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HOT BIRDS

We have had an invasion of **Northern Lapwings** (right) this winter, with reports from Nantucket (still 3 birds as of February), Cumberland Farms fields, and Bridgewater. This photograph was taken by Phil Brown on December 2 of a bird in a corn field in Bridgewater.



Doug Hlousek and Myer Bornstein reported this **Little Egret** (right) at Kalmus Beach in Hyannis on November 29 and Tom Murray got this photograph on December 9.



Miles Brengle was birding with Jim Berry when he found this **Mountain Bluebird** (left) at Good Harbor Beach in Gloucester on November 11. Phil Brown took this stunning photograph later that day.





Gyrfalcon! This wintering **Gyrfalcon** (right) was discovered by Michael Delesantro on December 13 in Hadley. Either obvious or elusive, this bird has been seen up to press time. This great photograph was taken by Greg Dysart on January 2.

Steve Grinley and Margo Goetschkes were the first to report a **Western Grebe** (left) off Plum Island on November 25. Up to four birds have been reported from this location. This image was taken by Tom Murray on December 12.



CONTENTS

Birding Sterling Peat/Muddy Pond	Tom Pirro	5	
BICKNELL'S THRUSH: A TWENTY-FIVE YEAR RETROSPE NORTHEAST'S MOST VULNERABLE SONGBIRD Christopher C. Rimmer and		9	
BICKNELL'S THRUSH—WHO WAS THE MAN BEHIND THE NAME? William E. Davis, Jr. and Christopher C. Rimmer 1			
CATERPILLARS IN WINTER	Sam Jaffee	23	
A Brief History of the Massachusetts State Ornithologist Position	Editor	29	
Catching up with the New State Ornithologist in Massachusetts: An Interview with Andrew V		30	
About Books Gonzo in Birdland	Mark Lynch	35	
BIRD SIGHTINGS September/October 2012		42	
About the Cover: Gadwall	William E. Davis, Jr.	58	
ABOUT THE COVER ARTIST: Barry Van Dusen		59	
At a Glance	Wayne R. Petersen	61	

BIRD OBSERVER ONLINE

Bird Observer is considering offering a web-based electronic version of the journal in addition to the current printed version. The subscription rate would likely be lower for those who choose to no longer receive the printed copy.

AS A TRIAL, we have posted this entire February issue on the *Bird Observer* website http://www.massbird.org/birdobserver/. We encourage you to take a look and send us your thoughts.

If you are a current subscriber, choose a response from below:

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Please email responses to birdobserver@tiac.net.



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Birding Sterling Peat/Muddy Pond

Tom Pirro

The Sterling Peat/Muddy Pond area, in Sterling, Massachusetts, has in the past decade become a favorite stop for Central Massachusetts birders. The area gets its name from the company, Sterling Peat, which used the location as a source of peat moss and gravel a few decades ago. Peat moss was excavated from the pond's east side and gravel from the west side. I recall a good



high school friend of mine who worked for the company in 1970s and often spoke of machinery that had become stuck in the peat bog. Although Sterling Peat and Loam still operates from the adjacent property on the northeast side of Muddy Pond (see map), their products are now trucked in from elsewhere.

Within the past decade, the Massachusetts Department of Conservation and Recreation (DCR) acquired the Muddy Pond area for watershed protection of the Wachusett Reservoir. The area's close proximity to Worcester and Route I-190 makes it accessible for local birders. The area is also a nice add-on to a Wachusett Reservoir trip. Shorebirds and herons have been the primary attraction to area birders during the summer months. However, the site has been productive for other families of birds such as waterfowl, swallows, and roosting robins and blackbirds.

Directions to Muddy Pond/Sterling Peat

From Route I-190, take exit 5, and then take Route 140 north for ¹/₄ mile. Take the first right on Dana Hill Road and follow it for 0.5 mile until it becomes Muddy Pond Road. Continue on Muddy Pond Road for another ¹/₄ mile, and you will reach the Sterling Peat area. Muddy Pond is on the left (north) side of the road. A hayfield just to the northeast can be viewed by proceeding up Muddy Pond Road another ¹/₄ mile, and also from Boutelle Road, by taking the first left.

From Muddy Pond Road (see map for parking) a complex of short unmarked trails or herd paths leads to the pond (beware of ticks). The pond has two sections, one to the east, which tends to retain water quite well during dry months, and another to the west that can become muddy and then dry even under modestly dry conditions. The harvesting of peat shaped the east side some three decades ago and gravel mining formed the west side. The west side has no outlet stream but loses water directly into the gravelly bottom; twice in the past five years the west was reduced to a few small puddles.

Waterfowl

When the ice recedes from the pond, the first waterfowl will begin to show. This is a good time to look for dabbling ducks such Wood Duck, American Black Duck, and Green-winged Teal. You may also see less common species such as Blue-winged



Teal, Northern Shoveler, Northern Pintail, American Wigeon, and Gadwall. Ringnecked Ducks are the most common of the diving ducks to be recorded here; late

March/early April counts have exceeded 200 in recent years. Other species of diving ducks expected in early spring are Common Goldeneye and occasionally Bufflehead. All three merganser species have been recorded, with Hooded being the most frequently encountered, followed by Common, and (rarely) Red-breasted Merganser.

The east side of the pond is a good location to look for Pied-billed Grebe in spring and fall, but it is they are not to be expected during the breeding season. The only other grebe recorded at this location has been Horned Grebe. A Belted Kingfisher or two might be seen perched atop the dead snags on the east side of the pond.

Shorebirds

Muddy Pond's shorebird season is typically best from mid-July into September, but it is rainfall-dependent. The west side of Muddy Pond is the area were the most water loss takes place due to a shallow "bar" that restricts the water flow from the deeper east side.

Killdeer, being breeding residents, will be the most common species of plover, and upwards of 25–30 are not uncommon. Semipalmated Plovers typically make an appearance over the course of the summer, but if present, will



Wilson's Phalarope (left) and Lesser Yellowlegs at Muddy Pond (all photographs by the author)

be there in small numbers (fewer than five). Black-bellied Plovers and American Golden-Plovers are rare but regular migrants through central Massachusetts. Although uncommon at this location, they should be on one's radar, particularly in August and September. These species may put down often during rainy weather, and the adjacent hay field should also be scanned for these larger plovers. This hayfield has also harbored at least a few Wilson's Snipe during early spring; it is also a great spot to observe displaying American Woodcock at dusk.

As the water level recedes and mud flats develop, "local" Spotted Sandpipers will typically be in attendance and will soon be joined by migrant species. The most common migrant will be the Least Sandpiper, which may number over 50 at times, but a more typical count is from 10 to 20. All "peeps" should be carefully scrutinized for the more uncommon species such as Semipalmated, Whiterumped, and Pectoral sandpipers, which are known to have been present in most years of favorable conditions.



Muddy Pond West Side during low water

Knowing it will offer a good chance to find an inland rarity, local birders often frequent this area. During 2010, rarities such as Wilson's Phalarope and Buff-breasted, Baird's, and Stilt sandpipers were all found during a two-week period in late August and early September. In late July 2004, a Ruddy Turnstone was present, which lingered for only a few days. These species are not uncommon along the coast, but they quite rare in central Massachusetts.

Herons/Egrets



Ten Great Egrets and one Little Blue Heron at Muddy Pond

During the summer months, the shallow areas of the pond attract a nice assortment of waders, of which the most abundant species are Great Blue Heron and Green Heron. When the water level recedes, numerous fish are often trapped in the shallow pools that form on the west side of the pond. These are apt to attract a few Great Egrets and less often, Little Blue Herons and Glossy Ibis. These waders can often be observed at close range, making this a destination for local wildlife photographers.

Songbirds

The pond area is surrounded by a good deal of scrubby secondary growth, mainly autumn olive and gray birch. This habitat is great for breeding Gray Catbirds, Yellow Warblers, Common Yellowthroats, and Song Sparrows. Migrants frequently found are Northern Parula, Chestnut-sided, and Magnolia warblers and sparrows such as Fox, White-crowned, and Lincoln's.

Roosts

The phragmites stand on the east side of the pond has frequently supported roosts of American Robins and assorted blackbirds. Typically the fall blackbird roost has totaled from 500 to 2000 birds: Red-winged Blackbirds, Common Grackles, and to a lesser extent, Brown-headed Cowbirds and Rusty Blackbirds. The American Robin roost numbers have had a large fluctuation, but typically one might expect approximately 2500 birds in the fall. During 2010, a massive number of robins roosted in the phragmites and also in the autumn olive in the surrounding area. Peak estimates were between 40,000 and 70,000, which were best seen just before dawn from Greenland Road as the birds left the roost during late October/early November. It is best to arrive 45 minutes before sunrise at a vantage point at the junction of Boutelle and Greenland Roads (see map) for the morning flight, or an hour before sunset for the evening flight.

Tom Pirro lives in Westminster, Massachusetts, and is a member of the Athol Bird and Nature Club, the Forbush Bird Club, and Eastern Massachusetts Hawkwatch. He is also a volunteer reviewer for Worcester County eBird records.

Bicknell's Thrush: A Twenty-year Retrospective on the Northeast's Most Vulnerable Songbird

Christopher C. Rimmer and Kent P. McFarland

Nearly half a century has passed since the gyrating song and piercing nasal calls of Bicknell's Thrush *(Catharus bicknelli)* rang from Mount Greylock's summit in northwestern Massachusetts. The disappearance of the species from this peak, its only known haunt in the state, was well documented by birders during the 1900s and provided one of the earliest warning signals that all might not be well. Twenty years ago, *Bird Observer* published our first cautionary alarm for Bicknell's Thrush,



Figure 1. A male Bicknell's Thrush in full song (photography by Larry Master)

at that time a recognized subspecies of Gray-cheeked Thrush (*C. minimus*) and one of eastern North America's most rare and poorly known songbirds (Rimmer et al. 1993). Now a distinct species (AOU 1995) and one of the region's highest conservation priority Nearctic-Neotropical migrants, Bicknell's Thrush has been the subject of much intensive study. Yet, it remains as rare and vulnerable as ever, likely more so.

This enigmatic songbird has not yielded its secrets easily. Occupying windswept mountaintop conifer forests in summer and dense broadleaf cloud forests in winter, Bicknell's Thrush has kept its biographers at bay. However, a determined cadre of scientists and conservationists, combining "brute force biology" with technology and resourcefulness, has made remarkable inroads during the past two decades into understanding this bird. Concerted actions are now underway to conserve Bicknell's Thrush—actions we hope will reverse disturbing trends that have led to the recently proposed listing for this at-risk species under the U.S. Endangered and Threatened Species Act (Matteson 2012).

What have we learned since sounding the alarm twenty years ago? How have our findings shaped conservation actions? Will Bicknell's Thrush ever again sing from Mount Greylock's balsam fir spires? A brief history is in order.

When we first ventured into the Bicknell's Thrush arena in 1992 with Jon Atwood, then at Manomet Center for Conservation Sciences, our starting point was virtually ground zero. There existed no baseline scientific information on population trends or distribution, let alone ecology or demography. George Wallace's classic mid-1930s natural history study of Mount Mansfield, Vermont's highest peak, shed the only real light on this reclusive songbird (Wallace 1939). However, Wallace's work provided no context to assess the conservation status of Bicknell's Thrush. We knew



Figure 2. The ridgeline of Mt. Mansfield, Vermont's highest peak and the site of VCE's ongoing 20-year population study of Bicknell's Thrush (photograph by K.P. McFarland)

that mountaintops in the Northeast were under siege from acidic precipitation, atmospheric pollution, and recreational development (climate change was barely on the radar then). We realized that here in our regional backyard a little-known songbird whose taxonomy hadn't even been settled might prove to be a lightning rod for conservation in the Northeast's iconic mountains. We eagerly took the plunge.

Our first step involved documenting distribution of Bicknell's Thrush in the United States. We coordinated a network of hardy volunteers to survey high peaks and scattered lower elevation sites from

New York to Maine. To our surprise, we found Bicknell's Thrush at 234 locations, of which 91% were <u>more than</u> 915 meters (3000 feet) in elevation (Atwood et al. 1996). Encouragingly, the species was still present on 63 of 73 known historic (pre-1992) sites, suggesting that no widespread or catastrophic declines had occurred. Yet local extirpations from Mount Greylock and several Canadian Maritime sites, all at the periphery of the breeding range, were worrisome. These, combined with an absence of information on abundance or trends, held our attention and concern.

The ascendancy of Bicknell's Thrush to full species status in 1995 (Ouellet 1993, AOU 1995) coincided with our full-fledged immersion into BITHnology (not yet a *Merriam and Webster* term, but we may propose it). Not only did this reclassification sharpen conservation focus on Bicknell's Thrush, it also increased the currency of the species among birders (e.g., Rimmer 1996). Our Mount Mansfield study site became a magnet—and still is—for birders wanting to add this enigmatic songbird to their life lists. Suddenly, Bicknell's Thrush was on the ornithological radar. We were willing participants in an unfolding drama, one whose trajectory we could never have predicted.

Our next step was to seriously tackle the breeding ecology of Bicknell's Thrush. We established intensive study sites on two Vermont mountaintops: Mount Mansfield and Stratton Mountain. Setting up a summer-long residence in the unused ski patrol huts on both peaks, our field crews gamely endured punishing hours and field conditions. We netted and banded, censused and mapped, searched nests, radio-tagged adults and fledglings, drew blood, snipped feather tips, affixed solar geolocators, counted cones and squirrels, and—swatted black flies. George Wallace's (1939) remark dogged and defined us: "Only a freak ornithologist would think of leaving the trails [on Mount Mansfield] for more than a few feet [due to] the discouragingly dense tangles" of vegetation. The challenges were daunting and rewards came slowly, but we persisted.



Figure 3. A female Bicknell's Thrush brooding on Stratton Mountain, Vermont (photograph by K.P. McFarland)

Early on, we discovered that Bicknell's Thrush has a highly unusual mating system. Spurred by an incidental observation of two color-banded males sequentially feeding young at a Stratton Mountain nest, we delved further by placing video cameras at nearly one hundred nests to identify feeders. Then we analyzed mitochondrial DNA of nestlings and adults. To our and many others' great surprise, we found that two to as many as four males attended 75% of the nests, but never more than a single female did so. Coincidentally, we learned that males do not hold traditional territories but wander widely over home ranges of up to 20 hectares (50 acres), each bird broadly overlapping its movements with those of up to seven other

males. Females, in contrast, occupy and defend much smaller, non-overlapping territories. The plot thickened when we analyzed paternity, which was highly mixed in 70% of nests! In short (see Goetz et al. 2003 for details), both male and female Bicknell's Thrushes mate with multiple partners, some males feed multiple broods concurrently, some males feed broods in which they have no paternity, and females on higher quality territories (as defined by arthropod prey biomass) fledge more chicks and have fewer males feeding them (Strong et al. 2004). This complex breeding system, termed "female-defense polygynandry,"



Figure 4. Bicknell's Thrush nestlings, Stratton Mountain, Vermont (photograph by K.P. McFarland)

is known in only one other North American songbird, Smith's Longspur (Briskie 1993).

An additional twist emerged with our finding of a highly skewed sex ratio among breeding adults. From sites as distant as Stratton Mountain and the Gaspe Peninsula, we and our Canadian colleagues documented a male:female ratio of more than 2:1. This perplexing discovery raised a host of questions, but it seemed likely to account, at least in part, for the bizarre mating system of the Bicknell's Thrush. With relatively fewer females in the adult population, there presumably exists intense competition among males for mating access to those females. Differences in habitat quality may push females to manipulate males to acquire the amount of provisioning needed to raise young. A strange system indeed, but what caused the imbalanced sex ratio? The answer lay outside nests, where our genetic studies confirmed that male:female ratios were nearly 1:1 at hatching and fledging. We could only assume that at some point between leaving the nest as fledglings and returning as breeding adults, female Bicknell's Thrushes were getting the squeeze. But where and when? During the postfledging period? In migration? In winter? Insights would have to wait.

Realizing that conservation of any migratory animal requires understanding its full annual cycle, we had already turned our attention to the wintering grounds, about which precious little was known. Scant anecdotal and museum records indicated that Bicknell's Thrush overwintered on only four islands in the Caribbean Greater Antilles: Hispaniola, Cuba, Jamaica, and Puerto Rico. Staggering ongoing forest loss on these islands—up to 99% in Haiti—put us on high conservation alert. Such an unsustainable pace of deforestation might well tip the precarious balance for a songbird already facing serious threats on its breeding range. Investigating the overwinter conservation status of Bicknell's Thrush became an immediate, urgent priority.

An exploratory field trip in December 1994 found us in the Dominican Republic's remote Sierra de Bahoruco, where a small band of local ornithologists and park rangers ushered us at dawn into a pristine broadleaf cloud forest. Not ten meters in, our hearts jumped as a familiar *beeer* call sounded from thick understory. Thus began a new chapter in our efforts to understand Bicknell's Thrush, a quest that has convinced us that conserving Caribbean forests holds the key to its tenuous future. Guided by the conservation axiom that you can't conserve something if you don't know where it lives, we first undertook an ambitious survey of Bicknell's Thrush distribution and habitat use throughout the Greater Antilles. Targeting forest habitats at all elevations, we documented the presence of Bicknell's Thrush from sea level to 2200 meters (7218 feet), with most birds inhabiting wet, near-impenetrable montane forests greater than 1000 meters (3281 feet) in elevation (Rimmer et al. 2001, McFarland et al. 2013).

Our field surveys suggested that Hispaniola harbored the mother lode of overwintering Bicknell's Thrushes, as we found relatively few birds in the mountains of Cuba, Jamaica or Puerto Rico. On all four islands, most birds occurred in government-owned protected areas. However, we quickly learned that few of these areas were protected in reality; charcoal production, subsistence agriculture, logging, and squatting persisted unchecked. As we began to study the species more intensively at several Dominican Republic sites, a number of intriguing and unsettling findings emerged. Radio telemetry confirmed that all ages and sexes hold discrete, defended winter territories of about one hectare (2.47 acres) in size (Townsend et al. 2010), and banding revealed that many birds return to the exact same piece of turf each winter. An unexpected and sobering result was that introduced rats take a heavy toll—5 of 53 (9%) radio-tagged thrushes at two forest sites were killed by



Figure 5. Bicknell's Thrush calling from a tree fern on its wintering grounds, Sierra de Bahoruco, Dominican Republic (photograph by Pedro Genaro)

arboreal rats. Nocturnal rat depredation may lead to an unusual roosting behavior, whereby birds leave their daytime broadleaf forest territories to roost overnight in adjacent pine forests, where rat densities are much lower (Townsend et al. 2009). Sadly, there appears to be no habitat on Hispaniola that is immune to these invasive and destructive rodents.

Our most significantes finding to date on Hispaniola is that overwintering male and female Bicknell's Thrush effectively segregate by habitat type. In relatively pristine, high-elevation cloud forests, males predominate over females by a ratio of 3:1, but in lower-elevation, more disturbed rain forests, the two sexes occur at close to parity. Overall on Hispaniola, males outnumber females by nearly 2:1 (Townsend et al. 2011). Further, a dense forest understory and an arthropod-rich prey base characterize male habitats, but female habitats feature a more open understory, higher levels of human disturbance, and a food base that is heavy in fruit. Although proof is elusive, we believe that intersexual competition forces smaller-bodied female Bicknell's Thrushes to occupy inferior-quality rainforest habitat, which is among Hispaniola's most severely threatened forest types (Kerchner et al. 2010). On an island that appears to lack sufficient habitat to accommodate all thrushes, female survivorship may suffer relative to that of males, exacerbating the sex ratio skew of the species throughout its range. This argues compellingly for conservation of rainforest habitats, which may prove vital to long-term viability of Bicknell's Thrush.

Twenty years after our initial foray into the realm of Bicknell's Thrush, one conclusion is clear. We humans have stacked the deck decidedly against this globally rare and vulnerable species. We've fragmented its mountaintop breeding haunts with ski areas, towers, and turbines. Our warming climate threatens to push the Northeast's montane fir forests to extinction, with predicted losses of more than 90% with as little as a 2° C rise in summer temperatures (Rodenhouse et al. 2008). We have discovered surprisingly high burdens of toxic mercury in the blood and feathers of every thrush sampled from Canada to the Catskills and from Cuba to Hispaniola (Rimmer et al. 2005, 2009; Townsend et al. 2013). We are watching its limited winter habitats

disappear before our eyes. And, we now know, thanks largely to a legion of Mountain Birdwatch volunteers in the U.S. and Canada <http://www.vtecostudies.org/MBW>, that Bicknell's Thrush breeding populations are declining overall. In New England and New York, regional trends appear mixed, with evidence of declines in core areas like the White Mountains (Lambert et al. 2008), but no clear increases or decreases in others (IBTCG 2010, Scarl 2011). Maritime Canadian populations, however, are in free fall, with sharp annual declines of 11.5% in New Brunswick and 7.4% in Nova Scotia (Campbell and Stewart 2012). Quebec trends are less certain, but also indicate declines (IBTCG 2010). Continued monitoring across the breeding range is a high priority, and Mountain Birdwatch volunteers are always needed.

A coalition of scientists, natural resource managers, and conservationists from across the hemisphere are now translating knowledge into action. The International Bicknell's Thrush Conservation Group (IBTCG) was formed in 2007 with an explicit aim to advance conservation of the species. Nearly one hundred members strong, the IBTCG released in 2010 a detailed and formal action plan, with an ambitious goal "to increase the global population of Bicknell's Thrush by 25% over the next fifty years (2011–2060), with no further net loss of distribution" (IBTCG 2010). Recommended actions concentrate on range-wide research, monitoring, and habitat conservation. Importantly, the plan directs foremost attention to stronger protection of its dwindling winter habitats.

Tangible evidence of this commitment took form at a November 2010 workshop in Santo Domingo, where sixty participants from seven countries (representing four languages) gathered for three days. Our efforts focused on increasing cooperation between Caribbean and North American IBTCG partners via hands-on implementation of the Conservation Action Plan. The group's immediate and resounding recommendation was to hire a full-time IBTCG Caribbean Coordinator. Juan Carlos Martínez-Sánchez came on board during the fall of 2012, and already the wheels of positive change are turning in Haiti and the Dominican Republic. Martínez-Sánchez brings a conservation philosophy that is simple and intuitive-put responsibility squarely in the hands of local partners where it belongs by building their capacity and promoting their independence. This approach, although challenging to execute in countries chronically plagued by scarce resources, is bearing fruit after only a year. Working closely with our Dominican partners in the Cordillera Septentrional, an area of high importance for female Bicknell's Thrushes, we are helping our local counterparts design and implement on-the-ground actions to conserve essential rainforest habitats.

Ultimately, conservation is about changing people's behavior: combatting climate change, managing industrial forests in Canada, properly siting high-elevation wind turbines, or providing viable incentives for locally-based conservation of Caribbean broadleaf forests. With a global population that probably numbers fewer than 100,000 individuals, and a multitude of threats across its migratory range, Bicknell's Thrush faces daunting odds. But conservationists are by nature optimists. Although the future for Bicknell's Thrush may appear bleak on many levels, we are making progress. People are taking notice. Support has been forthcoming, if slowly.

Volunteers are turning out in droves for Mountain Birdwatch routes. Canadian forestry companies are adopting Best Management Practices. Policymakers are crafting laws to reduce mercury emissions, using Bicknell's Thrush as a bio-indicator. Climate change scientists cite the species as a bellwether of our warming planet. Land acquisitions and conservation easements in North America and the Caribbean increasingly center on Bicknell's Thrush.

Will Bicknell's Thrush regularly pour forth its song again from Mount Greylock's summit? It is unlikely. Can we ensure that this reclusive, intriguing songbird continues its annual passage from our mountaintops to its winter quarters in Caribbean wet forests, and back? Maybe. We know what needs to be done. There will always be more to learn—and we will never stop seeking answers—but we must now focus our energies on action. Bicknell's Thrush may be closer than we realize to an ecological tipping point. Only through concerted, collective hemispheric conservation action can we avoid reaching that point from which no return is possible. To be clear, our conservation quest goes far beyond Bicknell's Thrush. Need convincing? Find yourself at dusk in mid-June on a windswept Green or White Mountain ridgeline. Listen to the chorus of thrushes and White-throated Sparrows. Make your way in January or February to a Dominican cloud forest, where the haunting songs of Rufous-throated Solitaires mingle with the subdued calls of Bicknell's Thrush. You will be convinced.

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From the Birding Community E-bulletin

Four separate Northern Lapwings found in Massachusetts and Maine in October soon became the vanguard of a significant trend in the East.

More of these birds were to be found in the weeks to follow. First there was a one-day bird at Allentown, New Jersey in early November. Then a duo was found in New York, near Montauk Point, Long Island, on 10 November. On 11 November, a Northern Lapwing appeared in Shelburne County, Nova Scotia, and remained through November. There were two more Northern Lapwings in mid-November in Massachusetts, one at Cumberland Farms, in Middleboro, Massachusetts, and another discovered nearby in Bridgewater. And there was another one-day-wonder in Virginia, at Back Bay NWR on 20 November. On the first day of December, another Northern Lapwing, or, perhaps, two were reported in Nova Scotia. By the end of the first week in December, about a dozen of these glorious birds had been found in the East.

The trend continued, and through February even more Northern Lapwings were sprinkled quite broadly in the East. There were long-term visitors both in Massachusetts (an original pair in place since October at Nantucket) and in New Jersey (a remarkable trio present since mid-January in New Egypt, Ocean County). February also produced two Northern Lapwings in Rhode Island, a pair that remained for about a week early in the month in Little Compton. And there was a two-day bird in Maryland in Talbot County.

And then two remarkable southern observations came in. There was a bird in Georgia on the morning of 6 February in Bulloch County. It remained in the area through 24 February, enough time to delight many regional birders. Another Northern Lapwing appeared on 24 February in North Carolina and remained through the end of the month.

And, oh yes, that pair of Northern Lapwings on Nantucket? They were joined by a third individual on 27 February.

This impressive cluster of Northern Lapwings for the season has surpassed all previous seasonal occurrences in recent memory for eastern North America. Still, there was one old invasion for the record books. It occurred when a remarkable trans-Atlantic storm in December 1927 deposited an estimated 500 to 1,000 Northern Lapwings to Newfoundland and also a few on our northeastern U.S. shores.

You can access all the past E-bulletins on the National Wildlife Refuge Association (NWRA) website: http://refugeassociation.org/news/birding-bulletin/>.

Bicknell's Thrush—Who Was the Man Behind the Name?

William E. Davis, Jr., and Christopher C. Rimmer

On June 15, 1881, Eugene P. Bicknell found, on the summit of Slide Mountain in the Catskill Mountains of New York State, a thrush that differed in song and appearance from the resident and common Swainson's Thrush (*Catharus ustulatus*). This bird's appearance resembles the Gray-cheeked Thrush (*Catharus minimus*), whose known breeding range lay far to the north (Bicknell 1882). He collected the bird and another like it, then compared the two with other thrushes in his collection. Bicknell concluded that both were indeed Gray-cheeked Thrushes, although perhaps a new form. He sent his newly collected specimens and all of his Gray-cheeked Thrush skins to Robert Ridgway, a leading ornithologist and systematist at the Smithsonian Institution in Washington D.C. Ridgway agreed with Bicknell's identification and named the newly discovered subspecies of the Gray-cheeked Thrush (then called *Hylocichla aliciae*) in Bicknell's honor, *Hylocichla aliciae bicknelli* (Ridgway 1882).

This obscure bird with subspecific status might have languished, and Bicknell's fame with it, had it not been for George Wallace's classic 1939 natural history study that focused interest on the bird, followed by the taxonomic work of Henri Ouellet (1993), more than a century after the original description. Ouellet's work convinced the American Ornithologists' Union (AOU) committee on taxonomic nomenclature to grant the bird full species status, thus becoming Bicknell's Thrush (*Catharus bicknelli*) in 1995.

Eugene Pintard Bicknell was born on September 23, 1859, in what was then known as Riverdale-on-Hudson, a suburb of New York City. His parents were both from prominent families. His father, Joseph Inglis Bicknell, traced his ancestry in the United States back to 1635; his mother, Maria Theresa, was a Pierrepont with ancestral roots back to 1640 in Roxbury, Massachusetts, and in England back to the Battle of Hastings in 1066. One of her relatives was a founder of Yale University. Eugene was privately educated, did not attend college, and worked in the banking business from an early age, becoming a partner in the banking firm of John Munroe & Co. (Crosby 1926). It was perhaps through his business and family connections that Bicknell became a "joiner," a member of many social organizations such as Sons of the Revolution and the Society of Colonial Wars.

From a young age Bicknell had interests in natural history and, like many boys of that era, he collected birds and their eggs. He was, however, something of an anomaly for the time—he used optics more often than he did a shotgun. He kept daily records of birds he identified, and his Riverdale diaries provide a unique picture of avian life around New York City prior to the habitat destruction caused by urban sprawl (Crosby 1926). At the time, bird identification was largely accomplished down the barrel of shotgun—field guides of the day were mostly keys for identifying birds in the hand. Bicknell, however, was an early proponent of using a "field-glass" to identify birds, as

expressed in his 1895 note in *The Auk* about the third record (first sight record) for Prothonotary Warbler (*Protonotaria citrea*) for New York State:

"It was not at all shy, and much of the time was so near to me that, though my field-glass was not dispensed with, there was no need of it for the purpose of identification." (Bicknell 1895: 306)

Toward the end of his life he had refined his use of optical equipment to include spotting scopes, as related by Maunsell Crosby (1926):

"Mr. Bicknell was looking over a large flock of Sandpipers with a telescope, and I had the hardihood to introduce myself to him. He was very skillful in the use of telescopes, carrying a 40-power for still subjects and using a 20-power for birds in flight, picking up and following flocks of wild fowl with ease as they sped along the coast. His ability to identify a live bird in the field often seemed remarkable." (Crosby 1926: 147)

Although later in life he was described as "very modest and retiring, seldom went to scientific meetings or mingled with his fellow naturalists, and cared nothing for clubs and social diversions" (Crosby 1926: 148), Bicknell did not seem to fit this profile as a young man. In 1878, along with nine other naturalists, he founded the Linnaean Society of New York, serving as its President from 1879–1887. In 1883 he became the youngest founder of the fledgling American Ornithologists' Union (AOU), where he served as temporary secretary at the first meeting and was soon appointed to

committees on the Migration of Birds, the European House Sparrow, and Bird Protection (he eventually became its Secretary)-no shrinking violet, this man. Bicknell was a friend of A. K. Fisher, an ornithologist who ran the Division of Economic Ornithology and Mammalogy of the federal Department of Agriculture. Fisher lived north of Bicknell, and during spring migration, Bicknell would send Fisher post cards with a list of his first sightings of species for the season, presumably so that Fisher would know what to look for in succeeding days. In the fall Fisher returned this favor, sending his first sightings to Bicknell so that he could anticipate the oncoming southbound migrants (Crosby 1926).

In 1876, at the tender age of 16, Bicknell began publishing notes in *Forest and Stream*, mostly about birds in or near Riverdale. He published four notes that



Figure 1. Eugene P. Bicknell, ca. 1881.



Figure 2. Eugene Bicknell Doggett (left) and William Doggett, Eugene P. Bicknell's grandsons, holding a mist-netted Bicknell's Thrush on Mt. Mansfield, Vermont, June 2002.

year and in 1878(a) published an article in The Country magazine, "On the Animal and Vegetable Life as Observed at Riverdale". This gave an early indication of his strong interest in botany, an interest that eventually all but replaced his focus on birds. His paper about the home of the Bicknell's Thrush (1882) included two pages of botanical description and underscores his extensive botanical knowledge and interest. In the years 1878 to 1882 Bicknell published five papers in the Bulletin of the Nuttall Ornithological Club, the journal of the then fledgling oldest ornithological organization in North America. Most dealt with distributional or breeding records of rare or vagrant birds, but several contained observations and suggestions of more general interest. For example, in his paper on the evidence for Carolinian fauna in the lower Hudson valley (1878b), Bicknell remarked on the brownish coloration of juvenile Wormeating Warblers (Helmitheros vermivora),

"a general brownish and deep buffy suffusion, very similar to the color of dead leaves . . . and rendering their detection when among leaves of their favorite haunts very difficult. Does not this adaptation of color to environment in the case of these helpless young appear to be an instance of protective mimicry?" He captures the habit of Worm-eating Warblers to forage on dead leaves and hints at the then relatively new concept of evolution through natural selection. In a second paper (1880), he provides an early description of the nesting of Red Crossbills (*Loxia curvirostra*) in North America and the irruptive behavior of boreal birds.

When *The Auk*, the fledgling journal of the AOU, was to be launched in 1884, Bicknell submitted a lengthy manuscript on the "singing of our birds." He had corresponded with William Brewster, the prominent Cambridge, Massachusetts, ornithologist and an organizer of the meeting at which the AOU was founded, about the manuscript, and apparently assumed that it had been accepted. When *The Auk*'s new Editor, J. A. Allen, decided that the manuscript could not be published in its current form, Bicknell lashed out at Brewster in a December 7, 1883, letter—Bicknell could and did defend himself:

"My Dear Mr. Brewster:

I am greatly surprised at the receipt this morning of a letter from Mr. Allen accompanying the ms. of my paper on the singing of birds, and stating that it

proves inadvisable to publish this paper, or any part of it, in the January number of the new magazine [*The Auk*].

From correspondence with you I had understood that the matter of its publication was decided, the only open questions being in regard to certain matters of detail. In fact you stated that I would be allowed 30-40 pp. Mr. A. thinks that the paper would be improved by a third or a quarter reduction, and states that in any event not more than ten or fifteen pages could be given to it in any one number of the publication. But I am at a loss to understand why for these reasons I am so unceremoniously, for I cannot regard it otherwise, denied any space in the Jan. number—denied what had been already granted!"

The problem was resolved by dividing the paper into six parts, which were published in *The Auk* in 1884 and 1885. The papers had a strong theoretical dimension dealing with such issues as the seasonal timing of song and its relationship with molt and migration and variation with age and gender. Bicknell's publications thereafter took a decidedly botanical bent as he published nothing on birds from 1895, when he contributed several species accounts to Frank Chapman's *Handbook of Birds of Eastern North America*, until 1917. Between 1917 and his death in 1925 he published three short papers in *The Auk*, although between 1880 and his death he published 74 botanical papers in a variety of journals. These, together with his 26 titles on birds and natural history, gave Bicknell 100 published works—a nicely symmetrical total. His exhaustive records of birds from the New York City area were made available to Ludlow Griscom, who incorporated many of them in his classic *Birds of the New York City Region* (1923).

Eugene P. Bicknell is probably remembered more for his botanical accomplishments than for his bird work, but he occupies a permanent place in ornithological history as the discoverer of the thrush species that bears his name. That in itself is an enduring legacy.

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From the American Bird Conservancy: New Study Finds Pesticides Leading Cause of Grassland Bird Declines

A new study led by a preeminent Canadian toxicologist identifies acutely toxic pesticides as the most likely leading cause of the widespread decline in grassland bird numbers in the United States, a finding that challenges the widely-held assumption that loss of habitat is the primary cause of those population declines.

The scientific assessment, which looked at data from 1980 to 2003, was published on February 20, 2013 in *PLOS One*, an online peer-reviewed scientific journal. The study was conducted by Dr. Pierre Mineau, recently retired from Environment Canada, and Mélanie Whiteside of Health Canada.

The study looked at five potential causes of grassland bird declines besides lethal pesticide risk: change in cropped pasture such as hay or alfalfa production, farming intensity or the proportion of agricultural land that is actively cropped, herbicide use, overall insecticide use, and change in permanent pasture and rangeland.

"What this study suggests is that we need to start paying a lot more attention to the use of pesticides if we want to reverse, halt or simply slow the very significant downward trend in grassland bird populations. Our study put the spotlight on acutely toxic insecticides used in our cropland starting after the Second World War and persisting to this day—albeit at a lower level. The data suggest that loss of birds in agricultural fields is more than an unfortunate consequence of pest control; it may drive bird populations to local extinction," Mineau said.

[continued on page 60]

Caterpillars in Winter

Samuel Jaffe

Mixed Species Bird Flock

The flirting call notes of a Black-capped Chickadee pierce the quiet cold of a New England red maple swamp in January. The bird moves into view and balances on a twig of arrowwood viburnum, bending it downward in an arch under its tiny weight. A second chickadee appears nearby on a gray birch limb and swings itself upside down inspecting the branch from a different point of view. The once-silent forest transforms as more birds arrive. Chickadees hop, flutter, and perform acrobatics; Golden-crowned Kinglets call in tiny voices from the treetops; White-breasted Nuthatches crawl over branches and around corners; Tufted Titmice call loudly and throw their weight around; and a Carolina Wren skulks through the undergrowth. Snow is tipped off branches, chips of bark and lichen are knocked to the ground. A roaming mixed species flock—the avian spectacle of a New England winter—has arrived.

Most of us are familiar with the phenomenon of the mixed species flock. We are drawn to such flocks as pockets of life and activity in what can otherwise be an all too quiet season. What are these birds doing? Why are they gathering together with their former competitors? And what on earth are they eating as they pick over the branches in the middle of winter? One common explanation for mixed species flocking behavior is to gain increased protection from predators. The more birds that stay together in a group, the more eyes there are looking out for danger. Less perceptive species are able to take special advantage of the keen senses and clear warning calls of those more in tune with the hawk, owl, and human. Another explanation for mixed species flocking behavior is that each bird in the group will have increased foraging success compared to what it would experience on its own. The more birds searching for food, the more likely they are to turn up rare pockets of overwintering insects; and the more birds crashing through the twigs and frozen foliage of winter, the more likely they are to chase out and expose food sources that a lone bird on a solo quiet hunt would fail to uncover.

Whatever the exact purpose of the flock, one thing is certain: these birds are predators and they are on the hunt for food. To maintain their high temperatures and sustain their tiny bodies through the freezing winter months, the birds must find food or they will die. But on a cold winter's day, what food are these hunters possibly finding? When we walk through a red maple swamp in January, do we notice sufficient insects to support the roving masses of insectivorous birds?

A Caterpillar on My Trousers

Usually sometime in December or January I run out of patience and decide that it is time for spring to arrive. The birds have regained their voices, buds are showing some development on forest trees—why should I be denied the wonders of spring, of



Euchlaena species: A midnight discovery in March in the Blue Hills. This *Euchlaena* caterpillar is chowing down on fresh blueberry buds. There are many species of *Euchlaena*; their caterpillars are not easily identified.



Feralia jocose—Joker Moth: The beautiful green Feralia moths fly in the very early spring and their caterpillars grow fast. Although they do not overwinter, the caterpillars contribute to the growing hordes of species that eat and pupate before the heat of summer sets in.



Hypagyrtis esther—Esther Moth Caterpillar: The esther caterpillar is nearly invisible when tucked against the rough texture of a white pine twig. These caterpillars may be found in good numbers if you put a light cloth beneath a branch and give the branch a shake.



Lytrosis unitaria—Common Lytrosis Caterpillar: Large and lumpy, the Lytrosis is the holy grail of overwintering geometers. I struggled to find them in the wild until this caterpillar revealed itself hanging from a highbush blueberry plant by a strand of silk.



Xestia badicollis—White Pine Dart Caterpillars: Various species of noctuid caterpillars also overwinter in New England. This one, the white pine dart, is often visible gobbling needles on warmer winter and early spring days.



Protoboarmia porcelaria—Porcelain Gray Moth Caterpillar: One of the most numerous overwintering caterpillars, at least in the Blue Hills area of Massachusetts. I have encountered this species every month from September through May.



Limenitis archippus—Viceroy Butterfly Caterpillar: The viceroy and its cousin the redspotted purple hibernate as half-grown caterpillars through the winter. On the first warm days of April, the caterpillars may be seen venturing out onto their respective host plants in search of the first leaves of spring.



Xanthotype species—Crocus Geometer Caterpillar: These crocus geometers were found in the early spring on sapling dogwood in Dedham, Massachusetts. Having been coaxed out of the classic rigid pose for the photograph, the large legs and well-developed heads are now much easier to differentiate.



Protoboarmia & Euchlaena Caterpillars: Blueberry can be a caterpillar gold mine, even in winter. This one plant held multiple porcelain grays, variants, and one large *Euchlaena*.

life, of insects, just because the warmth of May is technically five months away? Like many of the naturalists I have encountered in New England, I force spring a little. I go out into the woods and peel bark to find overwintering beetle grubs and I break ice to explore the activities of caddisfly larva and aquatic isopods that seem impervious to the freezing temperatures. It was upon returning from one such excursion that I noticed a small gray caterpillar inching its way across my trouser leg. It was a *eureka* moment—a caterpillar in winter! What had I been missing?

As it turns out, I had been missing a lot. Most of us know of the overwintering wooly bears and other tiger moth caterpillars that spend the coldest months cozily hidden in our woodpiles or wedged against rotting logs. Some of us have witnessed these furry characters wandering across the winter landscape on

particularly warm or sunny days. But we have been overlooking a much more diverse and ecologically important group of caterpillars—the overwintering geometrids, or inchworms—that do not hide at all. These twiglike caterpillars are the larvae of the porcelain gray moth (*Protoboarmia porcelaria*), the esther moth (*Hypagyrtis esther*), the one-spotted variant (*Hypagyrtis unipunctata*), the euchlaena moths (*Euchlaena* species), the common lytrosis (*Lytrosis unitaria*) and the crocus geometer (*Xanthotype* species) (Wagner 2005). They spend their winters perched relatively exposed on branches or tucked against foliage. They are abundant and accessible and offer one of the most important food sources for our overwintering insectivorous birds.

An Overview of Some Local Caterpillar Species

Three large geometrids, grouped together in the tribe Angeronini, overwinter as half-grown caterpillars. At up to two inches long, these are quite substantial for the family. The crocus geometers feed predominantly on forbs and low growing shrubs. I have swept the long green, yellow, or brown caterpillars from sapling arrowwood, dogwood, and sprigs of buttonbush in winter. The Euchlaena species feed on a wide variety of plants, but a careful search of blueberry, especially at night, will often reveal them. Euchlaena caterpillars are colored with a patchwork of browns, reds, and grays, and sport swollen segments, enlarged limbs, and odd dorsal protrusions. Finally, the lytrosis is a generalist feeder with perhaps a special taste for blueberry and viburnum. I have found them hanging from silken threads after disturbing their host plants in early spring. These caterpillars are some of the most remarkable twig and stem mimics in the biological world—no doubt the result of an evolutionary battle between caterpillar and bird. As birds fine-tune their search images to differentiate between branch and caterpillar, the caterpillars evolve to better imitate the substrate of their lives. Despite their convincing outfits, however, I have no doubt that these caterpillars are an important food source for overwintering birds.

The Xanthotype, Euchlaena, and Lytrosis are large and showy, but two genera of smaller, duller geometrid caterpillars seem to support our overwintering bird populations the most. At just over an inch in length, the porcelain gray, (P. porcelaria), esther moth (H. esther), and one-spotted variant (H. unipunctata) are abundant, widespread, and always accessible. The porcelain gray was the caterpillar that turned up on my trouser leg that January day and is the caterpillar that I have most often encountered since. A slow walk through the woods with careful attention may turn up a porcelain gray or two on any number of native trees and shrubs. But after putting a sheet under a red maple, hemlock, or blueberry branch in winter, a good shake will often produce numerous caterpillars in any given patch of forest. In Winter World, Bernd Heinrich describes his efforts to discover what Golden-crowned Kinglets eat during the wintertime to keep their little bodies running against the cold. Examining the stomach contents of a kinglet, he found to his surprise that the bird had been eating almost exclusively a small gray geometrid. Heinrich later determined that these half-digested caterpillars belonged to the one-spotted variant. It seems a safe bet that birds observed foraging for insects in the wintertime will be carrying at least a few gray, variant, and esther caterpillars in their stomachs.

With warmer weather and swelling buds in spring, the overwintering geometrid species are quick to take advantage. They devour the fresh foliage before other moth and butterfly species have hatched from their eggs. But perhaps this life history stratagem comes at a cost. As the focal diet of hungry winter flocks, these caterpillars are the specific search image of food for the chickadee, kinglet, and Carolina Wren.

The Next Wave: Spring Caterpillars

As the overwintering survivors finish up their larval lives, a new wave of species races to take their place. Many adult moths fly during the winter and early spring, laying thousands upon thousands of eggs. Many eggs deposited the previous summer and fall begin to hatch just as soon as the snow melts away. While the porcelain gray and crocus geometer spin their cocoons, the budding and leafing branches of early spring fill with the caterpillars of charismatic underwing moths, dingy darts, creepy cutworms, bright green *Feralia*, and bird-poop mimicking viceroy and red-spotted purple.

Why Birders Should Care about Caterpillars

Without the overwintering geometrid inchworms would insectivorous bird life be able to support itself over a New England winter? Without the next wave of caterpillars, what would the spring warbler migration look like? These insects are exquisitely sensitive to variations in spring weather; periods of warmth can cause rapid growth and development and unexpected freezes wipe out whole generations. As a caterpillar hunter I encounter this variation from year to year. I dread the April heat wave followed by the May freeze. It seems that many of our birds are caterpillar hunters too, and if they only knew all the challenges their food sources faced, they would look at each spring with as much anxiety as I do. With bated breath.

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Naturalist photographer **Samuel Jaffe** grew up in eastern Massachusetts chasing birds, mucking through ponds, and turning over leaves. Over the last five years he has developed a project to raise and photograph all of the more charismatic native caterpillars. The project has blossomed and expanded into caterpillar exhibits, shows, walks, and talks. Sam is currently working toward a Masters in Environmental Education, but will once again be busy this summer, delivering his caterpillar programming across the state. Sam's most recent photography can be seen hanging at the MIT Center for Theoretical Physics in Cambridge MA, and in the hallways of Antioch University New England in Keene NH. For more information visit <http://www.spjaffe.com>.

A Brief History of the Massachusetts State Ornithologist Position

In 1908, Edward Howe Forbush, one of the icons of Massachusetts ornithology and avian conservation, was named as the first Massachusetts State Ornithologist, formalizing a role he had filled since 1893 as consulting ornithologist to the State Board of Agriculture. Forbush held the position for twenty years, writing prolifically all the while and most notably publishing his monumental, three volume *Birds of Massachusetts and Other New England States*. Not long before his death in 1929 he was succeeded by Dr. John "Jake" Bichard May, a member of Forbush's staff in the Agriculture Department's Division of Ornithology. Dr. May would, in fact, edit the third and final volume of *Birds of Massachusetts* and also contribute its biographical sketch of the author. Five years later May stepped down from the state post, presumably to complete an important scholarly work, *The Hawks of North America: Their Field Identification and Feeding Habits* as well as the addition of a hundred new species accounts to Forbush's work (republished in 1939 as *A Natural History of American Birds of Eastern and Central North America*).

In November 1934 the state ornithologist position, now under the Department of Fish and Game, was filled by field biologist and pioneering conservationist Joseph A. "Archie" Hagar who would remain in the position for twenty five years. His UMass alumni profile describes him as a "specialist in waterfowl and raptors . . . deeply involved in early conservation efforts in New England, noted for his work on wetland conservation and for linking the use of DDT with eggshell thinning in peregrine falcons, and he was famously at the center of a dispute with the U.S. Fish and Wildlife Service over the design of the Parker River Wildlife Refuge."

The eighteen years following Hagar's retirement in 1959 was a period of high turnover and some vacancies in the position of state ornithologist, and none of the next six individuals who occupied the post—for periods ranging from one to five years—were, in fact, ornithologists. Hired from within the ranks of the Division of Fisheries and Game they represented a broader agenda of wildlife management, conservation and habitat restoration projects. Colton "Rocky" Bridges and Matthew Connolly for example (state ornithologists between 1960 and 1964) would each eventually head the state agency before moving on to Ducks Unlimited, a global leader in waterfowl and wetland conservation. where Connolly served for twelve years as Executive Vice President. Walter Hoyt, state ornithologist from 1964–1967 remained with the Division of Fisheries and Game and finished his career as its northeast district manager.

For several years in the early seventies the position sat vacant until tradition was somewhat restored with the appointment in 1977 of ornithologist Brad Blodgett. The hiring of a self-described non-game specialist from outside the Division of Fisheries and Wildlife was, in Blodgett's words, "something of a revolution." In fact, Blodgett's first assignment was to work with the department's chief planner to establish the state's first non-game program, which quickly led to the establishment of the Natural Heritage and Endangered Species Program. (Blodgett actually stepped down from the

ornithologist post from 1979 to 1984 to serve as the new program's assistant director.) Over the next eighteen years Blodgett was involved in a wide array of avian restoration efforts covering, for example, Bald Eagles, bluebirds, and a variety of shorebirds and seabirds. In the 1980s he chaired the state's Roseate Tern restoration program.

Upon Blodgett's retirement in 2002, the state ornithologist position fell victim to budget cuts and remained vacant for ten years until the hiring of Andrew Vitz last year.

Former *Bird Observer* editor Martha Steele met with Vitz recently to discuss his goals and the challenges ahead. \checkmark

Editor

Catching Up With the New State Ornithologist in Massachusetts: An Interview with Andrew Vitz

Martha Steele

Andrew Vitz, Ph.D., was hired in 2012 as the State Ornithologist with the Massachusetts Division of Fisheries and Wildlife of the Massachusetts Department of Fish and Game, where he works in both the Wildlife and Natural Heritage and Endangered Species sections. He fills a position that had been vacant since 2002, when Brad Blodgett retired. Dr. Vitz provided the following biographical information:

"I grew up outside of Cincinnati, Ohio, but did not become really interested in birds until I spent a semester abroad in South America as an undergraduate student at the University of Wisconsin. The rich biodiversity of avifauna in Venezuela blew me away, and after returning to Wisconsin and learning more about the native birds of North America, my career path was set. After graduating from Wisconsin, I spent four years as a field biologist working on bird projects throughout the hemisphere including Hawaii, Florida, Pennsylvania, New Hampshire, Nevada, New York, and Costa Rica. These experiences allowed me to refine my interests and learn numerous field skills. I then began a graduate program at Ohio State University where I completed M.S. and Ph.D. degrees studying the effects of forest management on songbird populations. During my time at Ohio State, I also was involved with a project examining the habitat suitability of shade coffee plantations in Venezuela for overwintering Neotropical migratory birds, with an emphasis on the rapidly declining Cerulean Warbler. I spent four years at the Carnegie Museum of Natural History in Pittsburgh, where I directed the world-renowned Powdermill Bird Banding Lab. In April 2012 I came to Massachusetts to be the State Ornithologist."

Question: What are your thoughts on the state of birds in Massachusetts?

Answer: Overall, I think the outlook for birds in Massachusetts is good. Massachusetts has a very rich diversity in habitats, which has resulted in an official state list of 498 bird species documented in the state, with 198 regularly breeding species, one of the higher state lists in the country. Many of the breeding birds in the state are doing well and have stable or increasing populations. For instance, although once extirpated from the state, populations of Bald Eagles and Common Loons continue to increase. In addition, growth of forest cover in the state-now approximately sixty percent of the state acreage-has resulted in an increase in suitable breeding habitat for most forest species. However, some forest specialists, such as the Canada Warbler, have shown declining numbers, as have most shrubland and grassland species, due to the decline in appropriate habitat for these latter species. Currently, Massachusetts has twenty-nine species of birds on the state endangered, threatened, and special concern species list, but some of these, such as the Leach's Storm- Petrel, are rare in the state only because Massachusetts is at the edge of their geographic distribution. Most of these species, though, have low or declining global populations and are facing serious threats. At least one species, the Golden-winged Warbler, is thought to have been extirpated from the state over the last decade.

- Question: What are your short- and long-term goals to promote bird conservation in Massachusetts?
- Answer: The state ornithologist position has been vacant for so long that my shortterm goal is to bring more visibility to the position. That means meeting with other interested organizations, such as conservation groups (e.g., Massachusetts Audubon Society, The Nature Conservancy) and other state agencies, such as the Department of Conservation and Recreation which manages 450,000 acres of Commonwealth lands. I also want to reach out to smaller groups like the local bird clubs. I am happy to meet with any birding organization to discuss bird conservation in Massachusetts and beyond.

Long-term, we are focusing on the birds, of course, and their conservation. Generally, birds can be categorized by breeding habitat, and groups in Massachusetts include forest birds, shrubland birds, grassland birds, marsh birds, and coastal waterbirds. A number of our state-listed species are coastal birds, and we have several people already dedicated to their conservation. Another group of birds that are currently undergoing steep population declines are the aerial insectivores (e.g., swallows, swifts), and I hope to work collaboratively with others in the state and region to help halt this trend. However, much of my background is with forest breeding Neotropical migrants, and with over sixty percent of Massachusetts in forest cover it is important that we manage these lands judiciously. I aim to make forest bird management and conservation a longterm priority. Overall, our goal is to establish healthy and sustainable populations of our native birds for the benefit and enjoyment of the people of Massachusetts.

I am currently involved in a project documenting the colonization of young forest habitat created by the devastating tornados in central and western Massachusetts in 2011. Shrubland habitat, currently about three percent of our acreage, continues to decline in Massachusetts, and the birds associated with this seral (intermediate succession) stage have declined concomitantly. In just the first year

after the storm, we recorded numerous species using the disturbed sites including many declining birds, such as Prairie Warblers and Eastern Towhees. The creation of these shrubland habitats requires some sort of disturbance, either natural or man-made. However, natural disturbance events (such as fire and flooding) no longer occur at their historical levels and creating young forests through forest management is unpopular with the public. I think that a major challenge in managing the forestlands of Massachusetts is to address the needs of all our forest wildlife by creating more forests that are beginning to exhibit old-growth characteristics as well as young forests.

Question: What is the status of the grassland habitat preservation program?

Answer: We are currently developing a grassland bird management plan, with an emphasis on the Upland Sandpiper and Grasshopper Sparrow, to help conserve this suite of declining species in Massachusetts. The focus of this plan is to identify areas to develop or enhance grassland habitat to support sustainable populations of these species. Currently, the principal grasslands for the statelisted Upland Sandpiper and Grasshopper Sparrow are on military bases or municipal airports, where bird conservation is not a priority. Because there is no guarantee that these areas will continue to provide habitat for grassland birds, we would like to see effective management in areas that are specifically managed for biological diversity. The bottom line is that we are working to maximize the funding that is available to enhance grassland habitat in Massachusetts.

Question: Do you oversee a staff to help you carry out your goals and programs?

- Answer: No, there is no staff strictly associated with being a state ornithologist. However, there are other MassWildlife biologists that I work with, and we rely on outside collaborations, such as with the Massachusetts Audubon Society and the University of Massachusetts, to help us achieve our programmatic goals.
- Question: Does the State Ornithologist have a role in ensuring regular breeding bird atlas compilations? Do the most recent results from the atlas suggest areas to focus on and if so, what?
- Answer: The Massachusetts Audubon Society is responsible for the state breeding bird atlas, so I don't have a direct role there. Having said that, I believe breeding bird atlases are incredibly valuable sources of bird population and range distribution data, which help inform government policies and priorities for bird conservation. The Massachusetts Breeding Bird Atlas has done a phenomenal job of documenting range shifts in birds over the last thirty years, and many of these are undoubtedly linked to climate change. So I strongly support continued participation among Massachusetts birders to work with the Massachusetts Audubon Society in conducting regular breeding bird atlases.
- Question: What specific groups/stakeholders do you think need to be more engaged with respect to your goals as state ornithologist?
- Answer: I hope to engage more private landowners who are interested in birds and wildlife on their property. The majority of Massachusetts is privately owned

(including seventy-five percent of forestlands) and these areas are critical for the welfare of our wildlife. There are many things that landowners can do to enhance their land for bird habitat. We work with private landowners interested in managing their land for wildlife, and sometimes there are opportunities to apply for funding for habitat management on their property that aims to benefit declining or listed species.

- Question: What do you see are the most important challenges for you moving forward?
- Answer: From a biological perspective I think the most immediate challenges are those posed by global climate change. There is a lot of uncertainty in the models used to project how habitats will change with rising temperatures in the coming years and which animals will be able to successfully adapt. A few habitats (and the birds that are restricted to these areas) that are most at risk are the high elevation spruce/fir forests in western Massachusetts and coastal habitats like salt marshes.

Another challenge is to get people to think of the bigger picture when it comes to bird conservation. For instance, even though many of us call them "our" birds, the majority of the breeding birds of Massachusetts are classified as Neotropical migrants, only staying a few months of the year here and spending the rest of the time either in migration or on their wintering grounds. So, even if we do an extraordinary job of conserving breeding habitat in Massachusetts, bird populations could decline due to insufficient conservation measures in place elsewhere. Just look at the Red Knot, whose ongoing precipitous decline is largely attributed to the lack of available food in the form of horseshoe crab eggs at critical migratory stopover locations. Full life-cycle conservation has become a big issue, and it is something that we are paying attention to at MassWildlife.

- Question: What do you think are the most promising developments that may enhance bird conservation in Massachusetts?
- Answer: In general, I think some of the most promising areas in bird conservation focus on the incredible explosion in available technology to learn more about bird biology, and more information on their biology means better decisions on policies supporting their conservation. For example, transmitters and geolocators on shorebirds are providing amazing data on their survivorship, breeding and wintering habitats, and migration routes and timelines. Just last year satellitetagged Whimbrels provided data linking their breeding and wintering grounds, elucidating how these birds deal with hurricanes during migration, and indicating that unregulated hunting in the Caribbean may be having a dramatic impact on their populations. As this type of information becomes available for more species, it will help us identify areas of critical importance and allow managers and policy makers to best use limited conservation dollars.
- Question: What advice would you give to birders about how they can help you in meeting your goals?

Answer: My primary role is in bird conservation, and I think that one of the best things a birder can do is to share their excitement about birds with others, especially with young people. Birds are incredible and can captivate people in so many ways. Some have brilliant plumages or complex vocalizations, others undergo epic migrations that span the globe, and maybe most important, they can be seen almost anywhere and by anyone. The bird migrations that come through New England each spring and fall rank as one of the greatest migrations for all animals in the world. I think the most fascinating thing is that this phenomenon can be observed right in people's backyards.

There are so many things that everyone can do to support bird conservation. These include things like planting a native garden in your yard, buying shadegrown coffee and organically grown foods, keeping house cats indoors, making your windows bird safe, reducing your carbon footprint, supporting conservation organizations, supporting lights out programs and participating in citizen science projects. As more people develop an interest in birds they will generate an increasing concern for birds, and that is going to determine where we can go with bird conservation in the state.

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Martha Steele is a past editor of Bird Observer and lives in Arlington with her husband, Bob Stymeist. She is a native Vermonter, and she and Bob frequently bird the Northeast Kingdom of Vermont. Martha has spent most of her professional career at the Massachusetts Department of Public Health. In addition to birding, she volunteers in the Boston chapter of the Foundation Fighting Blindness and serves as the chair of the Boston VisionWalk. Martha and Bob's team, Strides for Eagle Eyes, has raised well over \$60,000 for research on blinding diseases since 2009.



LONG-TAILED DUCKS IN FLIGHT BY SANDY SELESKY

ABOUT BOOKS

Gonzo in Birdland

Mark Lynch

Ralph Steadman's Extinct Boids, Commentary by Ceri Levy). 2012. Bloomsbury. London, U.K.

"I can't stop the birds. They are everywhere and won't leave me alone." Ralph Steadman in an e-mail to Ceri Levy



"It all started as a mistake." Ceri Levy in the introduction to Extinct Boids.

N.B.: there are no page numbers in this book so quotes cannot be attributed to a specific page.

The most interesting works of bird art are those that rise above the level of a mere detailed illustration suitable for a field guide. These works are less photographic and are, instead, more personal expressions of the artist. There are artists who use birds symbolically or as icons of flight in their work. Some birds in art may reveal our complex and sometimes tragic relationship to the natural world. There are artists who employ birds as celebrations of natural light and color. A number of modernist artists have used birds in their works. Vorticist artist Henri Gaudier-Brzeska drew and sculpted highly stylized birds. Surrealist Max Ernst had a birdlike alter ego named Loplop, which he included in many of his paintings. Ernst also used birds and parts of birds in a number of his marvelous collage pieces. Futurist Giacomo Balla painted spectacular canvases of Common Swifts because their flight and movement symbolized the Futurist's love of speed. Minimalist and "post-painterly abstractionist" Frank Stella painted and sculpted several completely abstract works puzzlingly named after rails. Now there is Ralph Steadman, legendary gonzo cartoonist, illustrator, and artist, probably the last person I expected to be inspired by birds.

"Gonzo is the essence of irony. You dare not take it seriously. You have to laugh."

"Nobody I have read knows what GONZO is, was, or ever could be, not even Hunter, and if he doesn't know what it is, I do." (Ralph Steadman from his website, <http://www.ralphsteadman.com/>

Ceri Levy is a British independent film producer and director. He is probably best known as the director of two "behind the scenes" rock documentaries: *Blur: Starshaped* (1993), about the band Blur, and *Bananaz* (2008) about the band The Gorillaz. His latest film, to be released soon, is *The Bird Effect* and focuses on how birds inspire people. While working on *The Bird Effect*, he came up with the idea of the exhibition *Ghosts of Gone Birds*, which he co-curated. This traveling exhibition opened in the UK at the Liverpool School of Art & Design on May 19, 2011. The organizing concept of the show was to ask different artists to represent a species of



extinct bird. A percentage of the proceeds from the exhibition would go to BirdLife International. Levy's desire was to "engage the audience in a conversation about extinction." He contacted Ralph Steadman and was excited when the legendary artist agreed to contribute one work even though Steadman was a bit unclear initially about what the show was all about. Ceri Levy had no idea that this would lead to one of the best documented and strangest collaborations between a curator and an artist.

Ralph Steadman possesses an antiauthoritarian streak, which can be traced back at least to leaving his grammar school at age sixteen. He credits the headmaster with giving him a "fear and hatred of authority." Starting in the mid-

1950s, Steadman began drawing political and satirical cartoons for British publications like *Punch*, *The Daily Telegraph*, *Private Eye*, and *The Daily Mail*. Along the way he became close friends with Gerald Scarfe, another legendary British cartoonist and illustrator who is best known here for his illustrations of Pink Floyd's *The Wall*. Scarfe was also the production designer for Disney's *Hercules*. Scarfe and



Steadman had a serious falling out in the mid-1960s even though Steadman still credits Scarfe's influence for his eventual success.

In the early 1970s, with his marriage on the rocks, Steadman traveled to America and eventually began doing work for Rolling Stone Magazine. But it was Scanlon's Magazine that first teamed him up with crazed journalist Hunter S. Thompson for a piece on the Kentucky Derby. They became life-long friends, and Steadman's next project was to illustrate Hunter Thompson's classic Fear and Loathing in Las Vegas, which was initially published in *Rolling Stone* Magazine in November 1971. This introduced the word "gonzo" and Steadman's work to a wide American audience.
Ralph Steadman continued to cartoon and illustrate in Britain but gave up political cartooning in the mid-1980s for several reasons including his hatred of working for editors of newspapers and his belief that political satire had become boring. His expressive work, some with violent imagery, often ran afoul of censors of newspapers and magazines. Steadman has illustrated editions of Animal Farm and Alice in Wonderland. He has done labels for Flying Dog Brewery and designed catalogues for the wine merchant Oddbins. He has made designs for the stage, directed films, and in 1986 designed four British stamps to commemorate Edmond Halley. He has won numerous awards and accolades, yet his work has never lost the bizarre and anarchistic edge of his youth.

The British Cartoon Archive describes Steadman's style like this:

"He uses pens, brushes, inks, acrylics, oils, etching, silkscreen and collage, and has also produced sculptures in iron and steel. He works on a large scale, with an often brutal, savage style. 'The thing I never did is draw for reproduction,' he told an interviewer in 1988, 'I was always drawing just for the drawing, and it's always been a problem. We always have this thing about my work never looking right in reproduction.' <http://www.cartoons.ac.uk/artists/ralphsteadman/biography>

Which brings us back to his work for the *Ghosts of Gone Birds* exhibition. The piece he initially submitted to Ceri Levy wasn't of an extinct bird. It wasn't even a real bird. It was a sublime painting of what Steadman called a Japanese Egret (dubbed Egretta ralphartum falstartum) rising up out of the mire (or was that blood?). Ceri Levy thanked Steadman for the painting but explained that for the show they were looking for representations of actual extinct birds. Steadman responded by painting a Great Auk and a North Island Giant Moa. But he didn't stop there. The idea of painting and drawing birds suddenly took hold of Steadman's unruly imagination. Over the next year Ralph Steadman kept painting birds, some real, some imaginary, a hundred paintings in all. Soon Ceri Levy realized this was not your typical curator/artist relationship, but instead one wild ride for Levy. As he describes it:

"I have been at sea now for more than a year with Captain Ralph on the *Steadmanitania*, seeking out new boids and discovering older, extinct ones. In bird-watching parlance we had done a Big Year." (*Ralph Steadman's Extinct Boids*)

There were so many Ralph Steadman paintings that an entire room of the exhibition was dedicated to them. They were hung floor to ceiling. There is a great two-page photograph in *Extinct Boids* of a number of visitors to the show with binoculars, studying Steadman's oeuvre.

The book, *Ralph Steadman's Extinct Boids*, is a chronological display of these bird paintings. This is a large format book, beautifully printed. The right hand page is given over to one of Steadman's boids. Opposite is a description of that species, real or imaginary, as well as snippets from e-mails between Levy and Steadman, excerpts from Levy's diary, and remembered bits of phone calls between the two. All together,

these create a fascinating real time account of Levy as curator trying to come to terms with and channel the boundless, out of control, creative spirit of Steadman. Early on, he gives up trying to rein in Steadman and enjoys the ride.

"I am becoming spoiled with Ralph's art. He continues to turn up the volume and the quality never deteriorates." (Excerpt from Ceri Levy's diary as published in *Ralph Steadman's Extinct Boids*)

Steadman's interpretation of most species is unique, sometimes quite funny and unlike any "bird art" you have likely seen before. These birds have attitudes. Levy describes Steadman's Choiseul Crested Pigeon as having "an air of baleful resignation." His Moa captures the massiveness of that flightless bird while at the same time giving the bird a sense of fierce resignation at its ultimate fate. Steadman's Labrador Ducks appear to be the grumpiest species of waterfowl that ever inhabited the Atlantic. This painting made me laugh out loud. As Steadman notes, "They were just too miserable to live." He also includes this helpful note on his process of painting the ducks, "Those stains should look like tea stains because they are tea stains. The picture was missing a little something and that did the trick. I did shout 'Duck!' when I did it." (*Ralph Steadman's Extinct Boids*)

Some of the American "Action" painters of the 1950s also used whatever happened to be nearby, even salad dressing, to create a painting. There are times that Steadman comes off like a British punk Jackson Pollack only with a better sense of humor. Steadman's frequent use of splatter effects in these paintings does seem to echo the works of the first wave of Abstract Expressionism. His choice of what species to paint can only be described as quirky. Steadman paints many of the extinct Hawaiian birds and for some reason executes three versions of the White Gallinule of Lord Howe Island. When Ceri Levi's asks why he has painted so many White Gallinules, Steadman answers, "Maybe they're not anymore. By continually drawing them, perhaps we have brought them into existence." (Ralph Steadman in an e-mail to Ceri Levy)

Early in the series, Steadman's fantastic birds start to appear. There's a Blue Slut with a Mona Lisa-like grin nesting under his self-satisfied looking Dodo. These created birds have names like the South Eastern Telly Chat, Mechanical Botanical Sprunt, Orange-beaked Mwit, the Quink, and the Lesser Peruvian Blue-beaked Blotswerve. All of them have their scientific names, too. It is clear that Steadman has become bewitched by the names of exotic species, and this has sparked his imagination. Steadman even creates an imaginary place for all his personal species to live, Toadstool Island. This begins another Steadman project that is a spinoff of the *Ghosts of Gone Birds* exhibition. Some of these Steadman boids are shown in their own paintings, or they occupy corners of paintings of birds that actually did once live. The reader loses sense of what is real and what is not. There is even a portrait of a human, The Man Who Hated Birdshit (*Homo sapiens guanaophobes*), another Toadstool Island resident.

Steadman's artwork in *Extinct Boids* will come as no surprise to those of you who have enjoyed the work he did for Hunter Thompson or his political cartoons. As is to be expected, there are times when he goes well over the edge like when he has his Oceanic Eclectus Parrot perching on a severed leg. There are other times when his art is downright silly as when he describes his Honduras Banana '0'- o, "Is it a bird or is it a banana? Somehow, it's both. And it's got a soft center. Trained in the martial arts, and an expert in Cornish Wrestling." (*Ralph Steadman's Extinct Boids*)

Much of the work in *Extinct Boids* is inspired, original, and lively. Steadman's snobbish looking and stately North Island Takahe uniquely captures the appearance of this species. His Liverpool Pigeon originates from a memory of his youth spent with John Lennon watching the only birds they could see in that grim working class city.

As a series, these paintings fall somewhere in the gulf between raucous cartoons and expressive paintings. This is not a book for those who like their bird art serious, realistic, and quiet. The conversations between Ceri and Ralph, and Ceri Levy's diary entries are a wonderful addition to this book. It allows the reader to get a feeling for how an artistic mind thinks and creates over the course of a year. It was truly a chaotic and fun trip for Ceri Levy as he finally let go of acting the curator and just followed Steadman's imagination on an unpredictable voyage. This is a book for people who love birds but also love art and the crazy life of artists

Finally, it is important to note that, "A portion of the proceeds from the sales of this book will go to Ghosts of Gone Birds—supporting frontline conservation projects by local BirdLife partners." (from the frontispiece)

Ralph Steadman's Extinct Boids ends with large watercolor of an Elephant Bird egg, silent and calm in muted brown tones. It is a stark contrast to all the other rambunctious paintings in the series. But on the opposite page, scrawled in large uneven splattered letters is the question:

"WOT CUM FOIST?"

Perfectly gonzo. 🛧





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BIRD SIGHTINGS

September/October 2012

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

September was cool and wet in Boston, and in some sections there were severe thunderstorms. The temperature averaged 64.7° in Boston with a high of 82° on four days. The low was 49° on September 25. Precipitation totaled 4.1 inches in Boston, nearly an inch more than normal but far from the record 10.94 inches in September 1933. A line of severe thunderstorms pounded western Massachusetts on September 9 with winds gusting as high as 60 mph. Heavy rains and a tornado watch for Berkshire County occurred on September 18 and 19 with a gust of 64 mph in West Cummington.

The average temperature for October in Boston was 2.5° above normal, and rainfall was 1.32 inches below normal. Massachusetts escaped most of the devastation that Hurricane Sandy brought to much of the East Coast. Rainfall from Sandy on October 28–29 was just 1.08 inches with a highest wind gust in Boston of 62 mph. *R. H. Stymeist*

WATERFOWL THROUGH ALCIDS

It was a good month for waterfowl. The **Black-bellied Whistling-Duck** that spent most of July and August at Great Meadows NWR in Concord lingered through the first two days of September. On October 18 a **Greater White-fronted Goose** was discovered at Artichoke Reservoir in West Newbury, and only two days later a much more exciting **Pink-footed Goose** was photographed in the same location. There are only a half dozen previous records for this species, so it was a remarkable coincidence that the same birder who discovered a Pink-footed Goose in Sudbury in 2010 also found this bird. A **Ross's Goose** was discovered on Wolomolopoug Pond in Sharon on October 27. The first state record of this arctic visitor was in 1997, and the bird remains extremely rare except for an "invasion" in March of 2009, when there were multiple birds in several locations.

Certain sea ducks such as scoters and Long-tailed Duck show up regularly at inland locations during migration, but because Common Eider is a rare inland visitor, the individual seen at Quabbin Reservoir on October 28 was noteworthy.

Pacific Loons were reported from Rockport and Provincetown, locations where this species has regularly been seen in the past. Although Hurricane Sandy did not bring rarities among the sea birds, good numbers of Cory's Shearwater, Kittiwake, Northern Gannet, Razorbill, and Dovekie were reported.

A **Magnificent Frigatebird** was initially photographed on October 30 in South Dartmouth and was seen again the following day flying between Westport and adjacent Rhode Island. Two **American White Pelicans** were spotted flying over Plum Island on October 13, and there were two reports of **Brown Pelicans**, one in South Boston on October 5 and three on Nantucket in the wake of Hurricane Sandy on October 31. Before it disappeared a week later, many enjoyed a Purple Gallinule, first seen in Norfolk at the Stony Brook Sanctuary on October 7.

The 2012 Nantucket Birding Festival should have been hard pressed to beat the list of rarities discovered in 2011, but it resulted in a sighting that was undoubtedly the bird of the year in Massachusetts. On October 18 a **Gray-tailed Tattler** was discovered, and remained for two days for many birders to enjoy. This represents not just a first state record but only a fourth

continental record and a first for the eastern part of the United States.

If not for the Tattler, two separate sightings of **Northern Lapwings** would have been the most spectacular sightings of the two-month period. These were discovered on October 30 as "Superstorm" Sandy moved across Massachusetts. In mid-morning two lapwings were reported at Bartlett's Farm on Nantucket followed only minutes later by a report of a single bird at First Encounter Beach in Eastham. There are only two previous records of Northern Lapwing in Massachusetts. The first spent several days in Chilmark in late December 1996; the second was photographed as it flew over Plum Island in early December 2010.

An American Avocet was photographed in Duxbury on September 2, and only a few days later one was photographed nearby in Plymouth, undoubtedly the same bird. A Bar-tailed Godwit, Little Stint, and Curlew Sandpiper, all in Chatham, continued into September from August.

In the past, **Long-tailed Jaegers** were not even annual in the state, and then they were seen typically only from offshore. Reports of these birds have now become relatively routine from land on Outer Cape Cod, where five were reported in this period. *M. Rines*

	Whistling-Duck			10/26	Marstons Mills	87	M. Keleher
9/1-02	GMNWR	1	V.O.	10/28	Nantucket	40	K. Blackshaw#
Pink-footed				10/28	Sudbury	50	D. + I. Jewell
10/20	W. Newbury	1 ph	G. Gove#	Blue-winged			
	te-fronted Goose				Marstons Mills		M. Keleher
10/18-22	W. Newbury	1	K. Elwell + v.o.	9/1-10/15	GMNWR	14 m	
Snow Goose				9/1-10/15	P.I.	19 m	
9/20	Worcester	4	S. Ricker	9/1	Wellfleet	14	S. Broker
10/23	Sheffield	6	R. Wendell	9/2	Belchertown	8	L. Therrien
10/23	P.I.	6	C. Riehl	9/16	P'town	11	BBC (R. Stymeist)
10/24	Sudbury	2	G. Dysart	9/22	Chatham	10	M. Faherty
Ross's Goose				10/8	Lynn	11	R. Heil
10/26-31	Sharon	1	V. Zollo + v.o.	Northern Sho	veler		
Brant				thr	P.I.	15 m	nax v.o.
10/4	Revere B.	18	W. Manter	10/1	Arlington Res.	1	M. Rines
10/14	P.I.	60	R. Heil	10/3-22	Westboro	1	V.O.
10/21	Nantucket	110	S. Perkins#	10/4	Waltham	1	J. Forbes
10/23	S. Quabbin	9	L. Therrien	10/9	Ipswich	3 f	J. Berry
10/24	Amherst	9	I. Davies	10/27	Ĉharlton	1	S. Ricker
10/25	Egremont	1	J. Morris-Siegel	Northern Pint	ail		
Cackling Go	ose		U	thr	GMNWR	44 m	nax v.o.
10/10, 26	Turners Falls	1, 2	J. Smith	9/13-10/31	P.I.	300 m	nax v.o.
Mute Swan				10/7	Lynn	8	R. Heil
9/15	Randolph	34	G. d'Entremont#	10/27	Pittsfield (Pont)	5	M. & K. Conway
10/20	Acoaxet	93	M. Lynch#	10/27	Waltham	2	J. Forbes
10/28	Nantucket	60	K. Blackshaw#	10/31	Acton	2	S. Perkins#
10/30	Westboro	67	G. Gove#	Green-winged	d Teal		
Wood Duck				9/1	Squantum	25	R. Donovan#
9/3	Northampton	99	T. Gagnon	9/12	Pittsfield (Onot	a) 14	K. Hanson
9/13	Paxton	80	R. Jenkins	9/20-10/31	P.I.	860 m	nax v.o.
9/24	Sharon	30	L. Waters	10/8	Lynn	77	R. Heil
10/6	GMNWR	45	BBC (B. Volkle)	10/21	Nantucket	150	G. d'Entremont#
10/15	Medford	50	R. LaFontaine	10/22	GMNWR	91	K. Dia#
Gadwall				Canvasback			
9/7	Fairhaven	11	C. Longworth	10/25-30	Cambr. (F.P.)	1 f	B. Miller
9/22	Chatham	15	M. Faherty	Ring-necked			
10/18	P.I.	110	T. Wetmore	thr	Cambr. (F.P.)	213 m	nax v.o.
10/19	Nantucket	45	S. Perkins#	9/2. 10/20	Braintree	1.30	00 P. Peterson
10/30	Ipswich	170	J. Berry#	10/21	W. Newbury	128	J. Berry#
Eurasian Wig				10/27	Pittsfield	500	M. & K. Conway
9/25-10/30		1	B. Murphy#	10/27	Lakeville	467	S. Arena
10/21	Nantucket	5	J. Trimble#	10/29	Lincoln	270	S. Perkins
10/7-26	Marstons Mills	3	M. Keleher#	Greater Scau	D		
American Wi		-		9/3, 10/27		1.7	3 S. Arena
thr	P.I.	115 ma	x v.o.	10/21	Nantucket	400	G. d'Entremont
	Fairhaven	1. 12	C. Longworth	10/21	Wachusett Res.	55	K. Bourinot
10/20	Acoaxet	82	M. Lynch#	10/24	Brookfield	12	R. Jenkins
		~-					

				10/24	D'4 C 11(0 4	`	
Greater Scau 10/29	Waltham	7	S. Perkins	10/24 10/28	Pittsfield (Onota Quabbin (G35)	u) 2 3	G. Hurley T. Pirro#
Lesser Scaup		1	5. reikilis	10/28	Manomet	117	A. Kneidel
10/7	S. Quabbin	3	L. Therrien	10/28		2500	B. Nikula
10/19	Nantucket	15	S. Perkins#	Ruddy Duck	1 10.00	2000	Dirimun
10/21	Wachusett Res.	4	K. Bourinot		W. Newbury	204	V.O.
10/27	Pittsfield (Pont)		& K. Conway		Cambr. (F.P.)	80 ma	
10/30	Wayland	6	B. Harris	10/4, 17	Waltham	13, 57	J. Forbes
Common Eid		105 505	D II 'I	10/23	Norton	88	J. Fecteau
	9 Rockport (A.P.)		R. Heil	10/25	Brookfield	106	R. Jenkins
10/19 10/28	Nantucket Quabbin (G35)	230 1 m	S. Perkins# T. Pirro#	10/27 10/28	Pittsfield Quabog IBA	30 103	M. & K. Conway M. Lynch#
10/28	Manomet	750	S. Arena#	10/28	Attleboro	112	J. Sweeney
Harlequin Du		750	5.7 field#	Northern Bob		112	J. Dweency
10/27	Sandwich	1	M. Keleher	10/7	N. Truro	1	B. Nikula
10/28	Rockport (H.P.)	17	M. Weber	Ring-necked	Pheasant		
10/29	Manomet	8	S. Arena#	<u>9</u> /5	Westboro	1	N. Paulson
Surf Scoter				9/9	Saugus	1	S. Zendeh#
10/21	W. Gloucester	600	J. Nelson	10/14	Cumb. Farms	1	SSBC
10/24, 31	Pittsfield (Onota	1) 7, 9 9	v.o. L. Therrien	10/28 Buffed Crows	Quabog IBA	1 m	M. Lynch#
10/25 10/26	S. Quabbin P.I.	150	T. Wetmore	Ruffed Grous 9/2	Moran WMA	7	R. Packard
10/28	Dennis	910	P. Flood	10/5	Ware R. IBA	3	M. Lynch#
10/28	Manomet	885	A. Kneidel	10/28	Hubbardston	1	W. Howes
10/29	Barnstable	700	J. Trimble#	Wild Turkey		-	
White-winge	d Scoter			9/5	Lincoln	26	R. Stymeist
10/10	P.I.		AS (D. Larson)	9/16	Sandwich	42	Jon Shaw
10/18, 29		300	B. Nikula	9/29	Warwick	54	M. Lynch#
10/21	W. Gloucester		J. Nelson	10/27	Waltham	15	J. Forbes
10/22	Nahant	370	L. Pivacek	Red-throated		50	
10/24 10/29	Pittsfield (Onota Barnstable	575	G. Hurley J. Trimble#	thr 10/12	P.I. Wachusett Res.	50 ma 2	
10/29	Revere	500	P. Peterson	10/12 10/17	Sharon	4	B. Kamp L. Waters
10/30	S. Quabbin	17	L. Therrien	10/17	Dennis	67	P. Flood
Black Scoter	5. Quicom	17	2	10/29	Manomet	83	S. Arena#
	9 Rockport (A.P.)	10, 375	R. Heil	10/29	Rockport (A.P.)	125	R. Heil
10/25	GMNWR	17	K. Dia#	10/30	S. Quabbin	2	L. Therrien
10/25, 31	Pittsfield (Onota	a)39, 55	K. Hanson	Pacific Loon			
10/25	S. Quabbin	232	L. Therrien	10/9	P'town	1 br	
10/25	Brookfield	65	R. Jenkins	10/19	off P'town	1 br	pl B. Nikula#
10/25 10/28	Brookfield Manomet	65 135	R. Jenkins A. Kneidel	10/19 10/30	off P'town Rockport (A.P.)		
10/25 10/28 10/29	Brookfield Manomet Barnstable	65	R. Jenkins	10/19 10/30 Common Loc	off P'town Rockport (A.P.) on	1 br 1	pl B. Nikula# R. Heil
10/25 10/28 10/29 Long-tailed I	Brookfield Manomet Barnstable Duck	65 135 265	R. Jenkins A. Kneidel J. Trimble	10/19 10/30 Common Loc thr	off P'town Rockport (A.P.) n P.I.	1 br 1 45 ma	pl B. Nikula# R. Heil ax v.o.
10/25 10/28 10/29 Long-tailed I 10/17-21	Brookfield Manomet Barnstable Duck Wachusett Res.	65 135 265 1	R. Jenkins A. Kneidel J. Trimble v.o.	10/19 10/30 Common Loc thr 10/9	off P'town Rockport (A.P.) n P.I. P'town	1 br 1	pl B. Nikula# R. Heil ux v.o. B. Nikula
10/25 10/28 10/29 Long-tailed I	Brookfield Manomet Barnstable Duck	65 135 265 1	R. Jenkins A. Kneidel J. Trimble	10/19 10/30 Common Loc thr	off P'town Rockport (A.P.) n P.I.	1 br 1 45 ma 45	pl B. Nikula# R. Heil ax v.o.
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Sound	65 135 265 1 d 18	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins#	10/19 10/30 Common Loc thr 10/9 10/21	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res.	1 br 1 45 ma 45 11 14	pl B. Nikula# R. Heil ux v.o. B. Nikula K. Bourinot
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.)	65 135 265 d 18 7 160 126	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil	10/19 10/30 Common Loo thr 10/9 10/21 10/22 10/29 10/29	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet	1 br 1 45 ma 45 11 14 151 247	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis	65 135 265 d 18 7 160	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.)	1 br 1 45 ma 45 11 14 151	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet	65 135 265 d 18 7 160 126 95	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena#	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe	1 br 1 45 ma 45 11 14 151 247 53	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry#
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater	65 135 265 1 d 18 7 160 126 95 6	R. Jenkins A. Kneidel J. Trimble V.O. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle	10/19 10/30 Common Loo thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed Gr 9/16	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven	1 br 1 45 ma 45 11 14 151 247 53 5	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet	65 135 265 d 18 7 160 126 95 6 18	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena#	10/19 10/30 Common Loc thr 10/9 10/21 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket	1 br 1 45 ma 45 11 14 151 247 53 5 6	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins#
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick	65 135 265 1 d 18 7 160 126 95 6 18 21	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg	10/19 10/30 Common Loc thr 10/9 10/21 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree	1 br 1 45 ma 45 11 14 151 247 53 5 6 10	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 Bufflehead 10/13 10/29 10/29 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.)	65 135 265 1 d 18 7 160 126 95 6 18 21 24	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins ⁴ L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arenaik S. Kellogg R. Heil	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry#
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick	65 135 265 1 d 18 7 160 126 95 6 18 21	R. Jenkins A. Kneidel J. Trimble V.O. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies	10/19 10/30 Common Loc thr 10/9 10/21 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree	1 br 1 45 ma 45 11 14 151 247 53 5 6 10	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin	65 135 265 1 d 18 7 160 126 95 6 18 21 24 15	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins ⁴ L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arenaik S. Kellogg R. Heil	10/19 10/30 Common Loc thr 10/2 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/28	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry#
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins#	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/28 Horned Grebo	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch#
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ \\ 1\\ \\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G: 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/27 10/28 Horned Greba 10/12	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4	pl B. Nikula# R. Heil X V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I.	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ d \\ 18\\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl	10/19 10/30 Common Loc thr 10/9 10/21 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/27 10/27 10/27 10/27 10/28 Horned Grebs 10/12 10/22	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 9 7 4 13	pl B. Nikula# R. Heil X v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23 10/23	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 0\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins [#] L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins	10/19 10/30 Common Loo thr 10/9 10/21 10/22 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/28 Horned Greba 10/12 10/22 10/22	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 6 10 9 7 4 13 18	pl B. Nikula# R. Heil x v.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23 10/24	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont)	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 0\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl	10/19 10/30 Common Loo thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G: 9/16 10/18 10/20 10/21 10/27 10/27 10/28 Horned Grebe 10/12 10/22 10/22 10/22	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 9 7 4 13 18 15	pl B. Nikula# R. Heil K. V.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23 10/24 Hooded Merg	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 0\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/29 10/31 Pied-billed G: 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/27 10/28 Horned Greba 10/12 10/22 10/25 10/25	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I.	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 15 15 16 10 10 10 10 10 15 10 10 10 10 10 10 10 10 10 10	pl B. Nikula# R. Heil K. V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 Bufflehead 10/13 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23 10/24	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont)	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ \\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ \\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ \\ 3\\ 4\\ 1\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins [#] L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins	10/19 10/30 Common Loo thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G: 9/16 10/18 10/20 10/21 10/27 10/27 10/28 Horned Grebe 10/12 10/22 10/22 10/22	off P'town Rockport (A.P.) n P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I.	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 9 7 4 13 18 15 18 3	pl B. Nikula# R. Heil K. V.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ 1\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/28 Horned Greba 10/12 10/22 10/22 10/22 10/25 10/27	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) Grebe P.I.	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 3	pl B. Nikula# R. Heil X V.o. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/31 Common Go 9/3 10/23 10/23 10/24 Hooded Merg 10/13 10/25 10/27 10/28	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR Winchester Marlboro P.I.	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ d \ 18\\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ 1\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson C. Gibson	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/29 10/29 10/31 Pied-billed G: 9/16 10/18 10/20 10/27 10/27 10/27 10/27 10/27 10/25 10/25 10/25 10/26 10/2 10/2 Red-necked C 10/2 10/2	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) irebe P.I. Waltham	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 3 3	pl B. Nikula# R. Heil K. V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil J. Forbes
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/29 10/30 10/31 Common Go 9/3 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/23 10/24 Hooded Merg 10/13 10/25 10/27 10/28 Common Me	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR Winchester Marlboro P.I. rganser	$\begin{array}{c} 65\\ 135\\ 265\\ 265\\ 1\\ 1\\ 26\\ 95\\ 6\\ 126\\ 95\\ 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ 1\\ 15\\ 1\\ 1\\ 9\\ 8\\ 13\\ 9\\ 9\end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins [#] L. Therrien P. Flood R. Heil S. Arena [#] J. Carlisle S. Arena [#] S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins [#] S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson C. Gibson L. Lane T. Wetmore	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/28 Horned Greba 10/12 10/22 10/22 10/22 10/27 Red-necked C 10/2 10/13 10/13	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) Grebe P.I. Waltham Boylston	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 3 2 2	 pl B. Nikula# R. Heil R. Heil R. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil J. Forbes B. Kamp
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10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/23 10/24 Hooded Merg 10/13 10/25 10/27 10/28 Common Me 9/30 10/21	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soum S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR Winchester Marlboro P.I. rganser C. Quabbin Wachusett Res.	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ 1\\ \end{array}$ $\begin{array}{c} 9\\ 8\\ 13\\ 9\\ \end{array}$ $\begin{array}{c} 54\\ 4\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson C. Gibson L. Lane T. Wetmore L. Therrien K. Bourinot	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/27 10/25 10/25 10/25 10/25 10/26 10/27 Red-necked C 10/2 10/13 10/13 10/21 10/29	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) Grebe P.I. Waltham Boylston Wachusett Res. Rockport (A.P.)	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 2 4 5 8 3 2 4 5 18 18 19 10 10 10 10 10 10 10 10 10 10	pl B. Nikula# R. Heil K. V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil J. Forbes B. Kamp K. Bourinot R. Heil
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/28 Common Me 9/30 10/21 10/28	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR Winchester Marlboro P.I. rganser C. Quabbin Wachusett Res.	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ 1\\ \end{array}$ $\begin{array}{c} 9\\ 8\\ 13\\ 9\\ 54\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson C. Gibson L. Lane T. Wetmore L. Therrien	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/27 10/27 10/27 10/22 10/22 10/22 10/22 10/22 10/25 10/26 10/27 Red-necked C 10/2 10/13 10/13 10/21 10/29 10/30	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) Frebe P.I. Waltham Boylston Wachusett Res. Rockport (A.P.) Gloucester (E.P.	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 2 4 5 8 3 2 4 5 18 18 19 10 10 10 10 10 10 10 10 10 10	pl B. Nikula# R. Heil K. V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil J. Forbes B. Kamp K. Bourinot
10/25 10/28 10/29 Long-tailed I 10/17-21 10/18 10/27 10/28 10/29 10/23 10/24 Hooded Merg 10/13 10/25 10/27 10/28 Common Me 9/30 10/21	Brookfield Manomet Barnstable Duck Wachusett Res. Nantucket Soun S. Quabbin Dennis Rockport (A.P.) Manomet E. Bridgewater Manomet Southwick Rockport (A.P.) S. Quabbin Attleboro Acton Ideneye Lakeville P.I. Brookfield Pittsfield (Pont) ganser GMNWR Winchester Marlboro P.I. rganser C. Quabbin Wachusett Res.	$\begin{array}{c} 65\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 1\\ 135\\ 265\\ \end{array}$ $\begin{array}{c} 1\\ 7\\ 160\\ 126\\ 95\\ \end{array}$ $\begin{array}{c} 6\\ 18\\ 21\\ 24\\ 15\\ 51\\ 15\\ \end{array}$ $\begin{array}{c} 1\\ 3\\ 4\\ 1\\ \end{array}$ $\begin{array}{c} 9\\ 8\\ 13\\ 9\\ \end{array}$ $\begin{array}{c} 54\\ 4\\ \end{array}$	R. Jenkins A. Kneidel J. Trimble v.o. S. Perkins# L. Therrien P. Flood R. Heil S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# J. Carlisle S. Arena# S. Kellogg R. Heil I. Davies J. Sweeney S. Perkins# S. Arena C. Riehl R. Jenkins G. Hurley N. Paulson C. Gibson L. Lane T. Wetmore L. Therrien K. Bourinot	10/19 10/30 Common Loc thr 10/9 10/21 10/22 10/29 10/29 10/29 10/31 Pied-billed G 9/16 10/18 10/20 10/21 10/27 10/27 10/27 10/27 10/25 10/25 10/25 10/25 10/26 10/27 Red-necked C 10/2 10/13 10/13 10/21 10/29	off P'town Rockport (A.P.) P.I. P'town Wachusett Res. S. Quabbin Rockport (A.P.) Manomet Ipswich (C.B.) rebe Fairhaven Nantucket Braintree W. Newbury Cheshire Lakeville Quabog IBA Wachusett Res. S. Quabbin Nahant Revere P.I. Pittsfield (Pont) Frebe P.I. Waltham Boylston Wachusett Res. Rockport (A.P.) Gloucester (E.P.	1 br 1 45 ma 45 11 14 151 247 53 5 6 10 6 10 9 7 4 13 18 15 18 3 2 4 5 8 3 2 4 5 18 18 19 10 10 10 10 10 10 10 10 10 10	pl B. Nikula# R. Heil K. V.O. B. Nikula K. Bourinot L. Therrien R. Heil S. Arena# J. Berry# C. Longworth S. Perkins# P. Peterson J. Berry# M. & K. Conway S. Arena M. Lynch# B. Kamp L. Therrien L. Pivacek P. Peterson T. Wetmore M. & K. Conway R. Heil J. Forbes B. Kamp K. Bourinot R. Heil

Northeast P. Issue (constituted)	Court DL - Hanne
Northern Fulmar (continued) 10/29 Eastham (CGB) 2 B. Harris	Great Blue Heron 9/14 Eastham (F.H.) 58 BBC (R. Stymeist)
10/29 Rockport (A.P.) 4 lt, 3 dk R. Heil	10/6 Barnstable 19 P. Kyle
10/29 Sandwich 7 J. Trimble#	10/9 W. Roxbury 53 M. Iliff
Cory's Shearwater	10/21 Plymouth H. 26 S. Arena#
9/15 N. Truro 35 B. Nikula	Great Egret
9/19, 10/9 Rockport (A.P.) 19, 2 R. Heil	thr P.I. 81 max v.o.
9/20, 10/28 P'town 148, 595 B. Nikula	9/1-10/8 GMNWR 15 max v.o.
10/11 Eastham (F.E.) 8 B. Nikula	9/13 Barnstable 27 P. Kyle
10/27 Stellwagen 125 K. Mueller	9/23 Saugus 57 S. Zendeh#
10/29 Manomet 26 A. Kneidel 10/31 Westport 2 P. Champlin	10/7Longmeadow2M. Keane-Moore10/8Gloucester H.84S. Hedman
10/31 Westport 2 P. Champlin Great Shearwater	10/3 Glodeester II. 64 S. Hedman 10/31 S. Dart. (A.Pd) 13 P. Champlin
9/14 E. of Chatham 250 B. Nikula#	Snowy Egret
9/19, 10/29 Rockport (A.P.) 35, 11 R. Heil	9/1-10/14 P.I. 83 max v.o.
9/20, 10/28 P'town 300, 13 B. Nikula	9/1-10 GMNWR 1 v.o.
9/27 Gloucester (E.P.) 2 R. Heil	9/2 N. Monomoy 85 B. Nikula
10/29 Manomet 9 S. Arena#	9/9 Saugus 17 S. Zendeh#
Sooty Shearwater	9/14 Chatham 50 M. Faherty
9/14 E. of Chatham 30 B. Nikula# 9/20, 10/20 P'town 1, 1 B. Nikula	9/23 Gloucester (E.P.) 30 S. Hedman 10/6 Eastham (F.H.) 14 SSBC (GdE)
10/29 Rockport (A.P.) 1 R. Heil	10/6 Eastham (F.H.) 14 SSBC (GdE) 10/30 Ipswich 1 R. Heil
Manx Shearwater	Little Blue Heron
9/14 E. of Chatham 7 B. Nikula#	9/2-24 P.I. 1 v.o.
9/18 N. Truro 16 B. Nikula	9/3-10 GMNWR 1 v.o.
9/19, 10/29 Rockport (A.P.) 4, 5 R. Heil	9/5 Woburn (HP) 1 M. Rines
9/20, 10/28 P'town 77, 30 B. Nikula	9/21 Gloucester 2 B. Harris
10/29 Manomet 5 S. Arena#	Cattle Egret
Wilson's Storm-Petrel 9/9 off P'town 5 v.o.	10/20 Newbury 2 K. Elwell 10/22 Hadley 1 I. Davies
9/9 off P'town 5 v.o. Leach's Storm-Petrel	10/22 Hadley 1 I. Davies 10/30 Eastham 10 J. Trimble#
10/29 Sandwich 24 J. Trimble#	10/30 Dennis 1 P. Flood
10/29 Rockport (A.P.) 4 R. Heil	Green Heron
10/29 Manomet 5 S. Arena#	9/3 Hatfield 5 S. Surner
10/29 Eastham (CGB) 3 B. Harris	9/10 W. Warren 4 B. Zajda
10/29 Cohasset 3 M. Iliff	9/13 P.I. 4 S. Riley
Magnificent Frigatebird	10/4 Medford 2 R. LaFontaine
10/30 S. Dartmouth 1 ph M. Spoor#	10/6 Cuttyhunk 2 I. Davies 10/22 Melrose 1 D. + I. Jewell
10/31 Westport 1 G. Dennis Northern Gannet	10/22 Melrose 1 D. + I. Jewell Black-crowned Night-Heron
9/19, 10/29 Rockport (A.P.)220, 5700 R. Heil	9/3 W Springfield 2 M. Keane-Moore
9/30, 10/28 P'town 1450, 13700 B. Nikula	9/3 Eastham 49 D. Clapp
10/29 Dennis 3900 B. Nikula	9/9 P.I. 21 P. + F. Vale
10/29 Manomet 2700 S. Arena#	10/3 Fairhaven 34 C. Longworth
Double-crested Cormorant	10/9 Ipswich 30 J. Berry
9/2 N. Monomoy 1700 B. Nikula	10/20 Nantucket 8 S. Perkins#
9/14 Chatham 1500 M. Faherty 10/2 P.I. 1220 R. Heil	Yellow-crowned Night-Heron 9/2 Edgartown 2 T. Spahr
10/2 P.I. 1220 R. Heil 10/9 Duxbury B. 6100 R. Bowes	9/2Edgartown2T. Spahr9/3Eastham6D. Clapp
10/24 Brookline 1100 B. Cassie	9/4 Duxbury 3 R. Bowes
Great Cormorant	9/9 P.I. 2 imm P. + F. Vale
9/16 Westport 2 ad M. Iliff	9/22 Sandwich 1 M. Keleher
9/27 Rockport (A.P.) 6 R. Heil	10/7 P'town 1 imm B. Nikula
10/18 Nantucket 3 S. Perkins#	10/30 Ipswich 1 R. Heil
10/21 W. Newbury 2 imm J. Berry#	Glossy Ibis
10/27 Waltham 2 J. Forbes# American White Pelican	9/8 P.I. 2 R. Heil 9/28 Newbury 1 J. Berry
10/13 P.I. 2 ph J. Keeley#	9/28 Newbury 1 J. Berry Black Vulture
Brown Pelican	9/5 Milbury 1 A. Marble
10/5 S. Boston 1 R. Donovan	9/17 Ware 4 B. Zajda
10/31 Nantucket 3 E. Ray#	10/11 Granville 1 J. Weeks
American Bittern	10/11 Russell 4 T. Swochak
thr P.I. 1-2 v.o.	10/28 Gr Barrington 1 D. Mako
9/11 Hadley 1 P. Yeskie	Turkey Vulture
9/17 Fairhaven 1 H. Zimberlin# 10/8 Westboro 1 B. deGraaf#	9/2 Barre 52 M. Lynch# 9/3 P.I. 17 P. Sowizral
10/8Westboro1B. deGraaf#10/14Cumb. Farms1SSBC	9/3 P.I. 17 P. Sowizral 9/3 Westminster 20 T. Pirro
10/14 Cullo: Fallis 1 SSBC $10/14$ GMNWR 1 J. Forbes	9/12 Mt. Wachusett 41 S. Olson
10/21 Nantucket 1 G. d'Entremont#	10/thr Barre Falls 360 Hawkcount (BK)
10/22 S. Dart. (A.Pd) 1 P. Champlin	10/7 Russell 169 T. Swochak
Least Bittern	
	10/11 Granville 73 J. Weeks
9/11 Amherst 1 I. Davies	10/11Granville73J. Weeks10/13GMNWR27N. Paulson
	10/11 Granville 73 J. Weeks

Osprey				10/5-25	Barre Falls	108	Hawkcount (BK)
9/6-27	Mt. Wachusett	150	Hawkcount (PR)	10/3-23	Concord	108	C. Winstanley
9/6-27	Barre Falls	77	Hawkcount (BK)	10/8	Gardner	10	T. Pirro
9/9-27	Mt. Watatic	29	Hawkcount (TP)	Merlin	D	17	
10/2-26 10/7	Barre Falls Russell	118 47	Hawkcount (BK) T. Swochak	9/8-27 9/9-27	Barre Falls Mt. Wachusett	17 16	Hawkcount (BK) Hawkcount (PR)
10/7	Concord	16	C. Winstanley	9/9-27	Mt. Watatic	5	Hawkcount (TP)
10/23	S. Dart. (A.Pd)		P. Champlin	10/5-25	Barre Falls	16	Hawkcount (BK)
Bald Eagle				10/6	Cuttyhunk	5	I. Davies
9/2-25	Mt. Wachusett	48	Hawkcount (PR)	10/11	Russell	5	T. Swochak
9/3-27 9/9-27	Barre Falls Mt. Watatic	28 18	Hawkcount (BK) Hawkcount (TP)	10/13 Peregrine Fal	Gay Head	4	J. Rose
9/15	Mt. Tom	17	T. Gagnon	9/30	Duxbury B.	3	R. Bowes
10/5-25	Barre Falls	25	Hawkcount (BK)	10/2	P.I.	9	R. Heil
Northern Ha		_		10/2-17	Barre Falls	14	Hawkcount (BK)
thr 9/1-25	P.I. Mt. Wachusett	7 ma 17		10/6 10/7	Cuttyhunk Russell	7 5	I. Davies T. Swochak
9/9-25	Barre Falls	10	Hawkcount (PR) Hawkcount (BK)	10/7	Nantucket	5	S. Perkins#
10/2-26	Barre Falls	17	Hawkcount (BK)	10/27	Concord	3	S. Perkins#
10/6	S. Dart. (A.Pd)		P. Champlin	Clapper Rail			
10/8	Gardner	7	T. Pirro	10/31	Eastham (F.E.)	1	B. Nikula
10/14 Sharp-shinne	Cumb. Farms	5	SSBC	Virginia Rail 9/1	Wellfleet	3	S. Broker
9/5-27	Mt. Wachusett	222	Hawkcount (PR)	9/3	GMNWR	3	K. Dia#
9/6-27	Barre Falls	327	Hawkcount (BK)	9/22	Orange	4	M. Lynch#
9/9-27	Mt. Watatic	149	Hawkcount (TP)	10/4	Truro	4	T. Green
10/2-26	Barre Falls	512	Hawkcount (BK)	10/4	Wellfleet	3	T. Green
10/8 10/11	Gardner Russell	38 57	T. Pirro T. Swochak	10/7 Sora	Cuttyhunk	5	I. Davies
10/11	Granville	55	J. Weeks	9/3	GMNWR	3	K. Dia#
10/13	Gay Head	20	J. Rose	9/9	Newbury	2	R. Heil
Cooper's Ha				9/25	Dorchester	3	R. Donovan#
9/2-27	Mt. Wachusett	97 92	Hawkcount (PR)	10/4	Truro Norfolk	3 2	T. Green
9/6-27 10/2-26	Barre Falls Barre Falls	92 82	Hawkcount (BK) Hawkcount (BK)	10/8 Purple Galli		Z	J. McCoy
10/2 20	Malden (PR)	7	Hawkcount (CJ)	10/7-13	Norfolk	1	Tighe, Malspei#
Northern Go	.11			Common Ga	llinulo		
9/8	Spencer	1 ad		9/24-30	Gloucester (E.P.		C. Haines + v.o.
9/8 9/16, 10/5	Spencer Barre Falls	2, 3	B. Kamp	9/24-30 10/thr	Gloucester (E.P. Nantucket	1	V. Laux
9/8	Spencer			9/24-30	Gloucester (E.P. Nantucket Cambr. (F.P.)		
9/8 9/16, 10/5 10/11 10/16 10/26	Spencer Barre Falls Granville Russell Barre Falls	2, 3 2	B. Kamp J. Weeks	9/24-30 10/thr 10/13-27 American Co 9/17	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain	1 1 1	V. Laux R. Stymeist + v.o. v.o.
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder	Spencer Barre Falls Granville Russell Barre Falls red Hawk	2, 3 2 1 2	B. Kamp J. Weeks T. Swochak Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket	1 1 1 2	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls	2, 3 2 1 2 9	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree	$\begin{array}{c}1\\1\\1\\2\\21\end{array}$	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson
9/8 9/16, 10/5 10/11 10/26 Red-shoulder 9/3-27 9/4	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth	2, 3 2 1 2 9 3	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont)	$1 \\ 1 \\ 2 \\ 21 \\ 45$	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson J. Pierce
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls	2, 3 2 1 2 9 3 2 2	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR	$\begin{array}{c}1\\1\\1\\2\\21\end{array}$	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner	2, 3 2 1 2 9 3 2 2 2 2	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen T. Pirro	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/30 Sandhill Cra 10/7	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester	$ \begin{array}{c} 1 \\ 1 \\ 2 \\ 21 \\ 45 \\ 36 \\ 1 \end{array} $	V. Laux R. Stymeist + v.o. V.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/8 10/8	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls	2, 3 2 1 2 9 3 2 2	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/22	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich	$ \begin{array}{c} 1 \\ 1 \\ 2 \\ 21 \\ 45 \\ 36 \\ 1 \\ 1 \end{array} $	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge	Spencer Sarre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk	2, 3 2 1 2 9 3 2 2 2 2 33	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G d'Entremont E. Nielsen T. Pirro Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/7 10/22 10/22	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham	$ \begin{array}{c} 1 \\ 1 \\ 2 \\ 21 \\ 45 \\ 36 \\ 1 \end{array} $	V. Laux R. Stymeist + v.o. V.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/8 10/8	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls	2, 3 2 1 2 9 3 2 2 2 2 33	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen T. Pirro	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/22	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham	$ \begin{array}{c} 1 \\ 1 \\ 2 \\ 21 \\ 45 \\ 36 \\ 1 \\ 1 \end{array} $	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/9-27	Spencer Sarre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Watatic	2, 3 2 1 2 9 3 2 2 2 3 3 7777 4713 2126	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (PR) Hawkcount (TP)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/2 10/22 Northern La 10/30 10/30-31	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket	1 1 2 21 45 36 1 1 1	V. Laux R. Stymeist + v.o. V.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/9-27 9/11	Spencer Sarre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Watatic Mt. Wachusett	2, 3 2 1 2 9 3 2 2 2 3 3 7777 4713 2126 1727	B. Kamp J. Weeks T. Swochak Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (PR) Hawkcount (PP) Hawkcount (SD)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30-31 Black-bellied	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover	1 1 2 21 45 36 1 1 1 2 ph	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shouldet 9/3-27 9/4 9/16 10/8 10/8 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/9-27 9/11 9/11	Spencer 5 Barre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls	2, 3 2 1 2 9 3 2 2 2 3 3 7777 4713 2126 1727 2140	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (CP) Hawkcount (BK) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/7 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B.	1 1 2 21 45 36 1 1 1 2 ph 255, 11	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/9-27 9/11	Spencer Sarre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Watatic Mt. Wachusett	2, 3 2 1 2 9 3 2 2 2 3 3 7777 4713 2126 1727	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) K. Bartels G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (SO) Hawkcount (SO) Hawkcount (BK) D. Brown	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/20 Sandhill Cra 10/22 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.)	1 1 2 21 45 36 1 1 1 2 ph 255, 11	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/11 9/11 9/11 9/15 9/16	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett	2, 3 2 1 2 9 3 2 2 2 3 3 7777 4713 2126 1727 2140 150 432 52	B. Kamp J. Weeks T. Swochak Hawkcount (BK) K. Bartels G d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (PR) Hawkcount (BK) Hawkcount (BK) Hawkcount (SO) Hawkcount (BK) D. Brown T. Gagnon M. Lynch#	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/30 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 10/20	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H.	1 1 2 21 45 36 1 1 1 1 2 55, 11 3100 211 260	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/3-27 9/11 9/11 9/11 9/12 9/15 9/16 10/8	Spencer 5 Barre Falls Granville Russell Barre Falls red Hawk Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord	2, 3 2 1 2 9 3 2 2 3 7777 4713 2126 1727 2140 150 432	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (CP) Hawkcount (SO) Hawkcount (SO) D. Brown T. Gagnon	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/22 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 10/20 10/20	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Ouabbin (G43)	1 1 2 21 45 36 1 1 1 1 2 55, 11 3100 211 260 4	V. Laux R. Stymeist + v.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp
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9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/2-27 9/2-27 9/3-27 9/3-27 9/3-27 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20	Spencer Spencer Spencer Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Watatic Mt. Watatic Mt. Watatic Mt. Watatic Mt. Watatic Mt. Watatic Mt. Tom Pittsfield SF Concord awk Barre Falls Barre	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 7777\\ 4713\\ 2126\\ 1727\\ 2140\\ 150\\ 432\\ 52\\ 15\\ 1\\ 4275\\ 15\\ 1\\ 1\end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (SO) Hawkcount (BK) D. Brown T. Gagnon M. Lynch# C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) J. Weeks	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/30 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 10/20 10/30 American Go 9/3 9/5 9/16 9/16	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.)	1 1 2 21 45 36 1 1 1 2 ph 255, 11 3100 211 260 4 140 3 3 3 3 3	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/3-27 9/3-27 9/11 9/11 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20 10/21	Spencer 5 Barre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls d Hawk Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord awk Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 3\\ 2\\ 1\\ 1\\ 1\\ 1\\ 1\\ 1\end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) D. Brown T. Gagnon M. Lynch# C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 9/16 9/17	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pewing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.) Squantum	1 1 2 21 45 36 1 1 1 2 55, 11 3100 211 260 4 140 3 3 3 9	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula R. Donovan#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulder 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/2-27 9/2-27 9/3-27 9/3-27 9/3-27 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20	Spencer Spencer Spencer Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Tom Pittsfield SF Concord awk Barre Falls Barre Falls S. Quabbin	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 7777\\ 4713\\ 2126\\ 1727\\ 2140\\ 150\\ 432\\ 52\\ 15\\ 1\\ 4275\\ 15\\ 1\\ 1\end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (SO) Hawkcount (BK) D. Brown T. Gagnon M. Lynch# C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) J. Weeks	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/30 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 10/20 10/30 American Go 9/3 9/5 9/16 9/16	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.)	1 1 2 21 45 36 1 1 1 2 ph 255, 11 3100 211 260 4 140 3 3 3 3 3	V. Laux R. Stymeist + v.o. v.o. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shouldet 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/3-27 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eagi 10/20 10/21 10/22 American Ka 9/6-27	Spencer 5 Barre Falls Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord awk Barre Falls Barre Falls Mt. Wachusett Mt. Wachusett	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 7777\\ 4713\\ 2126\\ 1727\\ 2140\\ 150\\ 432\\ 52\\ 15\\ 14\\ 275\\ 15\\ 1\\ 1\\ 1\\ 1\\ 56 \end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) D. Brown T. Gagnon M. Lynch# C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) T. Pirro# J. Weeks Hawkcount (BK) L. Therrien Hawkcount (PR)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 10/20 10/20 American Go 9/3 9/5 9/16 9/17 9/26 10/20 Semipalmated	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.) Squantum P.I. Westport d Plover	1 1 2 21 45 36 1 1 1 2 ph 255, 11 3100 211 260 4 140 3 3 3 3 9 6 2	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# S. Riley M. Lynch#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/3-27 9/3-27 9/11 9/11 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20 10/21 10/22 American Kac 9/6-27	Spencer Spencer Spencer Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord awk Barre Falls Quabbin (G35) le Granville Barre Falls S. Quabbin Strel Mt. Wachusett Barre Falls	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 1\\ 2\\ 1\\ 1\\ 1\\ 1\\ 1\\ 5\\ 6\\ 66 \end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) D. Brown T. Gagnom C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) L. Therrien Hawkcount (PR) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 10/30-31 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 9/16 9/17 9/26 10/20 Semipalmate 9/1, 10/18	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich Iden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.) Squantum P.I. Westport d Plover Duxbury B.	1 1 2 21 45 36 1 1 1 2 55, 11 3100 211 260 4 140 3 3 3 9 6 2 2 687, 31	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula R. Donovan# S. Riley M. Lynch#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/9-27 9/11 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20 10/21 10/22 American Ka 9/6-27 9/6-27 9/9-27	Spencer Spencer Spencer Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord awk Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls Barre Falls S. Quabbin estrel Mt. Wachusett Barre Falls Mt. Watatic	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 3\\ 3\\ 7777\\ 4713\\ 2126\\ 1727\\ 2140\\ 150\\ 432\\ 52\\ 15\\ 14\\ 275\\ 15\\ 1\\ 1\\ 1\\ 1\\ 56\\ 66\\ 19 \end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) D. Brown T. Gagnon M. Lynch# C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) T. Pirro# J. Weeks Hawkcount (BK) L. Therrien Hawkcount (PR) Hawkcount (PR) Hawkcount (PR)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 10/20 10/20 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 9/16 9/17 9/16 9/17 9/16 9/17 9/26 10/20 Semipalmatea 9/3 9/16 9/17	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.) Squantum P.I. Westport d Plover Duxbury B. Chatham (S.B.)	1 1 2 21 45 36 1 1 1 255, 11 3100 211 260 4 140 3 3 9 6 2 687, 31 600	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula R. Donovan# S. Riley M. Lynch# R. Bowes E. Orcutt#
9/8 9/16, 10/5 10/11 10/16 10/26 Red-shoulde: 9/3-27 9/4 9/16 10/8 10/22-26 Broad-winge 9/2-27 9/3-27 9/3-27 9/3-27 9/3-27 9/3-27 9/11 9/11 9/11 9/12 9/15 9/16 10/8 Red-tailed H 9/11-27 10/5-26 10/28 Golden Eag 10/20 10/21 10/22 American Kac 9/6-27	Spencer Spencer Spencer Granville Russell Barre Falls Rehoboth Stoughton Cumb. Farms Gardner Barre Falls Mt. Wachusett Barre Falls Mt. Wachusett Barre Falls Quabbin Mt. Tom Pittsfield SF Concord awk Barre Falls Quabbin (G35) le Granville Barre Falls S. Quabbin Strel Mt. Wachusett Barre Falls	$\begin{array}{c} 2,3\\ 2\\ 1\\ 2\\ 9\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 2\\ 2\\ 3\\ 3\\ 3\\ 2\\ 1\\ 2\\ 1\\ 1\\ 1\\ 1\\ 1\\ 5\\ 6\\ 66 \end{array}$	B. Kamp J. Weeks T. Swochak Hawkcount (BK) Hawkcount (BK) G. d'Entremont E. Nielsen T. Pirro Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) D. Brown T. Gagnom C. Winstanley Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) Hawkcount (BK) L. Therrien Hawkcount (PR) Hawkcount (BK)	9/24-30 10/thr 10/13-27 American Co 9/17 9/23 10/20 10/20 10/20 Sandhill Cra 10/7 10/22 10/22 Northern La 10/30 10/30-31 Black-bellied 9/1, 10/18 9/3 9/16 9/16 9/17 9/26 10/20 Semipalmate 9/1, 10/18	Gloucester (E.P. Nantucket Cambr. (F.P.) ot Jamaica Plain Nantucket Braintree Pittsfield (Pont) GMNWR me Gloucester Harwich Chatham pwing Eastham (F.E.) Nantucket Plover Duxbury B. Chatham (S.B.) Plymouth B. Newbypt H. Quabbin (G43) Ipswich olden-Plover GMNWR Northampton Pittsfield SF Chatham (S.B.) Squantum P.I. Westport d Plover Duxbury B. Chatham (S.B.)	1 1 2 21 45 36 1 1 1 2 55, 11 3100 211 260 4 140 3 3 3 9 6 2 2 687, 31	V. Laux R. Stymeist + v.o. V.O. T. Pastuszak P. Peterson J. Pierce S. Perkins C. Haines D. Silverstein# D. Manchester M. Faherty# V. Laux 9 R. Bowes E. Orcutt# A. Kneidel P. + F. Vale B. Kamp J. Berry# W. Hutcheson B. Zajda M. Lynch# B. Nikula R. Donovan# S. Riley M. Lynch# R. Bowes E. Orcutt#

	ed Plover (continue			10/6	Cuttyhunk	12	I. Davies
9/14	Essex	121	D. Brown#	10/19	Nantucket	50	S. Perkins#
10/31	Ipswich (C.B.)	79	J. Berry#	Red Knot			
Piping Plove				9/3	Chatham (S.B.)		E. Orcutt#
9/5	P.I.	17	MAS (B. Gette)	9/14	Essex	11	D. Brown#
9/14	Chatham	22	M. Faherty	9/16	Plymouth B.	10	A. Kneidel
Killdeer	.	24	X X 1 1	10/20	P.I.	48	R. Schain
9/9	Leicester	34	M. Lynch#	Sanderling		CCA 104	
9/28	Newbury	30	J. Berry			664, 124	
10/8	Lynn	30	R. Heil	9/3	Chatham (S.B.)		E. Orcutt#
10/13	Hadley	60	S. Surner	9/16	Plymouth B.	812	A. Kneidel
10/28	Arlington Res	39	R. Stymeist	10/18	Nantucket	500	S. Perkins#
10/31	Acton	86	S. Perkins#	10/30 Saminalmata	Ipswich d Sondningr	150	J. Berry#
American O 9/4		2	R. Cressman	Semipalmate		105 20	D Down
9/4 9/6	Winthrop B. Chatham (S B)	24	B. Nikula	9/3	P.I.	485, 30 470	R. Bowes E. Nielsen
10/21	Chatham (S.B.) Nantucket	16	S. Perkins#	9/3	Chatham (S.B.)		E. Orcutt#
10/21	Salem	3	D. Ely	10/13		50	G. d'Entremont#
American A		5	D. Lly	10/13	Eastham (F.H.)	300	P. + F. Vale
9/2	Duxbury	1 ph	R. Bowes	10/20	Newbypt H. Ipswich (C.B.)	3	J. Berry#
9/7-12	Plymouth	1	G. Harriman	Western Sand		5	J. Delly#
Spotted Sand		1	O. Hamman	9/1-23	P.I.	1-2	V.O.
9/1	Duxbury B.	4	R. Bowes	9/6	Chatham (S.B.)	6	B. Nikula
9/2	Leicester	4	M. Lynch#	9/8	Nahant	1	L. Pivacek
9/2 9/5	Northampton	4	B. Zajda	9/30	Quincy	3 juv	V. Zollo#
10/14	Sharon	2	E. Ganin	Little Stint	Quincy	5 Juv	v. 20110#
10/29	Winchester	1	J. Kovner	9/1-8	Chatham (S.B.)	1 ph	B. Nikula + v.o.
		1	J. KOVIEI	Least Sandpi		i pii	D. INIKUIA \pm v.0.
Solitary San 9/1	Wayland	18	B. Harris	9/1	Duxbury B.	54	R. Bowes
9/16	P'town	7	L. Waters	9/3	Chatham (S.B.)		E. Orcutt#
9/29	Norfolk	4	V. Zollo	9/8	P.I.	30	D. Bates
10/8	Lynn	5	R. Heil	9/9	Northampton	26	S. Surner
10/8	Arlington Res.	3	C. Floyd#	10/13	Hadley	20	S. Surner
10/9	Medford	1		White-rumpe		2	5. Sumer
Gray-tailed		1	L. Thompson	9/2	Chatham (S.B.)	40	B. Nikula
10/18-20	Nant. 1 juv ph	Trim	ole, Perkins, Alden	9/3	Essex	40	D. Brown
Greater Yell		111111	ne, reikilis, Aldeli	9/5	Northampton	1	L. Therrien
Ofeater Tello	owiegs			9/5	Normanipton		L. Thernen
thr	DI	125 m	av vo	0/1/	Chatham	12	M Eaborty
thr 0/1/	P.I. Chatham	125 ma		9/14 10/15	Chatham Nabant	12	M. Faherty
9/14	Chatham	128 1	BBC (R. Stymeist)	10/15	Nahant	8	J. Malone
9/14 9/27	Chatham Squantum	128 I 79	BBC (R. Stymeist) R. Donovan#	10/15 10/20	Nahant P.I.		
9/14 9/27 10/6	Chatham Squantum Eastham (F.H.)	128 1 79 200	BBC (R. Stymeist) R. Donovan# SSBC (GdE)	10/15 10/20 Baird's Sane	Nahant P.I. lpiper	8 6	J. Malone R. Schain
9/14 9/27 10/6 10/9	Chatham Squantum Eastham (F.H.) Quabbin (G43)	128 1 79 200 12	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp	10/15 10/20 Baird's San 9/1-15	Nahant P.I. lpiper P.I.	8 6 1-2	J. Malone R. Schain v.o.
9/14 9/27 10/6 10/9 10/14	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable	128 79 200 12 62	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont#	10/15 10/20 Baird's San 9/1-15 10/23	Nahant P.I. lpiper P.I. Nantucket	8 6	J. Malone R. Schain
9/14 9/27 10/6 10/9 10/14 10/31	Chatham Squantum Eastham (F.H.) Quabbin (G43)	128 1 79 200 12	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San	Nahant P.I. dpiper P.I. Nantucket dpiper	8 6 1-2 1	J. Malone R. Schain v.o. V. Laux
9/14 9/27 10/6 10/9 10/14 10/31 Willet	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd)	128 1 79 200 12 62 12	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San 9/17	Nahant P.I. d piper P.I. Nantucket dpiper GMNWR	8 6 1-2 1 8	J. Malone R. Schain v.o. V. Laux A. Bragg#
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B.	128 1 79 200 12 62 12 12	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San 9/17 9/29	Nahant P.I. d piper P.I. Nantucket dpiper GMNWR Northampton	8 6 1-2 1 8 16	J. Malone R. Schain V.O. V. Laux A. Bragg# A. Magee
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex	128 1 79 200 12 62 12 12 12 12 7	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San 9/17 9/29 9/30	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury	8 6 1-2 1 8 16 12	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham	128 1 79 200 12 62 12 12 12 12 7 9	BBC (R. Stymeist) R. Donovan# SSBC (GGE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist)	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San 9/17 9/29 9/30 10/7	Nahant P.I. d piper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I.	8 6 1-2 1 8 16 12 19	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury	128 1 79 200 12 62 12 12 12 7 9 1 2	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms	8 6 1-2 1 8 16 12 19 12	J. Malone R. Schain V.O. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham	128 1 79 200 12 62 12 12 12 12 7 9	BBC (R. Stymeist) R. Donovan# SSBC (GGE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist)	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro	8 6 1-2 1 8 16 12 19	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham wlegs	128 1 79 200 12 62 12 12 12 7 9 1 2 1	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandp	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro piper	8 6 1-2 1 8 16 12 19 12 7	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham wlegs P.I.	128 1 79 200 12 62 12 12 12 7 9 1 2	BBC (R. Stymeist) R. Donovan# SSBC (GGE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro jiper Nantucket	8 6 1-2 1 8 16 12 19 12	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins#
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3 9/16	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham Wlegs P.I. Eastham	128 1 79 200 12 62 12 12 7 9 1 2 1 70 25	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen S. Arena	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandr 10/29	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro biper Nantucket Rockport (A.P.)	8 6 1-2 1 8 16 12 19 12 7 7 1	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins# R. Heil
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham wlegs P.I. Eastham GMNWR	128 1 79 200 12 62 12 12 12 7 9 1 2 1 70	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen S. Arena A. Bragg#	10/15 10/20 Baird's San 9/1-15 10/23 Pectoral San 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandp 10/19	Nahant P.I. dpiper P.I. Nantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro jiper Nantucket	8 6 1-2 1 8 16 12 19 12 7 1	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins#
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3 9/16 10/1 10/20	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham Wlegs P.I. Eastham GMNWR Newbypt H.	128 1 79 200 12 62 12 12 12 7 9 1 2 1 70 25 9	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen S. Arena A. Bragg# P. + F. Vale	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandr 10/19 10/29 10/29 Dunlin	Nahant P.I. dpiper P.I. Mantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro biper Nantucket Rockport (A.P.) Manomet	8 6 1-2 1 8 16 12 19 12 7 1 1 1 1	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins# R. Heil S. Arena#
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3 9/16 10/1 10/20 10/31	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham wlegs P.I. Eastham GMNWR	128 1 79 200 12 62 12 12 7 9 1 2 1 7 9 1 7 9 1 8	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen S. Arena A. Bragg#	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandp 10/19 10/29 10/29 Dunlin 9/21	Nahant P.I. dpiper P.I. Mantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro Diper Nantucket Rockport (A.P.) Manomet Cambr. Res.	8 6 1-2 1 8 16 12 19 12 7 7 1	J. Malone R. Schain V.O. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins# R. Heil S. Arena# R. Stymeist
9/14 9/27 10/6 10/9 10/14 10/31 Willet 9/1 9/3 9/14 9/22 10/13 Lesser Yello 9/3 9/16 10/1 10/20	Chatham Squantum Eastham (F.H.) Quabbin (G43) Barnstable S. Dart. (A.Pd) Duxbury B. Essex Chatham Newbury Eastham Wlegs P.I. Eastham GMNWR Newbypt H. S. Dart. (A.Pd)	128 1 79 200 12 62 12 12 12 12 12 12 12 12 12 12 12 12 12	BBC (R. Stymeist) R. Donovan# SSBC (GdE) B. Kamp G. d'Entremont# P. Champlin R. Bowes D. Brown BBC (R. Stymeist) P. + F. Vale I. Davies E. Nielsen S. Arena A. Bragg# P. + F. Vale P. Champlin	10/15 10/20 Baird's Sane 9/1-15 10/23 Pectoral Sane 9/17 9/29 9/30 10/7 10/8 10/27 Purple Sandp 10/19 10/29 10/29 10/29 Dunlin 9/21 9/23, 10/3	Nahant P.I. dpiper P.I. Mantucket dpiper GMNWR Northampton Newbury P.I. Cumb. Farms N. Truro oiper Nantucket Rockport (A.P.) Manomet Cambr. Res. 1 Ipswich (C.B.)	8 6 1-2 1 8 16 12 19 12 7 1 1 1 1 3, 174	J. Malone R. Schain v.o. V. Laux A. Bragg# A. Magee R. Heil L. Ferraresso J. Carlisle B. Nikula S. Perkins# R. Heil S. Arena# R. Stymeist J. Berry#
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	l Sandpiper (conti		I Callurate	9/22 Caspian Tern	Duxbury B.	1	R. Bowes
9/14 9/14	Plymouth Scituate	1	J. Galluzzo C. Nims	9/11	Westport	2	M. Iliff
Short-billed		1	C. Hills	9/12, 10/1		12, 3	V.O.
9/1-10/4	P.I.	44 max	v.o.		5 Dorchester	7, 3	R. Donovan#
9/15	Plymouth B.	9	C. Nims	9/17	Squantum	3	R. Donovan#
10/13	Eastham (F.H.)	25 0	3. d'Entremont#	9/27	Chestnut Hill	3	M. Garvey
Long-billed I 9/1-10/15		12 max	v.o.	10/5 Black Tern	Gloucester (E.P.	.) 2	B. Harris
9/16	Chatham (S.B)	3	B. Harris#	9/16	Westport	9	M. Iliff
9/29	Norfolk	1	V. Zollo	10/27	P'town	1	B. Nikula
10/20	Nantucket	1	T. Johnson#	Roseate Tern		000	D N''I 1
Wilson's Snij		7	C Cumor	9/2 Common Tor	Chatham (S.B.)	800	B. Nikula
9/29 10/7	Northampton Cuttyhunk	5	S. Surner I. Davies	Common Ter 9/8	Nahant	27	L. Pivacek
10/13	Hadley	14	S. Surner	9/9	P.I.	40	S. Sullivan#
10/14	Cumb. Farms	12	SSBC	9/13, 10/2		400, 1950	
10/14	Concord	3	J. Forbes			000, 100	R. Bowes
American We 9/15	Weymouth	5	E. LeBlanc	10/30 Arctic Tern	Westport	13	P. Champlin
9/27	W. Roxbury	2	M. Iliff	10/30	Eastham (F.E.)	1	J. Trimble#
9/29	P.I.	4	S. McGrath#	Forster's Terr			
10/20	Tuckernuck	9	R. Veit#	9/9	Westport	15	G. Gove#
Wilson's Pha		1 :		9/19	Newbypt H.		MAS (B. Gette)
10/16-18 Red-necked 1	P.I. Phalarone	1 imm	V.O.	10/6 10/20	Duxbury B. P.I.	6 1	R. Bowes R. Schain
9/9	Cape Cod Bay	45	v.o.	10/28	P'town	18	B. Nikula
9/10	Rockport (H.P.)		R. Heil	10/30	Dennis	67	B. Harris
9/14	E. of Chatham	9	B. Nikula#	Royal Tern			
9/16	P'town	120 4	B. Nikula	10/10	P.I. Westment D		AS (D. Larson)
10/29 Red Phalaror	Sandwich	4	J. Trimble#	10/30 Black Skimm	Westport B.	1	P. Champlin
10/29	Manomet	1	A. Kneidel	9/6	Edgartown	3	C. Gibson
10/29	Sandwich	6	J. Trimble#	9/18	Squantum	10	M. McWade#
Black-legged			D N ²¹ 1	9/27	Barnstable	12 imm	P. Kyle
10/28	P'town Sondwich	142 137	B. Nikula	10/4	Revere B. Plymouth H.	3 2	W. Manter
10/29 10/29	Sandwich Eastham (CGB)		J. Trimble# B. Harris	10/21 Pomarine Jae		2	S. Arena
10/29	Manomet	253	S. Arena#	9/20	P'town	1	B. Nikula
10/29	Rockport (A.P.)	362	R. Heil	10/29	Rockport (A.P.)	8	R. Heil
Bonaparte's		200	D.D.	Parasitic Jaeg		40 10	D N''I 1
9/6 10/20	Revere B. Newbypt H.	200 300	P. Peterson P. + F. Vale	9/2, 22 9/15, 30	Chatham (S.B.) P'town	40, 12 19, 74	B. Nikula B. Nikula
10/20	Nahant	320	L. Pivacek		9 Rockport (A.P.)		R. Heil
10/27	P'town	190	B. Nikula	10/10, 28		24, 29	B. Nikula
10/30	Pittsfield (Onota	a) 1 J	J. Morris-Siegel	10/27	Stellwagen	9	K. Mueller
Black-headed		1.	0 0 11	10/29	Manomet	8	S. Arena#
9/8 10/27	P.I. P'town	1 juv 1	S. Sullivan B. Nikula	Long-tailed J 9/7	aeger N. Truro	1	B. Nikula
Laughing Gu		1	D. IVIKula	9/14	E. of Chatham	2	B. Nikula#
9/5	Squantum	13	P. Peterson	9/15, 10/7		1, 1	B. Nikula
9/15	Wellfleet		C (R. Stymeist)	Dovekie			~
9/15	Duxbury B.	200 34	R. Bowes	10/28	P'town Realmort (A D)	120	B. Nikula
9/29 10/9	Winthrop Rockport (A.P.)		R. Stymeist R. Heil	10/29 10/30	Rockport (A.P.) Dennis	19 1	R. Heil B. Harris
10/27	P'town	260	B. Nikula	Common Mu			D. Hullis
Iceland Gull				10/29	Rockport (A.P.)	3	R. Heil
10/30	Revere B.	1	W. Manter	Razorbill	DI	1	
9/2	-backed Gull N. Monomoy	20	B. Nikula	9/15 10/9, 29	P.I. Rockport (A.P.)	1 3, 116	T. Wetmore R. Heil
9/3	Revere B.	4	S. Sullivan#	10/9, 29	Stellwagen	5	K. Mueller
9/6	Chatham (S.B.)	15	B. Nikula	10/28	P'town	52	B. Nikula
9/8	P.I.	7	R. Heil	10/29	Cohasset	4	M. Iliff
9/27	Rockport	2	R. Heil	Black Guiller		1 ·	D II.'I
10/19 Glaucous Gu	Nantucket	75	S. Perkins#	10/2 10/15	P.I. Rockport (H.P.)	1 juv 1	R. Heil T. Spahr
10/15	Salisbury	1 1W	S. McGrath	10/15	Manomet	2	S. Arena#
10/21	Wachusett Res.	1 imm	K. Bourinot	Atlantic Puf	ĩn		
10/30	Orleans	1	S. Baron	9/10	Rockport (H.P.)		R. Heil
Least Tern 9/7	Acoaxet	1	M Lunak#	9/21	P'town	1 ad	B. Nikula
9/15	P.I.	10	M. Lynch# S. Motyl				
9/16	Chatham (S.B)	2 juv	B. Harris#				

CUCKOOS THROUGH FINCHES

In mid to late October there was an influx of Barred Owls, including a number reported as road kill along the highways. Such deaths are generally believed to occur when a poor availability of prey forces this non-migratory species into more nomadic behavior.

It was a good year for Northern Saw-whet Owls, compared to the dismal migration of 2011. During October, a total of 487 Saw-whets were banded in four locations throughout the state.

The bulk of the Common Nighthawk migration was pretty much over by the end of the first week of September, and the last birds were noted on October 16. Chimney Swifts have a migration pattern similar to nighthawks with the largest numbers in August and progressively fewer in early September. The period saw several reports of Ruby-throated Hummingbirds with one as late as October 31 in Falmouth and the fifth record of **Allen's Hummingbird** for the state in Great Barrington. All of these except the first State record were noted in late October through January. The first was reported on Nantucket in August 1988 at Edith Andrews banding station. Three confirmed **Rufous Hummingbirds** were found in Chatham, West Bridgewater, and Amherst, and two other Selasphorus type hummers were seen in South Dartmouth and Nantucket. It was a good fall for Red-headed Woodpeckers with as many as seven individuals reported.

Passerine migration is in full swing during this period. Many birders now turn to the radar images to plan their birding day. The radar showed heavy migration on September 10 and again on September 11, and on those nights observers heard many thrushes and warblers on the move. Olive-sided Flycatchers, one of the last migrants in the spring, is one of the first in the fall; a total of 16 were reported, all but one before September 17. Philadelphia Vireos, rare in the spring, are sought out in the fall, but this year only 20 were reported as compared with 41 at this time last year. There was excellent fallout of thrushes on September 11. On Plum Island an amazing 23 Swainson's Thrushes with several groups of three or four were feeding on sweet gum and Virginia creeper berries. One observer estimated 65 individual Swainson's by flight calls the night of September 10; another large number of Swainson's was noted from Amherst on September 11. A total of 31 warbler species was reported during the period, although, alas, there were no Golden-winged Warblers. Reports of two Black-throated Gray Warblers were exceptional, one seen on Martha's Vineyard and another banded on South Monomoy. The pines surrounding the Marconi Headquarters building in Wellfleet contained at least 75 Pine Warblers on September 11. Noteworthy among the sparrows were record numbers of Clay-colored Sparrows, not only in Massachusetts but throughout the Northeast; at least 68 individuals were noted during the period from all over the state. Vesper Sparrow reports were up significantly from the same period last year; at least 32 were noted compared with only eight in 2011. It looks like a great year for winter finches with Pine Siskins and Red Crossbills leading the parade. Pine Siskins were everywhere beginning in September, and Red Crossbills were found in many places, especially in central and western Massachusetts. Big flocks of White-winged Crossbills started to build up by the end of October, when the first Evening Grosbeaks also started to appear; many observers saw these birds for the first time. Common Redpolls and Pine Grosbeaks trickled into our area at the end of October.

'Tis the season for rarities, and this period was chock-full of goodies. Loggerhead Shrike is my nominee for best passerine of the period. Historically, Loggerhead bred in Massachusetts, although the last record of its nesting in the state was in June 1971, with only a handful of reports since then. A Say's Phoebe was present for two days on Plum Island. A Bell's Vireo was seen and photographed at Aquinnah on Martha's Vineyard, and, interesting to note, there were two other reports of this species in Maine, one in Dresden, the other on Monhegan Island.

A Northern Wheatear spent seven days at Skaket Beach in Orleans, and another was found in Andover. There were two reports of Townsend's Solitaire, one each in Truro and South Monomoy; a single Bohemian Waxwing was found in Eastham, where at Fort Hill a LeConte's Sparrow was located and photographed. There were three Summer Tanagers noted during the period, one each in Lexington, South Dartmouth, and Truro. Finally, a Yellow-headed Blackbird was seen in Hadley. *R. Stymeist*

Yellow-billed	Cuckoo			Rufous Hum	mingbird		
9/3-10/19	Reports of indiv	. from	14 locations	9/1	Chatham	1 p	h A. Fulcher
Black-billed				10/thr	W. Bridgewater		d f P. Bennett
9/16	P.I.	1	B. Cassie	10/5-30		b ph	C. Mankowski
10/8	Gloucester	1	S. Hedman	Allen's Hum			
10/12	Belmont	1	J. Forbes	10/25-31	Gr Barrington	1 n	n b ph G. Ward
10/13	Gay Head	1	J. Rose		n's Hummingbird		
Eastern Scree				10/thr	Padanarum	2	G. Dennis
9/1	DWWS	2	SSBC (GdE)	10/05-31	Nantucket	1	K. Pochman + v.o.
9/2	Mashpee	4	M. Keleher	Belted Kingf		_	
9/10	Rockport (H.P.)	3	R. Heil	9/1	Lexington	5	M. Rines
9/23	E. Bridgewater	2	G. d'Entremont#	9/14	Chatham	4	BBC (R. Stymeist)
9/27	W. Roxbury	2 3	M. Iliff	10/2	P.I.	5	R. Heil
10/4	Barnstable	3	M. Keleher	10/20	Nantucket	4	S. Perkins#
Great Horned		2	M 11:66		Woodpecker	1	V. Dauminat
9/27 9/30	W. Roxbury	$\frac{2}{2}$	M. Iliff	9/4	Devens Cumb. Farms	1	K. Bourinot
	Westwood	$\frac{2}{2}$	W. Webb	9/17 10/5	WBWS	1	J. Carlisle#
10/7 10/17	Norfolk Mt.A.	$\frac{2}{2}$	W. Howes R. Stymeist	10/3	Nantucket	1	M. Faherty T. Pastuszak#
10/17	Woburn (HP)	3	M. Rines	10/10-22	Montague	1	B. Bieda
Barred Owl	wobulli (HP)	3	M. Killes	10/12 10/17	Russell	1	T. Swochak
thr	Reports of indiv	from	15 locations	10/17	Haverhill	1	A. Todzia
Long-eared C		. nom	15 locations	Red-bellied V		1	A. IOUZIA
10/19	Cumb. Farms	1	R. Lessard	9/9	ONWR	5	BBC (J. Center)
Short-eared C		1	R. Lessaru	9/15	Braintree	5	G. d'Entremont#
10/23	P.I.	1	C. Riehl	10/6	Millbury	6	M. Lynch#
10/25	Chatham (MI)	1	B. Harris#	10/7	Quabog IBA	9	M. Lynch#
10/25	Rockport (H.P.)		J. Hoye#	Yellow-bellie			WI. Lynchin
10/25	Revere B.	1	P. Peterson	9/16	Pittsfield SF	5	M. Lynch#
10/27	Salisbury	1	J. Berry#	10/2	Nahant	5	L. Pivacek
Northern Saw			5. Deny	10/5	P.I.	8	J. Berry#
10/7	P.I.	1 b	B. Flemer#	10/7	Cuttyhunk	9	I. Davies
9/27	Blue Hills	2 b	N. Smith	10/7-08	Boston (Fens)	3	V.O.
10/2-28	DFWS		fide K. Seymour#	10/8	Cambr. (Danehy)		K. Hartel#
10/11-27	Northbridge	106 b	fide B. Milke#	10/17	Mt.A.	2	R. Stymeist
10/thr	Sharon	92 b	fide N. Smith	10/26	G. Barrington	2	J. Hove#
10/thr	DWWS	73 b	fide N. Smith	Northern Flic			
Common Nig				9/6	Woburn	20	M. Rines
9/1	Northampton	288	T. Gagnon	9/12	Malden	15	P. + F. Vale
9/3	Sutton	50	M. Joubert	9/23	Tyringham	34	M. Lynch#
9/5	Leicester	136	M. Lynch#	9/24	Westport	22	P. Champlin
9/6	W. Warren	37	B. Zajda	10/14	Cumb. Farms	18	SSBC
9/19	Wayland	5	B. Harris	10/19	Nantucket	14	S. Perkins#
10/9	W. Roxbury	3	M. Iliff	Pileated Woo			
10/16	Jamaica Plain	1	R. Schain	9/1	Ware R. IBA	3	M. Lynch#
10/16	Cambr. (F.P.)	1	J. Trimble	9/16	Medford	2	P. Devaney#
Eastern Whip				9/22	New Salem	2	B. Lafley
9/1	P.I.	5	N. Landry	Olive-sided F			
9/6	Freetown	1	M. Iliff	9/1-17	Reports of indiv.		
10/6	Newbury	1	S. Grinley#	9/25	Nantucket	1	V. Laux
Chimney Swi				Eastern Wood			
9/13	Wayland	43	B. Harris	9/1	Woburn (HP)	2	M. Rines#
9/14	Mt. Wachusett	7	S. Olson	9/2	Leicester	2	M. Lynch#
9/21	Cambridge	8	R. Stymeist	9/2	Boxford	2 n	
10/6	Barre Falls	2	B. Kamp	9/14	Braintree	2	G. d'Entremont
10/7	Belmont	4	J. Forbes	10/8	Nantucket	2	T. Pastuszak
10/15	GMNWR	1	D. Hinkels	10/17	P.I.	1	S. Sullivan
	d Hummingbird	11	D 11 ''	Yellow-bellie			
9/2	Newbury	11	R. Heil	9/1	Williamsburg	1	R. Packard
9/7	Westport	5	M. Lynch#	9/3	Gloucester (E.P.)	1	J. Hoye#
9/10	Cumb. Farms	5	J. Carlisle	9/15	Chatham	3	R. Schain
9/23	Bolton Flats	3 1 f	K. Bourinot#	9/16	Belchertown	1	L. Therrien
10/31	Falmouth	11	I. Nisbet	9/17	Amherst	1	I. Davies

X 7 11 1 11 ¹		• •		10/20	DI		D G L .
Yellow-bellie 9/18	ed Flycatcher (cont Burlington	nued)	M. Rines	10/20 10/27	P.I. Truro	6 1	R. Schain B. Harris#
10/10	P.I.	3	T. Wetmore	Warbling Vire		1	D. 11a1118#
Alder Flycat		5	1. Wednore	9/1	Woburn (HP)	8	M. Rines#
9/1	Winchendon	1	C. Caron	9/3	Wayland	6	B. Harris#
9/10	Hadley	1	L. Therrien#		Lexington	4, 1	M. Rines
9/16	Amherst	2	L. Therrien#	10/13	Chatham	1	J. Trimble
9/22	Adams	1	B. Zajda#	Philadelphia		4	D II.'I
Willow Flyca		1	I. Davidson	9/2	Gloucester	$\frac{4}{2}$	R. Heil
9/10 Least Flycato	Amherst	1	J. Drucker	9/10 9/13	Amherst HRWMA	$\frac{2}{2}$	L. Therrien# T. Pirro
9/2	Gloucester	3	R. Heil	9/15	Wellfleet		BC (R. Stymeist)
9/11	P.I.	2	R. Heil	9/24	P.I.	2	K. Rowe
9/30	Westboro	2	N. Paulson	10/5	N. Truro	3	J. Young
10/3	Westport	1	P. Champlin	10/7	Cuttyhunk	2	I. Davies
10/4	Amherst	1	J. Drucker	Red-eyed Vir			
10/15	Rockport	1	T. Spahr	9/1	Ware R. IBA	78	M. Lynch#
Eastern Phoe	DWWS	10	SSDC (C4E)	9/2	Gloucester	11	R. Heil
9/1 9/18	Burlington	10 12	SSBC (GdE) M. Rines	10/6 10/10	Cuttyhunk P.I.	17 4	I. Davies T. Wetmore
9/24	Westboro	24	S. Arena	10/10	Mt.A.	1	R. Stymeist
10/7	Cuttyhunk	23	I. Davies	10/19	Nantucket	1	P. Trimble#
10/13	Peddocks I.	10	R. Stymeist#	Fish Crow	1 (unituritet	-	11 111110101
10/22	Nahant	3	L. Pivacek	9/7	Amherst	3	I. Davies#
Say's Phoeb	e			9/15	Weymouth	24	G. d'Entremont#
10/4-05	P.I.	1 ph	E. Labato + v.o.	10/14	Bourne	40	G. d'Entremont#
Great Creste				10/25	Westwood	80	B. Cassie
9/2	S. Quabbin	1	L. Therrien	10/27	Mattapan (BN	C) 120	P. Peterson
9/3	P.I.	1 1	J. Berry#	Common Ray		5	T Dime
9/10 9/16	Amherst Upton	2	J. Drucker N. Paulson	9/13 9/14	HRWMA Mt. Wachusett		T. Pirro S. Olson
9/17	Cumb. Farms	1	M. Faherty	9/27	Mt. Watatic	6	T. Pirro
10/6	Cuttyhunk	1	I. Davies	10/5	Ware R. IBA	3	M. Lynch#
Western King				10/11	Wareham	2	S. Perkins
10/6	Cuttyhunk	1	I. Davies	10/18	W. Roxbury	2	P. Peterson
10/20	Nantucket	1 ad	R. Veit#	10/22	P.I.	2	P. + F. Vale
10/26	Chatham	1	D. Manchester	Horned Lark			
10/26-31	Eastham	3	C. Goodrich#	9/7	Chatham (S.B		M. Garvey
Eastern King		2	I Thomas	9/21	GMNWR	30	C. Cook
9/2 9/3	Belchertown P.I.	$\frac{2}{2}$	L. Therrien J. Berry#	9/28 10/28	Fitchburg P.I.	$3 \\ 20$	T. Pirro S. Grinley#
9/15	Lakeville	$\frac{2}{2}$	V. Zollo	10/28	Northampton	20 70	L. Therrien#
9/16	Truro		BC (R. Stymeist)	10/28	Sutton	10	A. Marble#
9/20	W. Roxbury	1	P. Peterson	10/29	Acton	3	S. Perkins
Loggerhead				10/31	Ipswich (C.B.)) 24	J. Berry#
9/6	Chatham	1 ph	D. Manchester#	Tree Swallow			
Northern Shi				9/3	Chatham (S.B		E. Orcutt#
9/25	Burrage Pd		SSBC (Sweeney)	9/3	E. Boston (B.I		P. Peterson
10/10	Montague	1	H. Allen		1 Cumb. Farms		
10/18 10/21	Plymouth Cumb. Farms	1 1	M. Faherty J. Carlisle	9/15	Weymouth Duxbury B.	5000 3600, 300	G. d'Entremont# R. Bowes
White-eyed		1	J. Carlisle	10/14	Barnstable	1000	G. d'Entremont#
9/9	Westport	3	G. Gove#	10/20	Nantucket	6000	S. Perkins#
9/15	Wellfleet		BC (R. Stymeist)	Northern Rou	igh-winged Swa	llow	
9/15 9/25, 10/2			BC (R. Stymeist) L. Pivacek	Northern Rou 10/1		1	L. Therrien
9/25, 10/2 10/5	Nahant N. Truro	1 B 1 1	L. Pivacek J. Young	10/1 10/9	igh-winged Swa Hadley W. Roxbury	1 3	M. Iliff
9/25, 10/2 10/5 10/6	Nahant N. Truro Cuttyhunk	1 B 1 1 2	L. Pivacek J. Young I. Davies	10/1 10/9 10/13	igh-winged Swa Hadley W. Roxbury Wayland	1 3 10	M. Iliff G. Long
9/25, 10/2 10/5 10/6 10/7	Nahant N. Truro Cuttyhunk S. Peabody	1 B 1 2 1	L. Pivacek J. Young I. Davies R. Heil	10/1 10/9 10/13 10/15	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR	1 3	M. Iliff
9/25, 10/2 10/5 10/6 10/7 10/15	Nahant N. Truro Cuttyhunk	1 B 1 1 2	L. Pivacek J. Young I. Davies	10/1 10/9 10/13 10/15 Bank Swallov	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR	1 3 10 16	M. Iliff G. Long W. Hutcheson
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo	Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.)	1 B 1 2 1 1	L. Pivacek J. Young I. Davies R. Heil T. Spahr	10/1 10/9 10/13 10/15 Bank Swallov 9/2	igh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah 	1 B 1 2 1	L. Pivacek J. Young I. Davies R. Heil	10/1 10/9 10/13 10/15 Bank Swallov 9/2 9/2	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I.	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo 	1 B 1 2 1 1 1 1 ph	L. Þivacek J. Young I. Davies R. Heil T. Spahr L. McDowell	10/1 10/9 10/13 10/15 Bank Swallov 9/2 9/2 9/3	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah 	1 B 1 2 1 1	L. Pivacek J. Young I. Davies R. Heil T. Spahr	10/1 10/9 10/13 10/15 Bank Swallov 9/2 9/2	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I.	$ \begin{array}{r} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR 	1 B 1 2 1 1 1 1 1 ph 3 2 1	L. Þivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia#	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/3 9/23 10/1 Cliff Swallow	ngh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate	1 3 10 16 2 3 4 4 er 1	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton 	1 B 1 2 1 1 1 1 1 1 1 1 1 1	L. Þivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/2 9/2 9/23 10/1 Cliff Swallow 9/2	agh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate Northampton	1 3 10 16 2 3 4 4 er 1 2	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton 	1 B 1 2 1 1 1 1 1 1 1 1 1 1	L. Pivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont M. Kaufman#	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/3 9/23 10/1 Cliff Swallow 9/2 9/2	agh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate Northampton P.I.	$ \begin{array}{r} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \\ 4 \\ 4 \\ 1 \\ 2 \\ 1 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27 10/8	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton Westboro 	1 B 1 2 1 1 1 1 1 1 1 1 1 1	L. Þivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/3 9/23 10/1 Cliff Swallow 9/2 9/2 9/2, 9/16, 23	igh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate V Northampton P.I. Mt. Watatic	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \\ 4 \\ 2 \\ 1 \\ 2, 1 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris T. Pirro
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27 10/8 Blue-headed	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton Westboro Vireo 	1 B 1 2 1 1 1 1 1 1 1 1 1 1 1	L. Þivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont M. Kaufman# B. deGraaf#	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/2 9/2 9/2 9/2 9/2 9/2 9/2 9/2	agh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate Northampton P.I. Mt. Watatic Amherst	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \\ er \\ 1 \\ 2, 1 \\ 3 \\ \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris T. Pirro L. Therrien
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27 10/8 Blue-headed 10/5	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton Westboro Vireo Ware R. IBA 	1 B 1 1 1 1 1 1 1 1 1 1 1 1 1	L. Pivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont M. Kaufman# B. deGraaf# M. Lynch#	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/2 9/2 9/2 10/1 Cliff Swallow 9/2 9/2 9/2 9/2 9/2 9/2 9/21 10/13	agh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate Northampton P.I. Mt. Watatic Amherst Gay Head	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \\ 4 \\ 2 \\ 1 \\ 2, 1 \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris T. Pirro
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27 10/8 Blue-headed 10/5 10/5	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton Westboro Vireo Ware R. IBA Westport 	1 B 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 4 8	L. Pivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont M. Kaufman# B. deGraaf# M. Lynch# M. Iliff	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/2 9/2 9/2 9/2 9/16, 23 9/21 10/13 Barn Swallow	igh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate V Northampton P.I. Mt. Watatic Amherst Gay Head	1 3 10 16 2 3 4 4 4 er 1 2,1 3 1	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris T. Pirro L. Therrien J. Rose
9/25, 10/2 10/5 10/6 10/7 10/15 Bell's Vireo 10/23 Yellow-throa 9/1 9/8 9/10 9/13 9/27 10/8 Blue-headed 10/5	 Nahant N. Truro Cuttyhunk S. Peabody Rockport (A.P.) Aquinnah ted Vireo New Salem Hardwick GMNWR Stoughton Newton Westboro Vireo Ware R. IBA 	1 B 1 1 1 1 1 1 1 1 1 1 1 1 1	L. Pivacek J. Young I. Davies R. Heil T. Spahr L. McDowell B. Lafley B. Zajda# K. Dia# G. d'Entremont M. Kaufman# B. deGraaf# M. Lynch#	10/1 10/9 10/13 10/15 Bank Swallow 9/2 9/2 9/2 9/2 9/2 10/1 Cliff Swallow 9/2 9/2 9/2 9/2 9/2 9/2 9/21 10/13	agh-winged Swa Hadley W. Roxbury Wayland GMNWR W Northampton P.I. Newbury Cumb. Farms W. Bridgewate Northampton P.I. Mt. Watatic Amherst Gay Head	$ \begin{array}{c} 1 \\ 3 \\ 10 \\ 16 \\ 2 \\ 3 \\ 4 \\ 4 \\ er \\ 1 \\ 2, 1 \\ 3 \\ \end{array} $	M. Iliff G. Long W. Hutcheson B. Zajda K. Hartel R. Heil J. Carlisle J. Sweeney B. Zajda B. Harris T. Pirro L. Therrien

Barn Swallow	(continued)			Northern W	haataar		
Barn Swallov 9/15, 10/3		40, 1	T. Wetmore	9/11	Andover	1	B. Muldoon
10/15	W. Bridgewater	2	M. Iliff	10/11-18	Orleans	1	D. Reynolds#
10/31	S. Dart. (A.Pd)	5	P. Champlin	Eastern Blue			
Red-breasted		20	I. These issues	9/27	Upton	18	N. Paulson
9/2 9/3	S. Quabbin Lakeville	38 39	L. Therrien S. Arena	9/30 9/30	Concord Westboro	35 31	C. Cook N. Paulson
10/6	N. Truro	20	B. Nikula	10/21	Falmouth	40	G. Hirth
10/6	Cuttyhunk	49	I. Davies	10/22	GMNWR	32	K. Dia#
10/11	Vineyard Haven	35	S. Perkins#	10/27	Wellfleet	21	R. Schain
10/25	Salisbury	40	P. + F. Vale	10/28	Hubbardston	16	W. Howes
10/27	Wellfleet	71 74	R. Schain	Townsend's		1 հ հ.	J. Junda
10/27 Brown Creep	Ware R. IBA	/4	M. Lynch#	10/5 10/20-21	S. Monomoy Truro	1 b ph 1 ph	P. Brown#
9/21	Ware R. IBA	14	M. Lynch#	Veery	IIulo	i pii	1. DIOWII#
9/30	P.I.	4	D. Brewster	9/12	Salisbury	2	S. McGrath
10/5	Melrose	3	D. + I. Jewell	9/16	P.I.	2	B. Cassie
10/7	Boston (Fens)	3	O. Burton	9/27	Rockport (H.P.)	1	R. Heil
10/7 10/17	Cuttyhunk Gloucester (E.P.)	6 5	I. Davies J. Nelson	Gray-cheekee 10/2	Uxbridge	1 ad b	S. Wheelock
10/17	Westboro	3	N. Paulson	10/2 10/3, 10/6		1 b, 1	
Carolina Wre		5	itt i uuison	10/6	Brewster	1 b, 1 i	S. Finnegan
9/7	Westport	14	M. Lynch#		l/Bicknell's Thrus		
9/8	Nahant	7	G. d'Entremont	9/11	P.I.	1 juv	R. Heil
9/15	Weymouth	9	G. d'Entremont#	10/4	IRWS	1	W. Tatro
10/4 10/7	Lincoln Falmouth	7 18	R. Stymeist#	10/5 10/7	Rockport Cuttyhunk	1 1	B. Harris I. Davies
10/7	Cuttyhunk	28	M. Keleher# I. Davies	Swainson's T		1	I. Davies
10/8	Woburn	7	M. Rines	9/10	Wayland	65 migr	J. Hoye
10/21	Nantucket	12	G. d'Entremont#	9/11	P.I.	23	R. Heil
House Wren				9/11	Amherst	28	I. Davies
9/5	Westboro	8	N. Paulson	10/4	IRWS	2	W. Tatro
9/9 9/13	Ware R. IBA Lexington	7 9	M. Lynch# M. Rines#	10/7 10/10	Cuttyhunk Gloucester	$\frac{6}{2}$	I. Davies J. Nelson
9/27	Upton	6	N. Paulson	10/10	Nahant	1	J. Malone
10/7	Cuttyhunk	10	I. Davies	Hermit Thrus			bi interiorite
10/8	Woburn	2	M. Rines	10/5	Ware R. IBA	34	M. Lynch#
10/13	Eastham	1	G. d'Entremont#	10/10	P.I.	6	T. Wetmore
Winter Wren 9/21	Wara D. IDA	2	M Lunah#	10/13	Peddocks I.	11 7	R. Stymeist#
10/7	Ware R. IBA Medford	$\frac{2}{3}$	M. Lynch# R. LaFontaine	10/17 10/21	Boston (Fens) Warwick	8	P. Peterson M. Lynch#
10/25	Stoneham	2	$D_{.} + I_{.}$ Jewell	10/23	Medford	12	R. LaFontaine
10/27	Lexington	2	M. Rines	10/27	Lexington	9	M. Rines
Marsh Wren				10/28	Waltham	3	J. Forbes
9/9	Newbury	9	R. Heil	Wood Thrush		•	
9/17 9/25	GMNWR Dorchester	6 10	A. Bragg# R. Donovan#	9/3 9/3	Petersham GMNWR	$\frac{2}{2}$	M. Lynch# K. Dia#
9/30	Hadley	10	S. Surner	9/21	Amherst	$\frac{2}{3}$	L. Therrien
10/6	Cuttyhunk	2	I. Davies	10/11	Lenox	1	R. Laubach
10/14	Cumb. Farms	2	SSBC	American Ro	bin		
Blue-gray Gn				9/15	Holbrook	465	G. d'Entremont
9/9	ONWR	3	BBC (J. Center)	9/22	Adams	400	B. Zajda#
9/12 9/25	Westport Upton	3 2	J. Sweeney# N. Paulson	10/7 10/9	Quabog IBA W. Roxbury	343 2500	M. Lynch# M. Iliff
9/27	Rockport	9	J. Berry#	10/14	Cumb. Farms	497	SSBC
10/24	Salisbury	1	B. Gette#	10/19	Nantucket	300	S. Perkins#
Golden-crow	ned Kinglet			Gray Catbird			
	Ware R. IBA	3, 47		9/5	Westboro	57	N. Paulson
9/25	Burrage Pd	12	SSBC (Sweeney)	9/11	P.I. Lovington	61 51	R. Heil
10/5 10/7	Westport Cuttyhunk	33 54	M. Iliff I. Davies	9/13 10/7	Lexington Quabog IBA	63	M. Rines# M. Lvnch#
10/17	Gloucester (E.P.)		J. Nelson	10/7	Cuttyhunk	110	I. Davies
10/17	Boston (Fens)	18	P. Peterson	Brown Thras	her		
10/25	Salisbury	28	P. + F. Vale	9/21	Woburn	2	M. Rines
Ruby-crowne		1	T D '	9/27	Gloucester	3	R. Heil
9/13	HRWMA	1 11	T. Pirro	10/2	Westport	9 2	P. Champlin
9/30 10/5	Westboro P.I.	11	N. Paulson J. Berry#	10/7 10/26	Cuttyhunk P.I.	2	I. Davies E. Labato
10/3	Quabog IBA	22	M. Lynch#	American Pir		1	L. Labato
10/13	Peddocks I.	30	R. Stymeist#	9/21	Amherst	82	L. Therrien
10/17	Sharon	11	L. Waters	9/25	Burrage Pd	100 S	SBC (Sweeney)
10/24	Amherst	18	I. Davies	10/7	Hadley	121	S. Surner
				10/13	Templeton	85	W. Howes

	pit (continued)			10/14	Cumb. Farms	3	SSBC
10/14	Pittsfield	75	K. Hanson	10/20	Boston (BNC)	2 BE	BC (Ferraresso)
10/20 10/26	Northampton	89 75	L. Therrien M. Rines	Connecticut 9/2-10/8		from 22.1	opptions
10/28	Lincoln Cumb. Farms	100	J. Young	9/16	Reports of indiv. Framingham	7	J. Hoye#
10/31	Acton	145	S. Perkins#	9/16	Westport	2	M. Iliff
Bohemian V		1.10	Di l'entition	9/20	Northampton	$\overline{2}$	B. Zajda
10/26	Eastham	1	M. Faherty	9/23	Cumb. Farms	5	J. Sweeney#
Cedar Waxw				Mourning W	arbler		
9/11	P.I.	76	R. Heil	9/10	Hadley	1	L. Therrien#
9/22	Adams	65	B. Zajda#	9/12	Nahant	1	P. Ruvido#
9/23	Tyringham	41	M. Lynch#	9/22	Adams	1	B. Zajda#
10/2	Brewster	141	D. Clapp	9/27	Cambr. (Alewife		T. Spahr
10/6 10/7	Millbury Ouchog IB A	38 43	M. Lynch#	9/30 10/3	Boston Lenox	1 dead 1	R. Stymeist
10/20	Quabog IBA Nantucket	30	M. Lynch# S. Perkins#	10/5	P.I.	1	G. Hurley J. Berry#
10/28	Worcester	60	M. Lynch#	10/6	Lexington	1 imm	C. Cook
Lapland Lon		00	in Dynem	Common Ye			0.0004
9/29	Truro	1 migr	B. Harris#	9/9	Northampton	43	B. Zajda
10/2	P.I.	2	R. Heil	9/13	HRWMÂ	23	T.Pirro
10/23	Granville	2	J. Weeks	9/15	Ware R. IBA	25	M. Lynch#
10/27	Plymouth B.	1	K. Doyon	9/22	Moran WMA	53	B. Zajda#
10/28	Northampton	7	L. Therrien#	9/23	Bolton Flats	23	K. Bourinot#
10/28	Rockport (H.P.)	1	M. Weber	9/23	Tyringham	24	M. Lynch#
Snow Buntin		2	DIZ	10/14	Cumb. Farms	9	SSBC
10/24	Brookfield	3 16	B. Kamp	10/17	Boston (Fens)	3 3	P. Peterson L. Waters
10/27 10/27	Mt. Wachusett	5	J. Young K. Doyon	10/17 10/22	Sharon Westboro	5 1	N. Paulson
10/27	Plymouth B. Salisbury	15	O. Burton	Hooded War		1	IN. Faulson
10/31	Ipswich (C.B.)	32	J. Berry#	9/13	Granville	1	J. Weeks
Ovenbird	ipswien (C.B.)	52	J. Delly	9/20	Newton	1 m	H. Miller
9/26	Framingham	2	N. Paulson	10/4	S. Dart. (A.Pd)	1	P. Champlin
10/10	Mt.A.	1	P. Wilton	10/5	P.I.	1 m ad	K. Elwell
10/11	Medford	1	M. Rines#	10/5	Truro	1 m	J. Young
Worm-eating				American Re			
9/13	Paxton	1	R. Jenkins	9/1	Ware R. IBA	13	M. Lynch#
Northern Wa				9/10	Westport	10	P. Champlin
9/1	Nahant	3	J. Hoye#	9/13	HRWMA	10	T. Pirro
9/3	P.I.	3 5	P. + F. Vale	9/15	MNWS	6	L. Kramer#
9/11 9/20	Westport	2	M. Iliff M. Rines	9/17 9/18	Lexington	8 5	M. Rines# M. Rines
10/7	Lexington Cuttyhunk	$\frac{2}{2}$	I. Davies	10/6	Burlington Cuttyhunk	6	I. Davies
10/29	Brookline	1	M. Kaufman	10/23	Nantucket	1	T. Pastuszak
Blue-winged		•		Cape May W			iii uotuobuu
9/17	Cumb. Farms	1	M. Faherty	9/2	Moran WMA	2	R. Packard
9/30	Westport	1	E. Nielsen	9/10	Westport	2	P. Champlin
10/2	Nahant	1	L. Pivacek	9/11	P.I.	2	R. Heil
10/7	Cuttyhunk	2	I. Davies	9/15	Ware R. IBA	2	M. Lynch#
10/7	Falmouth	1	M. Keleher#	9/16	Rutland	3	C. Bourinot
Black-and-w		0	M. Laurah#	9/17	Amherst	7	I. Davies
9/9 9/14	Ware R. IBA Chatham	9 8 BB	M. Lynch#	10/13 10/18	Nantucket	1	V. Laux J. Hoye#
9/16	Westport	7 7	C (R. Stymeist) M. Iliff	Northern Pa	Salisbury	1	J. 110ye#
9/16	Upton	9	N. Paulson	9/13	Lexington	3	M. Rines#
10/4	P.I.	10	E. Labato	9/13	HRWMA	4	T. Pirro
10/8	Westboro	3	C. Rosenblatt	9/20	Amherst	15	L. Therrien
10/18	Nahant	1	J. Malone	9/24	Westport	6	P. Champlin
Tennessee W	arbler			10/5	P.I.	4	J. Berry#
	Amherst	7	L. Therrien#	10/18	Nahant	1	J. Malone
9/11	P.I.	3	R. Heil	Magnolia W		-	
9/15	Ware R. IBA	3	M. Lynch#	9/9	Ware R. IBA	5	M. Lynch#
9/29	Northfield	3 2	B. Zajda R. Heil	9/10	Westport	3 8	P. Champlin
10/7 Oranga erou	S. Peabody ned Warbler	2	к. пен	9/16 9/17	Pittsfield SF Lexington	8 6	M. Lynch# M. Rines#
	1 Reports of indiv	from 33	locations	10/4	P.I.	6	P. + F. Vale
10/22	Sudbury	3	J. Malone	10/6	Cuttyhunk	8	I. Davies
Nashville Wa		5	e. maione	10/25	Rockport (H.P.)	1	J. Hoye#
9/11	P.I.	5	R. Heil	Bay-breasted			
9/16	Woburn	3	M. Rines	9/10	Amherst	2	J. Drucker
10/2	Medford	4	R. LaFontaine	9/15	Belchertown	1	L. Therrien
10/3	Cambr. (F.P.)	7	J. Restivo	9/26	Wayland	1	B. Harris#
10/4	Westport	4	P. Champlin	10/6	Truro	1	J. Young
10/14	Winthrop	3	P. Peterson	10/6	P.I.	1	R. Doherty

	Warblar (continu	ad)		Prairie Warb	lor		
10/7	Warbler (continu Boston (Fens)	1	O. Burton	9/11	Truro	4	R. Schain
Blackburniar		1	O. Buiton	9/16	Eastham	2	S. Arena
9/9	Ware R. IBA	8	M. Lynch#	9/24	Westport	3	P. Champlin
9/15	Lexington	ĭ	S. Miller#	9/25	Duxbury B.	2	R. Bowes
9/15	MNWS	1	L. Kramer#	10/2	Nahant	2	L. Pivacek
9/24	Amherst	2	I. Davies	10/23	P.I.	1	C. Riehl
10/10	Norfolk	1	P. Peterson	Black-throa	ted Gray Warble	r	
Yellow Warb	ler			10/6	S. Monomoy	1 b	ph J. Junda
9/18	Burlington	1	M. Rines	10/23	Aquinnah	1	B. Shriber
9/24	Amherst	1	I. Davies		ed Green Warbler		
9/30	Westport	2	E. Nielsen	9/1	Ware R. IBA	24	M. Lynch#
9/30	Essex	1	R. Heil	9/1	New Salem	5	B. Lafley
10/1	Cumb. Farms	1	J. Sweeney	9/13	HRWMA	13	T. Pirro
10/2	Dorchester	1	P. Peterson	9/15	Braintree	6	G. d'Entremont#
10/5	P.I. Comba (Donoba	1	J. Berry#	9/18	Boston (F.Pk)	5 5	J. Young
10/8 Chestnut-side	Cambr. (Danehy	y) 1	K. Hartel#	10/5 Canada Warl	Westport	3	M. Iliff
9/2	P.I.	3	S. Roberts	9/1	Northampton	3	L. Therrien
9/9	Ware R. IBA	3	M. Lynch#	9/12	Salisbury	1	S. McGrath
9/16	Pittsfield SF	3	M. Lynch#	9/12	Westport	1	J. Sweeney#
9/16	Westport	2	M. Iliff	9/15	Weymouth	1	G. d'Entremont#
10/7	Granville	1	J. Weeks	9/16	Woburn	1	M. Rines
10/7	Falmouth	1	M. Keleher#	Wilson's Wa			
10/7	Cuttyhunk	1	I. Davies	9/9	Jamaica Plain	2	M. Kaufman
Blackpoll Wa				9/12	Nahant	2	L. Pivacek#
9/2-10/25		28 max	v.o.	9/12	Melrose	2	D. + I. Jewell
9/7, 9/22	Lexington	1, 22	M. Rines	9/16	P.I.	3	B. Cassie
9/8-10/31	Winchester	15 max		9/17	Amherst	2	I. Davies
9/15	Ware R. IBA	134	M. Lynch#	Yellow-breas			
9/16	Amherst	29	L. Therrien#	thr	Reports of indiv	-	
9/16	Upton	28	N. Paulson	10/8	Rockport	3	B. Harris#
10/10	Norfolk	20	P. Peterson	Eastern Tow		10	DDC (D. Stermaint)
10/11 10/11	Westport	20 25	P. Champlin S. Perkins#	9/15 9/27	Wellfleet	19 42	BBC (R. Stymeist) N. Paulson
	W. Tisbury ed Blue Warbler	23	5. Ferkins#	9/30	Upton Ware R. IBA	42 37	M. Lynch#
9/1	Ware R. IBA	4	M. Lynch#	10/5	P.I.	22	J. Berry#
9/16	Upton	4	N. Paulson	10/3	Cuttyhunk	108	I. Davies
10/2	Medford	3	R. LaFontaine	American Tr		100	1. Davies
10/2	Westport	7	M. Iliff	10/11	P.I.	1	P. + F. Vale#
10/7	Cuttyhunk	5	I. Davies	10/13	Gay Head	1	D. Schell#
10/14	DFWS	2	P. Sowizral	10/25	Westboro	3	N. Paulson
10/28	Plymouth	1	S. Leslie	Chipping Sp	arrow		
Palm Warble	r			9/14			
				2/11	Eastham	62	BBC (R. Stymeist)
9/8-10/31	Woburn	11 max	M. Rines	9/20	Brewster	105	P. Trull
9/16	Northampton	40	L. Therrien	9/20 9/21	Brewster Winchester	105 52	P. Trull P. + F. Vale
9/16 9/30	Northampton Westboro	40 24	L. Therrien S. Arena	9/20 9/21 9/27	Brewster Winchester Upton	105 52 80	P. Trull P. + F. Vale N. Paulson
9/16 9/30 10/4	Northampton Westboro P.I.	40 24 16	L. Therrien S. Arena N. Paulson	9/20 9/21 9/27 9/29	Brewster Winchester Upton Warwick	105 52 80 87	P. Trull P. + F. Vale N. Paulson M. Lynch#
9/16 9/30 10/4 10/5	Northampton Westboro P.I. Ware R. IBA	40 24 16 33	L. Therrien S. Arena N. Paulson M. Lynch#	9/20 9/21 9/27 9/29 9/30	Brewster Winchester Upton Warwick Westboro	105 52 80 87 65	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena
9/16 9/30 10/4 10/5 10/7	Northampton Westboro P.I. Ware R. IBA Cuttyhunk	40 24 16 33 13	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies	9/20 9/21 9/27 9/29 9/30 10/20	Brewster Winchester Upton Warwick Westboro E. Bridgewater	105 52 80 87	P. Trull P. + F. Vale N. Paulson M. Lynch#
9/16 9/30 10/4 10/5 10/7 10/7	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth	40 24 16 33 13 35	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored	Brewster Winchester Upton Warwick Westboro E. Bridgewater d Sparrow	105 52 80 87 65 14	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle
9/16 9/30 10/4 10/5 10/7 10/7 10/8	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner	40 24 16 33 13 35 50	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i	105 52 80 87 65 14 ndiv. 1	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord	40 24 16 33 13 35 50 18	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1	Brewster Winchester Upton Warwick Westboro E. Bridgewater d Sparrow Reports of 1-2 i 6 Boston (Fens)	105 52 80 87 65 14 ndiv. 1	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o.
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res.	40 24 16 33 13 35 50	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I.	105 52 80 87 65 14 ndiv. 1 1-) 4	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan#
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res.	40 24 16 33 13 35 50 18 16	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29	Brewster Winchester Upton Warwick Westboro E. Bridgewater 1 Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro	105 52 80 87 65 14 ndiv. 1 1-) 4 10	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris#
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res.	40 24 16 33 13 35 50 18	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4	Brewster Winchester Upton Warwick Westboro E. Bridgewater 1 Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Fens) Boston (Cong I. Truro Duxbury B.	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res.	40 24 16 33 13 35 50 18 16 75, 16	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colorect thr 9/17-10/1 9/21 9/29 10/4 10/7	Brewster Winchester Upton Warwick Westboro E. Bridgewater d Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk	105 52 80 87 65 14 ndiv. 1 1-) 4 10	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris#
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin	40 24 16 33 13 35 50 18 16 75, 16 11	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4	Brewster Winchester Upton Warwick Westboro E. Bridgewater d Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3 5	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Vellfleet HRWMA	40 24 16 33 13 35 50 18 16 75, 16 11 24	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3 5	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters#
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk	40 24 16 33 35 50 18 16 75, 16 11 24 123	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch#	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29	Brewster Winchester Upton Warwick Westboro E. Bridgewater 1 Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I.	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3 5 13 15 6	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies	9/20 9/21 9/27 9/29 9/30 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3 5 13 15 6 7	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler P.I.	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 10/21	Brewster Winchester Upton Warwick Westboro E. Bridgewater 1 Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth	105 52 80 87 65 14 ndiv. 1 1-) 4 10 3 5 13 15 6	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk ware R. IBA	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 9/29 9/29 10/21 Vesper Sparr	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row	105 52 80 87 65 14 ndiv. f 10 3 5 13 15 6 7 12	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Cuttyhunk ware R. IBA Cuttyhunk	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 557	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Lynch# I. Davies	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 10/21 Vesper Sparr 9/8	Brewster Winchester Upton Warwick Westboro E. Bridgewater d Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick	105 52 80 87 65 14 14 10 3 5 5 13 15 6 7 12	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda#
9/16 9/30 10/4 10/5 10/7 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/7	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk bed Warbler P.I. Ware R. IBA Cuttyhunk Squantum	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 5557 75	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies v.o. M. Lynch# I. Davies G. d'Entremont	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 10/21 Vesper Sparr 9/8 9/21	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst	105 52 80 87 65 14 14 10 3 5 5 13 15 6 7 7 12 1 8	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/8	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler P.I. Ware R. IBA Cuttyhunk Squantum Gardner	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 557 75 250	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies v.o. M. Lynch# I. Davies G. d'Entremont T. Pirro	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 9/29 10/21 Vesper Sparr 9/8 9/21 9/23	Brewster Winchester Upton Warwick Westboro E. Bridgewater 1 Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats	105 52 80 87 65 14 10 10 3 5 13 15 6 7 12 1 8 1	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien K. Bourinot#
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/8 10/8	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk ware R. IBA Upton Cuttyhunk Squantum Gardner Woburn	40 24 16 33 13 55 50 18 16 75, 16 11 24 12 24 11 166 max 101 557 75 250 116	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies G. d'Entremont T. Pirro M. Rines	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 9/29 9/29 9/29 10/21 Vesper Sparr 9/8 9/21 9/23 9/23	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats Northampton	105 52 80 87 65 14 10 13 15 6 7 12 1 8 8 1 2	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien K. Bourinot# B. Zajda
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/7 10/8 10/8 10/8	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler P.I. Ware R. IBA Cuttyhunk Squantum Gardner Woburn W. Roxbury	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 557 75 250 116 75	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies V.O. M. Lynch# I. Davies G. d'Entremont T. Pirro M. Rines M. Iliff	9/20 9/21 9/27 9/29 9/30 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 10/21 Vesper Sparr 9/21 9/23 9/23 9/23 9/29	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats Northampton Northfield	105 52 800 87 65 14 10 3 5 5 13 15 6 7 12 1 8 8 1 2 2	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien K. Bourinot# B. Zajda B. Zajda
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/7 10/8 10/8 10/8 10/9 10/14	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler P.I. Ware R. IBA Cuttyhunk Squantum Gardner Woburn W. Roxbury Cumb. Farms	40 24 16 33 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 557 75 250 116 75 83	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies G. d'Entremont T. Pirro M. Rines M. Iliff SSBC	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 10/21 Vesper Sparr 9/8 9/21 9/23 9/23 9/29 10/1	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats Northampton Northfield Hadley	105 52 800 87 65 14 10 3 5 5 13 15 6 7 7 12 1 8 1 2 2 10	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien K. Bourinot# B. Zajda
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/8 10/8 10/8 10/9 10/14 10/21	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk ware R. IBA Upton Cuttyhunk Squantum Gardner Woburn W. Roxbury Cumb. Farms Nantucket	40 24 16 33 13 35 50 18 16 75, 16 11 24 123 24 11 166 max 101 557 75 250 116 75	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies Q. d'Entremont T. Pirro M. Rines M. Iliff SSBC S. Perkins#	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 9/29 9/29 9/29 10/21 Vesper Sparr 9/8 9/21 9/23 9/23 9/23 9/23 9/23 9/29 10/1 10/9	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats Northampton Northfield Hadley W. Newbury	105 52 800 87 65 14 10 3 5 5 13 15 6 7 12 1 8 8 1 2 2	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda B. Zajda B. Zajda L. Therrien
9/16 9/30 10/4 10/5 10/7 10/8 10/10 10/21 Pine Warbler 9/11, 10/2 9/13 9/14 9/21 9/27 10/6 Yellow-rump thr 9/30 10/7 10/7 10/8 10/8 10/8 10/9 10/14	Northampton Westboro P.I. Ware R. IBA Cuttyhunk Falmouth Gardner Concord Wachusett Res. 7 Wellfleet HRWMA S. Quabbin Ware R. IBA Upton Cuttyhunk wed Warbler P.I. Ware R. IBA Cuttyhunk Squantum Gardner Woburn W. Roxbury Cumb. Farms	40 24 16 33 13 55 50 18 16 75, 16 11 24 11 166 max 101 557 75 250 116 75 83 80	L. Therrien S. Arena N. Paulson M. Lynch# I. Davies G. Hirth T. Pirro S. Perkins K. Bourinot R. Schain T. Pirro L. Therrien M. Lynch# N. Paulson I. Davies G. d'Entremont T. Pirro M. Rines M. Iliff SSBC	9/20 9/21 9/27 9/29 9/30 10/20 Clay-colored thr 9/17-10/1 9/21 9/29 10/4 10/7 Field Sparro 9/14 9/23 9/29 10/21 Vesper Sparr 9/8 9/21 9/23 9/23 9/29 10/1	Brewster Winchester Upton Warwick Westboro E. Bridgewater I Sparrow Reports of 1-2 i 6 Boston (Fens) Boston (Long I. Truro Duxbury B. Cuttyhunk W Eastham Sharon P.I. Northfield Falmouth row Hardwick Amherst Bolton Flats Northampton Northfield Hadley	105 52 80 87 65 14 10 3 5 5 13 15 6 7 7 12 1 8 8 1 2 2 0 1	P. Trull P. + F. Vale N. Paulson M. Lynch# S. Arena J. Carlisle from 43 locations 3 v.o. R. Donovan# B. Harris# R. Bowes I. Davies BBC (R. Stymeist) L. Waters# M. Iliff B. Zajda G. Hirth B. Zajda# L. Therrien K. Bourinot# B. Zajda L. Therrien K. Elwell

Vesper Sparro	ow (continued)			10/14	Cumb. Farms	1086	SSBC
10/11	W. Roxbury	1	M. Iliff	10/14	Bradford	40	D. + S. Larson
10/18	Salisbury	1	J. Hoye#	10/27	GMNWR	75	J. Forbes
10/20	Nantucket	2	R. Veit#	White-throat		1	V D'.#
10/21 Lorl: Sporrow	Cumb. Farms	1	J. Carlisle	9/10 9/12	GMNWR	1	K. Dia# M. Rines
Lark Sparrow 9/1-9	P.I.	2	VO	9/12 9/16	Lincoln P.I.	30	B. Cassie
9/1-9	Nahant	$\frac{2}{2}$	v.o. L. Pivacek#	10/1	Hadley	162	L. Therrien
9/22	Williamstown	1	C. Jones	10/1	Gill	300	J. Smith
9/26-27	Cambr. (Danehy		P. Wilton $+$ v.o.	10/2	Ipswich	70	J. Berry
9/27-10/7	Concord	1	L. Hale $+$ v.o.	10/8	Boston (Fens)	72	R. Schain
10/6	Nantucket	2	D. Veit	10/14	Cumb. Farms	103	SSBC
10/7	Newton	1 imn		10/25	Westboro	169	N. Paulson
10/13	E. Boston (B.I.)	1	R. Doherty#	White-crown	ed Sparrow		
Savannah Spa				9/16	Northampton	1	L. Therrien
9/23	Northampton	98	B. Zajda	10/7	Nahant	7	L. Pivacek
9/26	Dorchester	70	R. Donovan#	10/8	Rockport	9	B. Harris#
9/30	Westboro	125	S. Arena	10/12	W. Roxbury	7	P. Peterson
10/7	Ipswich	81	J. Berry	10/13	Hadley	32	J. Drucker
10/11	W. Roxbury	140	M. Iliff	10/14	P.I.	14	R. Heil
10/14	Cumb. Farms	399	SSBC	10/14	Cumb. Farms	14	SSBC
10/20	P.I.	85	R. Schain	10/15	Concord	10	M. Rines
Ipswich Spari		1	C. I. an anneath	10/18 Dark and h	Salisbury	7	P. + F. Vale
10/8 10/10	Fairhaven	1 1	C. Longworth R. Bowes	Dark-eyed Ju		1,275	P Champlin
10/10	Duxbury B. W. Gloucester	1	J. Nelson	9/10, 10/2	2 Westport Milton	1, 273	P. Champlin E. Lipton
10/23	Salisbury	2	J. Berry#	10/13	P.I.	450	P. + F. Vale
10/27	Sandwich	3	M. Keleher	10/13	Mt.A.	112	R. Stymeist
10/31	P.I.	4	T. Wetmore	10/17	Duxbury B.	100	R. Bowes
Grasshopper			i. Wethiore	10/24	Amherst	341	I. Davies
10/6	Cuttyhunk	1	I. Davies	Summer Tai		0.11	ii Durios
10/7	Falmouth	1	G. Hirth	9/22	Lexington	1 m	M. Rines
10/11	Duxbury B.	1	R. Bowes	10/4	S. Dart. (A.Pd)	1	P. Champlin
Le Conte's S				10/7	Truro	1	C. Skowron
10/30	Eastham	1 ph	J. Trimble#	Scarlet Tanag	ger		
Nelson's Spar				9/1	Ware R. IBA	11	M. Lynch#
9/17	Pittsfield	1	K. Hanson	9/1	New Salem	4	B. Lafley
10/4	Melrose	1	D. + I. Jewell	9/15	Braintree	3	G. d'Entremont#
10/10	Fairhaven	10	C. Longworth	9/17	Nahant	2	L. Pivacek
10/17	GMNWR	1	K. Dia#	10/4	P.I.	2	N. Paulson
10/20	P.I.	5	R. Schain	10/7	S. Peabody	2	R. Heil
Saltmarsh Spa		2	M. T	10/14	Nantucket	1	K. Blackshaw
9/7 9/8	Acoaxet	3 45	M. Lynch#	Rose-breaste 9/16	P.I.	4	P. Cassia
9/8	Chatham (S.B.)	43 7	J. Trimble R. Heil	9/10	Bolton Flats	2	B. Cassie J. Hoye#
9/9	Newbury Duxbury B.	4	R. Bowes	9/29	Cambridge	$\frac{2}{2}$	A. Robinson
10/3	Fairhaven	7	C. Longworth	10/1	Hadley	$\frac{2}{2}$	L. Therrien
10/26	P.I.	3	T. Wetmore	10/5	Lexington	3	J. Forbes
Seaside Sparr		0	ii weamore	10/23	Newton	2	M. Kaufman
9/22	P.I.	4	N. Landry	Blue Grosbea			
10/15	Falmouth	1	G. Hirth	9/6-17	Nahant	1	L. Pivacek
10/17	Eastham	3	S. Arena	9/8	Wayland	1	B. Harris#
Fox Sparrow				9/24	Westboro	1	S. Arena
10/12	Lee	1	R. Laubach	9/25	Sharon	1	C. Turnbull
10/13	Sterling	1	F. Paine	9/27	Lexington	1	M. Rines
10/14	Cumb. Farms	1	SSBC	9/30	Cumb. Farms	2	V. Zollo#
10/21	Lexington	3	M. Rines#	10/5	Truro	1	J. Young
10/28	Quabog IBA	3	M. Lynch#	10/5	Waltham	1	J. Forbes
Lincoln's Spa 9/6, 9/21	Woburn	1,4	M. Rines	10/8 10/12	Eastham	$\frac{2}{2}$	C. Turnbull#
9/10, 10/1		1,4	L. Therrien#	10/12 10/16	Brewster Northampton	1	M. Keleher D. Schell
9/23	Northampton	8	B. Zajda	Indigo Bunti		1	D. Schen
9/26	Framingham	6	N. Paulson		4 Cumb. Farms	17, 1	v.o.
9/29	Concord	6	M. Rines	9/23	Bolton Flats	13	W.Howes
9/30	Westboro	6	N. Paulson		1 Lexington	7,1	M. Rines
10/7	Quabog IBA	10	M. Lynch#	9/25	Lincoln	8	C. Floyd
10/14	Cumb. Farms	11	SSBC	9/26	Wayland	12	B. Harris#
Swamp Sparr	ow			9/27	Concord	10	N. Paulson
9/23	Bolton Flats	71	K. Bourinot#	10/1	Hadley	14	L. Therrien
9/30	Westboro	90	N. Paulson	10/16	Belmont	2	J. Forbes
10/1	Hadley	101	L. Therrien	10/18	Nahant	1	J. Malone
10/7	Burrage Pd	60	J. Young	10/18	P.I.	1	T. Wetmore
						~	3 6 77 3
10/7	Quabog IBA	196	M. Lynch#	10/23	Newton	1	M. Kaufman

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Dickcissel	D () (9/10	Rockport (H.P.)	3	R. Heil
thr	Reports of ind			9/23	Sharon	2	L. Waters#
9/1	Woburn (HP)	3	M. Rines#	10/7	Cuttyhunk	2	I. Davies
9/7	Amherst	2	I. Davies#	10/20	P.I.	1	v.o.
9/7	Wayland	2	B. Harris#	Pine Grosbea			
9/16	Northampton	2	L. Therrien	10/18	New Salem	2	B. Lafley
9/27	Concord	3	D. Sibley#	10/21	Warwick	1	M. Lynch#
9/30	Harwich	2	B. Harris#	Purple Finch		1 20	
10/7	Nahant	2	L. Pivacek		1 Lexington	1, 39	M. Rines
10/13	P.I.	2	J. Sender	10/7	Cuttyhunk	26	I. Davies
Bobolink				10/7	Quabog IBA	34	M. Lynch#
9/1	Northampton	480	T. Gagnon	10/7	Mt. Wachusett	14 migr	S. Perkins#
9/2	Leicester	48	M. Lynch#	10/8	Gardner	25	T. Pirro
9/3, 24	GMNWR	76, 38	v.o.	Red Crossbill			
	4 Cumb. Farms	120, 1	V.O.	thr	Reports of 1-15		
9/20	Framingham	52	J. Hoye#	9/1	Northampton	30	L. Therrien
9/23	Saugus	15	S. Zendeh#	9/1	Quabbin	30	L. Therrien
10/9	W. Newbury	10	K. Elwell	9/3	Westminster	25	T. Pirro
10/14	Eastham (F.H.)		G. d'Entremont#	9/5	Concord	39	W. Hutcheson
10/18	Woburn (HP)	1	M. Rines	9/8	Rutland	29	K. Bourinot
Red-winged				9/10	Groton	30	N. Soulette
9/17	GMNWR	316	A. Bragg#	9/22	New Salem	20	B. Lafley
10/14	Cumb. Farms	5500	SSBC	9/24	Amherst	20	I. Davies
10/21	Concord	3000	S. Perkins#	10/31	Quabbin Pk	20	J. Drucker
10/25		11000	J. Drucker	White-winged			
10/25	Westboro	450	N. Paulson	9/25	Burrage Pd		SBC (Sweeney)
10/27	Rutland	750	M. Lynch#	10/26	P.I.	25	D. Ferren#
10/29	Westfield	5000	S. Kellogg	10/26	Salisbury	57	B. Cassie
Eastern Mea				10/26	S. Quabbin	30	M. Lynch#
9/30	Newbury	2	R. Heil	10/27	Ware R. IBA	26	M. Lynch#
10/1	Essex	2	J. Nelson	10/27	Truro	9	B. Harris#
10/13	GMNWR	2	N. Paulson	10/31	Pepperell	2	T. Knittel
10/20	Nantucket	6	S. Perkins#	10/31	Acton	4	J. Trimble
10/21	Falmouth	10	G. Hirth	Common Rec			~ ~ ~
	ed Blackbird		~ ~	10/2	Uxbridge	1	S. Wheelock
10/13	Hadley	1	S. Surner	10/26	Salisbury		B. + B. Buxton
Rusty Black		10	D Z · 1	10/27	P'town	1	B. Nikula
9/29	Northfield	10	B. Zajda	10/28	Cheshire	1	J. Pierce
10/13	Lexington	35	M. Rines	Pine Siskin	D		001
10/13	GMNWR	32	N. Paulson		Reports of 1-99		
10/14	Cumb. Farms	20	SSBC	10/6	Cuttyhunk	151	I. Davies
10/21	Concord	40	S. Perkins#	10/7	Heath	100	D. Potter
10/25	Westboro	54	N. Paulson	10/7	S. Quabbin	124	L. Therrien
10/27	Hadley	12	J. Drucker	10/10	Norfolk	120	P. Peterson
Common Gra		1000		10/14	Cumb. Farms	156	SSBC
9/15	Holbrook	1000	G. d'Entremont	10/14	Billerica	100	P. Guidetti
10/14	Cumb. Farms	5035	SSBC	10/21	Nantucket	200	S. Perkins#
10/17	Plainville	1000	J. Fecteau	10/26	Dalton	120	C. Blagdon
10/26	Salisbury	7800	D. Ferren#	Evening Gros		1. 6	25.1
10/28	GMNWR	1000	A. Bragg#	10/2-31	Reports of 1-5 is		
Brown-heade		200	C A	10/7	Heath	35	D. Potter
9/30	Westboro	300	S. Arena	10/12	Groveland	8	D. Chickering
10/14	Cumb. Farms	958 575	SSBC	10/15	Concord	18	W. Hutcheson
10/20 Daltiman Or	Westport	575	M. Lynch#	10/17	Pittsfield	12	N. Mole
Baltimore Or		2	CODC (CHE)	10/21	Haverhill	6	N. Paulson
9/1	DWWS	3	SSBC (GdE)	10/21	Warwick	6	M. Lynch#
9/1	Ware R. IBA	13	M. Lynch#	10/23	Acushnet	7	K. Langevin



PINE GROSBEAK BY DAVID LARSON

ABBREVIATIONS FOR BIRD SIGHTINGS

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

Locations Location-#	MAS Breeding Bird Atlas Block	Newbypt Newburyport ONWR Oxbow National Wildlife Refuge
A.A.	Arnold Arboretum, Boston	PG Public Garden, Boston
ABC A.P.	Allen Bird Club	P.I. Plum Island Pd Pond
A.Pd	Andrews Point, Rockport Allens Pond, S. Dartmouth	POP Point of Pines, Revere
B.	Beach	PR Pinnacle Rock, Malden
Barre F.D.	Barre Falls Dam	P'town Provincetown
B.I.	Belle Isle, E. Boston	Pont. Pontoosuc Lake, Lanesboro
B.R.	Bass Rocks, Gloucester	R.P. Race Point, Provincetown
BBC	Brookline Bird Club	Res. Reservoir
BMB	Broad Meadow Brook, Worcester	S.B. South Beach, Chatham
BNC	Boston Nature Center, Mattapan	S.N. Sandy Neck, Barnstable
C.B.	Crane Beach, Ipswich	SRV Sudbury River Valley
CGB	Coast Guard Beach, Eastham	SSBC South Shore Bird Club
C.P.	Crooked Pond, Boxford	TASL Take A Second Look, Boston Harbor Census
Cambr.	Cambridge	WBWS Wellfleet Bay WS
CCBC	Cape Cod Bird Club	WE World's End, Hingham
Corp. B.	Corporation Beach, Dennis	WMWS Wachusett Meadow WS
Cumb. Farms	Cumberland Farms, Middleboro	Wompatuck SP Hingham, Cohasset, Scituate, Norwell
DFWS	Drumlin Farm Wildlife Sanctuary	Worc. Worcester
DWMA	Delaney WMA, Stow, Bolton, Harvard	
DWWS	Daniel Webster WS	Other Abbreviations
E.P.	Eastern Point, Gloucester	ad adult
F.E.	First Encounter Beach, Eastham	b banded
F.H.	Fort Hill, Eastham	br breeding
F.P.	Fresh Pond, Cambridge	dk dark (morph)
F.Pk	Franklin Park, Boston	f female
G40	Gate 40, Quabbin Res.	<i>fide</i> on the authority of
GMNWR	Great Meadows NWR	fl fledgling
H.	Harbor	imm immature
H.P. HP	Halibut Point, Rockport	juv juvenile lt light (morph)
HRWMA	Horn Pond, Woburn High Ridge WMA, Gardner	8
I.	Island	m male max maximum
IRWS	Ipswich River WS	migr migrating
L.	Ledge	n nesting
MAS	Mass Audubon	ph photographed
MP	Millennium Park, W. Roxbury	pl plumage
M.V.	Martha's Vineyard	
MBWMA	Martin Burns WMA, Newbury	summer (1S = 1st summer)
MNWS	Marblehead Neck WS	v.o. various observers
MSSF	Myles Standish State Forest,	W winter $(2W = second winter)$
	Plymouth	yg young
Mt.A.	Mount Auburn Cemetery, Cambr.	# additional observers
NAC	Nine Acre Corner, Concord	

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

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

Species on the Review List of the Massachusetts Avian Records Committee, as well as species unusual as to place, time, or known nesting status in Massachusetts, should be reported promptly to the Massachusetts Avian Records Committee, c/o Matt Garvey, 137 Beaconsfield Rd. #5, Brookline, MA 02445, or by email to <mattpgarvey@gmail.com>.

ABOUT THE COVER

Gadwall

The Gadwall (*Anas strepera*) is a medium-sized dabbling duck with a name that suggests that the species is noisy—*strepera* is Latin for noisy. Folk names for the Gadwall include "blarting duck" and "bleating duck," perhaps a reference to the vocalizations given during courtship displays. The male is a conservative gray-brown with a speckled chest, white abdomen, a ting of buffy-orange on the back, black hind quarters, and a contrasting white speculum. Females are buffy-tan and closely resemble female Mallards but have a white speculum and a yellowish bill with a gray median stripe. Immatures resemble females. In flight, Gadwalls can be distinguished from other species by their white speculum. Despite a range that includes Greenland, Iceland, Europe, the Middle East, and Russia, Gadwalls show little geographic variation, and no subspecies are recognized. Gadwalls occasionally hybridize with other species of dabbling ducks including Mallards, Northern Shovelers, and Pintails.

In North America major Gadwall breeding areas include the north central United States and the Prairie Provinces of Canada, and they also breed in the Aleutian Islands and southern Alaska and in scattered areas in the Great Lakes region and the Maritime Provinces of Canada. Local breeding occurs from Maine to Delaware. In Massachusetts Gadwalls are considered uncommon breeders and locally common migrants. In the early 20th century Gadwalls were considered vagrants in most of the eastern United States, but they gradually increased in numbers to their current status. In the 1950s and 1960s they were introduced near the Great Meadows National Wildlife Refuge in Concord, and by the 1970s they were nesting at scattered locations including Plum Island, Ipswich, and Martha's Vineyard. Although there are patches of year-round residency, most Gadwalls are migratory, wintering mainly in the southeastern and south central United States, the West Coast, and south to southern Mexico. In Massachusetts most Gadwalls arrive in late March and depart in the fall after the first heavy frost.

Gadwall nesting habitat includes grasslands and wetlands with seasonal or permanent water. Tall vegetation provides cover, and ponds provide foraging habitat. Gadwalls are monogamous. Courtship displays occur on water with males beginning their displays with head withdrawn, head feathers ruffled, and frequent head shaking. Male displays include rising up on the water with head extended. They may also spread tail, throw back head, and raise wings displaying the white speculum, and occasionally dip the bill below the surface and toss water into the air. The most frequent major display is the grunt-whistle, in which the male rears up in the water, gives a "whistle" and "burp," followed by tucking his head against his breast and settling back onto the water.

The female selects the nest site in fields or meadows or on islands or dikes, usually in tall grass or dense brush. She then makes a scrape and builds on it with twigs, leaves, and grasses; she lines the nest with down feathers. The usual clutch is 8–12 white to greenish eggs. Only the female has a brood patch, and she does all of the incubation for the 26 days until hatching. The male usually deserts the female after the clutch is complete and joins flocks of other molting males. The precocial chicks are covered with down and born with their eyes open. They leave the nest after 24 hours and can feed themselves immediately. The female leads the chicks to water, broods them for several weeks, and remains with them for approximately ten weeks. At eight weeks the chicks can fly. Initially the ducklings eat mostly invertebrates, but by three weeks of age they forage on plant materials such as pondweed, duckweed, and green algae.

Gadwalls forage mostly on submerged aquatic vegetation. They forage from the water's surface with their head submerged or by tipping up, tail pointing skyward. They feed during the day and night and may kleptoparasitize deeper-diving birds such as American Coots. Gadwalls take a wide variety of aquatic vegetation and invertebrates during breeding season.

Like most other duck species, Gadwalls face a number of survival challenges. They fall victim to nest parasitism by other duck species and are susceptible to avian waterfowl diseases such as botulism and avian cholera. They are also subject to nest predation by snakes, mammals such as skunks, raccoons, and foxes, and birds such as harriers, gulls, and Peregrine Falcons. More than a million Gadwalls are shot by hunters each year, and lead ingestion can be a source of mortality. Agricultural pesticides are a chronic threat in many areas. Despite this bewildering array of hazards, Gadwalls have been increasing in numbers since the 1950s. Conservation programs initiated in the 1980s resulted in retiring more than four million acres of cropland in the Prairie Pothole region of the north central United States alone, and U.S. Fish and Wildlife Service initiatives have protected a number of sites where waterfowl winter. Various duck-hunting organizations have also contributed significantly to the conservation of waterfowl breeding areas. Gadwalls and other waterfowl have high fecundity due primarily to their large clutch sizes. This combination of factors may secure the future for Gadwalls as well as many other dabbling duck species. A

William E. Davis, Jr.

About the Cover Artist: Barry Van Dusen

Once again, *Bird Observer* offers a painting by the artist who has created many of our covers, Barry Van Dusen. Barry is well known in the birding world, especially in Massachusetts, where he lives in the central Massachusetts town of Princeton. In July 2011 Barry was *Artist-in-Residence* at the Coastal Maine Botanical Gardens in Boothbay, Maine, and in autumn 2012 he had a one-man show at the Petersham Art Center in Petersham, Massachusetts. From May 6 to June 17, 2013, Barry's work will be on exhibit at Tower Hill Botanic Gardens in Boylston, Massachusetts, and he will be the Artist-in-Residence at Tower Hill for the 2013 season.

Barry has illustrated several nature books and pocket guides, and his articles and paintings have been featured in *Birding*, *Bird Watcher's Digest*, and *Yankee Magazine*

as well as *Bird Observer*. A recent project includes illustrations of shorebirds gulls, and terns for the second volume of *Birds of Brazil* by John Gwynne, Robert Ridgely, Guy Tudor, and Martha Argel, published by Comstock Publishing, a division of the Cornell University Press. For this work he is illustrating the shorebirds and their allies along with the gulls and terns.

Barry enjoys teaching and in 2013 he will conduct workshops at Fruitlands Museums, Concord Art Association, and Tower Hill Botanic Gardens. More information on these is available on Barry's website at http://www.barryvandusen.com.

[Pesticides continued from page 22]

Many grassland bird species have undergone range contractions or population declines in recent decades. In fact, analyses of North American birds indicate that these birds are declining faster than birds from other biomes. Habitat protection has long been considered a central pillar in efforts to stem the decline of grassland bird species, such as the Vesper Sparrow, the Ring-necked Pheasant, and the Horned Lark.

The researchers focused on the extent to which lethal pesticides, such as organophosphate and carbamate insecticides, are responsible for the decline in grassland bird populations. The study found that lethal pesticides were nearly four times more likely to be associated with population declines than the next most likely contributor, changes in cropped pasture—an important component of habitat loss associated with agricultural lands.

The publication says that "... large quantities of products of very high toxicity to birds have been used for decades despite evidence that poisonings were frequent even when products were applied according to label directions." The authors argue that only a small proportion of total cropland needs to be treated with a dangerous pesticide to affect overall bird population trends. Pesticide drift from croplands is also affecting birds that favor the adjoining grasslands.

Using data from the U.S. Geological Service Breeding Bird Survey for the years 1980 to 2003, the study found that declines of grassland birds were much more likely in states with high use of toxic insecticides lethal to birds. The species with the greatest number of declines included the Eastern Meadowlark (declining in 33 States), the Grasshopper Sparrow (25 States), the Horned Lark (25 States), the Ring-necked Pheasant (19 States) and the Vesper Sparrow (18 States).

The current study relies on pesticide data from the 1980s and early 1990s, a time when organophosphates such as diazinon and chlorpyrifos, and carbamates such as carbofuran and methomyl, were still largely in vogue. Since that time, a new class of insecticides, the neonicotinoids, have soared to the top of global pesticide markets. Unfortunately, a major toxicological assessment soon to be released by American Bird Conservancy puts to rest any notion that birds and other organisms will fare much better under the new pesticide regime.

AT A GLANCE

December 2012



WAYNE R. PETERSEN

The December mystery photograph shows a somewhat plumpish, pale-breasted, and long-legged passerine perched atop a shrub. In some respects the full-breasted shape of the bird slightly resembles a bluebird, although its posture in the picture is atypical of a bluebird. Although these impressions do not offer much to go on, a closer look at the photograph reveals several features that are useful.

First, the mystery bird exhibits a prominent white eyebrow stripe that is most notable behind the eye. It also presents a uniform appearance on the upperparts, including the top of the head (i.e. cap), which in most capped bird species is notably darker than the rest of the bird. There is also a pale line along the side of the wing, a feature due to pale tips on the greater secondary coverts. Finally, there is a noticeable patch of white at the base of the tail, which otherwise looks dark in the photograph.

These features offer an interesting combination of characteristics not shared by any other avian species in Massachusetts, or even in North America. The long-legged and full-breasted appearance of the mystery species should remind observant readers of a thrush. But also note that the mystery bird is distinctly plain breasted with no indication of ventral spotting. Most North American thrushes can be eliminated as candidates because they possess spotted breasts. Even though the American Robin, all bluebird species, and the bespectacled Townsend's Solitaire are plain breasted, these

species are readily distinguished from the mystery bird by other obvious features. The only species that regularly occurs in North America with the combination of thrushlike features and a lack of ventral spots shown by the mystery bird is the Northern Wheatear (*Oenanthe oenanthe*). To clinch the identification, note the diagnostic white patch at the base of the relatively short tail; the striking white tail base is a distinctive feature of this Old World thrush species.

Northern Wheatears are rare migrants in Massachusetts and the eastern United States despite the fact that one subspecies breeds as close as northern Quebec and coastal Labrador. Unlike the great majority of North American bird species, however, wheatears undergo an annual east/west migration that takes them to the Old World tropics for the winter; hence they are usually rare anywhere south of the Canadian border. Most Massachusetts occurrences tend to be in late summer and fall and usually (but not exclusively) along the coast. The author photographed this Northern Wheatear at Skaket Beach in Orleans on October 13, 2012.

Wayne R. Petersen

A word about funding the Mass NHES Program

A critical part of the funding equation for the Massachusetts Natural Heritage & Endangered Species Program are your voluntary contributions on your Massachusetts state income tax form (Line 32a: "Endangered Wildlife Conservation"). If you care about the future of our wildlife and wild places, please consider making a donation. For 8 of the last 10 years, no general tax funds in the state budget have been allocated to support the NHES Program, making your contributions even more vital. Alarmingly, tax checkoff contributions to NHESP are down over the past few years. Plus, your contribution is tax deductible on the federal level, but not for state tax purposes.

From the MassWildlife, Massachusetts Division of Fisheries & Wildlife site: The Natural Heritage & Endangered Species Program (NHESP). NHESP is responsible for the conservation and protection of hundreds of species that are not hunted, fished, trapped, or commercially harvested in the state. The Program's highest priority is protecting the 72 vertebrates, 104 invertebrates and 256 species of native plants that are officially listed as Endangered, Threatened or of Special Concern in Massachusetts.

To learn more about rare and endangered species conservation in Massachusetts, visit http://www.mass.gov/dfwele/dfw/nhesp/nhesp.htm>.

If you have already filed your taxes, you can still make a direct donation to the NHESP by sending a check made payable to "Comm. of MA - NHESP" and sent to Natural Heritage & Endangered Species Program, MA Division of Fisheries & Wildlife, 100 Hartwell Street, Suite 230, West Boylston MA 01583.

Thank you for your support of this important program!

Barbara Volkle

AT A GLANCE



WAYNE R. PETERSEN

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

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CATCHING UP WITH THE NEW STATE ORNITHOLOGIST IN							
MASSACHUSETTS: AN INTERVIEW WITH ANDREW VITZ Martha Steele							
About Books			ğ				
Gonzo in Birdland	Mark Lynch	35					
BIRD SIGHTINGS							
September/October 2012		42					
About the Cover: Gadwall	William E. Davis, Jr.	58					
ABOUT THE COVER ARTIST: Barry Van Dusen							
AT A GLANCE	Wayne R. Petersen	61					