easily visible from



anywhere along the Hellcat dike.) These pans are excellent from late March into November for shorebirds, herons, Glossy Ibises, waterfowl, and Saltmarsh Sharptailed Sparrows, while the sound is good in the appropriate season for Brant, diving ducks, grebes, and loons at high tide and shorebirds at low tide. In fact, birding on Nelson is almost better in some ways than on Plum Island, since more salt pans are within easy viewing range, although some of them require a scope. I have been conducting semimonthly bird counts on Nelson for a decade in my capacity as a refuge volunteer, and although the variety of species is usually less on Nelson than on Plum Island, the numbers can be excellent. On more than one summer day I have counted hundreds of egrets and herons in these pans, in what amounted to a feeding frenzy. Little Blue and Tricolored herons make appearances here, as do Hudsonian Godwits, Whimbrels, and Red Knots. Willets nest in the salt marsh and bring their fledglings into the pans by the causeway. I seldom see rare shorebirds, but the regularity of my visits has taught me to expect anything. For example, the island provides a superb viewing platform for occasional migrating flocks of Laughing Gulls, Forster's Terns, Snow Geese, or Double-crested Cormorants, the latter sometimes in the thousands.

The island itself is also an exciting place to study birds. The large hayfield is managed for nesting grassland birds, of which the most common are Bobolinks. Anywhere from a dozen to several dozen pairs normally nest here. I have seen one or two pairs of Savannah Sparrows some years, and very occasionally Eastern Meadowlarks. In July 2000 I saw an Upland Sandpiper on the island, the first I have seen there. The pond is ringed by cattails, and provides nesting habitat for ducks and rails as well as the ubiquitous Red-winged Blackbirds and Common Grackles. Even

Mute Swans have nested here, although at the expense of any ducks—usually Mallards or Gadwalls — desiring to do the same. In 2000 I heard a pair of Virginia Rails on several occasions, indicating probable nesting. I have heard Soras here too, and have seen both bittern species in the cattails, although without evidence of nesting. Ospreys have nested twice so far on the platform, in 1996 and again in 2000. While they are nesting it is of course inadvisable to go anywhere near the platform. Similarly, visitors should stay off the hayfield while the Bobolinks are nesting, and stick to the dirt road along the southern edge of the island, which is used by Rowley clammers to reach the flats in the sound at low tide.

Land birds on Nelson are not exceptional other than the grassland species and the Orchard Oriole. In 1998 a pair nested in the small copse at the west end of the island, and in 2000 I found a nest in the larger copse adjacent to the parking lot. Mammals are another attraction, particularly river otters, which visit the pond regularly and leave wide trails through the grass punctuated with their scaly scats. One day in 1983 I watched a mink making repeated visits to an apparent den, a reward for sitting still and watching the marsh from a brushy area along its edge. My best butterfly on Nelson so far is the common buckeye, which I have seen twice on the island.

To get to Nelson Island, drive about three miles north on Route 1A from the intersection of Routes 1A and 133 near the center of Rowley. When you are almost to the Newbury town line, Stackyard Road turns right where 1A makes a sweeping left-hand curve (there should be a sign). Stackyard is a dirt road that ends in one mile at the parking lot for Nelson Island; where it forks, stay to the right (straight). The parking lot is at the refuge boundary. From there you must walk several hundred yards along a dirt causeway across the salt marsh to get to the island. If the tide is high, you will need waders (at least in cold weather), since the tide runs freely across the causeway. (Of course you can always bird from the parking lot if the tide looks too high for your footwear.) At low tide you will rarely need waders. The island is open to the public seven days a week except in waterfowl hunting season, when it is open only on Sunday. A sign at the edge of the parking lot informs you of the current access rights. Dogs are not allowed at any time, and violators will be fined if caught.

The Trails at Pickering Ponds, Rochester, New Hampshire

Stephen R. Mirick

Sewage ponds and landfills are usually productive places to bird; however, access and aesthetics frequently prevent enjoyment and appreciation of these areas by birders. A public trail system has recently opened in Rochester, New Hampshire, known as The Trails at Pickering Ponds.

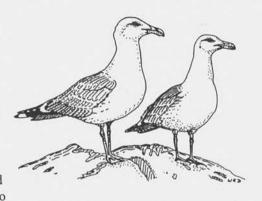
Rochester

These trails are conveniently located between the Turnkey Landfill and the Rochester Wastewater Treatment Plant, where they benefit from the abundance of the visiting gulls and the beauty of the Cocheco River.

There are over two miles of trails which have only recently been opened for public use in the fall of 2000. For this reason, few birders have visited the area, and it is difficult to tell what might be found. It is clear, however, that this area is the best location in the state for finding the larger gulls. Thousands of Herring and Great Black-backed gulls visit the ponds and are joined by Iceland and Glaucous gulls from late fall into the early spring. Lesser Black-backed Gull is now annual and Black-headed Gull has been reported here three times in the last nine years.

Two trails start from a gravel parking lot located off Pickering Road. The trail that starts from the north end of the parking lot is the more interesting and productive

for birders. It passes through a fence and follows the dikes between and around two old settling ponds. These impoundments are known as the Pickering Ponds, and are popular for bathing and resting gulls. Thousands of gulls can often be seen flying in and out of the ponds when the nearby landfill is operational. The first pond is preferred by the gulls, particularly when there is open water; however, they will also roost on the ice-covered pond in midwinter. Waterfowl can also



be found here, and Ruddy Ducks, coot, and teal should be expected during the fall; Wood Ducks and Hooded Mergansers are likely to be found here during summer months as well.

The second pond has more emergent vegetation and has been one of the few nesting sites in the state for the declining Pied-billed Grebe. Black-crowned Night-Herons can sometimes be found here, and American Bitterns may nest in the vicinity.

A side trail known as the Cocheco River Loop leaves the main trail, following the banks of the scenic Cocheco River, and passing through the floodplain of the river. Wet areas with alder, willows, and cattail marshes provide an interesting variety of habitats, which look excellent for migrant and nesting birds.

If you are visiting from Monday through Friday, you should check out the wastewater treatment plant located 1.0 miles farther north and west along Pickering Road. If gulls are not at the Pickering Ponds, they may be here, and there is better potential for shorebirds, particularly in the fall if any ponds have been drawn down. Reports from the plant in the last three years include eight species of gulls, Longbilled Dowitcher, Stilt Sandpipers, Cattle Egret, and the first New Hampshire record for Eared Grebe. The management has usually allowed birding in the plant during business hours; however, you must stop in the main office to check with them before

you walk around the impoundments.

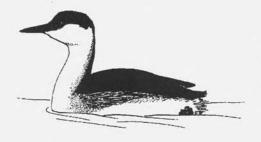
To reach the trails from the south, take exit 9 off the Spaulding Turnpike in Dover, New Hampshire, and turn left at the end of the exit ramp, heading south back over the turnpike. In about 1/2 mile, the road ends at a traffic light opposite Liberty Mutual. Turn right onto 6th Street and follow 6th Street north as it enters the village of Gonic (part of the city of Rochester) where the road name changes to Pickering Road. At 4.2 miles (opposite #374 Pickering Road), a paved access road on the left leads a short distance to the gravel parking lot and the trail heads. There is no entrance sign along Pickering Road at this time.

Sapowet Fishing Area, Tiverton, Rhode Island

Rachel Farrell

There aren't many places where you can check a marsh, look over rocky flats, and scan a large river for birds, all in one stop. At Sapowet Fishing Area, you can do all three without even getting out of your car, making it a great drive-up spot to bird at any time of the year. It's a state-owned area that's really just a pullout onto a rocky beach with a potato field and a tiny marsh on one side and the tidal Sakonnet River on the other. This large saltwater river empties into Rhode Island Sound at Newport, and during the

fall and winter seasons, the river can host impressive numbers of wintering ducks and loons. You can check the river near the bridge just as you pull in from Seapowet Avenue, or drive the upper edge of the rocky shore to the sand spit and scan from there. It's safe to drive on the rocks by following the car path, but beware of storms or extra-high spring tides when water may cover the rocks.



In winter, you can usually count on Common Loons, Horned Grebes, Common Goldeneyes, and perhaps a surprise bird or two on the river. Barrow's Goldeneye is sighted almost annually, and there are two late-fall records for Pacific Loon. After storms, I've watched Northern Gannets fly right near the beach.

Tiverton

Rocky flats are exposed at low tide, attracting a variety of shorebirds during migration. Occasionally, birders pulling into Sapowet may spot American Oystercatchers knocking shellfish off the rocks. Gulls are on the beach all year, following behind clammers for any leftovers, or simply resting on the shore. At times,

large groups of gulls may be present in the potato field next to the pull-in, making it easy to scan for a rarity. After heavy spring rains, the field can offer great opportunities to see Common Snipe. There's also plenty of food for the flocks of Horned Larks that winter in the area, and birders may find a few Lapland Longspurs mixed in.

The marsh at Sapowet Fishing Area is small, but because it's next to the parking area, the birds seem to land at your feet. In season, Little Blue Herons and Snowy and Great egrets regularly fly in and out to feed. The shrubs around the edges host breeding Willow Flycatchers. Some years, Sapowet attracts Nelson's Sharp-tailed Sparrows in the fall. If Nelson's are present, they will usually be found in the first section of marsh on your right. Local birders check this marsh, then go across the road to a much larger marsh known as Sapowet Marsh. You can walk to the edge of Sapowet Marsh or park in the pullout just past the bridge and scan from there. Both Seaside Sparrow and Saltmarsh Sharp-tailed Sparrow nest here, and you may occasionally see them quite close to the road. Although this extensive marsh is one of the most reliable spots in the state for Tricolored Heron, it is most famous as the location of one of the first North American sight records of Spotted Redshank.

Birders should be aware that, although unposted, both marshes are part of the State of Rhode Island Sapowet Marsh Wildlife Management Area. Hunting is allowed from October through February. If you walk into the marshes or along the brushy thicket areas during these months, state law requires that you wear 200 square inches of fluorescent orange clothing.

Directions: From Route 24 South, take exit 6, Fish Road, and go left off the ramp. Travel 1.4 miles, turning right at the Route 177 intersection. Proceed 2 miles, and turn left onto Route 77. Follow Route 77 for 1.6 miles, and turn right onto Seapowet Avenue. Travel 1.4 miles, and turn right into Sapowet Fishing Area at the dirt pullout just before the bridge. There is no sign at the entrance.

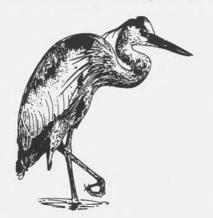
Upper Charles River Greenway Path

Robert H. Stymeist

I did my very first birding along the Charles River in Cambridge; I was nine years old and lived within one block of the river, and my mom still is living within one block after 79 years. I guess we like the area. Today I live within a block of the Charles, in Watertown. The river gets a little wilder up here, and the birds sing a little more, at least we can hear them, and it sure is a nice quick spot to visit.



The area that I will focus on is officially called The Upper Charles River Reservation Greenway Path; it opened on October 23, 1997. Prior to the efforts of the Metropolitan District Commission (MDC), the stewards of most of the green space in the area, this spot was overgrown and totally inaccessible to the public. Today a wonderful two-mile biking and walking trail meanders along the bank past wetlands. great thickets, and overlooks of the slow-moving river. The MDC added a great deal of bird-friendly shrubs along the walkway; there are several species of viburnum and ilex, plus they retained all the wild plants like pokeberry and "weeds" like thistle and goldenrod. The birds love it! My best birding here is late fall and into January. The river is never frozen, and the corridor effect of the buildings that the path bisects makes this a warm haven on colder days. Last year on the Boston CBC a Blue-gray Gnatcatcher and a Black-throated Blue Warbler were headliners among Hermit Thrushes, Ruby-crowned Kinglets, and Palm Warblers, to name a few birds that have been found here. The river itself has good numbers of Common and Hooded mergansers and occasional Wood Ducks and Pintails. Great Blue Herons are regular. and a Black-crowned Night-Heron is often seen at this time of the year.



In spring and summer the river here is a stronghold for Warbling Vireo, Yellow Warbler, and Baltimore Oriole and at least two pairs of Orchard Orioles. In fact, as late as September 9, 2000, I had 13 Warbling Vireos, 9 of them singing males. The big show is the Black-crowned Night-Herons gathering in June through early July that are after the spawning alewives that attempt to get over the Watertown Dam. I recorded over 200 here several years ago, but in recent years my counts just reach about 100 individuals.

To reach the Greenway Path from Watertown Square, head west on Route 20, almost immediately after the square take your first left on Cross Street, take a right on Pleasant Street, and after a very short distance you will see the sign for the Path on your left. Park here. My suggestion is to walk left to the dam and the overlook platform. There are great views of Roughwinged Swallows here in spring and summer. Walk left toward Watertown Square a short distance to check the thickets and the river before retracing your steps on the trail heading west. A pedestrian bridge will appear on your left; this will be the end of your circuit of about two miles. The trail continues with several overlooks to Bridge Street; here you cross the river to return on the Newton side of the Charles (there is a small convenience store here to pick up a snack or two). The thickets here can be very good: on a recent fall trip I had four Carolina Wrens and a real surprise — a Graycheeked Thrush.

The Charles River has been abused over the years, but with the dedication and perseverance of The Charles River Watershed Association, the birds are there — go and see them.

West Brook, Whately

Matthew Williams

West Brook, a tributary of the Mill River, is accessible by car along much of its length. Because of this, it is a wonderful detour for anyone who is heading north from Northampton. The time spent birding here usually varies from between a half-hour and a half-day, but I've made even shorter stops.

There are a few key places to check along
Westbrook Road. Heading west, off Chestnut Plain Road,
the gated sandpit (0.2 miles) on the right hosts a small Bank
Swallow colony, and late summer visits have produced Tree, Barn, and Cliff
swallows. This spot also provides a nice view of the Pioneer Valley. Just up the road,
there is a little parking area on the left and a short trail down to the brook. There are
mature deciduous trees here that create good spots for Downy, Hairy, or Red-Bellied
woodpeckers.

Continuing uphill, the road soon becomes level, and sycamores line the brook, which flows slowly through this flatter section. The area along the road is mostly brush and fields, with sumac and other shrubs that create habitat for Yellow Warbler, Common Yellowthroat, Gray Catbird, and Blue-winged Warbler. In addition, these plants provide food for wintering robins, sparrows, and bluebirds. The utility lines along this section provide perches for swallows, bluebirds, and many Mourning Doves.



Whately

This area can also be good for migrant sparrows during autumn.

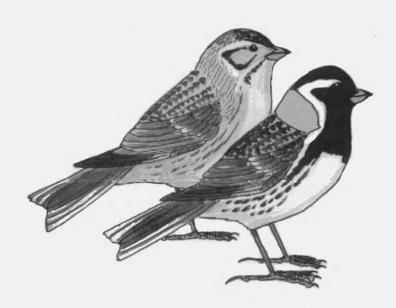
Once the road turns to dirt and crosses a one-lane bridge, the habitat shifts to eastern hemlock forest. During the summer, the warblers present include Black-throated Green, Black-and-white, Ovenbird, Louisiana Waterthrush, and American Redstart. The thrushes are represented by Veery, Wood, and Hermit. Scarlet Tanagers, Red-eyed Vireos, and Rose-breasted Grosbeaks can be heard from the slopes on either side of the road.

Since there is usually only light traffic, stopping along the road to birdwatch isn't a problem. I usually use the dirt pulloff along the stream about 300 yards beyond the bridge. In 2000, Yellow-bellied Sapsuckers nested in a hole that was visible from this spot. Other less common breeders that may be seen nearby include Louisiana Waterthrush, and even White-throated Sparrow.

Conway Road continues up West Brook, through more hemlock and maple forest, and eventually reaches the brook's source, Northampton Reservoir. Although I haven't checked this spot regularly during waterfowl migration, it definitely has potential for an occasional fallout. The area surrounding the reservoir and the fields across the road are suitable for birds such as Killdeer, Indigo Bunting, and Eastern Bluebird.

I find West Brook to be an enjoyable place to bird because of the diversity of species that can be found by stopping at a few of the places I've mentioned. It provides access to decent woodland habitat without having to travel too far from the beaten path. So, if you ever need a break from the highway and find yourself in Whately, I would recommend making the short trip up West Brook.

Directions: Take Exit 22 (Whately/Hatfield) off Route 91 northbound. Stay to the right, heading north on Routes 5 and 10. After about a mile, take a left onto Mountain Road after you see a blue sign for Nourse Farms. Go over Route 91, and turn right at the stop sign. This is Pantry Road, which turns into Chestnut Plain Road when you enter Whately. Westbrook Road is on the left, shortly after the town line. The road continues along West Brook for almost two miles and then intersects Haydenville Road. At the top, take a left and then the next right onto Conway Road to continue farther upstream, ultimately reaching the Northampton Reservoir.



A Quadding 2000 Diary

Marjorie Rines

Local listing may well be the most popular form of listing in birding. If you don't agree, think of the last time you saw a new bird in your yard; didn't it ring a little bell in your mind? Yardbird.

In 1998 I began a new form of local listing. My goal was to get the maximum number of species in an area defined by a topographic map. Topo maps are often called "quads," hence my new verb: quadding. My quad is an area defined on the northeast by the intersection of Routes 128 and 93, on the southeast by Fresh Pond in Cambridge, on the northwest by Great Meadows National Wildlife Refuge, and on the southwest by Sherman Bridge in Sudbury. In 2000, I kept a sporadic diary of my efforts for the year.

January 1. A clean slate, but pickings can be slim in January except for ducks. One of the tricks to quadding is understanding the ponds in your area, and what kind of waterfowl you can expect in each. Arlington Reservoir is easily the most productive pond in my area, but it was frozen, so most of the Res-type birds have come to Mystic Lake, right outside my door.

I cruised the entire lake, racking up many easy species, both land birds and water birds: Pied-billed Grebe and Great Blue Heron were good for New Year's day. On to the Brooks Estate in Medford, where I scored a woodpecker hat trick with Downy, Hairy, and Red-bellied. The Middlesex Fells in Winchester produced a Brown Creeper and Winter Wren. A Northern Shrike at Dunback Meadow in Lexington was a high point, although this has been an outstanding winter for shrikes, so it was to be expected eventually. A total of 49 species for New Year's Day. Next year I'll work at breaking fifty.

January 9. Went to Dunback Meadow in the morning, and it was one of those days that was just birdy. Walked to the bottom of the path, and there were birds

everywhere, a cacophony of robins, sparrows, finches, chipping and chattering, scuffling leaves, flying around. I stopped and just stood there, watching, looking at every flash of movement, enchanted. A Fox Sparrow popped up to grab a crab apple. A Hermit Thrush flew across the path. Later, walking through the red pine woods, a couple of titmice started scolding, not an unusual event, but one always checks. Sure enough, a Barred Owl peered down at me. Can life get any better?



Barred Owl. All photographs by the author

Well, yes. I drove out toward Lincoln to look for bluebirds, and as I drove down Trapelo Road I found a couple of Wild Turkeys. Well, perhaps I should say they found me. I noticed cars in front of me slowing down, and as I drove along I realized there were two toms strutting by the side of the road. I pulled over on to a side street, and stopped to watch.



Wild Turkeys

Both birds rushed up to my car, and started circling it, pecking at the wheels, doors, and fenders, and leering at me through the window. As other drivers saw this happening, they would slow down or stop, and the turkeys would turn their affections to new arrivals, and if an impatient motorist dared to blow a horn, the turkeys would yodel their signature gobble, and rush at the offender. I had my camera with me, but it was difficult to get good shots because I was laughing so hard.

January 30. Two county birds in one day! I went to Waltham and found a Black-headed Gull that had been reported by another birder, and then went to Dunback Meadow, looking for owls. I was just coming out of the woods when I heard crows, and looked up to see them chasing a buteo. When I raised my glasses, I saw a white

rump patch; could I have mistaken a harrier for a buteo? But then the bird banked to the side, and there were those big black wrist patches — a Roughlegged Hawk.

February 11. There are rhythms to the year inland. Almost every year around the second week in February, Red-breasted Mergansers show up on Mystic Lake and the Mystic River. Today all three species of merganser puddled in the small, unfrozen section of water at the base of the dam on



Black-headed Gull

Mystic Lake. I will need to wait for other sea ducks until April (if I am lucky) or October, when they often drop into an inland pond or lake.

February 18. The weather has been relatively mild, and there is no snow cover, but there is a forecast of a large snowstorm, my last chance to do some serious daytime owling before the whitewash is buried under the white stuff. I scoured the pines at two favorite areas with no luck, then finally to Dunback Meadow. The Barred Owl was still in the upper pines, then I went to the lower white pine grove. I found a

couple of oldish pellets and whitewash, but finally noticed two small spots of fresh whitewash on the ground, and looked up. The tiny face of a Saw-whet Owl was peering down at me.

March 2. Last night I went to Dunback Meadow to listen for woodcock dancing, an annual ritual that is one of my favorites. As the light dimmed, I waited in the middle of the meadow as the warmth of the day dissipated. I finally heard a single woodcock around 5:30, peenting, peenting, 67 times without launching, and then he shut up. I was about to give up, when he took up the call again, more emphatic and faster this time, and a second bird could be heard in the distance. Finally, the dance. The incredible twittering and whistling notes that on the one hand give me the shivers, while at the same time making me laugh.

Today, at Arlington Reservoir (the best damned duckpond per square foot in the state), much of the ice had receded, and there were 57 Ring-necks and three Canvasbacks. This is a difficult time of year for a birder. The first wave of early spring migrants is in — blackbirds, Killdeer, woodcock, and Turkey Vulture. This gets

me all excited about migration, expecting something new around every corner, but it's a long wait for the next wave. It's another month before the phoebes get in, and even later for the swallows. In the meantime, however, waterfowl are on the move, so I shall enjoy that.

March 7. Looking for owls is always a good way to kill time at this time of year. I decided to poke around the pines at Horn Pond in Woburn. Working along the edge of the woods, I noticed whitewash here and there, but no owls, until I hit a mother lode of whitewash. I looked up, and a Long-eared Owl returned my gaze. A fine bird for Woburn.

The Carolina Wren Rule. In 1993 Bob
Stymeist came up with a new birding game —
find a Carolina Wren in every town in the
Commonwealth. I joined him, and we had a



Long-eared Owl

ball. A particular coup was finding a wren on a town line, where we could count the bird for both towns — a twofer. For a while we would try to spish these birds over the town line, but we finally decided we could count the bird from wherever we were standing, so we could look at it in one town, then step over the town line and count it again.

So, what does this have to do with anything? On March 13 there was a Greater White-fronted Goose at Nine-Acre Corner in Concord. I went to look for it, and it was in a farm field barely outside the line of my quad. I drove up the street and parked just inside my quad and raised my binoculars. Ah, yes, the Carolina Wren Rule. Tick!

April 2. Two glorious weekend days in a row. On Saturday phoebes were singing everywhere, and a few Tree Swallows here and there. Went to Hanscom Field on Saturday to check out the kestrels, and counted 26. This has become another annual ritual; for some reason, kestrels congregate here in large numbers, and can be seen perching on runway lights and towers, and hovering over the short grass. As if that were not enough, Eastern Meadowlarks sang, and an immature Northern Shrike posed for a photograph.

On Sunday, a breezy afternoon at Arlington Reservoir was wonderful. Swallows were zig-zagging across the sky and down to the water, and back again, little snaps of their calls including the raspberry-like call of Northern Rough-winged Swallow. There were at least three Rough-wings, and at least fifteen Tree Swallows. At one point it was touch and go for a swallow as a Merlin strafed it mid-sky, but the swallow won — this time.

April 22. Earth Day yesterday (and incidentally my birthday). Karsten Hartel had planned an Arlington Birdathon to celebrate (Earth Day, not my birthday), but it poured so we extended the count to the weekend. Today there were sporadic breaks in the downpours, so I went to Arlington Reservoir to look for swallows. On an overcast day in April there can be a huge build-up of swallows at the Res, and two years ago I had five species on April 20.

I set up my telescope on the bank, and scanned with my binoculars. Nice swallows. But my eye was caught by some movement on the surface of the water in the distance. I stared, a tiny gray figure skittering in an erratic circular movement — just like a phalarope! Shaking slightly I wiped the mist off my scope, and sure enough, it was. I rushed back to the car for my cell phone, and dialed Karsten's number. "Karsten. Get over here. Phalarope at the Res." Minutes later he showed up, and stared through the scope, and after a few more calls other birders showed up to enjoy this lovely Red Phalarope. Happy birthday to me

May 2. I admit it, I've been a little mad. I have resorted to counting the species I've heard the mockingbirds imitating. I've stared for hours at flocks of swallows hoping for something different. I've glared at the weatherman every night. But today, today . . .

It started with rain, and I was leading a club trip. Only three people showed up, and we spent over an hour slogging through the Middlesex Fells, trying to appreciate the two Yellow-rumps and single Ruby-crown. Then at 7:15, all of a sudden something happened. One, two, four, ten Yellow-rumps, a Black-and-White, a Nashville. Wow, a Canada — really early for that! Zit, zat, they flew over our heads, and we tried to follow them, tried to pick out different birds through our rain-blurred binoculars. Within two minutes it was over. The small river of birds had flown out of sight, and there was no way to follow.

We gloated and laughed, elated by the experience. This was what we were waiting for. Migration is underway.

May 23. I haven't sat down to update this diary for three weeks. Why? Birds.

I can't remember a better spring migration. Sure, I remember some times when

there have been a few good days strung together, but this has been spectacular. The Brooks Estate has been teeming with birds — day after day, clumps of them, singing or silent, hidden or in blazing color. Try to imagine: the sun behind me and three male Indigo Buntings, together, foraging at the top of a tree. A Wood Thrush perches at the top of a dead snag, silhouetted against the sky, and singing his heart out, with the feathers of his throat vibrating in concert.

Four days ago the weather turned after a nice stretch. Two days of rain and wind, and then yesterday was OK. A long walk in the Middlesex Fells yielded Yellowbellied and Acadian flycatchers, nice birds any day, but the Acadian is particularly neat; I rarely get to see them in migration.

Today, I went birding with Renee LaFontaine, and when I arrived at her house, the woodlot across the street was alive with song. Redstarts, Magnolias, Blackpolls, Bay Breasts, Chestnut-sided. Two Alder Flycatchers were calling. Later, at Wildwood, another Yellow-bellied, this time singing. A good weekend for flycatchers.

- May 25. As I write this, it is 6 p.m., and I am listening to an Orchard Oriole singing outside my window.
- May 28. By the end of May your expectations lower a bit. There is still some migration going on, but the bulk of it is over, and you don't really expect any sort of fallout. Yet, in the past three days, I've seen seventeen species of warbler, including my third Mourning of the year, six Swainson's Thrushes (for some reason, a difficult bird in my area), five Yellow-bellied Flycatchers (including three all audible at once in Burlington), and an Olive-sided Flycatcher.
- June 13. Switch from migration-bird mode to breeding-bird mode. On June 3, Red-bellied Woodpeckers in the Fells were feeding young which were visible in the nest hold. They will fledge within a day or so, and with any luck the adults will bring up a second brood, as they have been doing for at least six years.

I have begun my weekly grassland bird censuses at Hanscom Field with Ron Lockwood, which affords me two more "ticks," with Grasshopper Sparrows and Upland Sandpipers.

July 13. A good time of year to look for bad misses. I can only do so much in terms of finding migrants, but it is always a shame to miss a breeding species. I have missed both cuckoos, but since the Middlesex Fells is the best place I know for these in my area, there is nothing more I can do.

I have also missed Northern Goshawk. I spent a fair amount of time in March and April searching in areas I have found them in the past, but no luck. By July, young should be fledged and hopefully active, so, today I decided to take a walk at Sandy Pond in Lincoln to look for a Gos, or a Pileated, or anything else to stir the soul. I walked down the path, eyes high, ears alert.

A short distance along I heard a scrabbling in the leaves, then a clicking against the bark of nearby trees. Expecting a squirrel I glanced to the right, but saw a large, brown creature scrambling up the trunk of the nearest tree. Fisher! But there was movement at a nearby tree, too, and I looked into the eyes of a second fisher. My soul was stirred.



Fisher

August 4. I have been spending a lot of time looking for butterflies and exploring, looking for interesting habitat. This has turned up a new area which I can't wait to explore in breeding season next year. A couple of weeks ago Renee called me to report a conservation area in Woburn she had just read about, so we went there in the rain to check it out. It's an uphill path along a brook that moves swiftly through a rocky bed, first through mixed coniferous and deciduous woods. then through a hemlock monoculture. Louisiana Waterthrush? Acadian Flycatcher? It's fun to dream a little.

August 12, 9:15 p.m.: A Screech-Owl sings outside my window.

September 11. Fall migration for songbirds is in full swing. People look at me as if I'm crazy when I say this is my favorite season of the year, asking "not spring?" Well, not only do you get warblers, but you also have much better chances to find sparrows.

Over the weekend I went birding with Peter and Fay Vale, with the express goal of finding a Connecticut Warbler. We went to Dunback Meadow, and had a wonderful time, tallying 14 species of warblers. Afterwards, we went to nearby Hayden Woods, where we were thrilled to hear a Winter Wren singing, and a couple more nice flocks of warblers. When we walked back to our cars, I offered to give them my day list, but discovered it had fallen out of my pocket, undoubtedly when I had made a pit stop just before leaving the woods.

Peter and Fay had errands to do, so we said goodbye, and I traipsed back into the woods to retrieve my notebook. I stopped at the last spot we had seen a couple of Nashville Warblers, and spished a bit, just to have another look. Sure enough, up popped a bird with a yellow breast and eye ring. But the hood was brown and extended down to the chest, and — whoa — look at the size of that thing! Loooong undertail coverts. Connecticut Warbler.

October 7. Here are four reasons I like fall birding: Orange-crowned Warbler, Yellow-breasted Chat, Vesper Sparrow, and Dickcissel.

Some species are just easier to find in the fall than in spring, and sometimes you have a day when you just hit the jackpot. That's what it was like today. Any one of these species can be missed in a year, but today I saw all of these, including three Orange-crowneds and two Dickcissels.

Most were at the Waltham Street Farms in Lexington, which is farmed for corn. This is a magnet for birds at this time of year. As I walk between the rows of corn, Savannah and Chipping sparrows scatter like shrapnel, and the gentle ticks of Palm

and Yellow-rumped warblers surround me, and the lure of discovering "good" birds is enticing.

October 27. 12:15 p.m. phone conversation with Wayne Petersen. "Wayne, is there any plumage of Eastern Bluebird with no rufous at all on the breast?" Long pause.

"Marj, are you trying to tell me you have a Mountain Bluebird?" "Yup."

Wayne was at work, not too far from the Concord wastewater treatment plant where I had discovered this bird, and was able to come over, with two other friends from work. We delighted in watching the bird as it moved to a nearby tangle to forage for pokeberries. High fives all around. [Note: see Field Note in this issue.]

November 1. A trip to Cambridge Reservoir in Waltham is excellent — both Horned and Red-necked grebes, and three Surf Scoters. Any one of these would have been a good find inland, but three are excellent. It is important to check these larger bodies of water regularly at this time of year, since this is prime time for finding migrating seabirds.

November 22. Today I worked some areas outside Route 128, and as I passed a conservation area cornfield, I stopped to test my luck. Walking across the field, I noticed the flutter of a large flock of birds rising and alighting again a short distance away. Pipits maybe? As I raised my glasses, I saw the unmistakable masks of Horned Larks, but as they periodically flew and settled, I could make out a rattling chatter that made me look even closer. Sure enough, a Lapland Longspur, not easy to find in Middlesex County.

I wasn't far from the Concord sewer beds, so I ventured in. I scanned the flock of bluebirds at the far edge, hoping perhaps the Mountain Bluebird had returned, and was startled to see a bright yellow breast on a slightly larger bird in the same tree. Clearly a kingbird, but what kind? My mind wandered back a week or so when I traveled out of my quad to see the first state record of Tropical Kingbird in Hingham, but this bird was clearly different, and the white outer tail feathers quickly identified it as a Western Kingbird. Love those sewer beds.

December 31. Not much action the past few weeks, but that isn't very surprising. A total for the year of 208 species, and since my goal was 200, I am extremely pleased.

No New Year's party tonight. Going out at the crack of dawn with Renee to nail down every species we can drag up in my quad tomorrow. We have a good list of target species we have lined up. We have a chance at Snow Goose, Orange-crowned Warbler, chat, and Clay-colored Sparrow. Tomorrow, a clean slate.

Marjorie Rines is a part-time naturalist at Massachusetts Audubon Society, President of Bird Observer, and Secretary of the Massachusetts Avian Records Committee. To watch her progress on her year 2001 quad list, plus a link to her complete 2000 list, visit http://mrines.com/Birds/Quadding/>.

Data Collecting at Your Favorite Local Birding Spot

John Liller

Most of us spend time birding in the normal hot spots: Plum Island in the late summer in search of shorebirds, Bolton Flats in the fall looking for sparrows and warblers, Halibut Point in the winter searching for ducks and alcids. Many of us also have our favorite patch of land near our homes where we walk two or three times a week, checking out the birds while getting some exercise. Here we have some sense as to what is around and when.



But do we truly understand the avian life in our favorite patch? Do we know that the Gray Catbird in late October is an unusual occurrence? Do we know that the large number of Golden-crowned Kinglets in November is an exceptional number, or that it actually corresponds to counts found typically in the area? Do we know what birds use our patch to breed in and what birds only use it as a place to feed while raising young elsewhere? What do we really know about our favorite patch?

In this article, I will share with you the censusing methods that we use at the Broad Meadow Brook Wildlife Sanctuary in Worcester, and then will give you some ideas on how you can apply them to your own favorite patch. In addition, I hope to give you some ways to use the data recorded, and some places to send these data to help others make the most of the information that you record.

History

Since June 1990, the birding volunteers at Broad Meadow Brook have been taking a census of the birds that appear in the Sanctuary, and we now have over 50,000 records on file, representing over 175 species. Most of the data have been recorded during spring and fall migration, with many other reports scattered throughout the summer and winter months, including those from an annual breeding bird survey done one day each June and the annual Worcester Christmas count.

After ten years of collecting data, we are beginning to get a good picture of the use of the sanctuary and of the changes that have occurred even during this short period, both locally and more globally. We are especially seeing the importance of this large area of open space during migration. Broad Meadow Brook is a green oasis in an otherwise urban sprawl, just as Mount Auburn Cemetery is to the Boston/Cambridge area and Central Park is to New York City. We get a good number of migrants stopping over on their way north and especially south. In fact, Broad Meadow Brook has become one of the most consistent places to find Connecticut Warbler in the state in recent years.

In addition to the regular monitoring, we are carrying out a number of other projects. In conjunction with a Breeding Bird Atlas, we have identified over sixty-five species as being confirmed or probable breeders on the Sanctuary. Also, I am actively involved in the Birds of Forested Landscapes project that is jointly being carried out by the Cornell Laboratory of Ornithology and Partners in Flight. This project, which is a continuation of Project Tanager, has the purpose of seeing what effects forest fragmentation has on forest species. The study groups are thrushes and accipiters. Finally, another volunteer is regularly monitoring our bluebird boxes.

Methods

The basic method we use is actually quite simple, and although not totally scientific, is still effective. What's more, it allows anyone who wishes the chance to participate, since any data collected are added to the database. While out in the sanctuary, we count all birds seen and heard, just as on a Christmas count. The sanctuary is broken up into four separate regions, and records are kept for each region during a given walk. Even if a person only covers a couple of regions, or even only part of one region, the data are still recorded and turned in.

In addition, any odd sightings, such as unusual species, species seen at unusual times of year, or interesting behavior, are documented. One thing that we especially watch for is any sign of breeding behavior. Using the criteria established for the standard Breeding Bird Atlas (possible, probable, confirmed), we try to determine what species breed on the sanctuary and how commonly they breed.

Because we do not use a scientific method such as point or transect counts, we cannot draw the specific conclusions that either of these methods would allow. However, since there is no formal procedure, our method allows any person who birds the sanctuary a chance to participate in the study, whether that person has been birding for years or is just starting out. This is especially nice for beginning birders because it encourages them to get involved with and contribute to an ongoing study, even though they may not be able to identify all of the birds they see or hear. Although we do not get an actual population number for most species, we are still able to see any trends developing. Also, by having four separate regions, we have a chance to learn more about what birds utilize which areas of the Sanctuary.

Storing and Analyzing Data

Once collected, data need to be conveniently stored. In the age of technology, this is certainly much easier than copying down copious notes in a notebook. Our data are currently entered into a Microsoft Excel file. Since Excel is a spreadsheet program, it allows handy manipulation of the data.

With ten years of data collected, we now have just enough to begin looking at what we have recorded. Recently, I have redone the sanctuary's bird checklist, using both data collected at the sanctuary and other known information about Worcester County and Massachusetts. This checklist is available at the sanctuary's Visitor Center. In addition, I am in the process of completing a much longer and more

involved project: a booklet on the birds of Broad Meadow Brook. This booklet will give a summary of the data collected in an easy-to-read form so that volunteers as well as others can see what has been recorded. (The booklet may be in print as of the publication of this article.) Finally, we are now able to begin looking for long-term trends for individual species. The future is certainly exciting.

A good example of a change in the sanctuary, and one that corresponds with data recorded around the state, involves the Red-bellied Woodpecker. The first record of Red-bellied Woodpecker at Broad Meadow Brook was in April of 1992, two years after we began monitoring the sanctuary. For the next several years, Red-bellieds were occasionally recorded. Then, in 1997, a breeding pair was found bringing food to young. In 1998 we had two pairs of breeding Red-bellieds, and in 1999 we may have had three different pairs. Now this species is being recorded on almost every trip out. Red-bellied Woodpeckers seem to be moving in at Broad Meadow Brook, just as they are everywhere else in Massachusetts. (For more information on this species, see the article written by Jerome Jackson and William Davis in the February 1998 issue of *Bird Observer*.)

Applying the Methods to Your Local Patch

As you can see, the methods we use are quite simple to work with. All you need is a pen or pencil, a recording notebook, and the ability to count what you see and hear (and, of course, your binoculars and field guide). Then off you go!

If your local patch is quite large or has more than one habitat, you may wish to break it up into more than one region. For example, if part of the walk takes you through woods, part of it takes you along a set of power lines, and part takes you around a pond, you may want to keep separate counts for each of these three habitats. Keeping track of what happens in a given habitat can be quite useful, especially if direct change such as succession, or indirect change such as nearby development, takes place. And of course, keep track of any bird behavior that you observe, especially when it comes to breeding.

At Broad Meadow Brook, we have a set form that all data are transferred to at the end of a walk, and you might want to create something like this yourself. Then the data you collect will be on a neater hard copy. You will want to include information such as date, time, and weather, since this information is just as important as numbers. (An abbreviated version of our form is shown below.)

Again, once you record your data, you need a place to store it. Obviously, you will want to keep it on a computer if you can. If you enjoy playing around with computer software, then you can design your own database templates to enter your data. If not, you can either find someone else to do the dirty work for you, or you can work with something simpler such as a spreadsheet program. Many of these, such as Microsoft Excel, also have a database application. Finally, there are several bird-listing programs out there. Since I have a Macintosh, I keep my life lists using Bird Brain. However, if you work with PCs, you have more options, such as AviSys or BirdBase. The one problem with these listing programs, though, is that there is not

DATE: ROUTE: TIME: WEATHER									
SPECIES	1A	1B	1C	2	SPECIES	1A	1B	1C	2
Cormorant, Dcreste	i				Phoebe, Eastern				
Heron, Great Blue					Flycatcher, Gr. Crested				
Green					Kingbird, Eastern				
Vulture, Turkey					Vireo, Blue-headed				
Goose, Canada					Yellow-throated				
Duck, Wood					Warbling				

the flexibility that you get by doing things yourself, so make sure to ask around before choosing one of these programs.

Now that you have these data stored, what do you do with them? Well, to begin with, compare your numbers with those recorded by others in your area or around the state. This information is available on MassBird, the Voice of Audubon, and in *Bird Observer*'s bimonthly Bird Sightings. See whether your numbers correspond to what others have recorded. Most of what you record will be similar, but you may come across a few surprises that may tell you more about the habitat and the birds' use of the habitat in your patch.

As for in-depth analysis, you will have to wait for several years. After about five years, you will begin to get a good idea of the avian life of your patch. Five years allow for any normal annual fluctuations in populations. After about ten years (two sets of five years), you can begin to look for any trends that are developing. That's when the real analysis begins.

More importantly, though, and long before you have to wait for the serious analysis to begin, you can share your data with others. As many of you know, I post my sightings from Broad Meadow Brook over MassBird (e-mail discussion list for Massachusetts), and ultimately these sightings find their way into *Bird Observer* and onto the Voice of Audubon (888-224-6444). I also send my sightings to Recent Sightings in Central Massachusetts, which is an excellent website put together by Rick Quimby: http://www.WPI.EDU/~rsquimby/birds/recent.html. Finally, at the end of the year, I send my sightings to *The Chickadee*, an annual publication of sightings in Worcester County put out by the Forbush Bird Club. Check with other birders in your area if you do not know which destinations you should include.

Conclusion

Although the search for rarities does bring personal enjoyment, I find that regularly monitoring a single site is just as rewarding, if not more so. Becoming familiar with a location and watching the avian life change, both seasonally and over many years, adds considerable information to my understanding of the life of birds. What's more, ornithology is very dependent on data gathered by amateurs, and thus the information collected is quite valuable to the scientific community.

I would strongly encourage anyone who has an hour or two a couple of days a week to regularly monitor one location, counting everything seen and heard, keeping track of the data over time, and sharing the information with others. Not only will you learn a lot about the birds in that location, but you will also be adding information to the ornithological community. Better, you will ultimately help in the preservation of birds.

John Liller chairs the Mathematics Department at Worcester Academy. He is also a regular volunteer and instructor at the Broad Meadow Brook Wildlife Sanctuary in Worcester. He can be reached at jliller@worcesteracademy.org.



Zero-impact Birding: The Human-powered Year List

Tony Federer

When Steve Mirick left me a message about a Purple Gallinule in Exeter, NH, he told me to get on my bicycle and get down there. But Exeter is thirteen miles away on busy roads partly lined with strip malls. There is a way by back roads, but it is two miles longer. So I decided not to go. It was raining and I didn't have time, but the distance was the major factor.

Why didn't I just get in my car, as do many other birders, anxious to see every rare bird that shows up? Because I am trying to decrease my adverse impact on the earth. And one way I do this is by human-powered birding. In order to spur my own interest in this, and maybe to influence others, I came up with the concept of a human-powered year list (HPYL) late in 1998. This is the story of that inspiration.

I've always been concerned about gasoline consumption. The birth of my first grandchild two-and-a-half years ago has really made me think about what our society will be like when she is old and there is no more gasoline. All my life I've used a bicycle (as well as my feet and my skis) to get to work and have rather rarely jumped in a car to race after rare birds. My career involved research on effects of acid rain and climate change on forests. Since my retirement I've learned alot about voluntary simplicity, sustainability, deep ecology, and bioregionalism. You can check my web site, TF's Ecocentric Pages, at http://www.nh.ultranet.com/~compassb for more on what motivates me in these areas.

In May of 1998 I was out for a run near my home and heard a song familiar to me from my hike on the Appalachian Trail in the south, but certainly not from New Hampshire. This Hooded Warbler attracted many birders to Durham over the next several weeks. But what really triggered the HPYL concept was a report that a birder from Washington State had flown to and driven to Newmarket, NH, and back *all in one day* to see a Little Egret for his life list. I thought birders were supposed to be somewhat environmentally concerned. In retrospect, I realized that the concept of driving hundreds of miles in twenty-four hours for a Big Day was also a questionable practice. What would be the outcome, I wondered, of birding without burning any gasoline?

Why not try keeping a list of all the species I could see in a year without getting in a car? The human-powered year list would have a simple rule: count species found using only human power to travel from one's primary residence. For me human power includes walking, running, bicycling, and skiing, but others might add skateboarding and canoeing. Maybe even sailing would be okay: it's not human power but it's sustainable. The trip must not use any kind of a motor for any part of it. Nor can it involve birding from a second home to which one drives.

On January 10, 1999, I wrote in my notebook: "I should get at least 110 species. Will have to work very hard for much more than that." What a pessimist! Without working very hard I finished the year with 148 species. In 2000, I've worked a little harder. I finished off the last 10 days of 2000 with a Rough-legged Hawk which I saw

while running, a Lark Sparrow found by Christmas Counters, and an Iceland Gull, which I biked to see, bringing the year's total to 166 species. Next year I think I'll do an overnight bike trip, staying at some motel on the New Hampshire coast. Not against the rules! A real bicyclist could cover all New England, or even cross the country!

I introduced the HPYL concept to the NH birders listserve, and it attracted the interest of several other birders. Pam Hunt already was doing a walking census from her home in Enfield, and she reached 155 species. This year she changed her primary residence in the middle of the year; maybe the rules should at least limit the number of primary residences per year to two!

What about rarities? In the two years I've been doing this I've recorded Greater White-fronted Goose, Eurasian Wigeon, Nelson's and Saltmarsh Sharp-tailed sparrows, Upland Sandpiper, Lapland Longspur, and White-eyed Vireo. Pam Hunt reported such species as Baird's Sandpiper, Worm-eating Warbler, and Black Tern. Even the uncommon birds like Common Raven, Red-bellied Woodpecker, American Coot, Mourning Warbler, and Snow Goose seem rarer when found under human power.

On May 26, 2000, I tried a human-powered Big Day, starting with an eight mile loop I occasionally walk around Durham, then biking on my rusty old Schwinn first to Pease Airport then to Adams Point on Great Bay. I made it to 98 species. Wouldn't it be nice if Big Day competitions were done using only human power?

Besides avoiding the burning of fossil fuel, human-powered birding provides physical benefits to my body. In 1999 I first recorded 18 species at home: 64 by biking, 41 walking, 15 running, and 10 skiing. At age 61, I may be slowing down, but I try to keep my body fit; I expect it to function for several more decades. This year I've increased my bicycle range (although not yet as far as Exeter), and I'm enjoying the leisure of it. With human-powered birding I get to combine my exercise with my hobby.

In addition, human-powered birding is a sustainable recreation and fosters a deeper sense of place and connection to community. I am learning about good locations for birds that I have not discovered in all the thirty-five years I've lived here. And I am in closer touch with the trees, the wind, and the soil than I am in a car. I'm fortunate to live near a bit of tidewater in a good birding town, but the excitement that comes from rareness is a relative thing. No matter where you are, birding by walking or biking is an extra challenge that adds interest to whatever species you find.

I am gratified at the positive reaction to my concept of human-powered birding. As gasoline becomes scarcer and sustainability becomes more important, human-powered birding is the right way to go.

Tony Federer has been birding for fifty years, since his junior high days at Belmont Hill School and Belmont Christmas Counts. Now retired from his career as a scientist with the U.S. Forest Service, he hopes to spend more time birding, but other interests like competitive orienteering and earth-centered social action keep interfering. His birding reached its zenith in December 1981 with the first New Hampshire record for Townsend's Warbler at his home in Durham. That same month he also found both Townsend's Solitaire and Yellow-throated Warbler on the NH Coast Christmas Count.

Significant Recent Nesting Records from Essex County, Part 2

Jim Berry

Note: Part 1 of this article, covering significant recent nesting records in Essex County for several nonpasserine species, was published in the December 2000 issue of *Bird Observer* (Vol. 28 No. 6). Part 2 completes the article. Please refer to the introduction in Part 1 for background information on field ornithology in the county and the primary references used.

Blue-headed Vireo, Vireo solitarius. Townsend (1905) cited the Blue-headed Vireo as an "uncommon summer resident" in Essex County; his friend J. A. Farley told him "that this bird breeds not uncommonly in white pine woods throughout the County." Forbush (1929) said the same. Veit and Petersen (1993) describe this species as breeding south to northern New Jersey, and as a "fairly common breeder from Worcester County west," but "rare and local [as a nesting species] in eastern Massachusetts and absent from Cape Cod and the Islands." There is a map accompanying the text, originally done for the unpublished Massachusetts Breeding Bird Atlas. The map displays the breeding distribution of the species in the state from 1974-1979, the years of the atlas field work. It shows not a single nest confirmation east of Worcester County except for one in Bristol County south of Boston. Essex County had two "probable" nestings during the atlas period.

This species is regularly seen in the county in summer in the right habitat, and it has no doubt continued to nest here throughout the twentieth century. However, few nests have been reported in recent decades. Tom Aversa found a male with a juvenile in Boxford on June 19, 1993 (*Bird Observer*). Jane Stein (pers. comm.) saw a Blueheaded Vireo on eggs low in a sapling at Crooked Pond in Boxford in the spring of 1998 or 1999. In the winter of 2000 Linda Cook (pers. comm.) found and photographed a suspended vireo nest three or four feet off the ground in an Eastern Hemlock along the Ipswich River in Ipswich that was most likely of this species, since other vireos are much less likely to nest in hemlocks or so low to the ground.

On June 26, 2000, I found a female Blue-headed Vireo on a nest in Willowdale State Forest in Ipswich, at the far west end of town almost on the Boxford line. The male sang nearby. This nest was twelve feet up in a bent-over red maple sapling, which is a typical height for the species. In fact, I found it by looking around at roughly eye level in the area where the male was singing, and I was able to pick out the suspended nest in the lower deciduous canopy. (There was no hemlock in the immediate area, but in my experience the species nests in both coniferous and deciduous trees.) The forest here was typical for the county: white pine, red maple, and northern red oak dominated in a mosaic of upland and swamp. I checked this nest again on July 6, and although the male was still singing in the area, there was no activity at the nest in almost an hour. Suspecting failure, I finally looked into the nest and found it intact but empty. Assuming that the bird on June 26 was incubating, it

was too early for the young to have fledged, so I expect that the eggs or young were taken by a predator.

Yellow-throated Vireo, Vireo flavifrons. Like the preceding species, the Yellow-throated Vireo is not a widespread breeder in eastern Massachusetts. In this case the birds are not common in the rest of the state either, although there were many more nesting confirmations in the western counties than the eastern during the 1974-1979 Breeding Bird Atlas period (Veit and Petersen 1993). East of Worcester County only five confirmations are shown on the atlas map for the species; four of them were in Essex County. Townsend (1905) called this bird a "common summer resident," but by 1929 Forbush was calling it a "formerly common summer resident, though rather local," which is a good way to describe it today. Rick Heil (pers. comm.) considers it a more common and widespread breeder in the county than the Blue-headed Vireo (at least three nests found in Groveland and Boxford in addition to the four nestings confirmed in the 1970s). But the nests are found infrequently enough to describe here.

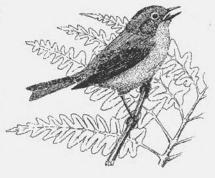
I found two Yellow-throated Vireo nests on June 26, 2000, the same day I found the above Blue-headed nest. Both were at Bald Hill Reservation in Boxford. The first was suspended from a crotch—mandatory for vireos—about forty-five feet up in a half-grown red maple, only yards from Crooked Pond. Typically for vireos, the male sang from the nest while incubating, which was how I found it. (I have seen and heard incubating male Red-eyed, Blue-headed, and Warbling vireos do this as well.) A couple of hours later, in midday, I saw him relieve the female on the nest and sing from it again. At least two other male Yellow-throated Vireos were singing in the immediate vicinity, indicating a small breeding colony. In the intervening time I found a second nest about fifty-five feet up in a mature northern red oak on a hillside about two hundred yards away from Crooked Pond, out of hearing range from the first nest. At this nest, both adult birds were feeding two young. I could not determine whether the eyes of the young were open, but the babies were quite active.

I checked these nests again on July 9. Both were intact but inactive, and although I could not see inside them, they were almost certainly empty. In the first case the nest must have failed. This was thirteen days after I observed incubation. Since Ehrlich et al. (1988) and Baicich and Harrison (1997) both give fourteen days as the nestling period, it is extremely doubtful that the young could have hatched and fledged by July 9. At the other nest, where I would have expected fledging by the first few days of July, I heard alarm calls from both adults, as well as songs, and although I did not observe young birds, it is likely that one or both fledged.

Fish Crow, Corvus ossifragus. I thought that Fish Crows had not yet been reported to nest in Essex County, but I learned of two instances while writing this article. Rick Heil (pers. comm.) confirmed them breeding in the Puritan Lawn Cemetery in Peabody "around the early to mid-1980s." They are still regular summer residents there, and Rick believes that they are probably nesting annually in the Peabody-Lynnfield area. Fish Crows have also nested in Topsfield. Jim MacDougall (pers. comm.) watched a pair defend territory on his property against American Crows (Corvus brachyrhynchos) in both 1997 and 1998, each year returning daily to the same grove of white pines, where they almost certainly were nesting. Fish Crows have also been observed in downtown Gloucester and other places on Cape Ann for many years, where the probability of their nesting is high.

Nashville Warbler, Vermivora ruficapilla. Several warbler species are difficult to confirm as nesters in Essex County, and the Nashville is one of them. Townsend (1905) called them "not uncommon summer resident[s]," breeding "in several parts of the County as at Magnolia, Topsfield, Andover, and Swampscott." Griscom and Snyder (1955) called it "much less common [in Massachusetts] than it was a half century ago." Apparently this species has continued in this status through the latter half of the twentieth century, especially as a breeding bird in the eastern counties. The atlas map in Veit and Petersen (1993) shows only four nesting confirmations east of Worcester County, none in Essex County.

On June 21, 1980, I had a near miss when I saw and heard a pair of the birds calling in alarm in Willowdale State Forest in Ipswich, but I was not able to find the nest. I have seen few of these birds in the nesting season since then, until this year. On June 1, 2000, I heard two or three singing males (and saw one of them) in dry, shrubby, oak-dominated areas within the forest in the Manchester-Essex Wilderness Conservation Area. On June 4, in Willowdale State Forest in Ipswich, I saw a male Nashville Warbler carrying food and



nervously waiting for me to go away before delivering it, perhaps to a sitting female at this early date. This habitat, at the edge of an extensive forest clearing, was also dry and shrubby. I revisited this spot several times but observed no further activity. This is the best evidence I have personally found for this species nesting in the county; carrying food is, for most species, a criterion for nesting confirmation in most if not all breeding bird atlas projects.

Blackburnian Warbler, Dendroica fusca. The Blackburnian Warbler is also rare as a breeder in eastern Massachusetts, and has been for the last century. Townsend (1905) called it a "rare summer resident" that "breeds sparingly in various parts of the County, as at Lynnfield, Middleton, and Andover." Forbush (1929) agreed with that assessment. Griscom and Snyder (1955) upgraded it to a "moderately common summer resident" in "many parts of Essex County," as well as the central and western parts of the state, though "greatly decreased since the hurricane of 1938." However, the atlas map in Veit and Petersen (1993) shows only two confirmations east of Worcester County, one in Middlesex and one in Essex, most likely in the town of Boxford.

This species has eluded me as a nester during my twenty-nine years of field work in the county. In 2000 I found two singing males near Crooked Pond in Boxford on the late dates of June 26 and July 9. I found four male Blackburnians in the same location on June 28, 1992, and the birds have been seen there well into the nesting season virtually every year, without more concrete evidence of nesting. So I was glad to hear from Steve Leonard (pers. comm.) that he observed a female Blackburnian Warbler gathering nest material at Crooked Pond in the spring of 1998. This confirms at least attempted nesting, and I look forward to eventually finding an actual nest.

Northern Waterthrush, Seiurus noveboracensis. The Northern Waterthrush is another species whose nests have been very difficult to find in the county. It was unknown as a breeder in Townsend's time. Forbush (1929) listed it as a "rare local summer resident, chiefly in northern and western parts." Veit and Petersen (1993) cite it as a common breeder in certain swamps in the southeastern part of the state. The atlas map in that reference shows no nesting confirmations in Essex County during the atlas period, nor in the northeastern part of the state.

I was thus pleased to hear from Susan Hedman (pers. comm.) that she and Steve Leonard observed a Northern Waterthrush carrying nest material and calling constantly from low branches above a small stream tributary to Crooked Pond in Boxford on May 21, 2000. I was unable to find this nest later, but the habitat, along a small forested stream among hemlocks, was appropriate. Later, I learned from Rick Heil (pers. comm.) that he had found a Northern Waterthrush nest with eggs under a bank along the dirt road near Crooked Pond "about 15-20 years ago." These two observations confirm the nesting of the species in the county.

I would like to do additional work on this species, especially in Atlantic white cedar swamps, an endangered habitat in New England. Fortunately, there are remaining stands of this species in Willowdale State Forest in western Ipswich, among other places, where both Rick and I have heard Northern Waterthrushes singing during the nesting season. (Mike LaBossiere has reported, via *Massbird*, that he and his daughters found a nest in a white cedar swamp in Mattapoisett, Plymouth County, on May 26, 1999.) I have also heard quite a few of them in other nearby swampy sections of the forest that do not contain white cedars. I believe that concentrated nest-finding efforts may reveal this species to be a regular nester in small numbers throughout the county where the swamps are deep enough.

Canada Warbler, Wilsonia canadensis. The Canada Warbler is another swampnesting species, and its habitat ensures that few nests are found by humans. Luckily, breeding confirmation can be made by observing a bird carrying nest material, food for young, and so forth, so nests don't have to be found to confirm nesting. This is what happened this year, when on May 26 Karen Haley and I observed a female Canada Warbler carrying nest material (dead grass) in a swampy area of the Steer Swamp conservation area in Marblehead.

Canada Warblers are one of many Canadian-zone species of songbirds that breed mainly in western Massachusetts and northern New England, like the three preceding warblers. In contrast to those species, they are somewhat more common in the eastern part of the state, with a dozen nesting confirmations east of Worcester County in the atlas map in Veit and Petersen (1993), two of them in Essex County. Another "pair nesting" was reported from Boxford by Tom Aversa on June 19, 1993 (*Bird Observer*). Nevertheless, the bird has apparently been a rare and local nester here throughout the last century, and any nesting evidence is welcome. Like the waterthrush, it may be a more common breeder than we suspect, given its inaccessible habitat.

Orchard Oriole, *Icterus spurius*. The Orchard Oriole is an example of a southern species near the northern edge of its breeding range in northeastern Massachusetts, where it was a "rare and local summer resident," according to both Townsend (1905)

and Forbush (1927). From the viewpoint of Griscom and Snyder (1955), these orioles were more numerous during the nineteenth century, and apparently declined during the first half of the twentieth. In the 1970s the birds became more common, and in 1982 Rick Heil found four nesting pairs in Peabody (Veit and Petersen 1993). A decade later Dick Forster found a pair with young June 12, 1993, on Plum Island (Bird Observer). In recent years a pair reportedly nested more than once in the pines at the Plum Island maintenance area (Donna Jacques, pers. comm.). It is now found regularly in small numbers every year in the county, and is considered by Veit and Petersen to be a "local and uncommon breeder."

Even so, I am aware of no recent nest records other than those above; there were only two nesting confirmations for the county during the 1974-1979 atlas period. Also, the species rarely nests north of this county. Only three nestings were confirmed during the New Hampshire breeding bird atlas project (1981-1986), all either on the coast or near the Massachusetts border (Foss, ed. 1994); only one during the Vermont atlas project (1976-1981) (Laughlin and Kibbe 1985); and none during the Maine project (1978-1983) (Adamus undated). My own experience is limited to two nests: one being built about twenty feet up in a maple sapling alongside the railroad tracks in Rowley on May 25, 1981, and the other in the copse at the end of Stackyard Road, also in Rowley, which Fred Bouchard and I found on July 4, 2000. This basket nest was directly over the road, about thirty feet up in a hickory (sp.), and was constructed entirely of grasses, which is diagnostic for the species (Harrison 1975). I had seen and heard a male Orchard Oriole in this area for several weeks, including one time when he was singing and peering down at me from a branch that turned out to be quite close to the nest. Although I saw no activity at the nest itself, it was satisfying to finally find another nest after a hiatus of nineteen years.

Pine Siskin, Carduelis pinus. This nest is the last in checklist order but the most precious, because it is apparently the first nesting record for Pine Siskins in Essex County. The species was unknown as anything but a wintering bird or a migrant in the county at the turn of the last century, and that status held into the 1950s (Griscom and Snyder 1955). No nestings were confirmed during the atlas period, although there were no fewer than fourteen (!) in neighboring Middlesex County. This meant that finding a nest in Essex County was just a matter of time. In fact, Russell ("Ozzie") Norris banded a Pine Siskin with a brood patch in Rockport on July 13, 1982 (Bird Observer). In addition, Rick Heil (pers. comm.) has seen siskins gathering nest material three times over the years, twice at the Ipswich River Wildlife Sanctuary (IRWS) in Topsfield and once in the Bald Hill Reservation in Boxford. One of the IRWS incidents was on April 2, 2000, when he saw a siskin, accompanied by the mate, collecting strips of bark from bittersweet vines.

That pair got an earlier start than the pair I found building a nest almost four weeks later on April 28 and 29. The nest site was in typical mixed-forest habitat in Willowdale State Forest in Ipswich, almost on the Topsfield line. In each delivery the female brought grasses to line a fairly complete-looking nest about sixty feet up in a tall white pine only yards off a dirt road, while the male sang or twittered nearby.

He accompanied her on the trips back and forth, like the male at IRWS did. Ehrlich et al. (1988) report that the species often nests semi-colonially, with nests sometimes only a few feet apart, but I did not see or hear any other siskins at this site.

Unfortunately, the nest appeared to have been doomed from the start: only ten minutes after I found it, a female Brown-headed Cowbird, *Molothrus ater*, also found it, and no doubt started plotting to lay eggs in it. When I arrived at the site on May 10, a Blue Jay, *Cyanocitta cristata*, was in the process of inspecting the nest. If any eggs had been laid, by either the siskin or the cowbird, they were no doubt history. And sure enough, I did not observe any activity at the nest on several subsequent visits over the next three weeks. Nevertheless, the birds did build a nest and filled a long-standing gap in the county's breeding-bird records.

Conclusion

There are certainly many more species I would like to confirm as nesters in Essex County. Those for which there are few or no nest records, or only very old records, and which I think one might have a reasonable chance of confirming, include the following:

Yellow-crowned Night Heron	(suspected on Plum Island on occasion)
Clapper Rail	(ditto)
Black Guillemot	(slim chance on offshore islands)
Long-eared Owl	(a long shot, but can nest anywhere)
Acadian Flycatcher	(has nested at Pawtuckaway S.P., Rockingham County, NH)
Alder Flycatcher	(probably several groups, including one in W. Boxford)
Common Raven	(increasing in county; suspected to nest in Willowdale S.F.)
Hermit Thrush	(historical nester; fairly common in many forests in county)
Black-throated Blue Warbler	(nests in adjacent counties to west and north)
Yellow-rumped Warbler	(ditto)
Cerulean Warbler	(fairly regular presence in Boxford S.F. and Pawtuckaway)
Nelson's Sharp-tailed Sparrow	(both sharp-tailed sparrows now regular in Rockingham Co.)
Seaside Sparrow	(some records but no recent ones; has nested in Rockingham Co.)
White-throated Sparrow	(one confirmation and several probable nestings in atlas period)
Dark-eyed Junco	(nests in adjacent counties to west and, especially, north)
Evening Grosbeak	(tantalizing May presence some years; regular at

Pawtuckaway)

These are some of the target species for my future field work. Any information that birders can provide on their nesting in Essex County will be greatly appreciated.

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Jim Berry, who lives in Ipswich, is a member of the Bird Observer staff. He is currently working on a new book on the birds of Essex County to update and replace Townsend's seminal work of a century ago, now long out of print. He would like to thank Marta Hersek and Rick Heil for reviewing a draft of this article, and Wayne Castonguay, Don Paquin, and David Babson of The Trustees of Reservations for being so generous with their time in facilitating the many visits to Choate Island to

monitor the nesting Sharp-shinned Hawks. Finally, he is grateful to the many birding companions who graciously shared their observations of nesting birds in Essex County.



THE WIRED BIRDER

Group Coordination

David M. Larson



When birders are on a group field trip, on foot or in automobiles, communication is important in ensuring that all of the participants see all of the birds. While groups on foot can often be coordinated by voice or arm waving, it is more difficult to maintain communications in separate vehicles. With the use of Citizens Band radios (CBs), and now Family Radio System (FRS) radios, group communication can be maintained. In different parts of the United States, birders or clubs have adopted communication standards for these radio-based systems. In Massachusetts, Brookline Bird Club field trips are often coordinated, vehicle to vehicle, using CB transmissions over channel 25, complete with elaborate monikers. In the vicinity of the Parker River National Wildlife Refuge, there can often be considerable birder traffic over channel 25, whether there is an organized trip or not. In Minnesota, road trips organized by the Minnesota Ornithological Union also employ CB radios, as do countless other birding organizations. In auto caravans, birds sighted can be shared, stops and problems can be announced, and lost vehicles can be found. On foot, carrying portable radios can allow groups to spread out, cover more territory, and still remain in contact.

Some groups have started using the newer FRS radios. For example, the DuPage Birding Club, and other clubs in the Chicago area, use FRS channel 11, code 22, for communications. In Massachusetts, a de facto standard has evolved around channel 10, code 33. So, what is the difference between FRS and CB, and what the heck is GMRS?

CB (Citizen's Band) radios have been in use for decades, and became popular in the 1970s due to songs and movies celebrating the romanticized life of truckers. They are AM (amplitude modulation) radios and operate on the 27MHz band, with 40 possible channels (Channel 9 is reserved for emergency or vehicle assistance use). Since CB radios use AM, there can be considerable interference and environmental noise. Spillover from illegal, overpowered radios can also be a problem. The Federal Communications Commission (FCC) has established a large number of regulations, but seems not to enforce many of them. There are even several websites that offer details on how to increase the power of your radio, in defiance of the FCC.

Vehicle mount CB radios cost as little as \$30 (plus the cost of an antenna), and portable units are as low as \$80. Beware of what you are getting at the low end of the price range. Minimally, you will need channel selection, volume controls, and squelch control (used to clean up noise and spillover). Some cheaper units lack squelch control, making them fairly useless. Portable CB units are relatively heavy and bulky, but theoretically can reach out five miles or so (usually less depending on terrain and atmospherics, especially since portables have short antennae). In vehicles, portable CBs can be very problematic since AM radios really require exterior antennae for

optimal performance. In birding terms, vehicle-mounted CBs make sense for vehicle-to-vehicle communication, and handhelds might be a portable solution for groups who have already settled on the CB standard.

In contrast, FRS (Family Radio Service) radios are lighter, smaller, and relatively free of interference, since they operate on the 462-470 MHz FM (frequency modulation) band. FRS radios are limited to one-half watt, so their range is theoretically only about two miles. Each of the 14 channels has 38 "privacy" codes, providing for over 500 discrete combinations of channel and code (e.g., channel 10, code 33). FRS radios are a good choice for group coordination while on foot, and can be useful in automobile caravans.

FRS radios are restricted to portable (handheld) units since mobile units (installed in vehicles) are prohibited by the FCC. Portable FRS units are inexpensive: two units can be purchased for as little as \$40 to \$70, and fancier radios can be purchased for less than \$200 a pair. Note that some of the least expensive radios have only the 14 channels, without a choice of codes, limiting their usefulness if you want to communicate with the majority of radios that use codes. For the extremely wired birder, Motorola has introduced an FRS radio with an altimeter, barometer, digital compass, and 10-channel weather radio (Talkabout® T6320, about \$170 each). The rumor is that an integrated GPS receiver will be next.

An intermediate choice between CB and FRS is the GMRS (General Mobile Radio Service), which is essentially FRS on steroids. Occupying the same radio spectral footprint as FRS, GMRS radios use up to two watts of power (five-mile range), but their use requires a permit from the FCC. GMRS radios are also a little bigger and heavier, and much more expensive than FRS units. Supposedly, GMRS radios are limited to family use, meaning the permit is issued to an individual and the radios can only be used by that person's immediate family. These limits would seem to make the use of GMRS unlikely for general birding.

While CB and GMRS radios have theoretical ranges of five miles, and the lower powered FRS radios only two miles, the real range is not only less than the theoretical (unless you are birding in outer space), but is highly dependent on topography (all radios), atmospherics (CBs especially), noise (CBs), and other degrading factors (see the FRS versus CB webpage for a discussion of some of these factors).

So, what are you going to use? It depends on whom you want to talk to or what is in use in your area. If you always go birding with the same person, then get whatever fits your style. If you bird with a club or other group, ask around.

The use of radios for group communication on the ground, whether portable CB, FRS, or GMRS, can be controversial. While useful in that scattered groups can be gathered for a good sighting, or scouts can be sent out to check locations, discretion is advised when birding in popular locations or when outsiders are present. People who are not members of the group may not want to listen to extraneous and distracting chatter and certainly have every right to object to this sort of intrusion. In addition, the use of radios may be counterproductive if the racket frightens away the birds. The

use of accessories such as headsets, lapel mikes, or ear buds can reduce the nuisance factor. Finally, the use of electronic devices is prohibited in Massachusetts Audubon Society sanctuaries, and the use of radios is prohibited when following American Birding Association Big Day rules.

So, if you are trying to keep track of a group, and maintain communications, why not just use cell phones? More and more birders have them, and use them to alert their friends to interesting birds and situations. However, using cell phones for field communications and group coordination can be problematic. First, coverage can be spotty, especially in remote areas. Second, depending on the calling plan and vendor, there may be no way to call a cell phone that is out of a local calling area, reducing the utility for group communication. Third, again depending on the calling plan and vendor, calls can be prohibitively expensive, especially on long road trips. Finally, the use of cell phones is a squirmy topic. They are undoubtedly a boon to modern society (particularly to the wired world), but to people concerned with birds, they are a double-edged sword. Cell phones require line-of-sight connections to antennae, meaning cell towers. Cell phone towers mean bird kills, creating an uneasy contradiction in what we do and what we espouse.

Advances in small portable electronics have made more and more capabilities available to birders in the field. Whether to take advantage of these technologies is an intensely individual matter. Personally, the author loves these toys, but prefers to bird in quiet tranquility, at least most of the time.

Links to web sites pertinent to this article

Federal Communications Commission	http://www.fcc.gov/wtb/prs/Welcome.htm				
C. B. Radio Online	http://emporer.freeyellow.com/index.html				
Information about Radio Communications in Australia	http://www.roity.com/rc/index.asp				
FRS versus CB comparison h	ttp://members.tripod.com/~jwilkers/cbvsfrs.htm				
Article about FRS on Probirding.com	http://probirding.com/equip/				
Motorola Talkabout	http://www.motorola.com/talkabout				
GMRS Web Magazine "The E-zine for the radio-active fami	http://www.gmrsweb.com/gmrs.html ly"				

David Larson is the Production Editor of Bird Observer. A confessed electronic toy addict, he has so far resisted asking the Board of Directors for an equipment budget for this column.



YARD BIRDS

Fifty Years at Wolf Trap Hill

Kathleen S. Anderson

In November 1950 a young couple found an old farm in rural Middleborough, twenty-seven-and-a-half acres on a dirt road without other houses. Fifty years later the farm has grown to about 100 acres, the road is black-topped, and the neighborhood is filling with big suburban-type houses. How lucky we were!

Our backyard, from my point of view, includes the original purchase plus the wood lot and swamp lot acquired in later years, since I prowled those woods as if they were my own long before we bought the land.

My bird list now numbers 176, of which 68 species have been documented nesting and another 10 species I am certain have bred or do breed, although proof eludes me. In addition, I have records of 31 species of our state's 40 nonmarine mammals. Butterfly and herp atlas projects motivated me to begin more lists, and so I now list 38 butterflies and 32 reptiles and amphibians. The recent enthusiasm for odonates has challenged me to make tentative attempts to learn yet another new family. There are only 10 "dragons" on that list thus far, for I have neither the eyes nor swiftness with net to capture and identify all that have skimmed by me. But once I acquire the new book

In 1950 I could not have imagined that long before the year 2000, which in itself seemed an unimaginable distance into the future, Northern Mockingbirds, Northern Cardinals, Carolina Wrens, Tufted Titmice, House Finches, and even Wild Turkeys would be common residents, with Turkey Vultures and Red-bellied Woodpeckers regular if not common. On the other hand, Whip-poor-wills, Least Flycatchers, and Blue-headed Vireos have disappeared here as nesting species. Chimney Swifts no longer nest in the fireplace chimney, Woodcock rarely call from the pastures in the spring dusk, and I seldom hear the wistful song of the Field Sparrow from the hillside.

Some changes reflect changes made to the land. The seventy-year old white pine forest behind the house was logged in 1965 before we acquired the wood lot. Kestrels nested for a few years in a dead tree which stood above surrounding brush, but only until young trees grew up about the skeleton. Nashville and Chestnut-sided warblers discovered the gray birches and other saplings that followed the clearing until they were shaded out by growing pines, maples, and oaks. The young pines left uncut are now large and dominant trees along with lovely big oaks, yellow birches, red maples, and lots of holly. Pine and Black-throated Green warblers have returned. Hermit Thrushes and Ovenbirds are once again more common than towhees.

At least two pairs of Wood Ducks nest annually in boxes in the small pond at the foot of the lawn. Mallards and Black Ducks have nested some years. Occasional visitors to the pond have included Canada Geese, Blue-winged Teal, Hooded



Mergansers, Great Blue Herons, Green Herons, Black-crowned Night-Herons, American Bitterns, Virginia Rail, Spotted and Solitary sandpipers, and Belted Kingfishers. Muskrats, mink, and once, an otter are on the mammal list.

Nesting raptors are something of a specialty here at Wolf Trap Hill. Although I do not always find

the nests, Northern Goshawks, Red-shouldered and Broad-winged hawks, Great Horned, Barred, and Screech owls are all heard regularly, and several nests have been found. Saw-whet Owls nested at least once and I suspect Cooper's Hawks have nested in recent years.

Rarer birds have included a Worm-eating Warbler which sang on the north side of the hill for several weeks in 1994, Dickcissels at the feeders, and a Connecticut Warbler in the backyard lilacs this fall. Totally frustrating were the calls, whacks, and woodworking of a Pileated Woodpecker I heard but never saw and the Peregrine that I could, by a stretch, have added to the list by standing on my Fuller Street land and looking at the distant tree where it was perched on Cumberland Farms. Rare mammals include the Fisher I saw, and the Bobcat seen by others but not by me.

Flyovers include Bald Eagle and Black Vulture, Common Loons, and both cormorant species, Snow Geese and Goldeneyes, Caspian Terns, and Least Sandpiper. And then there was the Upland Sandpiper we taped as it flew high overhead but which we did not hear until we played the tape. Can I add that to my list?



Listers are scorned by some, perhaps rightly so when one contemplates all the problems about us needing attention while we spend sometimes enormous amounts of money dashing about locally and overseas to tick a few new birds. Many years ago Marcel Proust wrote "The real voyage of discovery consists not in seeking new landscapes but in having new eyes." No less a visionary than Albert Einstein wrote "Not everything that counts can be counted and not everything that can be counted, counts." But what fun it is, particularly when we discover something new and unexpected right in our own backyard, be it one or 100 acres. I tally my lists as others count their gold, each name bringing memories: the spring morning when my first Orchard Oriole lit briefly on a feeder, the crisp

fall day when the maples were scarlet, and I found my first White- crowned Sparrow, or a bitterly cold morning when snow crunched underfoot and a Northern Shrike perched in the lilacs eyeing the bird feeders.

I rarely toss on a jacket to step out for a walk, but that I count my blessings to have found this bit of paradise while it was still affordable and to have been able to live here for so many years. My lists are a record of a thousand wonderful encounters on one small piece of the Massachusetts landscape.



Kathleen S. Anderson is a member of the South Shore Bird Club, chairs the Massachusetts Non-game Advisory Committee to the Division of Fisheries and Wildlife, and was the Founding Director of the Manomet Bird Observatory.

Minorities in Birding

An African-American birder from California, John C. Robinson, is researching the area of minority participation in birding. Robinson has previously published "An Annotated Checklist of the Birds of Tennessee" (1990), and he is the owner of LANIUS Software.

Robinson is exploring the fact that relatively few African-American birders exist in North America, and he is trying to offer inspiration and encouragement to all minorities to become more active in birding.

You can help in this research by filling out a short questionnaire, available online through http://www.americanbirding.org/newsbullet1.htm, and mailing it to: John C. Robinson, 1470 Creekside Dr., Suite 23, Walnut Creek, CA 94596. If you cannot obtain the questionnaire, please send answers to the following questions to the above address by February 28, 2001:

to the above address by February 26, 2001.
How many years have you been birding?
What is your state or province of residence?
Have you ever met an African-American bird watcher? (Y/N)
If yes, approximately how many?
If yes, of the above, how many in which states or provinces?
Have you ever met other minority birders in North America? (Y/N)
If so, please indicate the race/national origin of other minority birders you have met
American Indian or Alaska Native, Asian or Pacific Islander,
Hispanic, Other (specify).
Comments are welcome!
Optional: Your name, phone number, mailing address and e-mail address.

HOT BIRDS

Early in the morning of October 21, Ken Hudson was prowling the Back Bay in Boston looking for birds, when some raucous Blue Jays drew his attention to a Magnolia Tree on the corner of Commonwealth and Gloucester Streets. Four years ago, on November 22, Ken had found a **Boreal Owl** just across the street, so he checked carefully Photograph by Marjorie Rines.





In late October, a Mountain Bluebird delighted Massachusetts birders for several days at a wastewater treatment plant in Concord, MA. The bird, located by Marjorie Rines, was found in the company of many Eastern Bluebirds. See the Field Note on page 46 of this issue. Photograph by Marjorie Rines.

During several weeks in November, an interesting kingbird inhabited World's End Reservation in Hingham, MA. Birders lucky enough to hear this cooperative bird called it a **Tropical Kingbird**. If accepted by the Massachusetts Avian Records Committee (audio and photos submitted), this will be a first state record.





Photographs by Andrew Joslin (left) and Steven Mirick (right).

YOUNG BIRDERS

Northern Hawk Owl

Will McCumber

The Mount Washington Regional Airport doesn't look like a place where something exciting might hang out. The expansive fields are whitish brown, a result of last summer's grass poking through a thin layer of snow. A startlingly colored blue airport building looks somehow natural in the frozen landscape, perhaps because I've seen photographs of places like Thule Air Base in Greenland that have a similar look. The domed hanger buildings are clumped together, appearing to huddle from the freezing wind that blows unhindered over the treeless fields. The airport is surrounded by distinctive sharply pointed spruce trees, also evocative of the northern boreal forest.



Northern Hawk Owl Jefferson, NH, December 4, 2000 Photograph by Phil Brown, Essex, MA

Standing here on a bright cloudless day, the airport gave me the impression that somewhere in the world it was hazy and warm out, but that place was not here. Here everything was in sharp relief, cold and clear-cut. Here the world meant business. Here was prime wintering habitat for the Northern Hawk Owl.

We drive down the perfectly straight dirt road which follows the line of an old landing strip, as evidenced by the cracked pavement that continues on when the road turns off. We stop at a likely looking spot near a marsh with lots of good perch trees and hunting areas. After twenty minutes of concentrated searching, no one has found the hawk owl that was reported here a week ago and has been reliably seen ever since. While we've been here, a small crowd has gathered which consists of the owl's original discoverer, Carl Bretton, several other local birders, and our group, the VINS (Vermont Institute of Natural Science) youth birding club.

When I go to the car to put on an extra pair of gloves, I hear someone talking about the hawk owl perching in such and such a place.

"Do you have the bird?" I say, with that strange mix of feigned calmness and contained panic that is invariably present when someone says they see a really rare bird.

"Yes, there it is." Ohmygosh. Oh, my, gosh. They see it. (My thoughts are getting really weird now).

"Where?"

"On top of the left flagpole, above the building."

Yikes! There it is! Long tail (for an owl), brown barred underparts, black-and-white face pattern — just like I'd seen in all the pictures, only it was in real life now.

Strange as it may seem, our group saw two Northern Hawk Owls on that day. The first at the airport, and a second one thirty minutes later and ten miles away in Jefferson Meadows. When our car came to a stop and we got out, we realized we were looking at a second hawk owl. At this point the birding had become so good that it had turned into one of those days when you're kind of dazed, and you can't fully accept what you've just seen. It was inconceivable to me that I could see two Northern Hawk Owls on the same day, one of them completely by chance.

Hawk owls are rare in New England. They are only seen in so-called irruption years, generally when their food, such as rodents and snowshoe hares, is scarce on the breeding grounds. Scarcity such as this also triggers irruptions in various other species such as Gyrfalcons, Snowy Owls, Great Horned Owls, Short-eared Owls, and Roughlegged Hawks. Two main population cycles are recognized in boreal small mammals: four-year in tundra and grassland rodents, and ten-year in snowshoe hares. Just why these populations expand and crash at these times is not completely known, but it invariably results in a southward movement in their avian predators. Another factor causing southward irruptions in hawks and owls is that as prey population levels rise, so do the populations of predators. Therefore, when a mammal population crashes an unusually large number of hawks and owls will move south.

Since this is such a good irruption year (I've heard the term "mega-irruption"), birders are seeing lots of these rare northern raptors. So far, over ten Gyrfalcons have been reported in the eastern United States, along with numerous sightings of Snowy Owls, Rough-legged Hawks, and others.

My advice for birders is to suspend disbelief and keep birding — and to give thanks to the processes of nature that cause this wonderful gift to fly down from regions more northerly.

Will McCumber, fifteen, is home-schooled. He has had a fascination with nature since an early age, and has recently developed a particular interest in the world's avian inhabitants. He has competed in the World Series of Birding on a youth team, the Twin State Tanagers, which has taken top honors in the youth competition two years in a row. Some of his main interests include aging birds in the field and studying the avifauna of the neotropics. He has written columns for The Unity Newsletter in which this article first appeared.

Photograph by Thomas Ryder for the VINS Newsletter

Mallard Ducks

Gareth Perkins

The male mallard has a bright green head with a yellow beak with a black tip on the end. It has a white ring around its neck with a reddish brown breast and brownish gray back. Its underside is white with a tint of gray. Its wings are all brown, except for a blue patch on the wing. The underside of its tail is black, and then on top there are two black curly feathers.

The female has a mottled brown plumage with black spots on it, and she has a blue patch on her brown wings. She has an orange beak, with a brown spot on the top. Instead of a black tail, like the male, and like her body, she has a mottled tail.

The places you can see mallards are in city parks, ponds, marshes, lakes, rivers, and streams. They are increasing in population in human habitats. Their favorite foods are aquatic plants, small crustaceans, algae, and bread fed to them by people.



In my neighborhood, mallards can be seen at Heard Pond, Walden Pond, the Sudbury River, and the Grist Mill Pond. Mallards are well spread throughout the world. They are nicknamed puddle ducks. Have you seen ducks in the rain before? Once on a rainy day, at the supermarket, I saw a male, female, and young ducklings flying overhead.

A female mallard will lay six to twelve eggs. Those eggs will hatch into ducklings. The ducklings' plumage is yellow with brown along the back and wings. They are covered in down. As the birds get older, they begin to lose their down, becoming full feathered adults. Some of the mallard population is declining, because of careless people dumping trash into their habitat. The ducks either choke or get poisoned because of the trash or pesticides in the marsh.

The mallard's enemies are the crow, skunks, raccoons, and opossums. Foxes and snakes eat the eggs of the mallard, too. The snapping turtle also feeds on eggs or young. The male is very good at protecting the female from getting eaten. He tries either to scare the predator off, or to pretend he's hurt. The predator goes for him—he and the female and sometimes the young flee from the predator.

The mallard's average lifespan is six to nine years. Not many mallards live to be that old because they are either killed by predators, poisoned, or hit something

unexpected like telephone wires while they're flying. The oldest mallard duck lived to be twenty-five years old, on a farm pond in Bucks County, PA.

Gareth Perkins was born in Wales UK, (the native country of Meriwether Lewis's family) in 1990. He has enjoyed books and reading from a very young age and has for a long time now been especially interested in books on bird and animal life. Last year, Gareth took part in the Vermont odyssey trip from the Loring school, during which he particularly enjoyed the visit to the Vermont Raptor Center.



FIELD NOTES

The Unexpected Bluebird

Marjorie Rines

October 27, 2000 was a funny day, heavily overcast but with a bad glare from the sun. I had sampled a couple of favorite places, but things were really slow, so I decided to drive to Concord for some fresh territory. I drove to the waste water treatment plant, a location with some terrific sparrow habitat. There are "no trespassing" signs marking the entrance, but I had received permission to bird the area before, and when I asked again, they were as hospitable as in the past.

As I walked toward a weedy dirt pile in the back, I noticed a small thrush-like silhouette perched high in a nearby tree. I often see bluebirds there, so I raised my binoculars, expecting to see a ruddy breast, but in the harsh glare, the breast looked



Photograph by the author

gray. I circled the tree for a better view, and looked again. Blue back, gray belly. And the shape was off for Eastern Bluebird. I kept changing position, but the colors never changed. It was unequivocally a Mountain Bluebird.

I fired up the cell phone trying to reach people I knew worked nearby, but was only able to reach Wayne Petersen, who came right over (I was grateful for the sanity check). The bird stayed at the waste water plant through November 2, and I was able to see it several times in that time. In better light, its gray breast turned pale blue,

making most observers believe it was a male. It usually mixed with a flock of Eastern Bluebirds, and in flight was easily picked up by its leaner profile, and occasional kiting, kestrel-like behavior.

There are only four previous occurrences of Mountain Bluebird in Massachusetts. The first was an individual that landed on a ship offshore on April 28, 1980. Worcester county has had two records: one in Rutland on May 29, 1994, and another in New Braintree on April 13, 1997. A group of three individuals spent the winter in South Wellfleet in 1995.

ABOUT BOOKS

A Task of No Small Difficulty: A Critical History of the North American Field Guide

Mark Lynch

"To investigate, with any tolerable degree of success, the more retired and distant parts of the animal economy, is a task of no small difficulty." Thomas Bewick in his Preface to Volume 1 of *A History of British Birds* (1797).

Introduction

Field guides are the bibles of birding. They are the sacred texts by which we first learn to identify birds, check our calls in the field, and challenge others. Many of us become attached to the field guide we used when we started birding. Even if we no longer pack that specific book with us when we go out into the field, we remember that book fondly and often save and preserve our original beat-up and well-worn copy.

We now live in a time of a plethora of choices when it comes to field guides. Increasingly, the field guide form has tended to become ever more specific and narrow in the number of species treated. There is so much detailed identification and behavioral material on many species of birds available that a single book cannot possibly contain all the important information on all the birds of any reasonably sized geographical area except perhaps Antarctica. Books like *The Facts on File Guide to North Atlantic Shorebirds* by Richard Chandler, *Warblers* by Jon Dunn and Kimball Garrett and the seemingly endless series of identification guides have challenged the notion of the usefulness of the single volume all-of-the-species field guide. In the last half-century, there have been many attempts to rethink the format of the all-inclusive field guide. Is it still possible to come up with a new approach to this very old concept? To answer that question, we should also ask: who uses field guides now? Under what circumstances do we consult a guide? Most importantly: what makes a good field guide?

Judging Field Guides

The dream of a single book containing all the information you need to know about one subject is a very old one. When speaking about field guides, we should also mention the importance of portability. Certainly, I can find most of the information I want on any bird in any one of a number of large, thick tomes or multiple volume series that sit in my library. Those are not field guides. Field guides are used to identify birds in the field, and these books need to be concise to cut down on size and weight. Field guides should be able to be brought out of doors to the places where we actually see the birds.

When I look at a field guide, I judge its usefulness in five categories.

Illustrations. The worth of a field guide starts with the illustrations. If you have ever been birding in another country with only a poorly illustrated field guide to go by, you know how important good artwork is in identifying birds. We are visual learners, and although sound is important, birding is very often a visually based avocation. A field guide's illustrations need to show the bird's essential field marks and colors clearly and prominently. The shape, proportions, and posture of the living bird should be captured by the artist as well, since these are often useful clues to identification. If a species has several plumages, all of those likely to be encountered in the field should be shown. Field guide illustrations can be drawn, painted, or photographed. They need not be fine art as in fully realized oil paintings, but the pictures should be lifelike. Lars Jonsson is one of the few field guide illustrators and writers who has managed to bring a fine art technique to the field guide form.

Written Content. A field guide's text by necessity has to be brief and to the point. The guide cannot be overly chatty because birders want to know the important information as soon as possible. Birders in the field do not want to wade through an author's anecdotes, colorful and entertaining though they may be. A book we may find amusing to read in an armchair is rarely the book that is also a useful field guide. Yet too much detailed description of plumage can be confusing and mind-numbing. Birders need only those field marks that separate one species from all similar species. But there can be more. Every author's subjective experience birding in the field over the decades means that they may have some personal observations on behavior or plumage that may be helpful in identification beyond what is found in most guides. These personal touches also allow us to look into the mind of the author. So a good field guide can include more than a dry list of plumage details and can contain a bit of personality too. Field guides nowadays also need to be up to date on all species splits and lumps. A really good field guide will also illustrate recognizable subspecies that may in the future be declared species. Birders are a persnickety and nitpicking group of book buyers. If a guide seems out of date, it is doomed. All of this means that editing a field guide is one of the most painful and time-consuming chores in their creation.

Organization. This point has been the downfall of several newer guides looking for an alternative to the taxonomic listing of species. Often, a birder needs to use a field guide in a hurry, so the information needs to be organized in a manner that makes it easy to find what you are looking for. A few authors and publishers in the last few decades have opted for grouping birds in their field guides by color or by habitat preference. This organizing idea has never worked because birds are rarely one color, males and females of the same species are often different colors, and many bird species are often found in a variety of habitats. A good field guide today is organized generally around current accepted taxonomic order. This has become an increasingly difficult task since the science of taxonomy itself is going through an upheaval, and some dramatic changes in taxonomy are being hotly debated. Finally, the ideal field guide should have all the information on a species on one page. The illustration is usually opposite the text for that species and, if possible, the range maps.

Size. Size does matter, although it is a subjective matter. Field guides do not simply need to fit in the pants pocket, they need to be easy to carry in the car or backpack. A large, bulky book is just not that easy to read out of doors. Furthermore, large books are often very expensive books. You should feel it's all right to get your field guide wet or dirty. For me, *The Handbook of Bird Identification for Europe and the Western Palearctic* by Mark Beaman and Steve Madge (7 x 9.5 x 2) and *A Guide to the Birds of India, Pakistan, Nepal, Bhutan, Sri Lanka and the Maldives* by Richard Grimmett, Carol Inskipp, and Tim Inskipp (7 x 9.75 x 2.5) are *not* field guides. Although both are superlative volumes concerned with details of plumage, behavior, and distribution, they are just too damn big, heavy, and expensive to be considered real field guides. That said, when push comes to shove, you could use either book in the field. I have already brought the Beaman and Madge out while having my class look for the Garganey on Plum Island, although it was difficult to work with.

Range Maps. These are of limited importance but are useful for beginning birders to always consult when they think they have seen a Gila Woodpecker in the city of Worcester (true story). Maps should be clear, easy to read, and distinguish winter from breeding ranges. This is very difficult because of the constraint on space on the page. The best range maps I have seen in a field guide were in the later versions of the Peterson series. These were large, easy to read, and in the back of the book so as to not take space away from the text and illustrations. I am surprised other authors have not opted for that choice.

Finally, it is always important to keep in mind when judging a book that the purpose of a field guide is to help identify birds seen in the out of doors. Period. That is the guide's raison d'être, and any other information or idea is secondary.

A Bit of History

Many people think that Roger Tory Peterson invented the concept of the field guide. Actually, small portable books on birds existed well before A Field Guide to the Birds was published in 1934. A case can be made to consider Thomas Bewick's two-volume History of British Birds to be the archaeopteryx of the field guide. Bewick was England's foremost wood engraver, and his books were published in 1797 (Vol.1 Landbirds) and 1804 (Vol. 2 Waterbirds). These small books (my 1826 printing measures only 5.5 x 3.25 x 1.62) were meant as books for the general public, and more than any other book of their time, they opened up the world of birds and nature to a lay reader. Each species is wonderfully illustrated with a detailed black and white woodcut done by Bewick at the head of each species account. Amazingly, any serious birder today can still identify most of the species of birds from these prints. In the introductory chapters there is a completely illustrated topography of a bird just as one finds in any modern field guide. At the end of each species description are found some of Bewick's wonderful tale-pieces, small fully realized illustrated scenes of country life. Each species section contains full plumage descriptions often of both male and female. There follows details of habits and migration, a subject that fascinated Bewick. In his introduction to Volume 1, Bewick talks about the joy of field identification and the importance of field marks: "To the practical ornithologist

there arises a considerable gratification in being able to ascertain the distinguishing characters of birds as they appear at a distance, whether at rest, or during flight; for not only every genus has something peculiar to itself, but each species has its own appropriate marks, by which a judicious observer may discriminate with certainty" (p. xxxii).

Probably these small and relatively inexpensive books were not often carried into the field, but you can certainly imagine them being packed in a saddle, rucksack, or picnic hamper.

Closer to home, the popular *Bird Guide: Land Birds East of the Rockies* by Chester Reed was published in 1906. This is a small softbound and inexpensively published book and was certainly meant to be carried out of doors. At 5.5 x 3.25 x .5 it can fit into a shirt pocket. This portability was even used as a way to boost sales: "As many will not wish to soil their book, we would suggest that they have a leather covered copy for the library and a cloth one for pocket use" (p. 14).

The format is one species per page with a single sometimes fair, sometimes poor and inexpensive color illustration. The text is skimpy on the plumage details, but does contain information on size, nesting, and range. At the end of the book there is a field key for identification of eastern landbirds by "conspicuous markings," starting with color. The same format of Chester Reed's books and even the same size were used again in *The Blue Book of Birds* and *The Green Book of Birds* by Frank Ashbrook (illustrated by Paul Moller), published in 1931.

When Houghton Mifflin published Roger Tory Peterson's A Field Guide to the Birds (Including All Species Found in Eastern North America) in 1934 the phrase "a bird book on a new plan" was used. It is interesting to look at this first version of what was to become the classic field guide today. The illustrations at first glance look spare even for the time period. Most are reproduced in black, white, and gray, although the wood warblers are in color. Many species are shown in simplified profile views. Groups like the smaller shorebirds are particularly poor. One need only to look at Bewick's woodcuts from more than a century earlier to see what is possible in a black and white format. On some pages, as in the warblers, the illustrations are so tiny as to be insectlike. Peterson's idea was to reduce the illustrations to only the essential field marks thus creating an almost abstract bird. There are no range maps, although the ranges of each species are fully described in the species accounts. The text is very good. Some of Peterson's subjective descriptions are really wonderful to read even if they may have you shaking your head: "A common characteristic of the Connecticut Warbler is to flush from low vegetation and fly to some perch half-way up a nearby tree, where Thrush-like it watches its disturber with wide dreamy eyes" (p. 127).

The genius of Peterson's first guide lay in its organization and format. First, it follows taxonomic order and contains all species in one volume. Bird species were put on plates that were often, but not always, opposite the appropriate text. By showing similar species on the same plate, the birder could compare and contrast birds. In the text, Peterson points out similar species and what key field marks separate them. Lastly, by being economic in text and illustrations, the guide is small and fits into the

back pocket. As later versions of the guide were published through the decades, Peterson's artwork vastly improved, and color was used throughout. The text was eventually placed squarely opposite the appropriate pictures, and maps were added at the rear of the guide. It is clear that Peterson's *Field Guide to the Birds* grew apace with the growth in popularity and maturation of birding.

After Peterson: A Critical Review

North American field guides since the first publication of Peterson's *Field Guide* to the Birds have been a story of rapid growth and experimentation, often with mixed results. Birders tend to be rabid book buyers, and many of you probably own copies of most of the books I will now mention.

The guides written by Richard H. Pough and illustrated by Don Eckelberry improved immensely on Peterson's first guide. In the *Audubon Land Bird Guide*, originally published in 1946, Eckelberry's color illustrations are a wonder. The birds are very lifelike, and usually several plumages are shown. Birds are depicted in a variety of active attitudes. Several species are shown on a page, although all the plates are in the center of the book. Pough's text is wonderfully written. Full plumage descriptions are given, of course, but there are also rich and personal observations of the birds. There are even some interesting history tidbits as when writing about the Mourning Warbler, Pough notes: "Wilson, its discoverer, saw only one, Audubon very few, and Nuttall was never sure he saw it" (p. 185).

These books were true field guides and were small and compact. They are still useful to look at today. Other titles in the series were a western guide and a waterbird guide.

Birds: A Guide to the Most Familiar American Birds by Herbert S. Zim, Ira N. Gabrielson, and illustrated by James Gordon Irving was published in 1949. This Golden Nature Guide was aimed at younger readers and had no pretense at inclusiveness, focusing only on common birds. The format was mostly one species per page, but several species of warblers and sparrows were shown on a single page. The artwork consists of superb fully realized paintings of birds in their habitats. The text contains mostly plumage descriptions with notes on song and calls. A good range map is included for every species. This guide's small size (4.25 x 6.25 x .5) and inexpensive price meant that it could be brought into the field. For many of us, this was our first bird guide. The extensive Golden Nature Guide series, with titles like Mammals, Butterflies, and Weather among many others, offered solid scientific knowledge in an attractive field guide format and encouraged many youngsters to get out into the field and see things for themselves.

Golden Press later attempted a fully realized bird field guide for adults when in 1966 they published *Birds of North America: A Guide to Field Identification* by Chandler Robbins, Bertel Bruun, and Herbert Zim, with illustrations by Arthur Singer. This trim and inexpensive volume is a marvel of economy. Species are in taxonomic order; the text and range maps are opposite the generally very good illustrations. Also included are sonograms for most species, although I doubt that many birders make use

of these. Information was succinct and up to date at the time of its first printing, and focused mostly on the critical field marks. Species like hawks and gulls are shown at rest and in flight. A unique and useful two-page section shows just female ducks in flight. Most of the birds of North America are shown in a book that would still fit in your pocket. This book is still in print.

In 1994 Golden Books published the trim Eastern Birds: A Guide to the Identification of North American Species written and illustrated by James Coe. This attractive guide focuses only on the more common birds. By way of an example, although Common Loon is given the full treatment, Red-Throated Loon is shown in only a small basic plumage illustration and is treated in the text under the listing for Common Loon. The plates are generally very good, lifelike and delightfully colorful, although certain groups like the Empidonax flycatchers are weak. Birds are shown in their habitats in fully realized paintings so not many species are illustrated per page. Gulls, ducks, and hawks are all shown in flight. For the most part female and male plumages are shown, and a limited number of nonadult-plumaged gulls are also depicted. A special section on confusing songbirds is at the back of the book where similarly colored or patterned birds are shown on the same page. The concise text and very clear range maps are opposite the plates. Names of some species, like Solitary Vireo, are now out of date, and this guide, although still in print, has not been revised. Plumage details are basic. This is a perfect first guide for beginning birders.

In 1977 the National Audubon Society and Knopf published the *Audubon Society Field Guide to North American Birds: Eastern Region* by John Bull and John Farrand, Jr. Photographs are used to illustrate the text, two per page. The photographs are gathered at the front of the book, with the written accounts at the back. The grouping of the photographs follows several plans based on morphology and color, not taxonomy. In the first section there are gull-like and duck-like birds with female ducks in a section separate from the drakes. For perching birds, the grouping by shape and color leads to some interesting juxtapositions as when the woodland thrushes are followed by Ovenbird, the waterthrushes, and then the waxwings. The Indigo Bunting is directly opposite the Mountain Bluebird. Because birds are separated by color, the female Scarlet Tanager is on a completely different page than the male.

The photographs are generally good, but critical field marks are not always shown. The reason is that the photographs in this guide take up a lot of space. No matter how close you crop it, the rectangular format of the photo means that you can only put a very few photos on a page. Also, any single photograph cannot show all the important field marks because the bird usually needs to be viewed from several angles to make those field marks visible. A great shot of the head will not show the underwing pattern. Color is also very variable in any photo depending on time of day, vegetation, shadows, photo processing, and so forth.

The organization of this guide is all very confusing, and I suspect not very helpful to the beginner birder. Basic taxonomy is not a bad thing to learn, and treating beginning birders like children who can learn only by shape and color is not a good choice for organizing a field guide. I have taught many beginning classes in birding

and have seen students struggle in the field with this book to the point where I have had to ban it from classes. Sadly, the written text is very good and contains all the basic identification information as well as interesting historical and behavioral notes. My personal feeling about this guide is that it was a major misstep in field guide organization. This guide is still available.

As if by way of an apology for this last mistake, the National Audubon Society and Knopf then published *The Audubon Society Master Guide to Birding* in 1983. This three-volume series was edited by John Farrand, Jr. Taxonomic order is followed, and the text is opposite the photograph illustrations. When no photograph is available, serviceable but generally uninspired drawings are used. For the most part, there are three photographs per page, and there is a small section next to each photograph that points out the key field marks. Overall, the photography is good, although a few photos are not in crisp focus. Birds like gulls and terns are shown perched and in flight, and male and female plumages are also usually shown. The text is good to excellent and includes a nice introductory section on the bird's behavior, a complete description of plumage, voice, a discussion of separating the species from similar species, and a description of the range of the species with a map. Overall, these are good books but because of their size, three hefty volumes, some may question whether these are true field guides. I believe they are, and have used them in the field.

For some reason known only to the publishing gods, John Farrand, Jr. and McGraw-Hill then published An Audubon Handbook series of three volumes in 1988, one on Eastern Birds, one on Western Birds, and one called How to Identify Birds. This time the format is one species per page, illustrated with photographs again, sometimes several of the same species. Often several plumages are shown. The text is good, with fairly complete plumage descriptions and range maps. The critical problem is the organization of the text. Birds are grouped according to similarities like habitat, look-alikes, and related species. A flight section of ducks and raptors is at the beginning of the book, shown even before the rest of the photographs begin. The organization of the species is very confusing. The waterthrushes and Ovenbird are again found between the woodland thrushes and the mimids. The Connecticut Warbler is opposite the Blue-Gray Gnatcatcher. This just does not work. The volume on How to Identify Birds, although well written, is a colossal waste of space. For example, a two-page color photograph of a boat being followed by gulls is used to illustrate open ocean habitat. Most of the information in this volume is more succinctly given in the introductory chapters of many field guides. When I bought these books (I try to buy all field guides), each volume had an annoying paper wrapper around it that when removed revealed a gray rubbery plastic cover that is certainly waterproof if unpleasant to touch. Another misstep.

An earnest attempt to do something different with the field guide format came in 1996 with the publishing of the *Stokes Field Guide to Birds* in two volumes: an *Eastern Region* and *Western Region*. The format is one species to a page using photographs as illustrations generally following taxonomic order. Most hawks are shown in flight, although ducks are not. Rarer species like Tufted Duck and Rufous-Necked Stint are not shown. The photographs are of varying quality and do not

always show critical field marks. For some species only one photograph is used as in the Golden-Crowned Kinglet (female) or the Connecticut Warbler (male). These are clearly books for the beginner or casual observer, and of little use to the experienced birder. The text is good, but plumage descriptions are spare, which detracts from these books' use as field guides. What the Stokes have included is more information on the status of each bird gleaned from Christmas bird counts, breeding bird surveys, and conservation reports. Is the bird decreasing? Is the species endangered? All in all, an interesting effort, but not totally successful as a field guide because not enough attention is paid to the actual identification of a species.

Another attempt to try something new was All the Birds of North America, an American Bird Conservancy Field Guide conceived and designed by Jack L. Griggs. Expectations were high for this book particularly when you read the number and caliber of people involved in the project. There are thirteen illustrators; many are some of the finest in the field. The eleven consultants included luminaries like Pete Dunne and Kenn Kaufman. As soon as I read the phrase, "ALL the birds of North America," I knew I would be in for a disappointment. My first thought was: "This small (4.12 x 8.5 x 1) guide is going to tell me everything I need to know about ALL the birds of North America? Talk about throwing the gauntlet down to the hypercritical audience of hard-core birders! Smack in the middle of the cover was another phrase that further raised my apprehensions: "A revolutionary system based on feeding behaviors and field-recognizable features." I was not reassured by the claim at the bottom of the cover that this guide was "for both beginning and advanced birders." On the back cover was emblazoned: "A surer, faster, easier way to identify birds." Talk about overselling yourself! I have never seen such hype on a field guide before. This book was daring critics not to like it.

This guide starts abruptly with eight pages of extinct birds. The illustrations were created digitally, and there are complete descriptions of how and why these species became extinct. Interesting? Sure, but does this belong in a field guide? The actual introduction for some unfathomable reason is in the middle of the book. Here are informative essays on flight and feathers, bird song, conservation, habitat, and the explanation for that revolutionary organizing scheme. This plan consists of grouping species according to some morphological characteristic, behavioral trait, or habitat used. So we have a section on pelagic birds which consists of tubenoses, some of the alcids, jaegers, two species of phalaropes, and the Black-Legged Kittiwake. For some reason the four pages on the jaegers and skuas are found in the middle of the pages of the tubenoses. Other sections include such catchy titles as Goose-sized swimmers, Flycatching bills (which includes the shrikes), Warbler-size, straight bills, and Cardinal-size, sparrow bills. The last chapter of the guide is titled Arctic Birds and is a trash bin of species that have shown up in Alaska or are native to the north. Here we find such diverse species as ptarmigans, Horned Puffin, Slaty-Backed Gull, and Mugimaki Flycatcher. The illustrations of the birds in this last section are poor, and the descriptions equally spare. For Red-Necked Stint the entire entry beyond the Latin name and measurements consists of: "Scarce migrant in Bering Sea area, rare breeder in coastal AK. Variably rusty face, upper breast; may be pale" (p. 170).

Let me just put this plainly: that is of no use to me as a birder, advanced or otherwise.

For the most part, the illustrations (other than in the last section) are very good. Several species are shown per page grouped in fully realized habitat paintings. These illustrations take up more than half the page and the written descriptions are below. The plumage details are good but break no new ground and are on the terse side. The reason of course is that the illustrations and essays take up a lot of space. Each chapter includes a rather good introductory essay by some specialist in the field.

The problem with this guide is one of expectations versus the finished product. You want to like this guide. After all, it is sponsored by the American Bird Conservancy, has many prominent birders involved in its creation, and has a strong environmental message. But the organization of the birds throughout the guide reminds me of some long-discarded taxonomy in the time of Bewick. I obviously believe the authors' and illustrators' hearts were in the right place. However, this guide more than any other before it reinforced my feelings that a good field guide has to stay focused on identification of birds and has to be simply organized. Furthermore, this field guide does not seem to hang together as a whole and reads more like a diverse compendium of essays on different groups of birds. This is because it was written and illustrated by a committee. This book is, unfortunately, of interest to beginning birders only.

New field guides are an important but risky publishing venture. They are expensive to produce, and the competition from the few older, well established, and commonly used guides is tough. In other popular avocations like skiing or running no one wants to be seen using substandard gear or look like a beginner. Similarly, in birding, I suspect that novices pretty quickly recognize what the good guides are and buy those. Who wants to be seen thumbing through a book in public that most people around you think is a joke? For the authors trying to come up with a new approach to field guides, it is akin to looking for the Northwest Passage, an arduous undertaking and the chances for failure are great. Just as many aspiring writers dream of writing that great American novel, there are those birders who will always attempt to design and illustrate the next important field guide.

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BIRD SIGHTINGS

SEPTEMBER/OCTOBER 2000

Jim Berry, Seth Kellogg, Marjorie Rines, and Robert Stymeist

Both September and October were cooler than normal, but with near normal rainfall. The high in September for Boston was 87 degrees on the first, while the low was 38 degrees on September 29. The average temperature for Boston during the month was 63.5 degrees. Although many communities inland had an early frost, the 38 degrees reading in Boston tied 1965 as the lowest temperature on record for so early in the season. The official rainfall total for Boston was 2.87 inches, most of which fell as the remnants of Hurricanes Gordon and Helene. Helene affected the Cape and the Islands with heavier amounts of rain and some stronger winds. In October the average daily temperature was 53.9 degrees in Boston. The high was 80 degrees on October 3 and 14, and the low was 33 degrees on October 30; still no hard freeze for the Boston area. Rainfall was 2.86 inches during the month in Boston, with measurable amounts recorded on eight days. The season's first snowfall occurred on October 29, ten days earlier than the average first recorded snowfall, and the earliest since 1988. Boston had just a trace of snow, while inland locations had measurable amounts on October 30. R.H.S.

LOONS THROUGH ALCIDS

Summering Common Loons, presumably immatures, are not rare along the coast, but a Red-throated Loon on Martha's Vineyard September first was less expected. Once the migration was underway in October, four of them showed up well inland, including two as far west as Pittsfield. Grebes (other than Pied-billed) also showed up inland with a Horned in Pittsfield and single Red-necks in Richmond, Agawam, and Gardner. Gloucester's famous **Eared Grebe** was back in place by October 2 to begin its sixth consecutive winter at Niles Beach. Single Leach's Storm-Petrels were seen from two points of land on October 9.

Eighteen American Bitterns were reported statewide during the period, in contrast to zero Least Bitterns. Heron roost numbers at Plum Island remained low for all species except Tricolored Herons, of which six were present September 5. As reported last issue, this may have been because the egrets have taken to roosting far out in the salt marsh where they are harder to count, but it could also have been due to lack of observer effort. Perhaps on future late-summer and early-fall evenings local heron-counters can mount an effort to coordinate counting from several observation points on both sides of Plum Island Sound. Meanwhile, reports of normally coastal heron species from western Massachusetts were limited to three scattered Great Egrets and four Black-crowned Night Herons in Longmeadow, where they are less than annual.

The single report of a **Black Vulture** came from West Springfield, while the highest single-day count of Turkey Vultures was 35 in Lancaster on September 24. Rare waterfowl were a **Greater White-fronted Goose** at Great Meadows NWR in Concord, **Eurasian Wigeons** in Marstons Mills (Barnstable) and Oak Bluffs (Martha's Vineyard), and Sterling's acclaimed **Tufted Duck**, which, like the Eared Grebe, returned for the sixth straight year (which bird will last the longest?). Snow Geese spread their migration between the coast and the Connecticut Valley, while Brant, atypically, showed up almost anywhere, with 115 passing over Gardner and 65 alighting on Pontoosuc Lake in Pittsfield/Lanesboro. Gadwalls, always strong in the Plum Island/Ipswich area, were the only dabbling ducks reported in triple figures other than Black Ducks, Mallards, and Green-winged Teal.

Among the diving ducks, Greater Scaup were found as far west as Sterling in Worcester County, while Lessers wandered farther west to Pittsfield. A total of over 4200 Common Eiders at Rockport on October 9 was Rick Heil's third-highest single-day count ever from Andrews Point. A Harlequin Duck on the Vineyard September 12 was very early, as was a Common Goldeneye on September 29 at Turner's Falls. Black Scoters made a big splash inland, with sizable numbers pausing on the larger lakes and often exhibiting social behavior by chasing each other and vocalizing in tightly packed, non-feeding flocks, some mixed and others consisting of mostly males. This is a phenomenon worth reporting in detail by birders, as a brief literature search revealed little on this type of behavior. Ruddy Ducks repeated last fall's success, showing up in the hundreds in many locations.

Migrating hawk numbers seemed on the modest side, or at best average, for most species. This was true for Broad-wings at the major observation points on Mounts Watatic and Wachusett, and for all species in western Massachusetts, where Merlins and Peregrines were especially scarce. One anomaly was the sighting of seventy-six Broad-wings migrating down the coast at Newburyport, the only coastal report. A Golden Eagle ventured as far east as Concord at the end of the period. The largest American Kestrel and Merlin numbers came from Worcester County lookouts, while Peregrines were most frequently reported from the Cape and Islands.

Ruffed Grouse reports were very few, presumably because they are mostly silent at this time of year and observers were not beating the bushes for them. Wild Turkeys, on the other hand, seem to be beating the bushes for humans and their artifacts; Martha's Vineyard is the latest place where they have taken to attacking cars and the like. A Sora in Northampton was only the third reported from the western part of the state since 1985, while a **Common Moorhen** in South Egremont was only the third fall sighting in the west since 1993 (and the only report from the entire state). American Coots did even worse in the west: this was the first time ever that there were no reports of them in the fall, though they were also (and curiously) unreported from Cape Cod. **Purple Gallinules** exhibited their tendency for remarkable (and sometimes unwise) peregrinations, with one found dead in Westboro in late October.

While no rare shorebirds were reported during the period, counts from Crane Beach in Ipswich, obtained by Chris Buelow from regular surveys, show that Semipalmated Plovers, Sanderlings, and Semipalmated Sandpipers can be found here in numbers approaching those of nearby Newburyport Harbor and the Cape Cod hotspots, revealing more about the underbirded nature of this beach than any changes in the shorebirds that use it as a migration stopover. White-rumped Sandpipers came through in impressive numbers along the coast, and Buff-breasted Sandpipers staged one of their biggest incursions in years, typically consisting primarily if not entirely of juvenile birds. In contrast, only four Upland Sandpipers were reported, one of which, in Agawam, was not only the latest, but only the fourth September record from western Massachusetts.

Other shorebirds not often reported well inland during this season included Black-bellied Plover; Ruddy Turnstone; Sanderling; Semipalmated, White-rumped, Baird's, and Buff-breasted sandpipers; and Dunlin. Mark Lynch proudly reported Black-bellied Plover, Ruddy Turnstone, Baird's Sandpiper, and Dunlin from one location in Holden alone. One of the most surprising events on the coast was the ratio of Marbled to Hudsonian Godwits. Although the former species' numbers almost certainly include some duplication, Marbleds were reported in numbers about equal to Hudsonians, which never even made it to double figures. Marbled Godwits are uncommon and local fall migrants, while Hudsonians have been regular migrants, whose numbers are down significantly from those of two decades ago.

Parasitic Jaegers put on a spectacular show in late September off Chatham. As reported by Rick Heil, "all ages [were] present, everything from rufescent juveniles to full adults, pursuing terns inside the cut off Chatham Light and even overflying the shorebird flats and passing directly overhead at South Beach." Notice Blair Nikula's numbers of Parasitics plus unidentified jaegers for September 23, and imagine what that many jaegers would be like to watch. Notice also the numbers of Laughing Gulls, Bonaparte's Gulls, and Common Terns at Nahant and Ipswich in September, which are huge counts for the North Shore. Again Heil's comments, written at the time, are apropos: "Since late August tremendous numbers of gulls and terns have been attracted to the waters all around Nahant due to an abundance of baitfish, particularly menhaden, upon which there were daily feeding frenzies, often just off the beaches." This may explain why no Bonaparte's Gulls were found in western Massachusetts for the second fall in a row. It is interesting that neither Little nor Black-headed gulls were found in these North Shore aggregations of Bonaparte's until October.

Lesser Black-backed Gulls continued in strong numbers on Cape Cod after their summer bonanza (see July-August records in the last issue). Three Sabine's Gulls on Stellwagen Bank added to the September excitement. Caspian and Black terns made a good showing along the entire coast, while a Sandwich Tern on the Vineyard was the rare (but not unexpected) tern for the period. Alcids started arriving early, with a Razorbill and two Black Guillemots showing up in the first two weeks of September.

J.B.

Red-throa				10/11	Richmond	1	E. Neumuth
9/1	Tisbury	1	R. Emmet	10/15	Plymouth	5	W. Petersen#
10/1	Chatham (S.B.)	1	R. Donovan#	10/18	Gloucester H.	8	D. Larson
10/9	Eastham (F.E.)	19	S. Perkins#	10/21	Wachusett Res.	1	M. Lynch#
10/9	Rockport (A.P.)	18	R. Heil	10/21	Salisbury	3	M. Resch
10/16	Plymouth (Saquish)	20	E. Neumuth	10/22	Agawam	1	T. Gagnon
10/18	Pittsfield (Pont.)	2	E. Neumuth	10/25	P.I.	4	R. Heil
10/20	P.I.	62	R. Heil	10/26	M.V.	4	J. Trimble#
10/22	Nahant	15	L. Pivacek	10/31	Gardner	1	T. Pirro
10/24	E. Quabbin	1	C. Buelow	Eared Gr	ebe (no details) *		
10/25	Wachusett Res.	1	J. Zumpfe#	10/2-30	E. Gloucester	1	J. Soucy#
10/26	M.V.	26	J. Trimble#	Northern			v. oodej
10/29	Boston H.	70	R. Donovan#	10/14	Nant. Shoals	1	S. Perkins#
Common			10.20010144	Corv's Sh		•	O. I CIKIIIS
9/3	Nant. Sound	8	S. Perkins#	9/3	Chatham (S.B.)	1	S. Perkins#
9/3	Chatham (S.B.)	8	S. Perkins#	9/17	Stellwagen	2	W. Petersen#
9/6	N. Scituate	6	G. d'Entremont	Greater Sl		-	vv. 1 etersen
		1, 26	R. Heil	9/10	Stellwagen	600	B. Nikula#
9/28	Gardner	7	T. Pirro		0/13 Chatham	30, 50	B. Nikula
10/7	Wachusett Res.	33	M. Lynch#	10/14		1794	S. Perkins#
10/9	Rockport (A.P.)	61	R. Heil	Sooty She		1/54	S. PCIKIIIS#
10/16	Plymouth (Saguish)	60	E. Neumuth	9/3	Chatham (S.B.)	3	S. Perkins#
10/17	N. Quabbin	6	C. Buelow	9/10	Stellwagen	400	B. Nikula#
10/18	Rockport (H.P.)	122	J. Nove	9/18		400	
Pied-billed		122	J. Nove	Manx She	Chatham (S.B.)	4	B. Nikula
	0/7 Arlington	2.7	K. Hartel	9/6		2	D APPLIE
9/20		10	G. d'Entremont	9/17	Chatham (S.B.)	3	B. Nikula
	Randolph 2 Newton		G. a Entremont		Stellwagen	3	W. Petersen#
		10	E. Nelson-Melby	10/14	Nant. Shoals	3 2 2	S. Perkins#
9/30	Lakeville		W. Petersen#	10/29	Eastham (F.E.)	2	J. Trimble#
9/30	Nantucket	13	fide E. Ray		torm-Petrel		0 (D (II)
	9 Braintree	12, 8	S. Carey	9/30	Stellwagen		BC (D. Clapp)
10/17	S. Peabody	4	R. Heil	10/9	Rockport (A.P.)	1	J. Soucy
10/28	Brookfield	8	M. Lynch#	10/9	Chatham	1	S. Perkins#
Horned G		-		Northern		2012/10/2002	
10/7	Squantum	18	G. d'Entremont#		/9Rockport (A.P.)	32, 600	R. Heil
10/11	Pittsfield (Onota)	1	E. Neumuth	10/14	Nant. Shoals	125	S. Perkins#
10/14	Falmouth	5	R. Farrell	10/22	Manomet		urkunas + v.o.
10/15	Plymouth	10	W. Petersen#	10/23	Newbypt/P.I.	50	J. Berry
10/17	Quabbin (G22)	9	B. Lafley	10/28	Orleans	2000	B. Nikula
10/20	Waltham	1	M. Rines	10/29	Eastham (F.E.)	3500+	J. Trimble#
10/20	P.I.	2	R. Heil	10/29	Chatham	2000+	J. Trimble#
10/25	Wachusett Res.	17	J. Zumpfe#	Great Cor	morant		
Red-necke				9/3	P.I.	1 imm	R. Heil
9/14	S. Monomoy	1	T. Raymond	9/3	Manomet	4	W. Petersen
10/9	Rockport (A.P.)	3	R. Heil	9/14	Nahant	2 imm	
		-	10.71011	77.5		~	

Great Cormorant (continued)		9/25	Cuttyhunk	3	R. Stymeist#
9/15, 10/9 Rockport (A.P.)	3, 15 R. Heil	10/1	Eastham (F.H.)	2 juv	J. Trimble
	4 SSBC (D Clapp)	10/20	Ipswich	6	R. Heil
10/8 M.V.				U	ic. Hen
10/21 Wachusett Res.	3 M. Lynch#		wned Night-Heron	1 2	D. II-31
Double-crested Cormorant		9/10	Ipswich	l juv	R. Heil
9/3 Chatham (S.B.)	1500+ S. Perkins#	9/11	P.I.	1	W. Drew#
9/9 Erving	100 B. Laflay#	9/16		imm BBC	(R. Stymeist)
10/14 M.V.	1550 M. Lynch#	Glossy Ibis	5		
10/14 Squantum	2500 G. d'Entremont	9/3	S. Monomoy	1	S. Perkins#
10/15 Newbypt	2000 migr J. Hoye#		N. Monomoy	2	B. Nikula
		9/12	P.I.	ĩ	C. Buelow
10/22 Nahant	1500 L. Pivacek			1	C. Duciow
American Bittern		Black Vul			M. Para
9/9 DWWS	1 D. Furbish		W. Springfield	1	N. Eaton
9/9 Lenox	 D. St James 	Turkey Vu	lture		200/22 (9
9/9 WBWS	 N. Samson# 	9/4	Newbpt.	24	W. Petersen#
9/10 GMNWR	1 A. Perkins#	9/6-10/	12 Mt. Watatic	80 T	. McCullough
9/13, 10/14 P.I.	1, 2 D. Larson	9/16	Mt. Wachusset		R. Lockwood#
	1 C. Englert	9/16	Mt. Tom	11 RR(C (T. Gagnon)
		9/22	Newbypt/P.I.	27	R. Heil
9/23 Worc. (BMB)	1 J. Liller#	0/24			W (B. Kamp)
9/24 MNWS_	I K. Kuerzei#	9/24	Lancaster	33 EMIT	W (B. Kalip)
9/29 Bolton Flats	I J. Hoye#	9/28	Gardner	12	T. Pirro
10/4 N. Monomoy	1 B. Nikula	10/7	Braintree	15+	S. Carey
10/7 Squantum	1 G. d'Entremont#	10/7-20	Barre		W (B. Kamp)
10/15 Dorchester	 R. Donovan# 	10/15	Ipswich	7	J. Berry#
10/26 Marstons Mills	1 St Miller	10/20	Lexington	8	M. Rines
	1		Vhite-fronted Goos		VIOLUTE 2010 10 10
	1 St. Miller#	10/10	GMNWR	1	D. Diggins#
10/27 Barnstable H.	1 St. Miller#			1	D. Digginsii
Great Blue Heron	0110 C D 11 #	Snow Goo			T Dime
	nax 9/10 S. Perkins#	9/28	Gardner	65	T. Pirro
9/30 Eastham (F.H.)	43 G. d'Entremont#		GMNWR	1	V.O.
10/8 M.V.	14 SSBC (D Clapp)	10/4	Chilmark	40	A. Fischer
Great Egret		10/4	Lakeville	124	M. LaBossiere
9/thr GMNWR 4	max 9/9 S. Perkins#	10/8	N. Truro	27	M. Tuttle#
9/4 N. Monomoy	10 B. Nikula	10/11	Chatham	42	B. Nikula
	1 J. LaPointe	10/11	Northfield	72	M. Taylor
		10/14		205	R. Heil
9/10 Westport	55 M. Lynch# 37, 12 R. Heil		Newbypt/P.I.		
9/17, 10/14 P.I.	37, 12 R. Heil	10/15	Granville	120	S. Kellogg B. Vander Pyl
9/23 S. Dart. (A.Pd)	21 W. Petersen#	10/15	Wellfleet	90	
10/1-21 Randolph	1 G. d'Entremont	10/16	Northampton	72	S. Surner
10/7 Southwick	 J. Barnes 	10/20	Ipswich	150+	R. Heil
10/15 Duxbury	9 W. Petersen#	10/21	Nantucket	17	fide E. Ray
10/16 Turner's Falls	 S. Surner 	Brant			V. 10. 10. 10. 10. 10. 10. 10. 10. 10. 10
10/21 Nantucket	18 fide E. Ray	9/29	Plymouth (Saquisl	h) 3	E. Neumuth
		9/30	Nantucket 3	BRC ((L. Ferraresso)
10/21 Rowley	7 J. Berry			115	T. Pirro
10/24 Chilmark	1 A. Keith	10/7	Gardner		
Snowy Egret		10/9	Eastham (F.E.)	400	S. Perkins#
9/3 Chatham (S.B.)	. 14 S. Perkins#	10/9	Turners Falls	1	M. Taylor
9/9 Westport	21 R. Emerson	10/14	P.I.	66	R. Heil
9/10 Hingham	98 D. Peacock	10/15	Duxbury	600+	W. Petersen#
9/16 Falmouth	31 R. Farrell	10/16	Deerfield	1	S. Surner
	23 G. d'Entremont#	10/18	Pittsfield (Pont.)	65	E. Neumuth
9/16 Squantum 9/17, 10/14 P.I.	130, 4 R. Heil	10/19	Turner's Falls	4	H. Allen
	130, 4 R. Hell	10/25		i	C. Ekroth
9/23 N. Scituate	14 G. d'Entremont		Hopkinton	40	
9/30 E. Boston (B.I.)	40 B. Mayer#	10/28	Quincy	40	E. Taylor
9/30 Eastham (F.H.)	29 G. d'Entremont#	Whooper		2 1	R. Heil
10/7 M.V.	6 J. Trimble#	10/20	Ipswich	2 ad	K. Hell
10/1-22 Squantum 3	max G. d'Entremont#	Wood Due			
10/21 Rowley	 J. Berry 	9/1-10/	7 GMNWR	12 max	
Little Blue Heron		9/6	Norfolk	30	R. Emerson
9/thr P.I.	1-2 v.o.	9/12	Longmeadow	46	B. Packard
Tricolored Heron	1-2	9/23	Wakefield	12	P. + F. Vale
	1 T. Raymond#	9/23	Wayland	50	E. Taylor
9/3 S. Monomoy	1 T. Raymond#	10/1		13	J. Liller#
9/5 P.I.	5 ad, 1 juv P. Brown	10/1	Lancaster		R. Titus
Green Heron		10/13	Stoughton	27	M. Amrich
	max 9/10 S. Perkins#	10/15	Tyngsboro	18	IVI. AIIII ICII
9/3 Sterling Peat	6 M. Lynch#	Gadwall		12727	o Datine#
9/13 Longmeadow	3 J. LaPointe#	9/3	S. Monomoy	10	S. Perkins#
	max G. d'Entremont	9/22	P.I.	58	R. Heil
9/20 Longmeadow	1 S. Kellogg#	10/8	Cheshire	2 2	T. Gagnon
9/28 Wayland	1 A. McCarthy#	10/8	Pittsfield (Onota)	2	E. Neumuth
			Longmeadow	2	S. Kellogg R. Heil
9/30 Holden				9	R. Heil
10/8 Edgartown	1 SSBC (D. Clapp)	10/17	S. Peabody	24	J. Trimble
Black-crowned Night-Heron		10/19	Marstons Mills		R. Heil
Black-crowned Night-Heron				1014	
9/1 Arlington	4 M. Rines	10/20	Ipswich	103	It. Hell
	15 M. Lynch#	10/20 Eurasian	Ipswich Wigeon		
9/1 Arlington 9/2 P.I.		10/20 Eurasian	Ipswich Wigeon 9 Marstons Mills	1, 3	J. Liller + v.o.
9/1 Arlington 9/2 P.I. 9/6 Longmeadow	15 M. Lynch# 4 ad J. LaPointe	10/20 Eurasian 10/9, 1	Ipswich		
9/1 Arlington 9/2 P.I.	15 M. Lynch#	10/20 Eurasian 10/9, 1 10/17	Ipswich Wigeon 9 Marstons Mills		J. Liller + v.o.

American	Wigeon			10/16	Chilmark	500+	A. Keith
	Longmeadow	2	H. Allen	10/17	Lynn	23	R. Heil
9/3	S. Monomoy	1 m		10/19	Cotuit	12	J. Trimble
	7 Arlington Res.	6, 2		10/25	W. Newbury	28	
10/14	P.I.	25	R. Heil	King Eide		20	R. Heil
10/19	Barnstable	25 72 62	J. Trimble	10/29		1 11	V D TI-21
10/19	Marstons Mills	62			Rockport (A.P.)	1.17	V m R. Heil
10/20	Ipswich	96	J. Trimble	Common		10	D C 1 1
10/20			R. Heil	9/9	Gloucester H.	18	R. Guthrie
10/21	Marlboro	30	E. Taylor	9/25	Cuttyhunk	15	R. Stymeist#
	M.V.	24	J. Trimble#	10/9	Eastham (F.E.)	460	S. Perkins#
Blue-wing		40		10/9	Rockport (A.P.)	4210	R. Heil
9/2	P.I.	42	M. Lynch#	10/16	Plymouth (Saqu		E. Neumuth
9/3	Sterling Peat	5 8 9 3	M. Lynch#	10/26	M.V.	30,000+	J. Trimble#
9/3	S. Monomoy	8	S. Perkins#	Harlequin	Duck		
9/12	Longmeadow	9	B. Packard	9/12	Gay Head	1	A. Keith#
9/20	Randolph	3	G. d'Entremont	10/22-2	24 S. Boston	1	R. Donovan#
10/19	Marstons Mills	9	J. Trimble	10/26	M.V.	4	J. Trimble#
10/21	Nantucket	2	fide E. Ray	10/29	Rockport (A.P.)	4	R. Heil
Northern S				Surf Scote			10. 11011
9/3	S. Monomoy	3	S. Perkins#	9/9	S. Monomoy	20	W. Petersen#
9/10	E. Boston (B.I.)	1	S. Zendeh	10/9	Rockport (A.P.)	1385	R. Heil
9/10	P.I.	1	R. Heil	10/9	Eastham (F.E.)	2600	S. Perkins#
9/17	GMNWR	3	M. Rines#	10/9	P'town	460	S. Perkins#
	/27 Arlington Res			10/14	Falmouth		
10/8	Boston	1 m		10/15		37 7	R. Farrell
10/20	P.I.				S. Quabbin		S. Surner
10/20		2 2	R. Heil	10/16	Plymouth (Saqui		E. Neumuth
	Ipswich	2	R. Heil	10/18	Richmond	50.000	E. Neumuth
Northern P		0	C D 11 #	10/26	off Chilmark	50,000+	A. Keith#
9/3	S. Monomoy	9	S. Perkins#		iged Scoter		40.000
9/20-22	Randolph	4 max	G. d'Entremont	9/3	Nant. Sound	7	S. Perkins#
9/22	P.I.	17	R. Heil	9/4, 10/	9 Rockport (A.P.	30, 52	
10/1	Ipswich	13	P. + F. Vale	9/23	Cuttyhunk I.	70	W. Petersen#
10/8-30	Pittsfield (Onota)	1	E. Neumuth	9/23, 10	0/5 Nahant	760, 10	00 R. Heil
10/14	P.I.	50	J. Hoye#	10/9	P'town	100	S. Perkins#
10/20	Marlboro	9	E. Taylor	10/14	Falmouth	58	R. Farrell
10/20	Newbypt/P.I.	26	J. Berry#	10/15	S. Quabbin	7	S. Surner
10/22	Canton	17	S. Noonan#	10/15	Duxbury	2200	W. Petersen#
10/22	Carlisle	3 T	. + D. Brownrigg	10/16	Gay Head	342	M. Lynch#
10/23	Newbypt/P.I.	30	J. Berry	10/20	Sharon	2	D. Larson
10/26	Longmeadow	1	H. Allen	Black Sco		-	D. Laison
Green-win	ged Teal		11. 7111611	9/23	Cuttyhunk I.	40	W. Petersen#
9/thr		137 max	G. d'Entremont	1016			E. Nelson-Melby
	PI			10/6	P.I.		
9/3, 22	P.I.	95, 4	40 R. Heil	10/9	Rockport (A.P.)	475	R. Heil
9/3, 22 9/29, 10	P.I. 0/7 GMNWR	95, 44 80, 35	40 R. Heil S. Perkins#	10/9 10/9	Rockport (A.P.) Eastham (F.E.)	475 10	R. Heil S. Perkins#
9/3, 22 9/29, 10 10/19	P.I. 0/7 GMNWR Sandwich	95, 44 80, 35 76	40 R. Heil S. Perkins# J. Trimble	10/9 10/9 10/15	Rockport (A.P.) Eastham (F.E.)	475 10 171 m,	R. Heil S. Perkins# 4 f S. Surner
9/3, 22 9/29, 10 10/19 10/20	P.I. 9/7 GMNWR Sandwich P.I.	95, 44 80, 35 76 980	40 R. Heil S. Perkins# J. Trimble R. Heil	10/9 10/9 10/15 10/15	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V.	475 10 171 m, 880	R. Heil S. Perkins# 4 f S. Surner M. Lynch#
9/3, 22 9/29, 10 10/19 10/20 10/22	P.I. 1/7 GMNWR Sandwich P.I. Wayland	95, 44 80, 35 76 980 50	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell)	10/9 10/9 10/15 10/15 10/18	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond	475 10 171 m, 880 50	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28	P.I. 1/7 GMNWR Sandwich P.I. Wayland E. Quabbin	95, 44 80, 35 76 980	40 R. Heil S. Perkins# J. Trimble R. Heil	10/9 10/9 10/15 10/15 10/18 10/22	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet	475 10 171 m, 880 50 70 V.	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o.
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac	P.I. 9/7 GMNWR Sandwich P.I. Wayland E. Quabbin k	95, 44 80, 35 76 980 50 34	A0 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small	10/9 10/9 10/15 10/15 10/18 10/22 10/29	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield	475 10 171 m, 880 50 70 V.	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23	P.I. 1/7 GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.)	95, 44 80, 35 76 980 50	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell)	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/29	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota	475 10 171 m, 880 50 70 V. 70) 25	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke	P.I. 1/7 GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.)	95, 4 80, 35 76 980 50 34	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small	10/9 10/9 10/15 10/15 10/18 10/22 10/29	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield	475 10 171 m, 880 50 70 V.	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy	95, 4 80, 35 76 980 50 34 30	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/29	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota	475 10 171 m, 880 50 70 V. 70) 25	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy	95, 4 80, 35 76 980 50 34 30	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines	10/9 10/9 10/15 10/15 10/15 10/22 10/29 10/29 10/30 10/30	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner	475 10 171 m, 880 50 70 V. 70) 25 8	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury (1/20 W. Newbury	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21.	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/29 10/30 Scoter spe	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies	475 10 171 m, 880 50 70 V. 70 25 8	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury (1/20 W. Newbury	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21.	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V.	475 10 171 m, 880 50 70 V. 70) 25 8	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21.	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spee 10/26 Long-taile	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck	475 10 171 m, 880 50 70 V. 70 25 8 15 45,000+	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22	P.I. J.T. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. W. Newbury J. Arlington Res. Southboro	95, 4 80, 35 76 980 50 34 30	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines A. S. Perkins# W. Petersen# 725 R. Heil 63 M. Rines M. Lynch#	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town	475 10 171 m, 880 50 70 V. 70 25 8 15 45,000+	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. W. Newbury J. Arlington Res. Southboro Camb. (F.P.)	95, 4 80, 35 76 980 50 34 30 1 m 2, 26 657 105	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines 1 S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 Scoter spe 10/26 Long-taile 10/9	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.)	475 10 171 m, 880 50 70 V. 70 15 45,000+ 2 16	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necks 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Wayland Arlington Res. Southboro Camb. (F.P.) Stoughton	95, 4 80, 35 76 980 50 34 30 1 m 2, 20 657 105 208	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res.	475 10 171 m, 880 50 70 V. 70 V. 70 25 8 15 45,000+	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Varlington Res. Southboro Camb. (F.P.) Stoughton Easton	95, 44 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2,26 657 105 208 226	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil 63 M. Rines M. Lynch# R. Stymeist R. Titus D. Larson	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 Scoter spe 10/26 Long-taile 10/9 10/16	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin	475 10 171 m, 880 50 70 V. 70 V. 70 25 8 15 45,000+ 2 16 24 19	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 10/28	P.I. 7 GMNWR 7 GMNWR 8 Andwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury 20 W. Newbury 4 Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2 2, 2(657 105 208 226 315	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines A. S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small#	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.)	475 10 171 m, 880 50 70 V. 70 V. 70 25 8 15 45,000+	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 10/28 10/29	P.I. J.T. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Wayland Camb. (F.P.) Camb. (F.P.) Stoughton Easton Petersham Pittsfield	95, 44 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2,26 657 105 208 226	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil 63 M. Rines M. Lynch# R. Stymeist R. Titus D. Larson	10/9 10/7 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.)	475 10 171 m, 880 50 70 V. 70 V. 15 45,000+ 2 16 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/28 10/29 Tufted Du	P.I. // GMNWR // Camb. (F.P.) // Camb. (95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2,2 657 105 208 226 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil A. M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth	10/9 10/15 10/15 10/15 10/18 10/29 10/29 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/28	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.)	475 10 171 m, 880 50 70 V. 70 V. 70 25 8 15 45,000+ 2 16 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith
9/3, 22 9/29, 10 10/19 10/20 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/28 10/29 Tufted Du 10/3-30	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ek Sterling	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2 2, 2(657 105 208 226 315	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines A. S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small#	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/28 10/28 10/29 Bufflehead 10/16	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) Chilmark Braintree	475 10 171 m, 880 50 70 V. 70 0 25 8 15 45,000+ 2 16 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 10/28 10/29 Tufted Du 10/3-30 Greater Sc:	P.I. J.T. J.T. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Wewbury (P. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup	95, 44 80, 35 76 980 50 34 30 1 m 2, 21 2, 27 657 105 208 226 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy#	10/9 10/7 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead 10/16 10/19	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) Chilmark Braintree	475 10 171 m, 880 50 70 V. 70 V. 70 25 8 15 45,000+ 2 16 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/28 10/29 Tufted Du 10/3-30 Greater Sc: 9/16	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2,2c 657 105 208 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons	10/9 10/15 10/15 10/15 10/18 10/29 10/29 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/28 10/29 10/16 10/19	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) I Chilmark Braintree I Randolph Falmouth	475 10 171 m, 880 50 70 V. 70 V. 70 V. 25 8 15 45,000+ 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/18 10/20 10/28 10/29 Tufted Du 10/3-30 Greater Sci 9/16	P.I. J.T. J.T. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellfleet	95, 4 80, 35 76 980 50 34 30 1 m 2, 20 657 105 208 226 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil 63 M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil	10/9 10/15 10/15 10/15 10/18 10/29 10/29 10/30 Scoter spe 10/26 Long-taile 10/28 10/28 10/28 10/29 Buffleheac 10/16 10/19 10/21-3 10/23 10/23	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) Chilmark Braintree Randolph Falmouth Wachusett Res.	475 10 171 m, 880 50 70 V. 70 V. 70 V. 25 8 15 45,000+ 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 Tufted Du 10/3-30 Greater Sc: 9/16 9/20 10/9	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. W. Newbury Carb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellfleet Rockport (A.P.)	95, 4 80, 35 76 980 50 34 30 1 1 2, 2 657 105 208 226 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil R. Heil	10/9 10/7 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead 10/16 10/19 10/21-3 10/23 10/23 10/25 10/25 10/25	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) Chilmark Braintree Randolph Falmouth Wachusett Res. E. Quabbin	475 10 171 m, 880 50 70 V. 70 V. 25 8 15 45,000+ 24 19 400 1 6 24 max 7 5 2	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe# D. Small
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 10/28 10/3-30 Greater Sci 9/20 10/9 10/19	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellifleet Rockport (A.P.) Braintree	95, 4 80, 35 76 980 50 34 30 1 m 2 2, 2, 26 657 105 208 226 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil 63 M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil R. Heil D. Larson	10/9 10/9 10/15 10/15 10/18 10/29 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead 10/19 10/21-3 10/25 10/25 10/25 10/25 10/25 10/26	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) il Chilmark Braintree il Randolph Falmouth Wachusett Res. E. Quabbin Waltham	475 10 171 m, 880 50 70 V. 70 V. 70 V. 25 8 15 45,000+ 24 19 400	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe#
9/3, 22 9/29, 10 10/19 10/20 10/22 10/28 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/28 10/29 Tufted Du 10/3-30 Greater Sc: 9/16 9/20 10/9 10/19 10/19	P.I. // GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury //20 W. Newbury (2 Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellfleet Rockport (A.P.) Braintree Falmouth	95, 4 80, 35 76 980 50 34 30 1 m 2 C.H.) 21, 2,20 657 105 208 315 500	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil R. Heil	10/9 10/7 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead 10/16 10/19 10/21-3 10/23 10/23 10/25 10/25 10/25	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) il Chilmark Braintree il Randolph Falmouth Wachusett Res. E. Quabbin Waltham	475 10 171 m, 880 50 70 V. 70 V. 25 8 15 45,000+ 24 19 400 1 6 24 max 7 5 2	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe# D. Small M. Rines
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/20 10/28 10/29 Tufted Du 10/3-30 Greater Sc: 9/16 9/20 10/9 10/19 10/23 10/23 10/25	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellifleet Rockport (A.P.) Braintree	95, 4 80, 35 76 980 50 34 30 1 m 2.2, 20 65, 208 226 315, 500 1 6 5 111 38 164 18	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil 63 M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil R. Heil D. Larson	10/9 10/9 10/15 10/15 10/18 10/29 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Bufflehead 10/19 10/21-3 10/25 10/25 10/25 10/25 10/25 10/26	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) il Chilmark Braintree il Randolph Falmouth Wachusett Res. E. Quabbin Waltham	475 10 171 m, 880 50 70 V. 70 V. 25 8 15 45,000+ 24 19 400 1 6 24 max 7 5 2	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe# D. Small M. Rines
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/13 10/20 Tufted Du 10/3-30 Greater Sc: 9/16 9/20 10/9 10/19 10/25 10/25 10/25	P.I. J. GMNWR Sandwich P.I. Wayland E. Quabbin k Camb. (F.P.) ed Duck S. Monomoy W. Newbury J. Arlington Res. Southboro Camb. (F.P.) Stoughton Easton Petersham Pittsfield ck Sterling aup Lakeville Wellfleet Rockport (A.P.) Braintree Falmouth Sterling Newbypt	95, 4 80, 35 76 980 50 34 30 1 m 2 2, 2, 26 657 105 208 226 315 500 1 6 5 5 11 38 164 188 11	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines A. S. Perkins# W. Petersen# 725 R. Heil 63 M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil R. Heil D. Larson R. Farrell	10/9 10/7 10/15 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/28 10/29 Bufflehead 10/16 10/12 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/29	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) d Chilmark Braintree d Randolph Falmouth Wachusett Res. E. Quabbin Waltham Goldeneye Turner's Falls	475 10 171 m, 880 50 70 V. 70 V. 25 8 15 45,000+ 24 19 400 16 24 max 7 5 2 4	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe# D. Small M. Rines R. Packard
9/3, 22 9/29, 10 10/19 10/20 10/22 10/23 Canvasbac 10/23 Ring-necke 9/3 9/4 9/22, 10 10/1, 22 10/8 10/10 10/28 10/10 10/29 Tufted Du 10/3-30 Greater Sc: 9/16 9/20 10/9 10/19 10/23 10/25 10/25 10/28	P.I. // GMNWR // GMNW	95, 4 80, 35 76 980 50 34 30 1 m 2.2, 20 65, 208 226 315, 500 1 6 5 111 38 164 18	40 R. Heil S. Perkins# J. Trimble R. Heil BBC (B. Howell) D. Small M. Rines S. Perkins# W. Petersen# 725 R. Heil M. Rines M. Lynch# R. Stymeist R. Titus D. Larson D. Small# E. Neumuth F. McMenemy# M. Emmons R. Heil D. Larson R. Farrell J. Zumpfe#	10/9 10/9 10/15 10/15 10/18 10/22 10/29 10/30 10/30 Scoter spe 10/26 Long-taile 10/9 10/16 10/28 10/28 10/29 Buffleheac 10/16 10/19 10/21-3 10/25 10/25 10/26 10/29 10/26 10/29 10/26 10/29 10/20	Rockport (A.P.) Eastham (F.E.) S. Quabbin M.V. Richmond Manomet Lynnfield Pittsfield (Onota Waltham Gardner cies M.V. d Duck P'town Rockport (A.P.) Wachusett Res. S. Quabbin Eastham (F.E.) il Chilmark Braintree il Randolph Falmouth Wachusett Res. E. Quabbin Waltham Goldeneye Turner's Falls Newbypt/P.I.	475 10 171 m, 880 50 70 V. 70 V. 25 8 15 45,000+ 24 19 400 16 24 max 7 5 2 4	R. Heil S. Perkins# 4 f S. Surner M. Lynch# E. Neumuth Yurkunas + v.o. P. + F. Vale E. Neumuth M. Rines T. Pirro J. Trimble# S. Perkins# J. Soucy M. Lynch# T. Gagnon B. Nikula A. Keith D. Larson G. d'Entremont R. Farrell J. Zumpfe# D. Small M. Rines R. Packard J. Berry#
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Hooded Merganser (continued) 10/16-30 Melrose 6-18 D. + I. Jewell	10/12-13 Chatham 16 EMHW (D. Manchester)
10/10/00/	10/20-22 Granville 233 T. Swochak# 10/22 Barre 36 EMHW (B. Kamp)
	10/22 Barre 36 EMHW (B. Kamp) Cooper's Hawk
	9/6-10/22 Mt. Wachusett 27 EMHW
	9/5-10/22 Mt. Wachusett 27 EMHW 9/5-10/22 Mt. Watatic 43 EMHW
10/30 Lexington 22 M. Rines Red-breasted Merganser	9/13-16 Mt. Tom 10 T. Gagnon
9/2-30 Falmouth 2 max R. Farrell	9/14-10/7 Gardner 7 T. Pirro
9/3 S. Monomoy 1 f S. Perkins#	9/22 Newbypt 3 R. Heil
9/24 P.I. 25+ P. + F. Vale	9/22 Newbypt 3 R. Heil 9/25 Cuttyhunk 7 R. Stymeist#
	10/7 GMNWR 5 migr S. Perkins#
10/16 Rockport (A.P.) 12 J. Soucy 10/21 Wachusett Res. 1 M. Lynch#	10/7 Gardner 3 T. Pirro
10/21 Wachdsett Res. 1 W. Eyhelii 10/23 Falmouth 42 R. Farrell	10/8 M.V. 3 SSBC (D Clapp)
Common Merganser	10/8-12 Chatham 15 EMHW (D. Manchester)
9/30 Wachusett Res. 13 M. Lynch#	10/8-20 Barre 20 EMHW (B. Kamp)
10/7 S. Quabbin 42 T. Gagnon	10/21 Truro 3 J. Trimble#
10/21 Holden 39 M. Lynch#	Northern Goshawk
10/28 Lakeville 6 K. Anderson	9/9 Northampton 1 H. Allen
10/30 Lincoln 14 M. Rines	9/13, 14 Mt. Watatic 1, 1 EMHW
Ruddy Duck	9/14, 16 Mt. Tom 1, 1 T. Gagnon
9/22, 10/20 W. Newbury (C.H.) 5, 255 R. Heil	9/22 Newbypt 1 imm R. Heil
9/23 Melrose 4 P. + F. Vale	9/25 E. Middleboro l ad K. Anderson
10/thr Melrose 220 max 10/6 D. + I. Jewell	9/25 Westport 1 B. Cassie
10/8 Southboro 139 M. Lynch#	10/1 Williamsburg 1 R. Packard
10/13 Waltham 80 M. Rines	10/7 Gardner 2 ad T. Pirro
10/15 Pembroke 360 W. Petersen#	10/8 Lancaster 1 imm S. Leonard
10/20 Canton 451 D. Larson	10/8 Bolton Flats 1 R. Lockwood#
10/21 Southboro 200 E. Taylor	10/9 Maynard 1 ad L. Nachtrab
10/23 Camb. (F.P.) 489 M. Rines	10/13, 14, 22 Mt. Watatic 2, 1, 1 EMHW
10/24 W. Newbury 400 J. Berry#	10/16 Cumb. Farms 1 R. Finch#
10/29 Pittsfield 18 E. Neumuth	10/20 Barre 3 EMHW (B. Kamp)
Osprey	Red-shouldered Hawk
9/1-10/13 Mt. Watatic 241 EMHW	9/thr E. Middleboro 1-4 K. Anderson 9/3 Scituate 1 W. Petersen
9/5-10/7 Mt. Wachusett 250 EMHW	9/3 Scituate 1 W. Petersen 9/9, 10/7GMNWR 1, 1 S. Perkins#
9/9-24 Lancaster 58 EMHW (B. Kamp)	9/25 Groton 1 imm T. Pirro
9/9-10/7 Gardner 55 T. Pirro 9/14, 16 Mt. Tom 5, 7 T. Gagnon	9/27 Chesterfield 2 ad, 2 imm B. Packard
	10/7-20 Mt. Watatic 7 EMHW
9/19 Granville 18 T. Swochak# 9/22-10/4 Groton 27 T. Pirro	10/7 W. Bridgewater 2 S. Arena
	10/9 Dorchester 1 imm R. Donovan#
9/22 Newbypt 17 R. Heil 10/7 Gardner 13 T. Pirro	10/1, 26 Maynard 1, 1 L. Nachtrab
10/7 GMNWR 8 S. Perkins#	10/13 Mattapoisett 1 M. LaBossiere#
10/7-14 Barre 22 EMHW (B. Kamp)	10/15 Randolph 1 ad G. d'Entremont
Bald Eagle	10/22 Mt. Wachusett 2 EMHW (J. Stein)
9/1-10/23 Mt. Watatic 31 T. McCullough	10/22 Carlisle 1 T. + D. Brownrigg
9/13-28 Mt. Wachusett 19 EMHW	10/22 Gardner 5 T. Pirro
9/13-16 Mt. Tom 20 T. Gagnon	10/22-23 Mt. Watatic 24 EMHW
9/16 Lakeville 2 M. Emmons	Broad-winged Hawk
9/16, 17 Lancaster 2, 1 EMHW (B. Kamp)	9/5-20 Mt. Watatic 10771 T. McCullough
9/18 Groton 2 T. Pirro	9/5-20 Mt. Wachusett 5028 EMHW
9/22, 10/20 P.I. 2 imm, 2 imm R. Heil	9/9-24 Lancaster 1483 EMHW (B. Kamp)
9/27 Granville 8 T. Swochak#	9/10, 14 Gardner 57, 172 T. Pirro
10/7-8 Barre 8 EMHW (B. Kamp)	9/13-20 Granville 3649 T. Swochak#
Northern Harrier	9/13-16 Mt. Tom 1831 T. Gagnon
9/thr GMNWR 4 max 9/23 S. Perkins#	9/16, 22 Maynard 170, 433 L. Nachtrab
9/3 S. Monomoy 7 S. Perkins#	9/16 Barre F.D./Rutland S.P. 220 M. Lynch#
9/5-10/8 Mt. Watatic 18 T. McCullough	9/17 Brookfield 100 R.Wolanin
9/9-9/23 Lancaster 10 EMHW (B. Kamp)	9/18-27 Groton 1949 T. Pirro
9/16-29 Mt. Wachusset 7 EMHW	9/19, 20 Barre 444, 48 EMHW (B. Kamp) 9/21-29 Mt. Wachusett 3867 EMHW
9/22 Newbypt/P.I. 11 R. Heil	
9/25 Cuttyhunk 5 R. Stymeist#	9/22 Newbypt 76 R. Heil 9/22-10/1 Mt. Watatic 3561 EMHW (P. Staub)
9/28 Gardner 3 T. Pirro	
10/7 Barre 3 EMHW (B. Kamp)	Red-tailed Hawk 9/30 Granville 39 T. Swochak#
10/8 Mt. Watatic 3 EMHW	
10/8 M.V. 6 SSBC (D Clapp)	10/12-13 Mt. Watatic 16 T. McCullough 10/20-22 Mt. Watatic 63 T. McCullough
10/8 Bolton Flats 3 R. Lockwood# 10/20 P.I. 9 R. Heil	Rough-legged Hawk
	10/13 P.I. 1 P. + F. Vale
Sharp-shinned Hawk 9/5-10/23 Mt. Watatic 885 EMHW	10/20 P.I. 1 lt R. Heil
9/6-10/22 Mt. Watatic 883 EMHW 9/6-10/22 Mt. Wachusett 271 EMHW	Golden Eagle
9/9-10/24 Lancaster 90 EMHW (B. Kamp)	9/10, 24, 25 Mt. Watatic 1, 1, 1 T. McCullough
9/9-10/24 Lancaster 90 Elviri W (B. Rainp) 9/9-10/22 Gardner 170 T. Pirro	9/25 Mt. Wachusett 1 ad EMHW (J. Stein)
9/13-16 Mt. Tom 68 T. Gagnon	9/27, 10/13, 20 Granville 1, 1, 1 T. Swochak#
9/19-10/22 Barre 426 EMHW (B. Kamp)	10/3, 12 Mt. Watatic 1 ad T. McCullough
9/25 Cuttyhunk 18 R. Stymeist#	10/13 20 Mt. Watatic 1 imm T. McCullough
9/25-27 Groton 16 T. Pirro	10/20 Barre 1 imm EMHW (B. Kamp)
9/27-28 Granville 116 T. Swochak#	10/30 Concord 1 J. Paluzzi#
10/7 GMNWR 26 migr S. Perkins#	

American	Kestrel			American	Coot		
	15 Mt. Watatic	86	EMHW	9/16		1	C DE-
	7 Mt. Wachusett		EMHW	9/30	Randolph	1	G. d'Entremont#
	7 Gardner	34	T. Pirro		Lakeville	4	W. Petersen#
	Lancaster			10/7, 3	0 Braintree	1, 2	S. Carey
9/13	Mt. Tom	30 E	MHW (B. Kamp)	10//, 3	1 Arlington	36, 80	
	0/14 Barre	20	T. Gagnon	10/10	Stoughton	3	D. Larson
		41 E.	MHW (B. Kamp)	10/11	Woburn	3	M. Rines
9/22	Newbypt	23	R. Heil	10/21	Randolph	5	G. d'Entremont
	0/19 Groton	38	T. Pirro	10/25	W. Newbury (C	.H.) 3	R. Heil
9/26	Hadley	21	B. Packard	10/28	Wakefield	6	P. + F. Vale
	8 Granville	81	T. Swochak#		lied Plover		
10/22	Granville	38	T. Swochak#	9/10	Revere	120	S. Zendeh
Merlin				9/20	Chatham(S.B.)	3500	R. Heil
9/5	Nahant	3	R. Heil	9/24	Longmeadow	1	T. Gagnon
9/5	Edgartown	2+	V. Laux	9/30	Longmeadow WBWS	200	G. d'Entremont#
9/5-10/	14 Mt. Watatic		EMHW	10/7	M.V.	120	J. Trimble#
9/6-28	Mt. Wachusett		EMHW	10/20	Ipswich	200	R. Heil
9/9-24			MHW (B. Kamp)	10/20		210	
9/18	Groton	2	T. Pirro	10/21	Newbypt/P.I. Holden		R. Heil
9/22	Newbypt	2 3 6				2	M. Lynch#
9/23		3	R. Heil	10/29	Wachusett Res.		M. Lynch#
9/24	Nahant	0	R. Heil	10/29	Ipswich	110+	J. Berry#
	P.I.	3	P. + F. Vale		Golden-Plover		
9/25	Cuttyhunk	3	R. Stymeist#	9/10, 2	2 P.I.	2, 6	R. Heil
10/7-17		8	J. Trimble#		7 GMNWR	4	M. Rines
10/7	GMNWR	2	S. Perkins#	9/18, 2	3 Chatham (S.B.)	5, 12	B. Nikula#
10/7-8	Barre	9 E	MHW (B. Kamp)	9/22, 1	0/4 N. Monomoy	5, 12 4, 2	B. Nikula
Peregrine			Commercial Control of the Control of	9/23	Cuttyhunk I.	5	W. Petersen#
	0/21 Mt. Watatic	17	T. McCullough	9/23	P'town	3	J. Young
9/13	P.I.	2	D. Larson	9/23	S. Monomoy	16	J. Sones#
9/14-28	Mt. Wachusett	9 EMI	HW (D. Gardella)	9/24	Hadley	7	S. Surner
9/22	Newbypt	8	R. Heil	9/24	Northampton	24	S. Surner
9/24	P.I.		P. + F. Vale	10/16	Cumb. Farms	4	R. Finch#
10/1	Eastham (F.H.)	2	J. Trimble	10/20	Ipswich	4	
10/1	Chatham (S.B.	5	R. Donovan#	10/20	Newbypt/P.I.	5	R. Heil
10/6	Chappaquiddic		M. Pelikan#		ated Plover	3	R. Heil
	Chatham	22 EMIN	(D. Manchester)	9/1		250 D	DC (D C P MAL)
10/11	Gay Head	25	V. Laux#	0/2 10	Revere	330 B	BC (P. + F. Vale)
10/13	M.V.	18		9/2, 10	/1Chatham (S.B.)	1800, 30	
10/14	Nantucket	15	J. Trimble#	9/4	Ipswich (C.B.)	1250	C. Buelow
			fide E. Ray	9/4	Longmeadow	6	B. Bieda
10/14	Barre		MHW (B. Kamp)	9/5	Eastham	650	B. Nikula
10/16	Plymouth (Saq	uish) 2	E. Neumuth	9/24	Hadley	3	S. Surner
Ruffed Gr				9/29	Plymouth (Saqu		E. Neumuth
9/23	Stow	1	R. Lockwood	10/9	Eastham (F.E.)	12	S. Perkins#
10/1	Lancaster	1	R. Lockwood	10/21	Rowley	2	J. Berry
10/5	E. Middleboro	1	K. Anderson	10/25	Newbypt/P.I.	26	R. Heil
10/12	Quabbin (G22)		B. Lafley	Piping Plo	over		
10/13	Maynard	1	L. Nachtrab	9/8	Ipswich (C.B.)	12	C. Buelow
10/13	Stoughton	1	R. Titus	9/16	Chatham (S.B.)	26	W. Petersen#
10/14	Clinton	1	E. Taylor	10/1	Chatham (S.B.)		R. Donovan#
10/21	Gardner	1	T. Pirro	Killdeer	C		The Dono talls
Wild Turk	ev			9/thr	GMNWR 8	80 max 9/1	S. Perkins#
9/2	Erving	5	V. Yurkunas	9/2	Hadley	85	S. Surner
9/13	P.I.	2	M. Taylor	9/2	Northampton	151	T. Gagnon
10/8	M.V.	22	SSBC (D. Clapp)	9/12	Longmeadow	23	B. Packard
10/14	Cumb. Farms	8	R. Finch#	9/23	Arlington Res.	35	M. Rines
10/29	Quabbin (G16)		B. Kane	10/1	Deerfield	35	S. Surner
Northern I	Rohwhite		D. Ranc	10/19	Topsfield	30	
9/24	WBWS	10	D. + S. Larson		Ousterestaber	30	R. Heil
10/1				American	Oystercatcher	170 00	D 1171 1
10/1	Eastham (F.H.)	7 5	J. Trimble	9/2, 10/	/1Chatham (S.B.) Duxbury B.	170, 83	B. Nikula
	N. Truro	5	W. Petersen#	9/10		3	W. Petersen
Virginia R				9/25	Cuttyhunk	5	R. Stymeist#
9/4	Bolton Flats	5	M. Lynch#	9/30	Nantucket		C (L. Ferraresso)
9/10	Newbypt	1	R. Heil	10/7	Squantum		G. d'Entremont#
9/11	GMNWR	1	B. Perkins#	10/14	M.V.	7	J. Trimble#
9/23	Cuttyhunk I.	1	W. Petersen#	Greater Ye	ellowlegs		
10/1	South Shore	2SS	BC (D. Peacock)	9/3	Chatham (S.B.)	60	S. Perkins#
10/1	Lancaster	1	J. Liller#	9/4	N. Monomoy	250	B. Nikula
10/15	M.V.	2	J. Trimble#	9/30	WBWS		G. d'Entremont#
Sora	TARREST AND ADDRESS OF THE PARTY OF THE PART			10/1	Eastham (F.H.)	225+	J. Trimble
9/9	P.I.	2	D. Peacock#	10/7	Holden	6	M. Lynch#
		3	R. Donovan#	10/8	Shirley	6	R. Lockwood#
10/7	Dorchester	2		10/8	Braintree	6	
10/7	Dorchester M V	1					
10/15	M.V.	1	J. Trimble#				D. Larson
10/15 10/18	M.V. Northampton	1	B. Bieda	10/20, 2	25 Newbypt/P.I.	180, 10	5 R. Heil
10/15 10/18 Purple Ga	M.V. Northampton allinule	1	B. Bieda	10/20, 1 10/21	25 Newbypt/P.I. Squantum	180, 10 20	S R. Heil C. Lee
10/15 10/18	M.V. Northampton			10/20, 2 10/21 10/21	25 Newbypt/P.I. Squantum Rowley	180, 10 20 55	S R. Heil C. Lee J. Berry
10/15 10/18 Purple Ga	M.V. Northampton allinule Westboro	1	B. Bieda	10/20, 2 10/21 10/21 10/29	25 Newbypt/P.I. Squantum Rowley Ipswich	180, 10 20	S R. Heil C. Lee
10/15 10/18 Purple Ga 10/25 Common	M.V. Northampton allinule Westboro Moorhen	1 1 dead	B. Bieda fide B. Blodget	10/20, 2 10/21 10/21 10/29 Lesser Yel	25 Newbypt/P.I. Squantum Rowley Ipswich llowlegs	180, 10 20 55 15	R. Heil C. Lee J. Berry J. Berry#
10/15 10/18 Purple Ga 10/25	M.V. Northampton allinule Westboro	1	B. Bieda	10/20, 2 10/21 10/21 10/29	25 Newbypt/P.I. Squantum Rowley Ipswich	180, 10 20 55	S R. Heil C. Lee J. Berry

Lesser Yellowlegs (continued)	9/2, 20 Chatham (S.B.) 1100, 150 B. Nikula
9/3 Northbridge 2 M. Lynch#	9/4, 15 Ipswich (C.B.) 1200, 975 C. Buelow
9/4 N. Monomoy 70 B. Nikula	9/5 Eastham 650 B. Nikula
9/22, 10/25 Newbypt/P.I. 55, 10 R. Heil	
9/24 Shirley 2 R. Lockwood	
9/30 WBWS 33 G. d'Entremont#	
10/1 Fasthers (FII) 5 U. d Entremont#	
10/1 Eastham (F.H.) 5 J. Trimble 10/13 Quabbin (G37) 3 B. Lafley	9/29 Plymouth (Saquish) 125 E. Neumuth
	10/1, 14 Chatham (S.B.) 350, 80 B. Nikula
Solitary Sandpiper	10/15 Nauset 120 B. Nikula
9/2 Deerfield 7 B. Packard	10/20, 25 Newbypt/P.I. 55, 35 R. Heil
9/3 Northbridge 19 M. Lynch#	Western Sandpiper
9/14 Barre 3 C. Buelow 9/17 GMNWR 2 D. + S. Larson 9/24 Shirley 3 R. Lockwood 9/30 Holden 9 M. Lynch# 10/7 Arlington Res. 3 J. Forbes	. 9/3 Nahant B 1 L. Pivacek
9/17 GMNWR 2 D. + S. Larson	9/5 Eastham 2 B. Nikula
9/24 Shirley 3 R. Lockwood	9/9 S. Monomoy 1 W. Petersen#
9/30 Holden 9 M. Lynch# 10/7 Arlington Res. 3 J. Forbes	9/10 Revere 6 S. Zendeh
10/7 Arlington Res. 3 J. Forbes	9/10 E. Boston (B.I.) 7 S. Zendeh
10/18 Gloucester 1 R. Heil	9/11 P.I. 2 W. Drew#
10/19 Topsfield 1 R. Heil	9/16 Chatham (S.B.) 3 B. Nikula
Willet	9/22 Randolph 1-2 imm G. d'Entremont
9/4, 10/14 N. Monomoy 35, 6 B. Nikula	9/29 Plymouth (Saquish) 4 E. Neumuth
9/5 Eastham 20 B. Nikula	10/1, 14 Chatham (S.B.) 10, 4 B. Nikula
10/5-31 Chatham 34 max J. Sones + v.o.	Least Sandpiper
Spotted Sandpiper	9/thr GMNWR 80 max 9/1-3 S. Perkins#
9/12 Longmeadow 5 B. Packard	9/3 Grafton 58 M. Lynch#
9/12 Longmeadow 5 B. Packard 9/16 Wellfleet 2 BBC (R. Stymeist)	9/3 Chatham (S.B.) 100 S. Perkins#
10/7 Holden 3 M. Lynch#	9/4 N. Monomoy 150 B. Nikula
10/15, 22 Arlington Res. 1 P. Roberts 10/25 W. Newbury (C.H.) 1 R. Heil	
10/25 W. Newbury (C.H.) 1 R. Heil	
Upland Sandpiper	10/4 N. Monomoy 12 B. Nikula
9/2 DWWS 1 D. Furbish	10/7 GMNWR 1 S. Perkins#
9/9 P.I. 1 D. Peacock#	10/20 Ipswich 3 juv R. Heil
9/14 GMNWR 1 S. Mac	White-rumped Sandpiper
9/25 Agawam 1 R. Stone	9/1 Revere 4 BBC (P. + F. Vale)
Whimbrel	9/2, 10/14 Chatham (S.B.) 250, 90 B. Nikula
9/11 Ipswich (C.B.) 5 C. Buelow	9/3 S. Monomoy 40 S. Perkins#
9/11 Newbury 14 J. Soucy#	9/3, 10/25 P.I., Newbypt/P.I. 180, 24 R. Heil
9/16 Wellfleet 8 BBC (R. Stymeist)	9/4 Longmeadow 1 B. Bieda
9/19 Nantucket 22 fide E. Ray	9/4-29 GMNWR 1-2 S. Perkins#
9/20 P.I. 30 MAS (N. Soulette)	9/5 Eastham 100 B. Nikula
9/22, 10/4 N. Monomoy 60, 5 B. Nikula	9/9 Grafton 1 M. Lynch#
10/14 M.V. 3 M. Lynch#	9/13 Chilmark 14 A. Keith
Hudsonian Godwit	10/14 Squantum 2 G. d'Entremont
9/5 Eastham 3 B. Nikula	10/15 Nauset 45 B. Nikula
9/10 Revere 1 S. Zendeh	Baird's Sandpiper
9/20, 10/14 Chatham (S.B.) 8, 1 B. Nikula	9/2 Longmeadow 1 S. Kellogg
10/8 Newbypt H. 1 E. Nielsen	9/2 GMNWR 1 juv S. Perkins#
10/23 P.I. 1 J. Berry	9/2 Rockport 1 S.Leonard#
Marbled Godwit	9/3-10/7 P.I. 1-2 v.o.
9/1-30 S.B./N.Monomoy 4 max v.o.	9/8-11 Ipswich (C.B.) 1 C. Buelow
9/24 Nauset 1 D. + S. Larson	9/9 Mt. Watatic 1 B. Nikula
	9/13 Chilmark 3 V. Laux
10/5-31 Chatham 6 max J. Sones + v.o.	
Ruddy Turnstone 9/2-3 Hadley 1 H. Allen	
	Pectoral Sandpiper
9/3 P.I. 25 C. Holzapfel	thr GMNWR 80 max 10/8 S. Perkins# 9/13 Chilmark 6 V. Laux
9/3 Chatham (S.B.) 60 S. Perkins#	
9/8 Ipswich (C.B.) 10 C. Buelow	9/22, 10/14 N. Monomoy 4, 12 B. Nikula 9/28 Arlington Res. 8 M. Rines
9/29 Plymouth (Saquish) 15 E. Neumuth	
9/30 Nantucket 30 BBC (L. Ferraresso)	9/30 Holden 29 M. Lynch#
10/21 Holden 1 M. Lynch#	10/1 Deerfield 15 S. Surner
Red Knot	10/8 Shirley 11 R. Lockwood#
9/2, 10/14 Chatham (S.B.) 550, 350 B. Nikula	10/14, 25 P.I. 33, 8 R. Heil
9/12 Ipswich (C.B.) 18 C. Buelow	10/15 Randolph 10 G. d'Entremont
9/24 P.I. 42 J. Hoye#	10/29 Braintree 2 S. Carey
9/29 Plymouth (Saquish) 18 E. Neumuth	Purple Sandpiper
10/7 M.V. 2 J. Trimble#	10/15 N. Scituate 2 W. Petersen#
Sanderling	Dunlin
9/1 Revere 200 BBC (P. + F. Vale)	9/20, 10/14 Chatham (S.B.) 225, 2400 B. Nikula
9/1-30 Chatham (S.B.) 2000 max B. Nikula	9/29 Plymouth (Saquish) 50 E. Neumuth
9/4 Ipswich (C.B.) 1100 C. Buelow	9/30 Holden 1 M. Lynch#
	10/7-08 GMNWR 1 S. Perkins#
	10/13 Quabbin (G37) 4 B. Lafley
9/23 Scituate 108 G. d'Entremont	
9/29 Plymouth (Saquish) 2000 E. Neumuth	
10/1 Chatham (S.B.) 1800 B. Nikula	10/29 Ipswich 75 J. Berry#
10/20 Newbypt/P.I. 750 R. Heil	Stilt Sandpiper
10/20 Newbypt/P.I. 750 R. Heil Semipalmated Sandpiper	9/3 S. Monomoy 4 S. Perkins#
10/20 Newbypt/P.I. 750 R. Heil	

Stilt Sandpiper (continued)	2000	500 0000	Laughing (Gull		
9/10-17 P.I.	2-3	R. Heil	9/1	Revere	35 BBC	(P. + F. Vale)
9/21 Ipswich (C.B.)	1	C. Buelow	9/4	Cape Ann	20+	R. Heil
9/30 Eastham	1	J. Hoye#	9/5, 23	Nahant	600, 400	R. Heil
10/11 Newbypt H.	2 juv	R. Heil	9/10	E. Boston (B.I.)	15	S. Zendeh
10/18 Gloucester	1	R. Heil	9/15	Ipswich (C.B.)	30	C. Buelow
Buff-breasted Sandpiper		т С	9/20	P'town (R.P.)	250	R. Heil
9/2 Northampton 9/3-22 P.I.	1	T. Gagnon	9/30	WBWS		d'Entremont#
	1-4	R. Heil + v.o.	10/7 10/9	Squantum	30 G. 27	d'Entremont#
9/4 Orange 9/9 S. Monomoy	1	B. Kane W. Petersen#	10/9	Rockport (A.P.) M.V.	179	R. Heil
9/10 Duxbury B.	1	W. Petersen	10/13	Chatham	1100+	M. Lynch# J. Trimble#
9/10 Chatham (S.B.)	i	B. Nikula	Little Gull		11001	J. IIIIIDIC#
9/11-13 GMNWR	3	M. Rines	10/8	Newbypt H.	1 juv	E. Nielsen
9/11-27 Newbypt	9 max 9/19	J. Soucy + v.o.	10/15	Marblehead	1 juv	R. Heil
9/17 Eastham	1	W. Petersen#	10/25	Newbypt	1 1W	R. Heil
9/19 Nantucket	2	fide E. Ray	Black-head			10. 11011
Short-billed Dowitcher				l Chatham (S.B.)	2 max	B. Nikula#
9/2, 9/20Chatham (S.B.)	150, 20	B. Nikula	10/27	Lynn	1	J. Quigley
9/10 Revere	15	S. Zendeh	Bonaparte'			
9/11 P.I.	36	W. Drew#	9/3	Chatham (S.B.)	14	S. Perkins#
9/16 Squantum	3 G	d'Entremont#	9/5, 23	Nahant	500, 3000	R. Heil
10/4, 14 N. Monomoy	35, 12	B. Nikula	10/8	Newbypt H.	471	E. Nielsen
10/8 P.I	8	P. + F. Vale	10/15	Marblehead	500+	R. Heil
Long-billed Dowitcher		200	10/29	Ipswich	90	J. Berry#
974 P.I.	12	W. Petersen#		ck-backed Gull		
9/5 Eastham	3+	B. Nikula	9/6	W. Tisbury	4	V. Laux
9/9 S. Monomoy	2	W. Petersen#	9/8	Nantucket	1	E. Ray
9/10 Ipswich	1 ad	R. Heil	9/9	S.B./N. Monomoy		W. Petersen#
9/17 GMNWR	1	M. Rines#	9/10	Acoaxet	1 1 ad	M. Lynch#
10/1 Chatham (S.B.)		B. Nikula	9/10	P.I.		W. Taitrow M. Kale
10/14, 25 P.I.	52, 18	R. Heil	9/10 9/16	Mattapan Chatham (C.D.)	15	W. Naie
Common Snipe 9/thr GMNWR	6 max 9/2	S. Perkins#	10/1	Chatham (S.B.) P'town	2	W. Petersen# W. Petersen#
		n 10 locations	10/14	N. Monomoy	3	B. Nikula
9/2, 24 Hadley	1 5	S. Surner	10/14	Edgartown	1 1W	J. Trimble
9/30 Holden	1, 5	M. Lynch#	10/27	Acton	1 ad	M. Resch
10/7 GMNWR	4	S. Perkins#		Gull X Lesser Black		
10/7 Hardwick	2	C. Buelow	9/3	Chatham (S.B.)	1 35-4	W S. Perkins#
10/8 Northbridge	2 3 4 7 3	M. Lynch#	Glaucous (
10/17 S. Peabody	4	R. Heil	10/1	Chatham (S.B.)	1 imm	R. Donovan#
10/20 Ipswich	7	R. Heil		ged Kittiwake		
10/22 New Braintree	3	C. Buelow	9/10	Stellwagen	4	B. Nikula#
10/26 Marstons Mills	10	St. Miller	10/1	Chatham (S.B.)	3	R. Donovan#
American Woodcock			10/9	P'town	4	S. Perkins#
10/2 Southwick	1	S. Kellogg	10/14	Nant. Shoals	4	S. Perkins#
Wilson's Phalarope		4.22.2	10/16	Rockport (A.P.)	1	J. Soucy
9/2 Chatham (S.B.)	1	B. Nikula	10/23	Newbypt/P.I.	2	J. Berry
Red-necked Phalarope		0 11 1 01	Sabine's C			D 317 1 #
9/3 P.I.	1	C. Holzapfel	9/10	Stellwagen	2 ad	B. Nikula#
9/9 Stellwagen	24	R. Guthrie	9/30	Stellwagen	1	D. Clapp
9/30 Nantucket		(L. Ferraresso)	Caspian Te			C Halmanfal
10/14 Nant. Shoals	8	S. Perkins#	9/3	P.I.	1	C. Holzapfel
Pomarine Jaeger	2	S. Perkins#	9/10 9/20	E. Boston (B.I.)	1 2	S. Zendeh J. Soucy#
9/3 S. Monomoy 9/10 Stellwagen	20	B. Nikula#	9/21	Rockport	1	C. Buelow
	20	R. Heil	9/23	Ipswich (C.B.) P.I.	3 1 2 2 1 2 2 2	D. Larson#
9/15 Rockport (A.P.) 10/1 Chatham (S.B.)		R. Donovan#	9/29	Plymouth (Saquish	1) 2	E. Neumuth
10/14 M.V.	ĩ	J. Trimble#	9/29	Duxbury B.	, ī	E. Neumeth
10/14 Nant. Shoals	4	S. Perkins#	10/14	Falmouth	2	R. Farrell#
10/14 Chappaquiddick		J. Trimble#	10/14	M.V.	2	V. Laux#
10/29 Chatham	1 ad	J. Trimble#	Sandwich	Tern		
Parasitic Jaeger			9/10	Chappaquiddick	1	M. Pelikan
9/3 Chatham (S.B.)	12	S. Perkins#	Roseate Te	em		
9/3 S. Monomoy	3	S. Perkins#	9/3	S. Monomoy	15	S. Perkins#
9/4, 22 N. Monomoy	4, 4	B. Nikula	9/3	Chatham (S.B.)	2000+	S. Perkins#
9/10 Stellwagen	8	B. Nikula#	9/4	Rockport (A.P.)	4	R. Heil
9/15 Rockport (A.P.)	3	R. Heil	9/4	Eastham	300	B. Nikula
9/23 Chatham	70	B. Nikula	9/20	Chatham(S.B.)	30+	R. Heil
9/23 Nahant	2 juv	R. Heil	9/20	P'town (R.P.)	5	R. Heil
10/1-28 Chatham	20 max		Common		15 000	C D. Line
10/14 Chappaquiddick	8	J. Trimble#	9/3		15,000	S. Perkins#
10/14 M.V.	2	J. Trimble#	9/4	Eastham	2000 850	B. Nikula
jaeger species	0	D Milanta	9/5, 23 9/15	Nahant Rookport (A.B.)	2000, 850	R. Heil R. Heil
9/6 Chatham (S.B.)	8 20+	B. Nikula		Rockport (A.P.) Wellfleet	320 3000 BBC	(R. Stymeist)
9/10 Stellwagen 9/23 Chatham	100+	B. Nikula# B. Nikula	9/16 9/20	P'town (R.P.)	750	R. Heil
7/23 Chaulani	1001	D. IVIKUIA	9/21	Ipswich (C.B.)	8000	C. Buelow
			2121	.pom (C.D.)	5000	

Common Tern (continued)			Black Terr	1		
9/23, 10/21 Chatham	6000, 400	B. Nikula	9/1	Tisbury	3	R. Emmet
10/20 Newbypt	12	R. Heil	9/2	Chatham (S.B.)	2	B. Nikula
Forster's Tern	-		9/3	Nant. Sound	22	S. Perkins#
9/10 Acoaxet	20	M. Lynch#	9/3	P.I.	4	C. Holzapfel
9/10 Hingham H.	2	D. Peacock	9/3	S. Monomoy	3	S. Perkins#
9/11 Ipswich (C.B.)	4	C. Buelow	9/4	Rockport (A.P.)	2	R. Heil
9/15 Rockport (A.P.)	1	R. Heil	9/4, 21	Ipswich (C.B.)	20, 1	C. Buelow
9/16, 10/14 N. Monomoy	4, 4	B. Nikula	9/5	Nahant	í	R. Heil
9/22, 10/20 Newbypt	3, 3	R. Heil	9/15	Rockport (A.P.)	9	R. Heil
9/23 Nahant	5	R. Heil	9/16	N. Monomoy	2	B. Nikula
9/24 Edgartown	1	A. Keith	10/1	Chatham (S.B.)	2	R. Donovan#
9/24 Truro	9 I). + S. Larson	Dovekie			
10/1-28 Chatham	10 max	B. Nikula	9/14	Stellwagen	1	R. Bieda#
10/15 Plymouth	2	W. Petersen#	Razorbill			
10/27 Barnstable H.	40	St. Miller#	9/9	Gloucester H.	1	R. Guthrie
Least Tern			10/9, 29	Rockport (A.P.)	1, 8	R. Heil
9/3 Chatham (S.B.)	1 juv	S. Perkins#	Black Gui			
9/4 Ipswich (C.B.)	30	C. Buelow	9/3	Orleans	1	S. Thompson#
9/9 Chappaquiddick	4	G. Daniels	9/4	P.I.	1 juv	
3/3 Cimppaquidates	- 100	31.2.3	9/19	Nantucket	1	fide E. Ray

DOVES THROUGH GROSBEAKS

The fall passerine migration is well underway during September and goes right through mid-October. The season is longer and more drawn out than spring migration and offers the birder the chance to discover a vagrant during a fall birding day This year's migration seemed to lack any major fallout of birds as in September 12, 1999, when watchers at Gay Head on Martha's Vineyard recorded hundreds of migrants passing by. Nonetheless a steady parade of migrants were found along the coasts in traditional migrant traps. The days following a west or northwest wind can be productive, and these conditions occurred on September 9, 24, 25, and 28. October had sixteen days of favorable winds scattered throughout the month. On October 14, Simon Perkins noted flocks of Yellow-rumped Warblers flying northwest all day from a boat on Nantucket Shoals. He estimated well over 850, and that there was hardly a moment when they could not see warblers within sight of the boat. The total number of birds out on the shoals must have been staggering.

This reporting period was filled with vagrants and made for an exciting fall for everyone. Several of these visitors lingered longer and gave an ample opportunity for more careful study. Among the vagrants that made brief appearances included a **White-winged Dove** which made a one-day stop at a feeder in Edgartown. There are fewer than twenty reports of this species in Massachusetts with most sightings occurring in late summer. A **Boreal Owl** was discovered in a magnolia tree on the corner of Commonwealth Avenue and Gloucester Street in the Back Bay section of Boston. This was just across the street from a tree where a Boreal Owl (the same one?) was present from October 1996 to April of 1997. This bird could not be relocated the following day despite a thorough search by many birders.

A Townsend's Warbler was noted at Gay Head on September 28, and a Brewer's Blackbird also put in a one-day appearance at Gay Head on October 22. The female Rufous Hummingbird arrived back at the same feeder in Agawam on October 5 for the fourth year in a row! Observers had just about lost hope for this bird when it arrived over a month later than usual. It looked a little bedraggled, but began feeding and remained there until October 20. Another selasphorus hummingbird was present at a Worcester feeder from October 7 through Halloween. Only the sixth record for the state, a male Mountain Bluebird was found in Concord on October 27 and remained there into November. A Northern Wheatear was found on the Longmeadow sandbar in the Connecticut River, but high water forced it to leave after two days. A Black-throated Gray Warbler was present for several days at Mount Auburn Cemetery, foraging over a wide area and keeping birders on the move trying to follow it. A Le Conte's Sparrow was found in Northampton on October 1; another or the same one was relocated in Northampton on October 16-17.

The bulk of Common Nighthawks moved south during August and a much smaller than normal count occurred in early September. Unlike last year we did not witness any reverse migration with swallows and swifts. Nine Olive-sided Flycatchers were reported this year as compared with just one last September, and they were recorded much later than in the past. A total of ten Western Kingbirds was tallied during the period, up from three last year. It was another promising fall for Northern Shrikes with the most ever reported for October from western Massachusetts. Large flocks of Tree Swallows were noted from Hadley, Chappaquddick, and Plum Island. The estimate from Plum Island was made just before sunrise as the birds were departing their roost from the phragmites on Woodbridge Island.

The numbers of Red-breasted Nuthatches were very poor during this period: a mere thirteen individuals were reported statewide. On the flip side of the coin Carolina Wrens continue to be reported in greater numbers where they were marginal in the past. Over 6000 American Robins passed the Gay Head cliffs on Martha's Vineyard on October 26, a foggy morning with southwest winds! Thirty-four species of warblers were reported during the period, besides the Townsend's and Black-throated Gray previously mentioned; some of the more unusual included four Golden-winged, fourteen Orange-crowned, a Cerulean, two Kentucky, a Hooded, ten Connecticut, and at least twelve Yellow-breasted Chats.

Sparrows are at their best in October, and this year was exceptional. This certainly was the best ever fall flight of Clay-colored Sparrows in Massachusetts and hopefully will lead to a confirmed breeding record next year. There were reports from eighteen locations with over fourteen individuals noted from the Vineyard in September. Vesper Sparrows were also widespread with reports from eighteen locales. There were nine reports of Lark Sparrows as compared with just one bird for the same time period last year. A White-crowned Sparrow of the Gambell's race was noted from Newbury. Rick Heil commented that this race is a regular migrant to our area and may comprise up to ten percent of migrant White-crowns. When sorting out these sparrows look for pale grayish lores, a brighter pinkish-orange bill and slightly paler plumage overall.

Over sixty Indigo Buntings were tallied on Martha's Vineyard on October 7, and eight Blue Grosbeaks were also present on the Island that day. It was a good fall for Dickcissels with reports from over twenty locations. This has always been a regular fall migrant in Eastern Massachusetts, and now this species has occurred every fall since 1992 in western Massachusetts. The winter finch outlook looks bleak: only a handful of Purple Finches, a single Red Crossbill and a single flock of nine Pine Grosbeaks from Mount Watatic, just three reports of Pine Siskin, and a scattering of White-winged Crossbills, mostly from Berkshire County.

R.H.S.

White-wir	nged Dove (details su	ibmitte	(d)*	9/10	Hingham	3	D. Peacock
10/29	Edgartown	1	M. Pelikan#	9/23	S. Dart. (A.Pd)	5	W. Petersen#
Monk Para	akeet			thr	Reports of indiv. f	rom 12 lo	
9/25	S. Dartmouth	8	L. Phillips	Great Hor			
Black-bille	ed Cuckoo	- 5		9/1	Falmouth	3	R. Farrell
9/17	Quabbin (G40)	1	B. Kane	9/3	Amherst	3	B. Kane
10/12	Chappaquiddick	1	A. Keith	9/3	S. Monomoy	2	S. Perkins#
	led Cuckoo			9/10	Dedham	2	A. Joslin#
9/17	P.I.	1	R. Heil	9/14	DWWS	2	D. Furbish
9/23	Nantucket	1	fide E. Ray	9/14	Cummington	2	S. Perkins#
9/24	MNWS	1	R. Kuerzel#	9/20	Chatham	2	R. Heil
9/25	Hingham	1	K. Godfrey	9/22	Hingham	2	C. Nims#
10/2	Mt.A.	1	R. Heil	9/25	Leeds	2	B. Packard
10/16	Chilmark	1	M. Lynch#	10/14	Falmouth	2	R. Farrell
10/21	N. Truro	1	B. Nikula#	thr	Reports of indiv. f	rom 8 loca	ations
Barn Owl				Barred Ov			102.000./
9/30	Nantucket	3	fide E. Ray	9/14	Cummington	3-4	S. Perkins#
10/8	M.V.	2	SSBC (D. Clapp)	9/16	Wayland	1	A. McCarthy#
Eastern Sc	reech-Owl		, ,,,	9/20	E. Middleboro	1	K. Anderson
9/9	DWWS	2	D. Furbish	9/23	Stow	1	R. Lockwood

	(continued)			Northern 1			
10/2	Worc. (BMB)	1	J. Liller	9/7	Wakefield	15	F. Vale
10/15	Quabbin (G40)	2	C. Holzapfel	9/25	Cuttyhunk	52	R. Stymeist#
Short-eared				10/15	M.V.	75	J. Trimble#
10/14	Ipswich (C.B.)	1	J. Barber#		Voodpecker	,	D 1 1 1
10/19	GMNWR	1	D. Diggins	9/4	Bolton	1	R. Lockwood
10/20	P.I.	1	R. Heil	9/9	Quabbin (G37)	1	R. Lockwood
	I (no details) *	1 1 1/	TT. 1	9/19	Weston	1	L.Niedringhaus
10/21	Boston	1 ph K.	Hudson + v.o.	9/29	Colrain	2 2 1	B. Packard S. Perkins#
	aw-Whet Owl	1	C Destrict	10/8	GMNWR	2	
9/15	Northampton	l migi		10/20	Lincoln	-1	M. Rines
10/15	Quabbin (G40)	1	C. Holzapfel		ed Flycatcher	1	E. Kile
10/28	Stow	2	R. Lockwood R. Lockwood	9/2 9/4	Hopkinton	i	
10/29	Lancaster	1	R. Lockwood	9/4	P.I.	1	C. Buelow
Common N		52	T Comen	9/4	Bolton Flats Chilmark	i	M. Lynch# A. Keith
9/3 9/3	Northampton	15	T. Gagnon M. Lynch#	9/7	Medford	i	M. Rines#
9/3	Worcester Nahant	1	R. Heil	9/9	P'town	i	N. Samson#
		4	G. Long	9/19		i	S. Kellogg
9/9	Needham	ĩ		9/21	W. Springfield Southwick	1	S. Kellogg
9/9	Erving	1	B. Laflay# L. Nachtrab	9/21	Gay Head	1	M. Pelikan
9/11	Framingham	4	S. Kellogg	9/23	Nantucket	i	fide E. Ray
9/12	Southwick	1	R. Heil		/ood-Pewee		nde L. ray
9/22	Newbypt	1	K. Hell	9/3	Scituate	3	W. Petersen
Whip-poor-		1	V. Yurkunas	9/4		4	R. Lockwood
9/8 Chimney S	Erving	1	v. Turkunds	9/11	Lancaster Concord	3	R. Lockwood
Chimney S		46	Г. McCullough	9/11	Wakefield	4 3 1	F. Vale
9/1 9/15	Ashburnham W. Newbury	350+	R. Heil	9/14	ONWR	1	R. Lockwood
9/13	GMNWR	44	S. Perkins#	9/20	Longmeadow	1	S. Kellogg#
9/25		180	L. Nachtrab	9/23	Nantucket	i	fide E. Ray
10/1	Maynard Mt. A.	2	M. Rines	9/23	N. Scituate	1	G. d'Entremont
	ited Hummingbi		IVI. ICIIICS	10/13	M.V.	2	J. Trimble#
9/1-23	Reports of indi	y from 22 loca	tions		ellied Flycatcher	-	J. Hillioten
9/3	P.I.	7. 110111 22 1000	R. Heil	9/3	MNWS	1	R. Lockwood#
9/4	Bolton Flats	4	M. Lynch#	9/3	P.I.	2	R. Heil
9/5	Mt. Wachusett	6	T. Carrolan	9/3	S. Monomoy	2 1 2	S. Perkins#
9/8	Bolton Flats	3	L. Nachtrab	9/4	Rockport (H.P.)	2	R. Heil
9/9			. McCullough)	9/5	Nahant	1	R. Heil
	ummingbird *	5 1211111111111111111111111111111111111	. mecanoagn)	9/6	Northampton	i	T. Gagnon
	Agawam	1	L. Fieldstad	9/25	Cuttyhunk	1	R. Stymeist#
Selasphor	us species (detai	ils submitted) *	L. I letablad	9/27	E. Gloucester	1	C. Leahy
10/7-31	Worcester	1 A.	Pax, M. Lynch	10/1	Bolton Flats	1	M. Lynch#
Belted Kin				Least Fly			And the second s
9/9	GMNWR	3	S. Perkins#	9/3	P.I.	5	R. Heil
9/17	ONWR	3	R. Lockwood	9/3	Grafton	1 2 7	M. Lynch#
9/22	Newbypt	5	R. Heil	9/3	MNWS	2	R. Lockwood#
9/23	N. Scituate	3 (G. d'Entremont	9/3	Scituate		W. Petersen
9/25	Cuttyhunk	3	R. Stymeist#	9/5	Lexington	1	M. Rines
9/30	Nantucket	6 BBC	(L. Ferraresso)	9/5	Nahant	1	R. Heil
Red-heade	ed Woodpecker				ax species	100	
9/23	Grafton	1 ad	M. Lynch#	9/3	P.I.	9	R. Heil
9/25	Hingham	1	K. Godfrey	9/4	Cape Ann	6	R. Heil
Red-bellie	d Woodpecker				Nahant	4, 1	R. Heil
9/12	Longmeadow	2	B. Packard	Eastern P			
9/23	Stow	2 3 1	R. Lockwood	9/22	P.I.	11	R. Heil
9/23	Amherst		B. Kane	9/24, 1	0/14 Lexington	15, 6	M. Rines
9/30	Northampton	1	B. Kane	9/25	Cuttyhunk	27	R. Stymeist#
10/8	Nantucket	2 5	J. Hoye#	10/8	M.V.	20	J. Trimble#
10/15	M.V.		J. Trimble#	10/10	Camb. (F.P.)	13	R. Stymeist
10/21	Rowley	1	J. Berry	10/14	P.I.	10	R. Heil
	llied Sapsucker		42.2	10/14	Mt.A	10	R. Stymeist
9/28	Hadley	1	E. Labato		25 Burlington	7, 1	M. Rines
9/29	Colrain	3	B. Packard	10/15	Essex-Ipswich	8	BBC (T. Young)
9/30	Melrose	2 6	P. + F. Vale	10/15	Mattapan	8	R. Stymeist
10/5	Nahant	6	R. Heil	Great Cre	ested Flycatcher	2	
10/7	M.V.	12	J. Trimble#	9/4	Lancaster	1	R. Lockwood
10/7	Mt.A.	12 4 3 4 2 2	R. Stymeist	9/5	Lexington	1	M. Rines
10/7	P.I.	3	R. Heil	9/16	Wellfleet	l B	BC (R. Stymeist)
10/8	Nantucket	4	J. Hoye#	9/25	Cuttyhunk	1	R. Stymeist#
10/8	Cuttyhunk	2	T. Raymond	10/7	Chilmark	1	A. Keith
10/9, 20	0 Boston	2	J. Dekker	Western	Kingbird		11.7
10/10	Worcester	1	M. Lynch#	9/21	Gay Head	2	V. Laux#
10/22	Ipswich	1 imn	n J. Berry	9/23	Nantucket .	1	fide E. Ray
Hairy Woo	odpecker	1000	The book of the same	9/29	W.B.W.S.	1	fide D.Renolds
9/11	Concord	3	R. Lockwood	10/4	Chilmark	1	V. Laux#
10/4	Boxford	4	J. Berry#	10/6	Chappaquiddick	1	G. Daniels
10/7	Stow	,3	R. Lockwood	10/7	Nantucket	3	J. Hoye#
		- 2		10/17-	-19 Gloucester	1	C. Leahy + v.o.

Eastern Kin			10/10	Camb. (F.P.)	1	R. Stymeist
9/2	Longmeadow	5 H. Allen 3 S. Perkins#	10/15	M.V.	6	J. Trimble#
9/3	S. Monomoy		10/23	Chilmark	1	A. Keith
9/4		5 R. Heil	American	Crow		
9/17		1 R. Heil	10/21	Framingham	1500+	E. Taylor
		 W. Petersen# 	Fish Crow			2000
Northern Sl			9/4	E. Middleboro	7	K. Anderson
	Northampton	l B. Bieda	9/21	DWWS	4	D. Furbish
		1 imm J. Trimble#	10/1	Ipswich	1	P. + F. Vale
	Orange	B. Kane	10/1	Eastham (F.E.)	20	W. Petersen#
		1 M. Resch	10/3	Dorchester	2	R. Donovan#
10/25		J. Zumpfe#	10/11	Northampton	1	H. Allen
		1 R. Donovan#	10/15	Marshfield	4	W. Petersen#
		l ad J. Weeks	10/22	Squantum	1	G. d'Entremont
10/26-27		1 imm V. Laux#	10/25	Pittsfield	1	E. Neumuth
		D. Small	10/29	Boston	40+	R. Stymeist#
	Stow	1 imm R. Lockwood	Common 1			
	2.121	1 P. + F. Vale	9/10	Mt. Wachusett	8	E. Taylor
	Northampton	1 imm G. LeBaron	9/13, 14	4 Mt. Tom	3, 2	T. Gagnon
White-eyed		2 SE 25 SE	9/16	Barre F.D./Rutla	and S.P. 2	M. Lynch#
		 R. Farrell 	9/27	Chesterfield	4	B. Packard
		3 M. Lynch#		0/7 Gardner	1	T. Pirro
		1 fide É. Ray	10/4	Boxford	1	J. Berry#
		 B. Kane 	10/7	Truro	1	E. Samella#
Blue-headed			10/15	Quabbin (G40)	2	C. Holzapfel
9/14		6 C. Buelow	10/15	Belchertown	2	S. Surner
9/17		6+ B. Kane	10/20	Mt. Watatic	27	T. McCullough
	Barre F.D./Rutland S.P.2	M. Lynch#	10/29	Quabbin (G16)	3	B. Kane
		6 M. Lynch#	10/29	Lancaster	1	R. Lockwood
9/25	Cuttyhunk	4 R. Stymeist#	Horned La	ırk		
		5 B. Kane	10/9	Eastham	7	E. Nielsen#
		5 R. Lockwood	10/21	Orange	9	B. Kane
		6 J. Trimble#	10/22	Squantum	5	G. d'Entremont
), 1 F. Vale	10/29	P.I.	30	P. + F. Vale
10/15		4 M. Rines	Purple Ma	rtin		
		 J. Trimble# 	9/3	S. Monomoy	1 ju	iv S. Perkins#
Yellow-thro	ated Vireo		Tree Swall	low		
	MNWS	 K. Haley 	9/1	Hadley	10,000	T. Gagnon
9/9	Quabbin (G37)	1 R. Lockwood	9/3	S. Monomoy	2000	S. Perkins#
9/14	Nahant	l R. Heil	9/10	Newbypt	20,000	R. Heil
9/16	Barre F.D./Rutland S.P.	1 M. Lynch#	9/24	P.I.	2500	P. + F. Vale
	Bolton Flats	 R. Lockwood 	9/27	Hadley	4	M. Taylor#
		 J. Young 	9/30	Truro	400	G. d'Entremont#
Warbling V	ireo	-	9/30	Middleboro	1500	W. Petersen#
9/4	Bolton Flats 1.		10/1	Deerfield	4	S. Surner
9/7	Woburn	8 M. Rines	10/6	Chappaquiddick	30,000	G. Daniels#
	Watertown-Newton 1	 R. Stymeist 	10/8	Pittsfield (Pont.)		T. Gagnon
9/13	Longmeadow 8	A.B.C. (J. LaPointe)	10/21	Cumb. Farms	100	G. d'Entremont
	ONWR 4	4 R. Lockwood	Northern F	Rough-winged Sw	allow	
	Melrose	4 R. Lockwood 2 P. + F. Vale 3 W. Petersen# 4 M. Rines	9/16	S. Peabody	5	R. Heil
9/23	Cuttyhunk I.	3 W. Petersen#	10/9	Melrose	2	D. + I. Jewell
9/23			10/10	Waltham	10	M. Rines
9/27	Lexington	 M. Rines 	Bank Swal	llow		
		 J. Trimble 	9/2	Deerfield	3+	B. Packard
		I R. Heil	9/3	S. Monomoy	2 3	S. Perkins#
Philadelphia			9/9	GMNWR	3	S. Perkins#
	Reports of indiv. from 1	2 locations	Barn Swall	low		
	Medford	P. Vale# C. Buelow D. Furbish M. Pelikan BBC (R. Stymeist) M. Lynch#	9/2	Deerfield	10+	B. Packard
	Squantum	2 G. d'Entremont#	9/3	S. Monomoy	8	S. Perkins#
	MNWS	C. Buelow	9/9	GMNWR	22	S. Perkins#
	DWWS	 D. Furbish 	9/30	WBWS	22 2 2	G. d'Entremont#
9/14,16	Gay Head	 M. Pelikan 	9/30	Middleboro	2	W. Petersen#
9/16	Wellfleet :	3 BBC (R. Stymeist)	10/1	Barnstable	2	G. d'Entremont#
9/17	Barre F.D./Rutland S.P.	M. Lynch# W. Petersen# M. Rines	Cliff Swall	low		
9/23	Cuttyhunk I.	3 W. Petersen#	9/9	Hatfield	2	R. Packard
9/23	Burlington	M. Rines	9/16	Chilmark	1	J. Verner
		fide E. Ray	9/17	Northampton	1 2	H. Allen
		 M. Rines 	9/18	Mt. Watatic	1	P. Staub
Red-eyed V			9/20	P.I.	1	R. Heil
	Scituate 10			ed Nuthatch		
	P.I. 2		9/17	Quabbin (G40)	2	B. Kane
	Cape Ann 46		9/17	Barre F.D./Rutla		M. Lynch#
9/16	Wellfleet 22	2 BBC (R. Stymeist)	9/30	Truro	2	G. d'Entremont#
9/17	Barre F.D./Rutland S.P.2	M. Lynch#	10/4	Windsor		R. Packard#
9/23, 10/		, 4 R. Heil , 1 M. Rines	10/7	Stow	5 2 9	R. Lockwood
9/23, 10/					-	
	8 Burlington 5	, 1 M. Rines	10/21	Holden	9	M. Lynch#
9/23	N. Scituate :	G. d'Entremont	10/21 10/29	Holden Ipswich	2	M. Lynch# J. Berry#
9/23	8 Burlington 5 N. Scituate 5 Cuttyhunk 2	G. d'Entremont		Holden Ipswich	2	M. Lynch# J. Berry#

D 6				N7 - 41	5575 / - 1 '1		
Brown Cree	eper Quabbin (G37)	2	R. Lockwood		Wheatear (no detail Longmeadow	s) *	L. Kendall#
	Barre F.D./Rutland S.	P.3	M. Lynch#	Eastern Bl		1	L. Kendanii
	Colrain	7	B. Packard	9/18	Maynard	12	L. Nachtrab
	Wachusett Res.	3	M. Lynch#	9/26	Groton	20	T. Pirro
	Holden	3 9 2 8 2	M. Lynch#	10/1	Hanson	10	W. Petersen#
	Braintree	2	K. Vespaziani	10/8	GMNWR	11	S. Perkins#
	Wakefield	8	F. Vale	10/15	Uxbridge		AS (J. Liller)
10/21 Carolina Wi	Orange	4	B. Kane	10/15 10/16	Hadley Groton	12 40	B. Kane T. Pirro
	Northboro	2	B. Volkle	10/21	Truro	10	J. Trimble#
	MNWS	8	R. Lockwood#	10/22	Carlisle		D. Brownrigg
	Orange	1	B. Kane	10/27	Concord	15	M. Rines
9/9	Watertown-Newton	6	R. Stymeist		Bluebird (details su		
	Wellfleet	12 BBC	(R. Stymeist)	10/27-3	1 Concord	l ph M	. Rines + v.o.
9/23	Cuttyhunk I.	40	W. Petersen# R. Stymeist#	Veery 9/2	Westwood	250 migr	E. Nielsen
	22 Mt.A. Lexington	4, 2 6	M. Rines	9/3	MNWS		. Lockwood#
10/13	Stoughton	17	R. Titus	9/3	Scituate	î "	W. Petersen
10/14	Gay Head	11	M. Lynch#	9/3	P.I.	2	R. Heil
House Wren			TO A STATE OF THE	9/4	Lancaster		R. Lockwood
	Lexington	18	M. Rines#	9/15	Northampton	5 migr	S. Perkins#
	Cuttyhunk	17 9 SS	R. Stymeist#	9/23	Nantucket	2	fide E. Ray
	M.V. Salem	9 55 1 E	BC (D. Clapp) BBC (I. Lynch)	9/23 10/1	Cuttyhunk I. Agawam	1	W. Petersen# J. Hutchison
	Mattapan	1	R. Stymeist	10/12	Chappaquiddick	î	A. Keith
	Melrose	i	D. + I. Jewell		ked/Bicknell's Thrus		7.77.07.75.77
10/21	W. Bridgewater	1 (G. d'Entremont	9/9	Watertown-Newton	1 1	R. Stymeist
Winter Wre				9/13	Wayland	3 A 2 2 1	A. McCarthy#
	Sunderland	2	M. Williams	9/15	Northampton Athol	2	S. Perkins#
	Melrose	2 2	D. + I. Jewell B. Kane	9/25 10/4	N. Monomoy	1	R. Coyle B. Nikula
	Quabbin (G16) Reports of indiv. from			10/7	S. Boston	i	R. Donovan
Marsh Wren		1 1 1 1000		10/14	Medford		C (D. Oliver)
9/3	Scituate	2	W. Petersen	10/15	Newbypt	1	J. Hoye#
	Bolton Flats	1	M. Lynch#	Swainson'		45	C P 11 4
	Nahant	1	R. Heil	9/14 9/15	Cummington	45 migr	S. Perkins# S. Perkins#
	Northampton Newbury	1	T. Gagnon R. Heil	9/13	Northampton Longmeadow	80 migr	S. Kellogg#
	Dorchester	15	R. Donovan		Westfield	i	S. Kellogg
	M.V.	2	J. Trimble#	9/23	Cuttyhunk I.	1	W. Petersen#
Blue-gray C				9/25	P.I.	1	C. Buelow
	Scituate	5	W. Petersen	9/27	E. Gloucester	1	C. Leahy
	Rockport	2	R. Heil	10/5	Nahant	2 G.	R. Heil d'Entremont#
	Gay Head N. Quabbin	3, 1	A. Keith C. Buelow	10/7 10/8	Squantum Bolton Flats		Lockwood#
	Malden	ī	P. + F. Vale	10/10	Stoneham		D. + I. Jewell
	Hadley	î	E. Labato	10/14	M.V.	2 5	J. Trimble#
10/10	Nantucket	4	J. Hoye#	10/18	Quabbin (G35)	5	C. Buelow
10/15	Mattapan	1	R. Stymeist	Hermit Th		10	C D 1:
	P.I.	1	R. Heil	9/15 10/4	Northampton N. Monomoy	15 migr 2	S. Perkins# B. Nikula
	wned Kinglet /21 Wakefield	2 50	F. Vale	10/4	Camb. (F.P.)	6	R. Stymeist
9/25	P.I.	2, 50 12	C. Buelow	10/14	Medford	14	M. Rines
9/30	Holden	16	M. Lynch#	10/14	Hingham	12	K. Vespaziani
10/5	Nahant	14	R. Heil	10/15	M.V.	45+	J. Trimble#
10/7	Chatham	20	B. Nikula	10/15	N. Scituate	10 12	W. Petersen# M. Rines
10/8 10/14	Cuttyhunk M.V.	95 52	T. Raymond J. Trimble#	10/18 10/20	Lexington Wakefield	9	F. Vale
10/14	Nantucket	30	fide E. Ray	10/21	Holden	8	M. Lynch#
10/17	S. Peabody	20	R. Heil	10/22	Mt.A	6	R. Stymeist
10/18	Quabbin (G35)	25	C. Buelow	Wood Thr		11.	
Ruby-crown	ned Kinglet			9/2	Westwood	25 migr	E. Nielsen
9/14	DWWS	2	D. Furbish	9/3 9/5	Maynard	2 2	L. Nachtrab M. Rines
9/19 9/27	Medford	11	P. + F. Vale L. Epstein	9/17	Lexington Barre F.D./Rutland		M. Lynch#
10/5	Lexington Nahant	30	R. Heil	9/18	MNWS	1	P. Brown
10/7	M.V.	34	J. Trimble#	9/18	Nahant	1	R. Heil
10/7	Hadley	12	S. Moore#	9/18	Lincoln	1	S. Perkins
10/7	Stow	27	R. Lockwood	9/20	Longmeadow	2	S. Kellogg#
10/7	Mt.A.	23	R. Stymeist	thrush spe		15 minu	S. Perkins#
10/7	Wachusett Res.	20 16	M. Lynch# R. Stymeist	9/14 9/15	Cummington Northampton	15 migr 15	S. Perkins#
10/10 10/18	Camb. (F.P.) Quabbin (G35)	20	C. Buelow	American		10	J. I VIKIIISH
10/20	Wakefield	50	F. Vale	10/8	Burlington	729	M. Rines
10/21	Worc. (BMB)	20	J. Liller#	10/20	Mt. Watatic	1600	EMHW
10/29	Boston	7	R. Stymeist#	10/21	Orange	100	B. Kane
				10/26	Gay Head	6,000+	J. Trimble#

Gray Catb	oird			10/1-3	0 Reports of indiv.	from 14 lo	cations
9/3	P.I.	82	R. Heil	Nashville			variono
9/8	DWWS	35	D. Larson)/5Lexington	8 2	M. Rines#
9/16	Wellfleet	36 DI	BC (R. Stymeist)	0/16 1	10/7 Squantum	5, 1	C d'Entrement#
		20 10		0/24	ONIND		G. d'Entremont#
9/17, 1	0/8 Bolton Flat	s 33	R. Lockwood	9/24	ONWR	4	R. Lockwood
9/25	Cuttyhunk	90	R. Stymeist#	9/25	Cuttyhunk	4	R. Stymeist#
10/1	Bolton Flats	83	M. Lynch#	9/25	P.I.	6	C. Buelow
10/13	Stoughton	7	R. Titus	9/30	Belmont	4	M. Rines
10/24	W. Newbury	1	J. Berry#	10/5	Nahant	6	R. Heil
10/24	Burlington	1	M. Rines	10/7	Hadley	12	S. Moore#
Brown Th		*	W. Killes	10/14	M.V.	12 2 2 1	J. Trimble#
9/4			D Hail			2	D. Ctronsist
	Rockport (H.F	2) 4	R. Heil		Mt.A	2	R. Stymeist
9/9	Lexington	5 7	M. Rines#	10/20	Boston		J. Dekker
9/22	P.I.	7	R. Heil	10/21	Orange	1	W. Lafley
9/22	Northampton	1	E. Labato	Northern	Parula		
9/23	Cuttyhunk I.	6 2 4 4 1	W. Petersen#	9/16	Worc. (BMB)	6	J. Liller#
9/23	Bolton Flats	2	J. Hoye#	9/17	Barre F.D./Rutlan	nd S P 12	M. Lynch#
9/30	Nantucket	Ā	fide E. Ray	9/23	Stow	5	R. Lockwood
10/7	Chatham	7					
		7	B. Nikula	9/27	Winchester	8	M. Rines
10/14	Salem	1	BBC (I. Lynch)	9/27	Hadley	5	M. Taylor#
10/15	M.V.	3	J. Trimble#	10/4	Lexington	5 7 2 1	P. + F. Vale
European	Starling			10/7	Mt.A.	2	R. Stymeist
10/30	Methuen	500,000	J. Hogan#	10/21	Worc. (BMB)	1	J. Liller#
American				10/24	Chilmark	1	A. Keith
9/24	Northampton	40	S. Surner	Yellow W			The Indian
10/thr	GMNWR	200 max 10/9		9/3	P.I.	14	D Uail
							R. Heil
10/1	Deerfield	45	S. Surner	9/10	Westport	12	M. Lynch#
10/7	Newbury	55	R. Heil	9/15	Northampton	4	T. Gagnon
10/8	Lancaster	200	S. Leonard	9/16	Squantum	1	G. d'Entremont#
10/8	Bolton Flats	200	R. Lockwood#	9/17	Bolton Flats	1	R. Lockwood
10/8	Shirley	50	R. Lockwood#	9/23	Burlington	1	M. Rines
10/16	Groton	50	Т. Рітто	9/23	N. Scituate	i	G. d'Entremont
	Oronor	100					
10/21	Orange		B. Kane	9/25	Cuttyhunk	1	R. Stymeist#
10/28	Northampton	75	B. Kane	10/15	M.V.	1	J. Trimble
10/28	Lincoln	60	M. Rines		sided Warbler		
10/29	Cumb. Farms	75	R. Finch	9/6, 18	R Medford	2, 2	M. Rines BC (R. Stymeist)
10/29	Northampton	110	T. Gagnon	9/16	Wellfleet	5 B	BC (R. Stymeist)
Cedar Wax				9/23	Malden	3	P. + F. Vale
9/20	Provincetown	175+	R. Heil	9/25	Northampton	1	B. Kane
9/23	Burlington	120	M. Rines	10/1			(W. Drummond)
						I BBC	
9/24	Bolton Flats	141	M. Lynch#	10/14	Nantucket	1	fide E. Ray
9/24	P'town	100		Magnolia	Warbler	2.0	
9/25	Cuttyhunk	120	R. Stymeist#	9/5, 10	/5Nahant	5, 1	R. Heil
10/15	Gay Head M.V.	380	M. Lynch#	9/14	N. Quabbin Wellfleet	5	C. Buelow
10/26	M.V.	1100+	J. Trimble#	9/16	Wellfleet	7 B	BC (R. Stymeist)
	ged Warbler			9/17	Quabbin (G40)	6	B. Kane
9/4	P.I.	2	C Duelow	0/24	E Quabbin	24	C. Buelow
		4	C. Buelow	0/24 1	E. Quabbin 0/1 Lexington		C. Buelow
9/9	Northampton	1	T. Gagnon	9/24, 1	0/1 Lexington	14, 1	M. Rines
9/10	Hingham	1	D. Peacock	9/24	ONWR	7	R. Lockwood
9/14	Boston	1	J. Dekker	9/25			
9/17	Washington	1	E. Neumuth		Cuttyhunk	5	R. Stymeist#
9/17				9/30	Eastham	5 4	J. Hoye#
9/18	Edgartown			9/30 10/1	Eastham	4	J. Hoye#
	Edgartown Medford	1	A. Keith	10/1	Eastham Amherst	4	J. Hoye# B. Kane
	Medford	1	A. Keith M. Rines	10/1 10/14	Eastham Amherst Gay Head	4	J. Hoye#
9/23	Medford MNWS	1 1 1	A. Keith M. Rines D. Larson#	10/1 10/14 Cape May	Eastham Amherst Gay Head y Warbler	4 1 2	J. Hoye# B. Kane M. Lynch#
9/23 9/25	Medford MNWS Cuttyhunk	1	A. Keith M. Rines	10/1 10/14 Cape May 9/4	Eastham Amherst Gay Head y Warbler MNWS	4 1 2	J. Hoye# B. Kane M. Lynch# J. Hoye#
9/23 9/25 Golden-w	Medford MNWS Cuttyhunk inged Warbler	1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist#	10/1 10/14 Cape May 9/4 9/4	Eastham Amherst Gay Head y Warbler MNWS P.I.	1 2 1 3	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow
9/23 9/25 Golden-w 9/3-27	Medford MNWS Cuttyhunk inged Warbler MNWS	1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist#	10/1 10/14 Cape May 9/4 9/4 9/14	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy	1 2 1 3 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond
9/23 9/25 Golden-w	Medford MNWS Cuttyhunk inged Warbler	1 1 1 1 1 f	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines	10/1 10/14 Cape May 9/4 9/4 9/14 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I.	1 2 1 3 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch#
9/23 9/25 Golden-w 9/3-27 9/7	Medford MNWS Cuttyhunk inged Warbler MNWS Medford	1 1 1 1 1 f	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines	10/1 10/14 Cape May 9/4 9/4 9/14 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutla	1 2 1 3 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen#
9/23 9/25 Golden-w 9/3-27 9/7 9/16	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet	1 1 1 1 1 f 1 f 1 B	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist)	10/1 10/14 Cape May 9/4 9/4 9/14 9/17 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlar N. Truro	4 1 2 1 3 6 nd S.P. 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen#
9/23 9/25 Golden-w 9/3-27 9/7 9/16	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet	1 1 1 1 1 f	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutla N. Truro Cuttyhunk I.	4 1 2 1 3 6 nd S.P. 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head	1 1 1 1 1 f 1 f 1 B	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutla N. Truro Cuttyhunk I. Hadley	4 1 2 1 3 6 nd S.P. 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden	1 1 1 1 1 f 1 f 1 B	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch#	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlar N. Truro Cuttyhunk I. Hadley M.V.	4 1 2 1 3 6 6 1 1 1 2 1 2 1 5	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR	1 1 1 1 1 f 1 f 1 B	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 10/8	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutla N. Truck Cuttyhunk I. Hadley M.V. Nantucket	4 1 2 1 3 6 nd S.P. 1 1 2 1 5 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden	1 1 1 1 1 f 1 f 1 B 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 10/8 Black-thry	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlai N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler	4 1 2 1 3 6 1 1 2 1 2 1 5 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington	1 1 1 1 1 f 1 f 1 B	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thre 9/4	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I.	4 1 2 1 3 6 6 1 1 2 1 5 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow	1 1 1 1 1 f 1 f 1 B 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg#	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 10/8 Black-thry	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlai N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler	4 1 2 1 3 6 1 1 2 1 5 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner	1 1 1 1 1 f 1 f 1 B 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thre 9/4	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I.	4 1 2 1 3 6 1 1 2 1 5 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist)
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/23 10/7 10/8 10/8 Black-thry 9/4 9/13 9/16	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlai N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Welifleet	4 1 2 1 3 6 1 1 2 1 5 6 6 7 8	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist)
9/23 9/25 Golden-w 9/3-27 9/7 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/24	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thre 9/4 9/13 9/16 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan	4 1 2 1 3 6 6 1 1 2 1 5 6 6 7 8 7 8 8 7 8 8 8 8 8 8 8 8 8 8 8 8	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist)
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/17 9/17 9/20 9/22 9/23 9/24 9/25	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane	10/1 10/14 Cape May 9/4 9/4 9/17 9/17 9/17 9/23 10/7 10/8 10/8 10/8 8 lack-thr 9/13 9/16 9/17 9/24	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington	4 1 2 1 3 6 1 1 2 1 5 6 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/24 9/25	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I.	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1 1 1 1 2 2 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 10/8 10/8 Black-thr 9/4 9/17 9/16 9/17 9/24 10/5	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant	4 1 2 1 3 6 1 1 2 1 5 6 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil
9/23 9/25 Golden-w 9/3-27 9/16 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/24 9/25 9/25	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/14	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellifleet Barre F.D./Rutlan Lexington Nahant Nantucket	4 1 2 1 3 and S.P. 1 1 2 1 5 6 3 5 7 8 B and S.P. 5 3 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray
9/23 9/25 Golden-w 9/3-27 9/16 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/25 9/25 10/1 Orange-cr	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner	10/1 10/14 Cape May 9/4 9/4 9/17 9/17 9/17 10/8 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/14	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V.	4 1 2 1 3 3 1 3 1 2 1 5 6 6 7 8 9 5	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/24 9/25 10/1 Orange-cr 9/23	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I.	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/17 9/16 9/17 9/24 10/5 10/15	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V. Burlington	4 1 2 1 3 and S.P. 1 1 2 1 5 6 3 5 7 8 B and S.P. 5 3 6	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble#
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/24 9/25 10/1 Orange-cr 9/23	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport	1 1 1 1 1 f 1 f 1 Bl 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/17 9/16 9/17 9/24 10/5 10/15	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V. Burlington	4 1 2 1 3 3 1 3 1 2 1 5 6 6 7 8 9 5	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Rines R. Heil fide E. Ray J. Trimble# M. Rines
9/23 9/25 Golden-w 9/3-27 9/7 9/16 9/16 Tennessee 9/3 9/17 9/20 9/22 9/23 9/24 9/25 10/1 Orange-cr 9/23 9/29	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport P.I.	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie J. Young	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/14 10/15 Yellow-ru	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlai N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlai Lexington Nahant Nantucket M.V. Burlington imped Warbler	4 1 2 1 3 6 1 1 2 1 5 6 6 3 5 7 8 9 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble# M. Rines
9/23 9/25 Golden-w 9/3-27 9/16 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/25 9/25 10/1 Orange-cr 9/23 9/29	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport P.I. Truro	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie J. Young G. d'Entremont#	10/1 10/14 Cape May 9/4 9/17 9/17 9/17 9/17 10/8 10/8 Black-thr 9/13 9/16 9/17 9/24 10/5 10/15 10/15 Yellow-ru 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V. Burlington unped Warbler Barre F.D./Rutlan	4 1 2 1 3 3 1 1 2 1 5 6 6 3 5 7 8 9 5 1 md S.P. 1 3 6 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble# M. Rines M. Lynch#
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/25 9/25 9/25 9/25 9/25 9/25 9/29 10/1 Orange-cr 9/30 10/7, 1-2	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport P.I. Truro 4 Lexington	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie J. Young G. d'Entremont# M. Rines	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/14 10/15 10/15 Yellow-ru 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V. Burlington umped Warbler Barre F.D./Rutlan Lexington Lexington Nahant Nantucket M.V. Burlington Lexington Lex	4 1 2 1 3 6 1 1 2 1 5 6 6 7 8 9 5 1 md S.P. 1 3 6 7 8 9 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble# M. Rines M. Lynch# S. Kellogg
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/20 9/22 9/23 9/24 9/25 10/1 Orange-cr 9/23 9/29 9/30 10/7, 1-10/10	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport P.I. Truro 4 Lexington Nantucket	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie J. Young G. d'Entremont# M. Rines J. Hoye#	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/15 Yellow-ru 9/17 9/24 10/4	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Imped Warbler Barre F.D./Rutlan Lexington Imped Warbler Barre F.D./Rutlan Lexington Lexington Lexington Lexington Lexington Lexington	4 1 2 1 3 6 1 1 2 1 5 6 6 3 5 7 8 9 5 1 1 1 2 1 5 6 6 7 8 8 9 9 9 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble# J. Trimble# M. Rines R. Heil fide E. Ray J. Trimble# M. Rines S. Kellogg P. + F. Vale
9/23 9/25 Golden-w 9/3-27 9/16 9/16 Tennessee 9/3 9/17 9/17 9/20 9/22 9/23 9/25 9/25 9/25 9/25 9/25 9/25 9/29 10/1 Orange-cr 9/30 10/7, 1-2	Medford MNWS Cuttyhunk inged Warbler MNWS Medford Wellfleet Gay Head Warbler Holden ONWR Washington Longmeadow Gardner Westfield E. Quabbin Northampton P.I. Deerfield owned Warbler Westport P.I. Truro 4 Lexington	1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1 2	A. Keith M. Rines D. Larson# R. Stymeist# C. Floyd# +v.o. M. Rines BC (R. Stymeist) M. Pelikan M. Lynch# R. Lockwood E. Neumuth S. Kellogg# T. Pirro S. Kellogg C. Buelow B. Kane C. Buelow S. Surner B. Cassie J. Young G. d'Entremont# M. Rines	10/1 10/14 Cape May 9/4 9/14 9/17 9/17 9/17 9/23 10/7 10/8 Black-thr 9/4 9/13 9/16 9/17 9/24 10/5 10/14 10/15 10/15 Yellow-ru 9/17	Eastham Amherst Gay Head y Warbler MNWS P.I. S. Monomoy Barre F.D./Rutlan N. Truro Cuttyhunk I. Hadley M.V. Nantucket oated Blue Warbler P.I. MNWS Wellfleet Barre F.D./Rutlan Lexington Nahant Nantucket M.V. Burlington umped Warbler Barre F.D./Rutlan Lexington Lexington Nahant Nantucket M.V. Burlington Lexington Lex	4 1 2 1 3 6 1 1 2 1 5 6 6 7 8 9 5 1 md S.P. 1 3 6 7 8 9 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1 9 1	J. Hoye# B. Kane M. Lynch# J. Hoye# C. Buelow T. Raymond M. Lynch# W. Petersen# S. Moore# J. Trimble# J. Hoye# C. Buelow C. Buelow C. Buelow BC (R. Stymeist) M. Lynch# M. Rines R. Heil fide E. Ray J. Trimble# M. Rines M. Lynch# S. Kellogg

	mped Warbler (contin		2	9/29	P.I.	1	J. Young
10/8	Cuttyhunk	300	T. Raymond	10/7	Mt.A.	1	R. Stymeist
10/8 10/13	GMNWR	229 migr		10/14	Salisbury	1	J. Hoye#
10/13	Stoughton Mt.A	116 128	R. Titus R. Stymeist	Blackpoll		5 22	E 1/-1-
10/14	M.V.	525+	J. Trimble#	9/14, 9/	22 Wakefield N. Quabbin	5, 22 25	F. Vale C. Buelow
10/14	N. Monomoy	200+	B. Nikula	9/17	Barre F.D./Rutla		7 M. Lynch#
10/14	Nant. Shoals	850	S. Perkins#	9/23	Melrose	25	P. + F. Vale
10/14	Newbury/P.I.	530+	R. Heil	9/23	Westboro	67	M. Lynch#
10/15	Ipswich	100+	J. Berry#	9/24	E. Quabbin	100	C. Buelow
10/22	Squantum	110 G	d'Entremont	9/25	Wayland	25	A. McCarthy#
Black-thr	oated Gray Warble 0/2 Mt.A. 1 m ph	r (details su	ibmitted) *	10/1	Hadley	10	C. Holzapfel
9/27-10)/2 Mt.A. 1 m ph	K. + T.	Kresser + v.o.	10/8	M.V.	20	J. Trimble#
	l's Warbler (details s			10/10	Nantucket	15	J. Hoye#
9/28	Gay Head	1	M. Pelikan#	10/23	Hardwick	1	C. Buelow.
9/9,20	ated Green Warbler	10, 11	M. Rines#	10/25 Cerulean	Lexington	1	M. Rines
9/14	Lexington N. Quabbin	35	C. Buelow	9/17	W. Tisbury	1	A. Keith#
9/17	Barre F.D./Rutland		M. Lynch#		-white Warbler	-1	A. Keiui#
9/20	Lexington	11	M. Rines	9/3	MNWS	6	R. Lockwood#
9/22	Wakefield	5	F. Vale	9/9	Lexington	5	M. Rines#
9/24	E. Quabbin	32	C. Buelow	9/14	N. Quabbin	5	C. Buelow
9/27	Hadley	4	M. Taylor#	9/17	Barre F.D./Rutla	nd S.P. 9	M. Lynch
10/2	Worc. (BMB)	4 2 4 2 2	J. Liller	9/22	Wakefield	5	F. Vale
10/15	M.V.	4	J. Trimble#	9/23	Stow	6	R. Lockwood
10/17	S. Peabody	2	R. Heil	9/25	Cuttyhunk	12	R. Stymeist#
10/19	Braintree	2	K. Vespaziani	10/8	W. Newbury	1	P. + F. Vale
10/23	Hardwick	1	C. Buelow	10/15	M.V.	2	J. Trimble#
	ian Warbler	2	7/ 11-1	10/18	Quabbin (G35)	1	C. Buelow
9/4 9/4	Marblehead	2	K. Haley R. Heil	American 9/3		10	W Determen
9/9	Rockport Quabbin (G37)	2	R. Lockwood	9/3	Scituate P.I.	10 8	W. Petersen C. Buelow
9/9	Lexington	2	M. Rines#	9/4	MNWS	10	J. Hoye#
9/23	N. Scituate		G. d'Entremont	9/4	Marblehead	12+	K. Haley
9/24	E. Quabbin	1	C. Buelow	9/6, 18		5, 10	M. Rines
10/7	M.V.	2	J. Trimble#	9/22	Wakefield	25	F. Vale
Pine Warb				9/25	Cuttyhunk	24	R. Stymeist#
9/14	N. Quabbin	6	C. Buelow	9/30		7 BBC	(L. Ferraresso)
9/16	Wellfleet		(R. Stymeist)	10/1	Amherst	1	B. Kane
9/17	Quabbin (G40)	30+	B. Kane	10/7	Mt.A.	1	R. Stymeist
9/17	Barre F.D./Rutland		M. Lynch#	10/10	Camb. (F.P.)	1	R. Stymeist
9/30 9/30	Nantucket 6 Truro	2	L. Ferraresso) D. Brown#	Ovenbird 9/4	Marhlahaad	1	V Ualan
10/8	M.V.	2	J. Trimble#	9/4	Marblehead P.I.	2	K. Haley C. Buelow
10/15	Belchertown	2 2	S. Surner	9/10	Hingham	1	D. Peacock
Prairie Wa		-	b. burner	9/17	Lexington	i	M. Rines
9/3	Grafton	3	M. Lynch#	9/23	Worc. (BMB)	i	J. Liller#
9/4	Orange	1	B. Kane	9/24	E. Quabbin	2	C. Buelow
9/5	P.I.	3	P. Brown	9/24	Falmouth	1	S. Sutherland
9/10	Hingham	1	D. Peacock	9/27	Hadley	1	M. Taylor
9/17	Barre F.D./Rutland	S.P. 5	M. Lynch#		Vaterthrush		10000
9/20	Provincetown	1	R. Heil	9/3	P.I.	7	R. Heil
9/23	Cuttyhunk I.	2	W. Petersen#	9/3	MNWS	6	R. Lockwood#
9/23	N. Scituate		d'Entremont	9/4	Cape Ann	0	R. Heil
9/25 10/1	Northampton	1	B. Kane J. Trimble	9/7 9/9	Winchester	2	M. Rines M. Rines#
10/24	Truro Gay Head	1	V. Laux#	9/16	Lexington Worc. (BMB)	2	J. Liller#
Palm Warl	hler		v. Lauxii	9/20	Longmeadow	6 2 2 2 2 2	S. Kellogg#
9/4	MNWS	1	J. Hoye#	9/23	Cuttyhunk I.	12	W. Petersen#
9/9	Northampton	2	T. Gagnon	9/23	Mattapan	1	A. Joslin
9/18	Medford	10	M. Rines	9/25	Northampton	1	B. Kane
9/24	Bolton Flats	22	M. Lynch#	Kentucky	Warbler		
9/27, 10	0/18 Lexington	33, 10	M. Rines	9/10	Hingham	1	D. Peacock
9/30	Northampton	12	B. Kane	9/21	Chappaquiddick	1	D. Small
10/4	Burlington	17	M. Rines	Connecticu			0.0.1.
10/5	E. Middleboro	20	K. Anderson#	9/3	S. Monomoy	1 imi	
10/7	Hardwick Weston	30 34	C. Buelow	9/9	Lexington	1	M. Rines#
10/7 10/14	M.V.	28	R. Stymeist#	9/9 9/17	Chappaquiddick Barre F.D./Rutla	nd C D 3	A. Keith
10/14	Mattapan	14	J. Trimble#	9/17		na S.F. 3	M. Lynch# B. Bieda
10/13	Boston	4	R. Stymeist R. Stymeist#	9/19	Northampton E. Gloucester	i	C. Leahy
	ted Warbler	7	ic. Styllieist#	9/24	Bolton Flats	2	M. Lynch#
9/3	MNWS	1 1	R. Lockwood#	9/24	E. Quabbin	ĩ	C. Buelow
9/3	P.I.	2 '	R. Heil	9/24	Braintree	1 imm	G. d'Entremont
9/21	Lenox	ĩ	R. Laubach	9/27	Newton	1	G. Ferguson
9/23	Burlington	1	M. Rines	9/28	Hadley	1	E. Labato
9/23	Westboro	2	M. Lynch#	10/12	Chatham	1	J. Kenneally
9/24	E. Quabbin	1	S. Kellogg				

Mourning '	Warbler		10/28 S	outhboro	1	R. Stymeist#
9/3	Worcester 1	M. Lynch#	American Tre			
9/4	MNWS 1	J. Ĥoye#		Iardwick	1	C. Buelow
9/5	Nahant 1			Burlington	1	M. Rines
9/14	Westport 1			alisbury	2	P. + F. Vale
9/14 9/16	Gay Head	V. Laux G. d'Entremont		iroton	5	T. Pirro
9/20	Squantum 1 ad m Truro 1	R. Heil	Chipping Spa	oxford	30	P. Meleski
9/27		f I. Dukovksi		ruro	35	R. Heil
10/2	Hadley 1			tow		R. Lockwood
10/6	Chappaquiddick 2			exington	41	M. Rines
Common Y	Cellowthroat			1.V.	125+	J. Trimble#
9/3	P.I. 58			∕It.A	28	R. Stymeist
9/16		BBC (R. Stymeist)		Medford		C (D. Oliver)
9/22	Northampton 12			Sherborn	100	E. Taylor
9/23	Worc. (BMB) 10		Clay-colored		141	C1. 1 77.31
9/23	Burlington 11 Bolton Flats 39		9/14-30 N			fide A. Keith
9/24 9/24				ruro Cuttyhunk I.	4	R. Heil W. Petersen#
9/25	Lexington 14 Cuttyhunk 36			Harwich	2 2	J. Sones#
10/5	Nahant 11			Vewbury	3	R. Heil
10/7	Melrose 3			A.V.	4, 2	J. Trimble#
10/15	Mattapan 1	R. Stymeist		V. Bridgewater	2 G.	d'Entremont#
10/21	Woburn 2	M. Rines	thr R	Reports of indiv.	from 11 locati	ons
10/21	W. Bridgewater 2	G. d'Entremont	Field Sparrov		124	And the state of t
Hooded W	arbler	4 554 10		tow	3 2	R. Lockwood
9/10		f M. Lynch#		Vorthampton	.2	M. Taylor#
9/25	Belmont 1	M. Rines		Vellfleet	12	J. Trimble
Wilson's W		D T 1 1#		ruro	16	J. Trimble
9/3 9/4	MNWS 2 Cape Ann 5 Medford 2 Lexington 3 Hingham 3	R. Lockwood#		alem ruro	10 BI 10	BC (I. Lynch)
9/6	Cape Ann 5 Medford 2	R. Heil M. Rines)range		J. Trimble# B. Kane
9/9	Lexington 3	M. Rines#		Salisbury	5	P. + F. Vale
9/10	Hingham 3	D. Peacock		Boston	2 1	Mittermeier#
9/18	Nahant 4	R. Heil		Groton	2 5 2 2	Т. Рігго
9/19	Longmeadow 3		Vesper Sparre			
9/23	Mattapan 2	A. Joslin		Drange	1	B. Kane
9/30		BBC (L. Ferraresso)	9/4 N	Montague	1	B. Kane
10/7	Mt.A.	R. Stymeist		Vellfleet	3	R. Heil
10/14	Gay Head			ładley	1	S. Surner
10/20	Boston 4	J. Dekker		Northampton	2	M. Taylor#
Canada Wa		D 7 1 1		ancaster	1	R. Lockwood
9/2	Lenox 1		10/5-7 L 10/11 P	exington Pittsfield	1	M. Rines H. Allen
9/3 9/3	Scituate 2 P.I. 1			At.A	1	R. Stymeist
9/3	MNWS 1			N. Monomoy	1	B. Nikula
9/10	Hingham 1			Vayland	i E. N	Nelson-Melby
9/24	E. Quabbin			dgartown	î	A. Keith
	easted Chat		10/21 N	N. Truro	1	J. Trimble#
9/4	Rockport (H.P.)		10/21 C	Orange	1	W. Lafley
9/4	Bolton Flats		10/21-26	Gay Head	1+	V. Laux#
		, 1 B. Cassie		Rockport	2	M. Flor
9/18	Nahant l			Sunderland	1	H. Allen
9/21	Norfolk I		10/26 N Lark Sparrov	4.V.	31	J. Trimble#
9/23 10/1	Cuttyhunk I.	C. Floyd# S. Yurkus	9/7 V	V Westport	1 imm	B. Cassie
10/1	Gay Head I N. Weymouth I		9/7	Oak Bluffs	1	H. Meleney
10/2	Lexington 1			P.I.	ż	D. Peacock#
10/14	Nantucket 1			P.I.	1 imm	B. Packard
10/22	Gay Head		9/20 T	ruro	1	R. Heil
10/28	Concord 1			Newbury	1 ad	D. Larson#
Scarlet Tar	nager		9/23	ay Head	1	M. Pelikan
	Lancaster 2		10/14	Gay Head	1 imm	J. Trimble
9/17	Barre F.D./Rutland S.P. 5	M. Lynch#	Savannah Sp		45	S. Perkins#
9/23	Cuttyhunk I. 2 Stow 3	W. Petersen#		S. Monomoy	27	S. Perkins#
9/23	Stow	R. Lockwood		GMNWR Newbury/P.I.	300	R. Heil
9/23 9/25	Westboro	M. Lynch#		GMNWR	125	S. Perkins#
10/4	Wayland 2	A. McCarthy# P. + F. Vale		Bolton Flats	33	R. Lockwood
10/14	Westboro Wayland Lexington Nantucket	fide E. Ray		Deerfield	75	S. Surner
Eastern To		. IIde E. Ray		Bolton Flats	140	M. Lynch#
9/16		BBC (R. Stymeist)		N. Monomoy	40+	B. Nikula
9/25	Cuttyhunk 175		10/5 I	exington	136	M. Rines
9/30	Nantucket 97 I	BBC (L. Ferraresso)	10/7 N	M.V.	255	J. Trimble#
10/7	Stow	R. Lockwood	10/7 N	Northampton	200+	B. Packard#
10/15	Hadley 2	B. Kane		Newbury	340	R. Heil
10/21	Wachusett Res.			GMNWR	150+	S. Perkins#
10/22	Squantum 2	G. d'Entremont	10/14 N	N. Monomoy	40+	B. Nikula

Savannah Sparrow (continued)			10/4, 15 Burlington	1, 20 M. Rines
10/21 Orange	40	B. Kane	10/8 Northbridge	14 M. Lynch#
10/21 W. Bridgewater	150	G. d'Entremont	10/8, 14 Northampton	11, 17 T. Gagnon
"Ipswich" Sparrow	150	G. a Entremont	10/13 Gloucester	35 J. Soucy#
10/0 Fd	1	A Vaith#		
10/8 Edgartown	1	A. Keith#	10/14 M.V.	130+ J. Trimble#
Grasshopper Sparrow		-	10/14 Newbury	20 R. Heil
9/4 Orange	1	B. Kane	10/14 Nantucket	34 fide E. Ray
9/4 Montague	1	B. Kane	10/14 Northampton	 T. Gagnon
9/28, 10/7 Northampton	1, 1	R. Packard	10/15 Essex-Ipswich	45+ BBC (T. Young)
10/1 Dorchester	1	R. Donovan	10/15 Ipswich	30 J. Berry#
10/7 Katama	2	J. Trimble	10/15 N. Truro	60 B. Nikula#
10/26 Dorchester	ĩ	R. Donovan	10/15 Belchertown	7 S. Surner
Le Conte's Sparrow (no details	* 1	R. Dollovali	10/21 Truro	13 J. Trimble#
Le Conte s Sparrow (no details	,	Т С		
10/1 Northampton	1	T. Gagnon	10/21 Orange	4 B. Lafley
10/16-17 Northampton	1	S. Surner	"Gambell's" White-crown	ed Sparrow
Saltmarsh Sharp-tailed Sparrow			10/14, 20 Newbury	2 imm R. Heil
9/22 Newbypt	12	R. Heil	Dark-eyed Junco	
9/24 P.I.	5	P. + F. Vale	9/30 Northampton	1 B. Kane
10/1, 29 Eastham (F.H.)	1, 4	J. Trimble	10/4 Windsor	3 R. Packard#
10/7 Newbury		R. Heil	10/4 Lexington	3 P. + F. Vale
10/14 Salisbury	5 2 3	J. Hoye#	10/6 Truro	6 R. Farrell#
10/15 M.V.	2	M. Lynch#	10/14 Nantucket	96 fide E. Ray
	3	IVI. Lynchi		
Nelson's Sharp-tailed Sparrow	4 500	D 11 11	10/14 M.V.	
9/10 Newbypt	1 ju		10/29 Quabbin (G16) 100 B. Kane
9/22 P.I.	. 1	R. Heil	Lapland Longspur	2020 000
9/24, 10/1 Bolton Flats	1, 1	M. Lynch#	9/29 GMNWR	1 S. Perkins#
10/5 M.V.	1	A. Keith	10/6 Chappaquiddi	
10/7 Newbury	10	R. Heil	10/8 Dorchester	1 R. Donovan#
10/8 Northbridge	1	M. Lynch#	10/14 Newbury	1 R. Heil
10/15 Duxbury	1	W. Petersen#	10/21 P'town (R.P.)	 J. Trimble#
10/29 Eastham (F.H.)	2	J. Trimble	10/25 P.I.	22 R. Heil
Seaside Sparrow	~	J. Timiote	10/26 Gay Head	1 J. Trimble#
		R. Heil		
9/3 P.I.	5			
10/1 Eastham (F.H.)	1	J. Trimble	10/29 Cumb. Farms	5 R. Finch
Fox Sparrow			Snow Bunting	
10/17 Quabbin (G22)	1	B. Lafley	10/14 Nant. Shoals	40 S. Perkins#
10/24 Quabbin (G41)	1	C. Buelow	10/20 Rockport (H.	P.) 2 D. + I. Jewell 2 J. Weeks
10/25 Lexington	1	M. Rines	10/24 Granville	 J. Weeks
10/29 Boston	1	J. Dekker	10/28 Randolph	1 G. d'Entremont#
10/29 Quabbin (G16)	7	B. Kane	10/29 Wachusett Res	
10/30 Melrose	1	D. + I. Jewell	10/29 Newbypt	30 P. + F. Vale
		D I. Jewell	10/29 Salisbury	20 P. + F. Vale
Song Sparrow	1751	C C.man		20 1. 1. vaic
10/1 Deerfield	175+	S. Surner	Rose-breasted Grosbeak	161 D. Heil
10/4 N. Monomoy	60+	B. Nikula	9/5 Nahant	15+ R. Heil
10/7 Newbury	95	R. Heil	9/9 Grafton	3 M. Lynch#
10/15 Mattapan	64	R. Stymeist	9/9 Lexington	3 M. Lynch# 3 M. Rines# 5 M. Lynch#
10/28 Northampton	100	B. Kane	9/23 Westboro	
Lincoln's Sparrow			9/25 Cuttyhunk	3 R. Stymeist#
9/3 P.I.	1	R. Heil	9/25 Belmont	1 M. Rines
9/10 Amherst	1	H. Allen	10/8 Nantucket	1 J. Hoye#
9/24 Lexington	7	M. Rines	10/14 Salisbury	1 J. Hoye#
9/30 Northampton	10	B. Kane	Blue Grosbeak	
10/1 Bolton Flats	24	M. Lynch#	9/16 Cumb. Farms	 M. Emmons
	11, 2	J. Trimble#	9/17 Wayland	1 G. Long
10/7, 10/26 M.V.	11, 2		9/17-30 M.V.	8+ v.o., fide A. Keith
10/7 W. Bridgewater	18	S. Arena		
10/7 Newbury	6	R. Heil	9/30 Nantucket	l fide E. Ray
10/8 Northbridge	8	M. Lynch#	10/1, 10/21 Truro	1, 2 J. Trimble
10/15 Belchertown	4	S. Surner	10/4 Newbury	1 G. Leet#, v.o.
10/21 W. Bridgewater	3	G. d'Entremont#	10/7 Gay Head	l J. Trimble
Swamp Sparrow			10/7 Rockport	1 J. Soucy#
9/28 Northampton	25	B. Packard	10/14 Lexington	1 M. Rines#
10/1 Bolton Flats	207	M. Lynch#	10/15 Wayland	1 f E. Nelson-Melby
10/5 Lexington	55	M. Rines		
10/7 M.V.	120	J. Trimble#	Indigo Bunting 9/3 Cumb. Farms	8 R. Finch 12 E. Labato
10/8 GMNWR	40+	S. Perkins#	9/22 Northampton	12 E. Labato
		J. Trimble#	9/27 Lexington	16 M. Rines
10/21 Truro	65	J. Trimble#	10/1, 21 Truro	6, 2 J. Trimble
White-throated Sparrow		C D 1		
9/14 N. Quabbin	3	C. Buelow	10/7 M.V.	60 J. Trimble#
9/20, 10/5 Lexington	6, 71		10/7 Nantucket 10/14 Lexington	6 J. Hoye#
9/29 Colrain	15	B. Packard	10/14 Lexington	3 M. Rínes 2 R. Heil 2 G. d'Entremont
10/1 Hadley	100+	C. Holzapfel	10/14 Newbury	2 R. Heil
10/7 Holden	88	M. Lynch#	10/14 Newton	
10/7 Newbury	60	R. Heil	10/27 Nahant	 L. Pivacek
10/8 Bolton Flats	28	R. Lockwood#	Dickcissel	
10/8 Bolton Flats 10/14 Mt.A	55	R. Stymeist	9/14 Gay Head	2 V. Laux
			9/14, 22 Westport	2, 2 B. Cassie
10/14 M.V.	175	J. Trimble#		2 P. + F. Vale
White-crowned Sparrow		14.50	9/17 Truro	
9/30, 10/14 Lexington	1, 10	M. Rines	9/18 Nantucket	6 fide E. Ray

Dickeissel	(continued)			Brown-he	aded Cowbird		
9/24	Bolton Flats	1	M. Lynch#	9/30	P'town	30	G. d'Entremont#
10/5-7	Lexington	ż	M. Rines	10/21	Lancaster	2	R. Lockwood
10/7, 8	M.V.	2, 4	J. Trimble#	Baltimore		2	R. LOCKWOOD
10/13	Falmouth	2, 4	J. Trimble#	9/3	MNWS	2	D. I. a. I
10/14		2	R. Heil	9/3		3 2 4 2 1 8 3	R. Lockwood#
	Newbury				S. Monomoy	2	S. Perkins#
thr	Reports of indi	v. from 12 loc	ations	9/4	Lancaster	4	R. Lockwood
Bobolink	O) D III D	00 040	0.0.11.0	9/10	GMNWR	2	S. Perkins#
9/thr		83 max 9/10	S. Perkins#	9/10	Squantum	1	G. d'Entremont
9/2	Northampton	120	T. Gagnon	9/23	Cuttyhunk I.	8	W. Petersen#
9/3	Grafton	78	M. Lynch#	9/30	Truro	3	G. d'Entremont#
9/3	S. Monomoy	13	S. Perkins#	10/3	Mt.A.	2	M. Rines
9/3	Sterling Peat	50	M. Lynch#	10/4	Burlington	1	M. Rines
9/4	Bolton Flats	170	M. Lynch#	10/15	M.V.	1	J. Trimble#
9/16	Cumb. Farms	120	M. Emmons	10/29	Boston	1	R. Stymeist#
9/20	Lexington	16	M. Rines	Pine Gros	beak		
9/30	Truro	18 G	d'Entremont#	10/20	Mt. Watatic	9	T. McCullough#
10/7	W. Bridgewater		S. Arena	Purple Fir			r. mee amough.
10/7	M.V.	23	J. Trimble#	9/3	Northbridge	1	M. Lynch#
Eastern Me	eadowlark	2.2	200000000000000000000000000000000000000	9/14	N. Quabbin	2	C. Buelow
9/19	Wrentham	6	R.Emerson	10/1	Bolton Flats	2	M. Lynch#
10/1	Lancaster	ĭ	R. Lockwood	10/15	Belchertown	2	S. Surner
10/7	GMNWR	2 mis		10/22	Squantum	ĩ	G. d'Entremont
10/12	Chilmark	5	M. Lynch#	10/26	M.V.	10	J. Trimble#
10/13	Newbury		P. + F. Vale	10/29	Wachusett Res.	2	M. Lynch#
10/15	Essex-Ipswich	4 3 2	BBC (T. Young)	Red Cross		-	IVI. Lynchi
10/13	Northampton	2 1	B. Kane	9/16	Mt. Wachusett	1	I IIaua#
Rusty Blac	Northampton	2	D. Kane			-1	J. Hoye#
9/16	Mt. Wachusset	40	R. Lockwood#	9/9	nged Crossbill	2	D APP I
		24, 19		9/9	Mt. Watatic	2	B. Nikula
)/8 GMNWR		S. Perkins#		Windsor	1	T. Gagnon
10/7	P'town	100+	B. Nikula	9/17	Becket	1 16	R. Laubach
10/13	Stoughton	95	R. Titus	9/18	Mt. Watatic		EMHW (P. Staub)
10/14	Newbypt	220+	R. Heil	9/18	Windsor	2	B. Lafley
10/17	Gay Head	23	M. Lynch#	10/4	Windsor	1 n	R. Packard#
10/21	Lancaster	26	R. Lockwood	Pine Siski		100	2727 23.0
10/27	Concord	4	M. Rines	10/14	M.V.	10	J. Trimble#
10/30	Wayland	14	G. Long	10/15	N. Truro	1	B. Nikula
	Blackbird (no de			10/20	Newbury	1	R. Heil
10/22	Gay Head	1 m	V. Laux#	10/21	Wachusett Res.	3	M. Lynch#
Common C				10/21	Holden	1	M. Lynch#
9/21	Bedford	2000	R. Lockwood	Evening C			35534577 45
10/10	Stoneham	120	D. + I. Jewell	9/9	Mt. Watatic	2+	B. Nikula
10/30	Methuen	millions	J. Hogan#				

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 submission by e-mail, visit: http://massbird.org/birdobserver/submitrec.html>.

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 <mrines@mediaone.net>.

LIST OF ABBREVIATIONS

ad	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	iuvenile	Quab.	Quabbin Reservoir
loc	location	Res.	Reservoir
lt	light (phase)	R.P.	Race Point, Provincetown
m	male	S.B.	South Beach, Chatham
	maximum	S. Dart.	South Dartmouth
max		S.N.	
migr	migrating	70 T 15	Sandy Neck, Barnstable
n	nesting	Stellw.	Stellwagen Bank
ph	photographed	Worc.	Worcester
pl	plumage		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	DIMINO	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	
A.Pd	Allens Pond, S. Dartmouth	******	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		Martin Burns Wildlife Management Area,
C.P.	Crooked Pond, Boxford	Newbury	A STEERING THE PROPERTY OF
Cumb. Far	rms Cumberland Farms, Middleboro-	MDFW	MA Division of Fisheries and Wildlife
=0	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
H.	Harbor	WBWS	Wellfleet Bay Wildlife Sanctuary
I.	Island	WMWS	Wachusett Meadow Wildlife Sanctuary

^{*}Indicates a species on the review list of the Massachusetts Avian Records Committee (MARC). Comment in parentheses (details submitted or no details) indicates whether written details have been submitted to the MARC, regardless of whether photographs or other documentation are available elsewhere. Because these sightings are generally published before the MARC votes, they normally have not been acted upon by the MARC.



News from MassWildlife

Massachusetts Tern Inventory 2000

State Ornithologist Brad Blodget has compiled figures for the 2000 tern nesting season and reports nesting activity at 67 sites along the Massachusetts coast. Common tern numbers were down by 6 percent at 13,340 pairs, marking the end of seven consecutive years of gains. The federally endangered roseate tern, however, increased 17 percent to 2,124 pairs, surpassing the 2,000 pair threshold for the first time since 1979. Least tern numbers were estimated at 3,276 pairs, down 4 percent from 1999. According to Blodget, "Predation was a big factor this year. Red foxes caused about 1,000 pairs of common terns to abandon their traditional nesting area at Plymouth Beach, while persistent great-horned owl raids at New Island in Eastham resulted in total nesting failure there. Owls also limited nesting success at Gray's Beach in Yarmouth. Many of these terns presumably relocated to the immense Monomoy-South colony in Chatham where predators have been controlled, but there's no denying the impact predators had in the decline of overall common tern numbers." The most important tern nesting sites in the Commonwealth that support more than 1,000 nesting pairs include: the U.S. Fish and Wildlife Service's Monomoy National Wildlife Refuge (Chatham), the MassWildlife Sanctuary at Ram Island (Mattapoisett), and town-owned Bird Island (Marion). Eighty-one percent of nesting common terns were concentrated in these three sites and experienced good to excellent productivity. Other species censused by Blodget's team of cooperators included 8 pairs of arctic terns, 4 pairs of black skimmers, and 1,097 pairs of laughing gulls, the highest total since 1,285 pairs were recorded in 1991.

Internet Ospreys

Follow the migration path of a pair of Massachusetts ospreys (fish-hawks), fitted with satellite telemetry equipment this summer at their nest on Martha's Vineyard. Log on to <www.birdsofprey.org/migmap1.htm> for more on this high-tech research being conducted by the University of Minnesota and University of North Carolina. Scroll through a series of maps which trace the birds' flight from the Vineyard to their wintering grounds in the tropics.

Pesticide Cancelled

Kathleen Anderson, Chair of MassWildlife's Natural Heritage Advisory Committee, has forwarded a Press Release from the American Bird Conservancy (ABC) announcing the voluntary cancellation of all uses of the pesticide ethyl parathion by its manufacturer, Cheminova. Ethyl parathion is generally considered to be one of the most toxic pesticides currently in use and has been documented in mortalities of ducks, geese, raptors, gulls, martins, and songbirds. No new chemical will be manufactured and all U.S. application must cease by October 31, 2003.

Bill Davis, Information Coordinator MassWildlife Bill.Davis@state.ma.us

ABOUT THE COVER

Bufflehead

The Bufflehead (*Bucephala albeola*), our smallest diving duck, is a plump, delightful little bird, disappearing in a smooth dive and then reappearing some distance away, bobbing to the surface like a little black-and-white cork. The male appears big-headed with a large white patch on the back of his otherwise black head, a tiny bill, his body glossy-black above and white below—a very flashy little duck. The female has a small white cheek patch, and is duller, browner, and more subdued in tone. In flight the male has a white stripe the width of his wing, while in the female the white patch is restricted to the trailing edge. Females are smaller than males. Buffleheads are monotypic, related to mergansers, and most closely related to their congeners, the goldeneyes.

The Bufflehead's breeding range is largely the boreal forest and aspen parklands of the interior northwest, from Alaska across Canada south of Hudson's Bay to Quebec, dipping in a few spots into the United States. They are widely dispersed in winter across the U.S. north to the Great Lakes, and on the coasts from Alaska to Baja California and Nova Scotia to Florida. In Massachusetts they are an abundant coastal migrant and winter resident, with peak fall migration in October and November. They are winter site-faithful, congregating mostly along the coast in shallow bays and inlets, but also on inland rivers, lakes and ponds. They leave us for the north country in March and April.

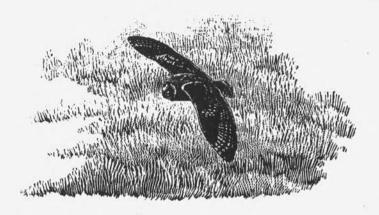
Buffleheads first breed at two years of age and produce a single brood. They are one of the few duck species that have a long-term pair bond. The females are philopatric, returning to their natal area, while males are not. They may reuse the same nest for years. They nest in tree cavities in deciduous/conifer boreal forests near ponds or small lakes. Buffleheads are highly territorial, with a male defending an area of water that is essentially a feeding area for the female. Males threaten intruders, including other duck species, with head-forward displays with back feathers raised, or attack flap-paddling or from underwater. Disputes often involve bumping and wing-thrashing. Females defend a brood territory. Nuptial displays occur throughout most of the year, and include head-bobbing, head-shaking, and wing-lifting. The various displays are often accompanied by grating and chattering sounds, and the female's call to her brood has been described as *cuc-cuc-cuc*.

The nest is a natural cavity or woodpecker hole lined with down, and they will use nest boxes. They frequently nest in cavities made by flickers, and it has been suggested that their small size has evolved as an adaptation to this nesting strategy. This serves to reduce competition with their larger, cavity-nesting congeners, the goldeneyes. The female lays 8-10 yellowish or olive-buff eggs, and she alone has a brood-patch and incubates. The eggs hatch in a little over four weeks, and the precocial young stay in the nest for 1-2 days and then leap to the ground and follow the female to water. The males leave the breeding area to molt in June or July. The

female abandons her brood in 5-6 weeks, and broods from adjacent territories may amalgamate. The young first fly at 7-8 weeks of age, long after they have been abandoned. The young feed themselves initially on insects at the surface, but are diving for food within a few days. Buffleheads are exclusively diving ducks and feed in groups with a sentry often remaining on the surface. Underwater they propel themselves with their feet alone, their wings held pressed against their sides. They feed largely on aquatic insect larvae, amphipods, and some seeds when foraging in fresh water, but on crustaceans, snails, and molluscs in salt and brackish water. Fish may be an important food in winter.

Buffleheads were seriously reduced by shooting by the end of the nineteenth century, but have recovered, especially since the 1950s. They are subject to predation by raptors, and shooting is still a major cause of mortality. Their range has probably contracted somewhat during the twentieth century due to land clearing, and in some areas starlings compete with them for nesting cavities. Storms can have a major influence on chick survival. Despite all of these pressures, most Bufflehead populations appear to be stable, and the dull, dreary days of Massachusetts winters continue to be brightened by these marvelous little ducks.

William E. Davis, Jr



Short-eared Owl by David A. Sibley

About the Cover Artist

David Sibley, son of the well-known ornithologist Fred Sibley, began seriously watching and drawing birds in 1969, at age seven. He has written and illustrated articles on bird identification for *Birding* and *American Birds* (now *Field Notes*) 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 has spent most of the last six years at a drawing table writing and illustrating the new *Sibley Guide to Birds*, a comprehensive field guide to North American birds. This book was published in October 2000 and is now in the fourth printing. You can see more of David's artwork at his website <www.sibleyart.com>. He lives in Concord, Massachusetts, with his wife and two sons.

AT A GLANCE

December 2000



Photograph by David M. Larson

The final mystery species of year 2000 should at once be recognizable as a waterbird, possibly a gull or jaeger, based upon its relatively long, slim wings, apparently webbed feet — an impression created by the club-ended appearance of the partially closed webbed toes — and the fact that the bird is obviously over water! A closer examination reveals distinctly pale or whitish outer primary shafts on the bird's left upper wing surface, along with a diffuse pale patch on the undersurface of the bird's right wing. These features are key to unraveling the identity of this month's identification challenge.

Assuming that the most likely candidates for the bird in the photograph are either a gull or jaeger of some kind, the first step in identifying the mystery bird is to determine in which group it belongs. Fortunately, this is not a difficult task because the photograph clearly reveals the presence of heavily barred sides and flanks, distinctly checkered underwing linings, whitish or pale shafts to the outer primary feathers, and a distinct pale patch on the underside of the wing. These features are all quintessential characteristics of jaegers that are virtually unshared by any species of gull. In addition, immature gulls, which could appear as dusky underneath as the mystery bird, would ordinarily show more contrast in the primary/secondary pattern on the upper wing, would be unlikely to exhibit such strikingly light primary shafts,

and would never have a pale flash of white on the under-wing. With these differences in mind, it is safe to assume that the bird in the photograph is a jaeger.

Knowing that the bird is a jaeger — a group of birds notoriously difficult to identify — it is important to make some further assessments about the bird in the picture before attempting to determine to which species it belongs. Most important is to place the bird in an age class (i.e., juvenile/immature or adult) and to determine if possible whether the bird is a dark morph or a light morph, a task not always easy in a group of birds with so many complicated plumages. Fortunately the pictured bird clearly shows features that make these choices fairly straightforward. The presence of heavily checkered and barred underwing coverts, heavily barred flanks, and an indication of pale tips on the upperwing coverts all indicate that the bird is not an adult. Indeed, the prominence of these features suggests that the bird is a juvenile and not a bird more than a year old. The fact that the upper belly is pale in contrast to a somewhat uniform chest indicates that the bird is a light morph, a characteristic that would be even more obvious if the bird were slightly older. A dark morph jaeger would appear more uniformly dark below and would generally exhibit less conspicuous flank barring.

Now that it has been established that the pictured jaeger is a light morph juvenile, the identification task is rendered considerably easier. Especially helpful at this point is to note that only two of the outer primary shafts appear to be flashing white. In addition, the barring on the flanks and undertail coverts is sharp and distinct. These features, in combination with the unpatterned breast and pale upper belly, clearly point to Long-tailed Jaeger (*Stercorarius longicaudus*) in juvenile plumage. Both Parasitic and Pomarine Jaegers can be eliminated by their more extensive white primary shafts, less sharply defined flank and undertail barring, more extensive underwing patches, and broader wings.

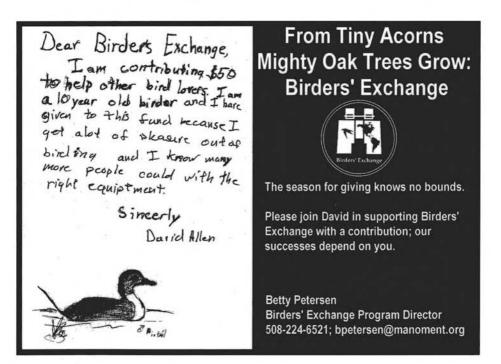
In Massachusetts waters, Long-tailed Jaegers are rare offshore migrants along the outer continental shelf. Records suggest that they are most frequent in late May and early June, and then again from late August through mid-September. David Larson captured the pictured juvenile Long-tailed Jaeger on southern Georges Bank in late August by using a digital camera.

Wayne R. Petersen

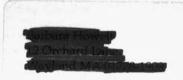




Can you identify this bird? Identification will be discussed in next issue's AT A GLANCE.



VUL. 27, NU. 1, FEBRUARY 2001



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CONTENTS

POCKET PLACES Groton Place, Groton Nelson Island, Rowley	Lisa Clark Jim Berry	5
The Trails at Pickering Ponds, Rochester, New	Hampshire Stephen R. Mirick	8
Sapowet Fishing Area, Tiverton, Rhode Island Upper Charles River Greenway Path West Brook, Whately	Rachel Farrell Robert H. Stymeist Matthew Williams	10 11 13
A Quadding 2000 Diary	Marjorie Rines	15
DATA COLLECTING AT YOUR FAVORITE LOCAL BIRDIN	NG SPOT John Liller	22
ZERO-IMPACT BIRDING: THE HUMAN-POWERED YEAR	LIST Tony Federer	27
SIGNIFICANT RECENT NESTING RECORDS FROM ESSEX PART 2	COUNTY, Jim Berry	29
THE WIRED BIRDER Group Coordination	David M. Larson	36
YARD BIRDS Fifty Years at Wolf Trap Hill	Kathleen S. Anderson	39
Hot Birds		42
Young Birders Northern Hawk Owl Mallard Ducks	Will McCumber Gareth Perkins	43 44
FIELD NOTES The Unexpected Bluebird	Marjorie Rines	46
ABOUT BOOKS A Task of No Small Difficulty: A Critical History the North American Field Guide	ory of Mark Lynch	47
BIRD SIGHTINGS: September/October 2000 Summar	y	58
ABOUT THE COVER: Bufflehead	William E. Davis, Jr.	79
ABOUT THE COVER ARTIST: David Sibley		80
AT A GLANCE	Wayne R. Petersen	81