Bird Observer

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HOT BIRDS



On December 1, 2006, the Friday Morning Birders group from Mass Audubon's South Shore sanctuary was searching a small patch of saltmarsh in Scituate when David Ludlow found this **Yellow Rail** (right). John Galluzzo managed several photos of the skulker. Glenn d'Entremont and a group of birders from the Cape Cod Bird Club and the Brookline Bird Club discovered this **Bell's Vireo** (left) on November 25, 2006, in Falmouth. It was relocated the following day and photographed by Phil Brown.





Tom Johnson and a group of friends from Ithaca, NY, spotted this first cycle **Thayer's Gull** (right) at McMillan Wharf in Provincetown on December 21, 2006, and Tom got several photographs.

This **Ash-throated Flycatcher** (left) was discovered in Annisquam on December 9, 2006, and photographed the next day by Jim Barber.



Look for more **HOT BIRDS** on the inside back cover!

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Erratum

Due to an editorial error, the photographic credit for the White-tailed Hawk image on page 31 of the February issue was incorrect. The image should have been labeled as © Bruce de Graaf. We apologize for the error.

A wonderful bird is the pelican
His bill can hold more than his belican
He can take in his beak
Food enough for a week
But I'm damned if I see how the helican.
Dixon Lanier Merritt, 1910

WILLIAM E. DAVIS, JR.

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Bird Observer

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Eleventh Annual Report of the Massachusetts Avian Records Committee (MARC)

Marjorie Rines, Secretary

Since the last MARC Annual Report, one new species has been added to the official State List: Eurasian Collared-Dove. Although the MARC has received several earlier reports of this species, none could satisfactorily rule out the very similar Ringed Turtle-Dove, a species commonly kept in captivity. This brings the total on the official state list to 484 species. A copy of this list can be seen at: http://massbird.org/marc/MARCstatelist.htm

Cackling Goose (*Branta hutchinsii*), #06-30, October 25, 2006, Plum Island (Essex), Tom Wetmore*. In the 45th Supplement to The American Ornithologists' Union Check-list of North American Birds, Sixth Edition, Canada Goose was split into two species: Canada Goose (*B. canadensis*) and Cackling Goose (*B. hutchinsii*). Prior to that time, there were very few reports of the smaller *hutchinsii* race for Massachusetts; however, since being elevated to full species status, state reports have increased dramatically. (First Ballot: Vote: 8-1)

Pacific Loon (*Gavia pacifica*), #05-48, December 11, 2005, Salisbury (Essex), J. P. Smith*†. Although this species is practically routine in winter, the species remains on the Review List due to identification difficulties. Pacific Loons can easily be confused with Common and Red-throated Loons and great caution should be used when making this identification. This record was supported by identifiable photographs. (First ballot: Vote: 9-0)

Western Grebe (*Aechmophorus occidentalis*), #05-56, November 25, 2005, Plum Island (Essex), Karsten Hartel*. The initial observer carefully described an *Aechmophorus* grebe, but was unable to get a sufficiently good look to positively eliminate Clark's Grebe (*A. clarkii*). Later in the day that the grebe was discovered, a second observer was able to relocate the bird and confirmed that the bird had the dark cap surrounding the eye, dull bill, and all-dark back that distinguishes Western Grebe. Although Clark's Grebe has never been recorded in Massachusetts, one was recorded in Maine in 2005 as a first New England record. (First ballot: Vote: 8-1)

Yellow-nosed Albatross (*Thalassarche chlororhynchos*), #06-09, May 14, 2006, Barnstable (Barnstable), G. Hirth* (First ballot: Vote: 8-1). #06-21, June 6, 2006, Rockport, Andrews Pt. (Essex), R. Heil*. (First ballot: Vote: 9-0). In mid-May 2006, a week of northeasterly winds culminated in a miserable weekend with winds gusting to 40 mph. Sea watchers along the coast were treated to a fine display of pelagic species, but the bird of the storm was unequivocally an adult Yellow-nosed Albatross spotted at Sandy Neck in Barnstable. Three weeks later, during conditions apparently unaffected by weather, a sea-watcher at Andrew's Point in Rockport was astonished to see an adult Yellow-nosed Albatross being pursued by a group of very vocal Herring and Great Black-backed gulls as it flew along the rocky shoreline. It is possible that these two sightings may have involved the same individual albatross.

Black-capped Petrel (*Pterodroma hasitata*), #05-38, October 25, 2005, Rockport (A.P.) (Essex), R. Heil*, B. Kane*. During an intense nor'easter an experienced seawatcher conducting a migration study at Andrews Point in Rockport was shocked to observe a Black-capped Petrel. The bird was in view for roughly two minutes and was able to be observed in direct comparison with a Greater Shearwater. Although this species is regularly seen on the continental slope south of New England, it represents only the fourth Massachusetts record and the second from land. The first land-based sighting was on August 19, 1991, off South Sunken Meadow Beach in Eastham during Hurricane Bob. (First ballot: Vote: 9-0)

White Ibis (*Eudocimus albus*), #04-19, August 4, 2004, Beverly (Essex), J. Paluzzi*. (Third ballot: Vote: 8-1). #06-18, April 1, 2006, Scituate (Plymouth), C. Nims*† (First ballot: Vote: 9-0). Alhough regularly reported north to Virginia, this species is prone to northward dispersal. Although the Beverly ibis was only observed from a moving car, it flew directly overhead affording the observer a definitive view of this distinctive species. The Scituate bird was observed for 15 minutes and photographs accompanied the report.

Swallow-tailed Kite (*Elanoides forficatus*), #06-12, May 20, 2006, Wellfleet (Barnstable), E. Olsen, D. Berard*. Swallow-tailed Kites rarely linger long enough for secondary observers to see them, but in this case the bird was seen and described by a group visiting the discovery location two hours after the initial observation. (First ballot: Vote: 9-0)

Yellow Rail (*Coturnicops noveboracensis*), #06-25, October 8, 2006, Newbury (Essex), R. Lockwood*, P. Brown†. Undoubtedly far more common in Massachusetts than is suggested by existing records, the elusive nature of Yellow Rails makes them exceptionally difficult to find. This remarkably cooperative bird was observed for fifteen minutes by the original observer, then was relocated and photographed by later observers. (First ballot: Vote: 9-0)

Purple Gallinule (*Porphyrula martinica*), #05-34, November 3, 2005, Holyoke (Hampden), A. + L. Richardson*†. An infrequent vagrant from the south, this bird was a juvenile, as is typically the case with fall occurrences of this species. (First ballot: Vote: 9-0)

Willet (*Catoptrophorus semipalmatus*), #06-15, May 13, 2006, Petersham (Worcester), M. Lynch and S. Carroll*. Grim, rainy weather forced a number of typically coastal birds to appear inland at on this date. In addition to the Willet the observers recorded five Common Terns and a Caspian Tern. This observation represents the first inland record of this species in Massachusetts. (First ballot: Vote: 9-0)

Black-tailed Godwit (*Limosa limosa*), #06-17, July 17-29, 2006, Plum Island (Essex), Phil Brown† et al. Although no written report was submitted for this report, the bird was observed and photographed by many people during its two-week stay. The bird was suspected by some observers to be the nominate European race *L. l. limosa*, rather than the more expected Icelandic race, *L. l. islandica*. Because of the

difficulty in separating these races in the field, the racial identity of this bird is best left as indeterminate. This was the fourth record for Massachusetts. (First ballot: Vote: 9-0)

Red-necked Stint (*Calidris ruficollis*), #06-26, July 12, 2006, Dorchester (Suffolk), R. Donovan*. A stint in breeding plumage discovered along the Neponset River at high tide was never able to be relocated once the tide fell that day. (First ballot: Vote: 9-0)

Franklin's Gull (*Larus pipixcan*), #05-33, November 8-12, 2005, Turners Falls (Franklin), J. Smith†, S. Smolen-Morton* (First ballot: Vote: 9-0). #05-43, October 29, 2005, Rockport (A.P.) (Essex), Rick Heil* (First ballot: Vote: 9-0). #05-46, November 1, 2005, Ipswich (Essex), Rick Heil* (First ballot: Vote: 9-0). #05-54, November 26-December 13, 2005, Wellfleet (Barnstable), S. Jaffe, B. Nikula*†. (First ballot: Vote: 9-0). #06-03, May 23, 2006, Newburyport (Essex), Richard Veit* (First ballot: Vote: 9-0). Although a somewhat regular vagrant to Massachusetts, Franklin's Gulls typically appear only every few years; however, in the fall of 2005 there was a virtual irruption of this species. The MARC Tenth Annual Report included two Franklin's Gull reports for August, and in the months following there were an additional four individuals reported to the Committee, and another was reported in May of 2006. All of these individuals were sub-adults, in either first- or second-winter plumage. Of particular interest was the individual that spent a month at Turners Falls in Montague (Franklin), since inland reports in Massachusetts are notably rare.

California Gull (*Larus californicus*), #06-01, January 1, 2006, Nantucket (Nantucket), B. Harris*†. A California Gull in second-winter plumage was discovered at Miacomet Pond on Nantucket on New Years Day, exactly one year after a first-winter individual was discovered only three miles away in 2005. Prior to 2005 there were only two records of this species in Massachusetts. (First ballot: Vote: 9-0)

Bridled Tern (*Onychoprion anaethetus*), #05-39, June 11, 14, 2005, Marion (Plymouth), I. Nisbet*. Initially spotted flying low over Bird Island, occasionally being harassed by Common Terns, this bird briefly landed once on the island before flying south down Buzzards Bay. The same observer noted a Bridled Tern at precisely the same location almost exactly 10 years previously, on June 8, 1995. (First ballot: Vote: 8-1)

Sandwich Tern (*Thalasseus sandvicensis*), #06-07, June 12, 2006, South Monomoy (Barnstable), B. Harris†. #05-55, October 30, 2005, North Truro (Barnstable), David Spang*. (Second ballot: Vote: 8-1). Most reports of this species occur in the summer, so the individual observed in late October was exceptional. (First ballot: Vote: 9-0)

Long-tailed Jaeger (*Stercorarius longicaudus*), #06-24, August 8, 2006, Stellwagen Bank, D. Berard*. Well described and closely observed, the observer was fortunate to be able to view this bird in direct comparison with both Parasitic and Pomarine jaegers. (First ballot: Vote: 8-1)

Eurasian Collared-Dove (*Streptopelia decaocto*), #05-08, May 28, 2005, Ipswich (Essex), A. Richards*, J. Doppler*, et al. The Eurasian Collared-Dove made its way

to the United Stated via the Bahamas, where it was first introduced in the 1970s. Once the species arrived in Florida, it rapidly took hold and began to spread north. A first appearance has been expected in Massachusetts for a number of years, but prior to this report, previous sightings have never satisfactorily eliminated the very similar Ringed Turtle-Dove (*S. risoria*), a feral species of uncertain ancestry that is commonly kept in captivity. This report was troublesome to the Committee because the observers were unable to clearly see several important field marks, particularly the gray undertail coverts and dark at the bases of the outer rectrices. Fortunately, however, the dove vocalized, clearly giving "a three note call of coo-like notes. The first two notes were similar to each other and the third note was different and somewhat delayed." Several of the observers were familiar with this call from previous experience and at once recognized it for what it was. The vocalization information is what convinced the Committee of the correctness of the identification. This is a first state record. (Third ballot: Vote: 8-1)

White-winged Dove (*Zenaida asiatica*), #06-14, April 4-28, 2006, Manchester (Essex), T. Grady†. Feeder watchers in Manchester noticed two unusual-looking doves at their feeder in early April, but unfortunately did not report the birds until one was killed and the other bird had disappeared. Marginal digital photographs documented one of the birds, but because there were no written details, only the photographed bird was accepted. (First ballot: Vote: 9-0)

Black-chinned Hummingbird (*Archilochus alexandri*), #06-20, August 6, 2006, Brewster (Barnstable), S. Finnegan (banded)*†. This bird was fortuitously captured by a bird-bander, who immediately recognized it as a male Black-chinned Hummingbird. She was able to obtain detailed measurements as well as definitive photographs of the bird in the hand. Vagrant hummingbirds are typically discovered in late fall when they are reported coming to feeders, so this early August record makes it interesting to speculate upon how many may be overlooked each summer. This represents only the second record of this species in Massachusetts, the first being an individual discovered in a Cohasset greenhouse in November of 1979. (First ballot: Vote: 9-0)

Rufous Hummingbird (*Selasphorus rufus*), #06-27, October 28-December 30, 2006, Cotuit (Barnstable), T. Burgess*† S. Finnegan (banded) *†. (First ballot: Vote: 9-0). #06-28, October 15-November 16, 2006, Dennis (Barnstable), S. Finnegan (banded) *†. (First ballot: Vote: 9-0). #06-35, November 17, 2006, Cataumet (Barnstable), S. Finnegan (banded) *† (First ballot: Vote: 8-1). The fall of 2006 produced a flood of reports of vagrant hummingbirds, including records of no fewer than three Rufous Hummingbirds, all of which were banded, measured, and photographed.

Selasphorus Species, #06-19, April 22-27, 2006, North Orange (Franklin), Rachel Scherer*†. Selasphorus hummingbirds have become practically routine in the fall, but this male in practically adult plumage is only the second spring record of a noncaptive bird. (A Rufous Hummingbird spent several winters in a Northampton greenhouse with permission of MassWildlife; however its release in the spring constitutes a spring record of non-natural occurrence.) Photographs of the North Orange hummingbird suggested Rufous but could not positively eliminate Allen's Hummingbird (S. sasin). (First ballot: Vote: 9-0)

Gray Flycatcher (*Empidonax wrightii*), #06-36, November 5-6, 2006, Cambridge (Middlesex), J. Trimble*† et al. Fall *Empidonax* flycatchers often go unidentified unless they are captured and measured; however, Gray Flycatcher is readily identifiable in the field, not only by plumage, but also by its feeding behavior and distinctive downward tail pumping. Written documentation accompanied by numerous photographs made the identification of this individual unambiguous. Extraordinarily, a Least Flycatcher (*E. minimus*) frequenting the same area as the Gray Flycatcher caused considerable confusion for a number of observers until it was determined that two species were actually present. This is only the second state record for this species, the first being a bird collected in Littleton on October 31, 1969. (First ballot: Vote: 9-0)

Ash-throated Flycatcher (*Myiarchus cinerascens*), #05-37, November 6-14, 2005, Plum Island (Essex), P. Brown†, C. Marantz*. In the past decade this species has become almost annual in Massachusetts in fall. This individual was definitively photographed and described, clearly eliminating possible confusion with other *Myiarchus* flycatchers. (First ballot: Vote: 9-0)

Western Kingbird (*Tyrannus verticalis*), #06-13, June 14, 2006, Wellfleet (Barnstable), D. Berard*. Western Kingbird is not on the MARC review list, but it is extremely rare in spring, so the Committee reviewed this report. (First ballot: Vote: 9-0)

Gray Kingbird (*Tyrannus dominicensis*), #06-23, September 7-8, 2006, Aquinnah (Dukes), P. Gilmore*, L. McDowell†. The original observer had no experience with this species but readily identified it from his field guide. The following day he rediscovered it for additional observers who were able to obtain conclusive photos. Although this species is very rare north of South Carolina at any season, Gray Kingbirds occasionally stray northward in the fall and have been recorded at many locations north along the Atlantic coast to Massachusetts and have even been found in New Brunswick and Nova Scotia. This is only the fourth state record of this species, the last being almost exactly 18 years before on September 9, 1988, only a few miles away at Squibnocket. (First ballot: Vote: 9-0)

Bell's Vireo (*Vireo bellii*), #06-22, September 8, 2006, Manomet (Plymouth), T. Lloyd-Evans* et al.†. The first state record Bell's Vireo was banded at Manomet in late October of 2005 (MARC Report #10). Thus, the occurrence of the second state record less than a year later at precisely the same location is astonishing. (First ballot: Vote: 9-0)

Cave Swallow (*Petrochelidon fulva*), #05-44, November 11, 2005, Barnstable (Barnstable), Mary Keleher (First ballot: Vote: 9-0). #05-45, November 12, 2005, Acoaxet (Bristol), Mark Lynch and Sheila Carroll (First ballot: Vote: 9-0).#05-35, November 10-11, 2005, Lynn Beach (Essex), L. Pivacek, R. Stymeist (First ballot: Vote: 9-0). #05-36, November 21, 2005, Swampscott (Essex), L. Pivacek (First ballot: Vote: 9-0). #06-34, 11/18/06, Plum Island (Essex), Tim Spahr. (First ballot: Vote: 9-0). The first record of Cave Swallow in Massachusetts was in 2003. In 2005, only two

years later, there were multiple sightings of birds reported from coastal several locations. In 2006, however, only a single bird was reported.

Northern Wheatear (*Oenanthe oenanthe*), #06-05, May 30-31, 2006, Nantucket. (Nantucket), Edie Ray (First ballot: Vote: 9-0). #06-06, May 25, 2006, Dennis (Barnstable), C. Walz. (First ballot: Vote: 9-0). This species is a very rare and irregular fall visitor, with multiple birds occasionally appearing in some years; but spring records are even more unusual. Both of these spring reports pertained to birds that were discovered on outer beaches, a habitat in Massachusetts where these rare northern breeders are most often found.

Townsend's Solitaire (*Myadestes townsendi*), #05-50, November 5-December 18, 2005, North Truro (Barnstable), B. Nikula, P. Trull et al. (First ballot: Vote: 9-0). #05-51, December 27, 2005, Barnstable (Barnstable), M. Keleher et al. (First ballot: Vote: 8-1). The appearance of even a single Townsend's Solitaire in Massachusetts is always unexpected, but finding two together is unprecedented. Observers in Truro first finding the solitaires kept seeing a single bird appear repeatedly, assuming it was the same individual each time it was seen, until it called and a second bird joined it and both perched on utility wires only 20-25 feet apart! At least one of these two birds lingered until the Truro CBC on December 27. The same day, on the Mid-Cape CBC, a group of three observers discovered another solitaire in Barnstable.

Sage Thrasher (*Oreoscoptes montanus*), #05-49, November 6, 2005, Plum Island (Essex), T. Spahr*†, M. Durgin*. The observer who discovered this bird described catching sight of it from his car and immediately realized it was something different. Fortunately, he was able to readily relocate the bird as it foraged in a parking lot, where he was able to watch and videotape the bird for ten minutes. This is only the second state record for this western vagrant, the first also occurring at Plum Island on October 26, 1965. (First ballot: Vote: 9-0)

Black-throated Gray Warbler (*Dendroica nigrescens*), #06-33, November 19, 2006, Falmouth (Barnstable), John Liller*† et al. Brief but convincing details accompanied a photograph of this rare western warbler. (First ballot: Vote: 9-0)

Townsend's Warbler (*Dendroica townsendi*), #05-52, December 11-15, 2005, Marstons Mills (Barnstable), J. Hoye* et al. This bird was discovered among a remarkable flock of over-wintering warblers that included Orange-crowned, Yellow, Palm, and Black-and-white warblers, and American Redstart. (Second ballot: Vote: 8-1)

MacGillivray's Warbler (*Oporornis tolmiei*), #05-47, November 1, 2005, Ipswich (Essex), Rick Heil. There are only a dozen records of this warbler in Massachusetts, almost all of which appeared in late fall when Mourning Warblers have vacated the state, a clear reminder that any late fall *Oporornis* should be checked carefully for this species. (First ballot: Vote: 9-0)

Green-tailed Towhee (*Pipilo chlorurus*), #06-32, October 31-November 17, 2006, Plum Island (Essex), J. Standley (banded), D. Larson†. Although the Committee

received no written report of this bird, it was extensively photographed and the images have been catalogued. (First ballot: Vote: 9-0)

Golden-crowned Sparrow (*Zonotrichia atricapilla*), #06-02, April 26, 2006, Sturbridge (Worcester), R. Cormier, I. Lynch*, M. Lynch*, R.Merrill†, B. deGraaf†. This rare western vagrant was well photographed and described. (First ballot: Vote: 9-0)

Hoary Redpoll (*Carduelis hornemanni*), #04-39, March 12, 2004, Williamsburg (Hampshire) G. LeBaron*. Distinguishing between redpolls is notoriously difficult because of plumage similarities in Common and Hoary redpolls. This report, however, clearly described the pale, unstreaked rump and undertail coverts that are characteristic of this species, as well as the diminutive bill that is a hallmark of Hoary Redpoll. Not surprisingly, there was a major irruption of both species of redpoll in the winter of 2003-2004. (Third ballot: Vote: 9-0)

Not Accepted

Cackling Goose (*Branta hutchinsii*), #05-41, November 21, 2005, Winthrop (Suffolk). Although this bird was clearly a small goose, the description could not rule out one of the smaller forms of Canada Goose, such as *B. c. parvipes*. (Second ballot: Vote: 4-5)

White-tailed Hawk (Buteo albicaudatus), #06-04, April 22-24, 2006, Hadley (Hampshire). This much-photographed bird was clearly a White-tailed Hawk, but the Committee ultimately did not accept this record because of questions about its origin. This is generally a sedentary, non-migratory species, restricted in the United States to southern and coastal Texas, with no eastern records beyond coastal Louisiana. The bird was discovered in a field next to a facility where falcons were kept, although the falconer did not, in fact, possess a White-tailed Hawk, and other falconers consulted knew of no White-tailed Hawks being kept in captivity. The Committee's decision was complicated by the fact that on April 25 a White-tailed Hawk was observed near Baskin Ridge, New Jersey, and on April 27, another was seen at the Pilgrim Heights hawk watch in North Truro, Massachusetts. The Committee decided that although the facts of this sighting were extremely suggestive of wild origin, the sedentary nature of this species weighed too strongly against the possibility of a sudden irruption. While it is very rare to unknown in captivity, there are nonetheless people who illegally keep captive raptors, and the possibility of such a bird escaping or being released could not be ruled out. (First Ballot: Vote: 3-6).

Black Rail (*Laterallus jamaicensis*), #06-29, November 11, 2006, Nantucket (Nantucket). An all-dark rail flushed from the Quaise Marsh on Nantucket afforded the viewer too short a view to positively confirm all field marks, and the Committee felt that the description could not eliminate other species of rail. (First ballot: Vote: 0-9)

Baird's Sandpiper (*Calidris bairdii*), #06-10, May 18, 2006, Natick (Middlesex). This report was extremely suggestive of Baird's Sandpiper, but the description of a buffy breast and scaly back were not consistent with spring plumage. There is no

spring record for this species in Massachusetts, so the Committee took a conservative stance and did not accept the report. (Second ballot: Vote: 2-7)

California Gull (*Larus californicus*), #06-08, June 3, 2006, South Boston (Suffolk). This adult gull was seen in poor weather, making it impossible for the observer to note some key field marks, such as eye color and bill pattern. While the Committee believed that the bird might have been a California Gull, they also believed the report could not conclusively rule out other species. The late date for an adult bird was also troublesome to some members of the Committee. (Second ballot: Vote: 2-7)

Yellow-bellied Flycatcher (*Empidonax flaviventris*), #05-53, November 4, 2005, Brewster (Barnstable). An *Empidonax* flycatcher with a very green back and yellow belly was captured by a bander on November 4. The date was very suspect for Yellow-bellied Flycatcher, but the p10 to p5 measurements were inconsistent with the most likely candidate, one of the "Western" Flycatcher complex (Pacific-coast Flycatcher, *E. difficilis* and Cordilleran Flycatcher, *E. occidentalis*). Based on measurement, it was submitted to the MARC as Yellow-bellied, but experts agreed there were too many anomalies to make a definitive decision. (First ballot: Vote: 4-5)

Black-throated Gray Warbler (*Dendroica nigrescens*), #05-40, October 1, 2005, Chilmark (Dukes). Although the Committee felt the observer had likely seen a Black-throated Gray Warbler, the details were insufficient to rule out other species. (First ballot: Vote: 3-6)

For more information about the MARC, or to see copies of previous MARC reports, see http://Massbird.org/MARC/. Current members of the MARC are Dennis Abbott, David Clapp, Davis Finch, Richard Heil, Erik Nielsen, Blair Nikula, Robert Stymeist, Scott Surner, and Jeremiah Trimble (Chair). Marjorie Rines is Secretary.

- * Details submitted
- † Photographs submitted or obtained on the Internet

The author thanks Wayne Petersen and Jeremiah Trimble for editorial assistance.



GREEN-TAILED TOWHEE ON OCTOBER 31, 2006, BY DAVID LARSON

Nesting and Food-Caching by Sharp-Shinned Hawks in Ipswich

Jim Berry

In recent years I reported in this journal on five nests of Sharp-shinned Hawks, *Accipiter striatus*, in three locations in Essex County, Massachusetts, in the years 2000–2003 (Berry 2000, 2002, 2003). These were the first Sharpshin nests known from the county since 1896. All were in conifer stands in reasonably wild, protected places.

Another Sharpshin nest discovery, and the most surprising, came in 2006, when a pair nested in the woodlot beside my house in Ipswich. This episode began the previous fall, when David Flood, my neighbor across the road, a busy state highway, told me he thought a Sharpshin pair had nested near his house, which is surrounded by various conifers. He described these small hawks to me and said they had fledged two young, and that all four birds were unafraid of people and had even bathed in puddles with him sitting nearby. I was unaware of this and hadn't noticed the birds around that summer — surprising in retrospect because of their various nesting calls that I had heard many times before. I did, however, see a male Sharpshin harass two Pileated Woodpeckers in our yard on October 21, 2005, and wondered at the time why such a small hawk would chase birds too large to be prey. Through the ensuing winter of 2006 my wife and I frequently saw an adult male Sharpshin at our feeder. When I began seeing a pair acting territorial beside our house in March, I realized that the birds reported by our neighbor in 2005 were now holding territory on our side of the road — and in the case of the male at least, probably without having migrated. Territorial defense could provide an explanation for his concern about large woodpeckers in his domain, though these hawks will often harass birds larger than themselves. In any event, the woodpeckers did not stay around.

For my wife Natalie and me, the chronology of this amazing nest began on March 30, 2006, before most migrant Sharpshins had passed through this area. On that day I saw the pair copulate on a fallen branch very near our house and watched the female take sticks repeatedly to the same area within 150 feet of the highway. I soon located the nest, nearing completion even on this early date, about forty feet up in a young Norway spruce surrounded and soon to be overshadowed by deciduous trees — ash, maple, and black locust. Choosing such a tree was remarkable in itself, since Sharpshins normally prefer dense conifer stands, and there are many large white pines, spruces, and larches in the immediate area.

The chosen spruce was thin and no more than fifty feet high; the large stick nest, about two feet in diameter and typically huge for the size of the bird, was located just below the sparse crown on the north side of the trunk. It was also very close to our elderly neighbor's small house. The supporting branches were thin, and from the beginning the nest looked unstable as it angled down and away from the trunk. Yet it



Male Sharp-shinned Hawk on territory, Ipswich, 4/30/07. All photographs by Phil Brown.

withstood gales and rainstorms that seemed interminable that spring. The larger female appeared to do all the building, unlike the Willowdale State Forest pair a few years earlier (Berry 2003). Though spruce and pine twigs were commonly available, her preference seemed to be for live larch twigs, which I watched her break off several times. I do not know what she used for the nest lining. By April 3 she was shaping the interior of the nest to her body, and this went on for the next week.

By mid-April the female was standing on the nest a lot. On the seventeenth she began sitting, marking the commencement of incubation. Bildstein and Meyer (2000), authors of the *Birds of North America* account, write that Sharpshins, unlike many other raptors, delay incubation until the clutch is complete or nearly complete, in the manner of songbirds, so the standing could have meant she was simply protecting the early eggs, which are laid at two-day intervals, until she was ready to incubate. In keeping with Sharpshin etiquette, the female did all the incubating (per Erlich et al. 1988 and Bildstein and Meyer 2000, but *contra* Bent 1937 and Baicich and Harrison 1997).

The male did all the hunting but rarely brought food to the nest for her. Rather, he always called to her when he had caught a bird, a series of rapid, high-pitched *kee* syllables, usually twelve to sixteen at a time, the whole phrase repeated several times a minute. (Remarkably, these food calls are not mentioned in either Bent 1937 or Bildstein and Meyer 2000.) The calls were also my signal to get to the scope and watch the nest, and Nat would alert me whenever she heard them. If the incubating hawk needed food, she left the nest and took it from her mate, at least once in a midair handoff and probably routinely by that method, which I have often observed with nesting Sharpshins. She then ate it as fast as she could before hustling back to her duties on the nest. This usually took about ten minutes, probably the longest period of time she was ever off the nest during incubation.

But many times she did not leave the nest when her mate gave his food calls. He would keep calling, but if for whatever reason she did not need food, she remained silent on the nest. Finally, the male would either deliver the food to the nest (observed only once or twice) or give up calling. I assumed for a while that in such cases he would eat the prey item himself, but on June 2, during such an incidence, I hurried to the backyard opposite the spot he usually called from and saw something I have not found in the literature: **food-caching** by the male Sharpshin. When the female did not come to take the prey item, a songbird, he appeared to eat only the brain, after which he cached the bird in a thicket of dead larch branches fifteen to twenty feet off the ground. This was a Eureka moment: the female didn't need to fetch the food immediately if she knew where he cached it and could go get it anytime. And four

days later, on June 6, while Phil Brown and I were photographing the nest, she did exactly that. She left the nest as we were watching and returned within a minute with a food item, almost certainly a cached one because the male had not been giving food calls. She then began feeding the young, paying no attention to us.

(Note: I was not able to find food-caching in the literature for Sharp-shinned Hawks, but see Craig Jackson's field note in *Bird Observer*. These may be the first two documented incidences of this behavior.)

Meanwhile, I had seen the female Sharpshin moving a lot on the nest on May 26, perhaps because the eggs were hatching, though based on an April 17 incubation start and a known incubation period of thirty to thirty-five days, hatching should have occurred between May 17 and May 22. I first observed two nestlings being fed on May 27 when they would have been around a week old. By the twenty-ninth three

young were visible, and by June 5 four little bobbleheads could be seen, still downy and all appearing about the same size. The feeding method had not changed — the male still announced his food deliveries, the female went to him to get the food if she was ready for it, and then she took it to the nest and fed both herself and the young, eating proportionally more of the food herself when they were little, less of it when



Female and four young Sharp-shinned Hawks on nest, Ipswich, 6/6/07.

they were bigger. I timed two feedings on May 27, when the young were still small and the female had to tear the food up for them. Both lasted seventeen minutes. The young were fed several times a day, sometimes at sunset, though I can't say whether that frequency was maintained on rainy days when I made fewer observations. As stated, I rarely saw the male go to the nest, though he often perched nearby to watch over it.

All this took place despite constant noise from traffic, power tools, and nearby construction activity. Nor did these birds evince nervousness at people walking in the woods near the nest, which happened after our neighbor died and surveyors were hired by the heirs to reestablish the property boundaries. On May 24 a bulldozer actually cleared part of the land close to the nest tree for percolation tests. That evening the female was on the nest as if nothing had happened; it turned out that the young had probably hatched by that time, which would explain her refusal to abandon the nest. Until then I had been watching the nest through a scope from the edge of our front yard so as to keep well away from it, but from then on I was not hesitant to observe it from a closer vantage point by the road when foliage made it increasingly difficult to view from the yard. These hawks were amazingly tolerant of human activity — a good sign for the future of the species.

By the first of June the mother did not need to cover the young all the time and tended to stand on the side of the nest if the weather was fair. But most of May and

early June were rainy, setting records for rainfall in the entire Boston area and causing major floods. June 6, the day of the feeding incident mentioned earlier, was a nice day, but after two more days of rain on June 7 and 8, only a single chick was visible on the nest the morning of the ninth. The male had been a good provider, but apparently the sustained rain and cold had taken their toll. Perhaps the mother had been unable to keep them dry through the chilly nights, or maybe the surviving chick had succeeded in getting more than its share of the food, which in the end could have included its weakened siblings.

Whatever the case, only one of the young survived to fledging. By June 13 it was getting its wing quills and flapping them a lot. By June 22, when we returned from a week away, it was fully feathered except for remnant down on the forehead. Essex birder Phil Brown had been monitoring the nest for me but had not yet noticed the young branching out from it. It must have happened soon after, for on June 25 I saw



The one surviving juvenile Sharp-shinned Hawk shortly before fledging, 6/22/07.

the young bird flying and begging food from the adults. It had been on the nest the previous two evenings but could have branched and flown before the twenty-fifth, since young hawks often return to the nest to be fed for a week or two after fledging. As it was, if fledging took place on the 25th, the juvenile's age, based on the latest hatch date figured above (May 22), would have been at least thirty-four days. Most sources (e.g., Erlich et. al. 1988; Baicich and Harrison 1997) say that Sharpshins fledge at anywhere from

twenty-three to twenty-eight days of age. So something in my calculations would seem to be wrong, though I did see the female apparently begin incubation on April 17, and she was certainly feeding young before May 27 if I could see them on that date. It appears that either incubation or fledging took longer than the times commonly cited in the literature. The other possibility is that the bird fledged before June 25, and we simply missed it, though it couldn't have been much earlier.

We saw the family in flight over the next three weeks, more sporadically as the days went by. Typically the juvenile, now identifiable as a male by his small size, would be zooming around with the adults, begging for food and improving his flying skills. This took a while, because on July 3 Nat saw him crash-land in a tree while following one of the adults. That same day I watched the female land on a branch with a prey item and start to pluck it when the juvenile flew in, grabbed the bird, and took off with it. Both of them called often, the young higher-pitched than the mother (which would be right for a male) and a bit raspier than either adult. We never did see him receive food in a midair handoff, as has been widely reported for the young of this species (Bildstein and Meyer 2000), but that could have been due to our lack of continuous observation.

July 5 was Annoy the Sharpshins Day for the local Blue Jays, but of course they had been doing that right along. The hawks would chase the jays right back when they had had enough, and the juvenile seemed to be holding his own with them. We had few sightings after that as the young Sharpshin's skills no doubt improved and the birds expanded their hunting territory.

Other than the observed food-caching, perhaps the most noteworthy thing about this nesting event was its timing. Bildstein and Meyer (2000) describe the Sharpshinned Hawk as the "last accipiter to arrive on breeding range in temperate North America, in April and early May." No studies cited by them were in New England, but "In New Brunswick, eggs [are] laid mid-May; young fledged mid-July." Timing cited from other states was similar, even in the Carolinas, and in some states even later. The Ipswich birds were building the nest in March and had completed the clutch by mid-April, making the cycle about a *full month earlier* than what would be expected at this latitude. Fledging in late June was a month earlier than the fledging I observed at three other successful nests in the county described in my previous articles, from all of which the young fledged in late July.

The reason may be that this pair of Sharpshins wintered in or near the nesting territory and did not migrate. The evidence is circumstantial but strong: the very probable nesting by the same pair across the road the year before; the consequent apparently territorial nature of the male Sharpshin's interaction with the Pileated Woodpeckers that October; the presence of an adult male at our feeder through the following winter; the presence and mating of the pair in late March; and their completion of the new nest by the end of that month. For the pair to have migrated here and completed a nest by the time Sharpshin migration is just beginning in New England is unlikely. Several references suggest that not all Sharpshins are migratory, but the phenomenon seems poorly known. Alsop (2001) states that "Some migrate," while Kaufman (1996) says, "Some in the northwest may be permanent residents, but most are migratory." Bildstein and Meyer (2000) call the birds "partial" migrants but are vague on whether any are nonmigratory. Bent (1937), another comprehensive source, does not address the question.

In short, I am aware of no evidence other than that described in this article that New England Sharp-shinned Hawks are at least in some cases nonmigratory. Few of them nest in this area, and it seems safe to assume that virtually all wintering birds are from farther north. It is a question deserving more attention but difficult to answer short of tagging a lot of nesting birds, preferably those nesting near the coast.

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Jim Berry is writing a book on the birds of Essex County and in line with that effort is coordinating the fieldwork in the county for the second Massachusetts Breeding Bird Atlas project. Appreciation is expressed to Ted Davis for reviewing a draft of this article and to Phil Brown for assisting in monitoring the Sharpshin nest and for generously providing the photos that accompany this article.



SHARP-SHINNED HAWK BY BILL LAWLESS

The Purple Martins of Plum Island

Sue McGrath and Alison O'Hare

Introduction

The Purple Martin colony at the Parker River National Wildlife Refuge on Plum Island probably had its beginnings in the 1950s and became firmly established during the 1970s. Although monitoring was done in previous years, no one was performing that task in the spring of 2003. In April 2003, armed with enthusiasm and a willingness to help, the authors volunteered to improve productivity at what had become the last Essex County stronghold of the Purple Martin. Neither of us knew what to expect or how to approach caring for the colony. During that first season we mostly evicted House Sparrows and counted martin nests, eggs, and nestlings. Today, with knowledge gained from contacts with other martin landlords and from reading and experience, we're still at it. Our fifth season will be 2007. This paper shares what we've learned and offers an in-depth look at the martin colony on Plum Island.

Distribution, Migration, Habitat

Three subspecies of martin breed in the US: *subis*, east from the central plains states; *hesperia*, on the coast of the Pacific Northwest states; and *arboricola*, in portions of California, Arizona, and New Mexico. Martins winter in South America in lowlands east of the Andes from Venezuela to northern Bolivia and southeastern Brazil. Adult males arrive north before females and subadults. Early arrival maximizes a bird's chances of claiming the best nesting site at a former breeding spot. Martins, which are the earliest tropical-wintering migrants to return to their North American breeding grounds, usually arrive in Massachusetts during the second week of April and depart during the first week of September. They prefer open or semiopen areas near water and are locally common near salt marshes, coastal farmland, and golf courses (Brown 1997; Veit and Petersen 1993).

Feeding and Vocalization

Martins feed exclusively on flying insects: beetles, dragonflies, damselflies, grasshoppers, crickets, moths, butterflies, wasps, and bees. Contrary to popular opinion, mosquitoes compose no more than three percent of their diet. Martins are diurnal feeders and engage in prolonged forays at a flight level generally higher than that of other swallows, 150 to 400 feet, much higher than the low-flying nocturnal mosquito. Martins usually do not forage when the air temperature is below 48°F or when it is raining. It is estimated that sustained temperatures of at least 55°F are required for martins to survive. Eleven different vocalizations have been described for the Purple Martin. These can be separated into dawn song and daytime chatter. Dawn song, used only in the early hours of the day before sunrise, is primarily for courtship and mate attraction. It consists of a rich, low-pitched liquid gurgling followed by a guttural warble. Daytime chatter, used during daylight hours, consists of a variety of calls and songs in communication between adult and young, in territorial defense, and in alarm situations (Brown 1997).

Breeding Behavior & Nestling Development

Males are aggressive while establishing their territory, which usually consists of the area surrounding their nest box compartment entrance. A pair bond forms soon after the female selects a male and his nest box. Martins are usually monogamous. Occasionally, a male will display polygyny by mating with two or more females. Purple Martins are the only colonially nesting secondary-cavity nesters in North



T14 and T18 Purple Martin nest boxes at Parking Lot #1 on the Parker River National Wildlife Refuge. All photographs by Alison O'Hare.

America. Lacking the equipment to hollow out a cavity, they nest in preexisting cavities. In the western United States, martins use rock crevices, natural tree holes, and abandoned woodpecker holes. In the Southwest, they find holes in saguaro cacti. In the Midwest and eastern United States they rely almost exclusively on humans to provide structures for nesting. Typically, these are multiroomed wooden or aluminum boxes mounted on poles fifteen to twenty feet above the ground. In times past, Native Americans customarily attracted martins by hanging hollowed-out gourds. Today, martins still nest in gourds provided by martin

landlords; these may be plastic gourds hung in a cluster.

After their first winter in South America, martins return to their natal site every year. Subadults, first-time adult breeders, and those that failed to reproduce during the previous year may establish new colonies, often located one-half to one mile from an existing colony.

In the compartments, martins build cup nests of grasses, twigs, and pine straw. They line the nests with fresh green leaves, which may act as an insecticide to deter mites or serve to cool the nest by evaporation. The nest usually slopes toward the back corner of the compartment. Mud may be used to line the walls or the inside of the entrance. Both male and female martins participate in nest building, which usually takes three to four weeks.

Clutch size, which averages four to five eggs, may range from two to seven. Most martins raise a single brood, although they may lay a replacement clutch if eggs or young are destroyed. Incubation lasts for fifteen to eighteen days. Fledging occurs after twenty-seven to thirty days. During the nestling phase, chicks grow rapidly (see sidebar).

Conservation

Purple Martins face a number of challenges: the hazards of migration; competition for nest cavities from House Sparrows and European Starlings; predation by owls, raccoons, snakes, weasels, and squirrels; infestation with ectoparasites such as mites, the protozoan *Haemoproteus*, or blowflies; pesticide use at their South

Developmental Changes Observed at the Plum Island Martin Colony

- Pipping egg: Hatchling's bill, with egg tooth at its tip, breaks through the shell, usually along the midline.
- Day 1: Chicks are tiny, pink, and naked. They are about one inch long and weigh about three grams (the weight of a penny!). Their eyes are closed, and they can barely raise their heads. Chicks rest on their bellies with their heads and necks in the same general position as in the egg.
- Day 2: Chicks have more than doubled their hatching weight.
- Day 3: Chicks weigh an average of ten grams. The yolk sac, seen as a chick's large, transparent belly, still provides nutrition.
- Day 6: Feather tracks begin to appear as dark blotches under the skin on the head, back, and wings. Chicks can hold their heads up and right themselves if turned on their backs, and their eyes begin to open more each day. The average weight is about twenty grams.
- Day 7: Pinfeathers appear on the trailing edge of the wings.
- Day 8: Chicks appear mostly gray with pinfeathers on the tail and weigh about thirty grams.
- Day10: Eyes are fully open. The outer primary feathers begin to burst their sheaths, down begins to cover the body, and the weight is up to about forty grams.
- Day 12: Most of the body is covered with down, and chicks orient themselves toward the nest entrance.
- Day 13: Weight is about fifty grams.
- Day 14: Tips of wing feathers protrude more than an inch beyond their sheaths. Pinfeathers are still visible on the back. Chicks huddle at the back corner of the nest compartment in response to a parental alarm call or an intruder.
- Day 15: White feathers on the upper middle of the back are obvious.
- Day 17: Most feathers have emerged from their sheaths. White powder, a dust from breaking feather sheaths, covers the back
- Days 18, 19: A maximum weight of sixty grams is reached by this time.
- Day 20: All chicks have a gray collar, regardless of sex.
- Day 21: Wing feathers now extend to the base of the tail.
- Days 22–26: Chicks begin to lose weight. Wings cover the white feathers on the upper middle of the back and extend to the middle of the tail.
- Days 27, 28: Wings extend to the tip of the tail or beyond. The average weight is about fifty grams. Chicks are ready to fledge.
- After they have fledged, young will often roost in a nest box at night (Baicich and Harrison 1997; Ehrlich 1988; Harrison 1975; Stokes and Stokes 1989; Stokes, Stokes and Brown 1997).

American wintering grounds; and weather. In the United States, logging practices that drastically reduce the availability of natural nest sites have affected western montane populations. In the eastern United States, loss of habitat appears not to be an issue, and, in general, martins benefit from a close association with people.

The Purple Martin Conservation Association, founded in 1987, is based in Erie, Pennsylvania. It is an international, nonprofit organization dedicated to the scientific study of Purple Martins, their biology, and their habitat requirements. The PMCA is trying to locate and monitor all active breeding colonies and to collect and analyze data on a large-scale, long-term basis. The efforts of PMCA have shown that proper management practices, including larger nesting compartments, protection from predators, control of nonnative species, and regular monitoring of nest boxes can increase the number of young fledged per nesting attempt. Both authors of this article are members of PMCA.

Historical Status of the Purple Martin in New England, Eastern Massachusetts, and Essex County

The history of the Purple Martin clearly shows that its nesting and feeding behaviors make it uniquely susceptible to the effects of weather. In fact, adverse weather accounts for the loss of more Purple Martins than all other sources of mortality combined.

In precolonial times, the Purple Martin was abundant if always local in New England. As quoted by Brewster (1906), Nuttall wrote in 1832, "a few years ago, after a rainy midsummer, many were found dead in their boxes." According to Forbush (1929), in the early 1860s a Professor John Russell of Salem, Massachusetts, reported that the Purple Martin was very rare in that vicinity, following a "cold rain-storm that killed them by scores." In 1883, Samuels described the martin as the least abundant of New England's swallows, quite rare in some localities, and distributed in single pairs through all New England. Writing in 1901, Howe and Allen listed the Purple Martin as "an uncommon and local summer resident: formerly much more common" in Massachusetts, and a "common summer visitant" in Essex County.

Then in June 1903 severe and prolonged cold rains caused most martins in eastern Massachusetts and other parts of New England to succumb to starvation and exposure. Townsend (1905) wrote, "Up to two or three years ago they bred in Georgetown, Peabody, Lynnfield, Salem, and Beverly, but in the prolonged wet storm of June, 1903, they were practically all exterminated." He wrote later (1920), "This beautiful, useful and interesting bird is now rarely seen in Essex County. A martinhouse erected for their special use at my place in Ipswich, has never been even inspected by this bird as far as I know." Brewster (1906) described the 1903 weather event as "a calamity, similar to that chronicled by Nuttall, but apparently even more widespread and disastrous." Forbush (1929) wrote: "Practically all of the young of the purple martin died, while in a large section of the State from Buzzard's Bay to the New Hampshire line most of the adult birds seem to have perished We have not a single report of a living martin in Middlesex or Essex County after June 25." As a result of the storms of June 1903, martins were nearly extirpated in Massachusetts. In

1906, Brewster wrote that martins bred "regularly and in some numbers near the town centers of Medford, Watertown and Waltham." He spoke of a large and flourishing colony not far from the Lexington Common. He stated, however, that martins had been steadily decreasing in number for twenty years or more throughout most of southern New England. Forbush (1907) encouraged that "every effort should be made to induce these birds to again take up their abode throughout the state."

In 1909, Allen listed the status of Purple Martins in New England as follows:

Maine, Vermont, Massachusetts – Till recently a common local summer resident.

New Hampshire – Local summer resident north to White Mt. valleys, now uncommon.

Rhode Island – Uncommon migrant and summer resident, formerly more common.

Connecticut – Uncommon migrant and local summer resident, formerly more

Conditions and losses similar to those of 1903 occurred in late June and July of 1914. By 1929, Forbush described the martin's distribution in New England as "uncommon, rare or wanting."

Bailey (1955) states that after the losses of 1903, martins were recorded only irregularly in the state during the next forty years. In May 1945, birds were reported in thirteen locations. New nesting sites were found in Plymouth County. An early spring report came from Plum Island on April 2, 1950. Two hundred birds were reported at Falmouth in May 1951. Griscom, as quoted by Clapp (1983), described the martin as a rare transient on Plum Island and cited six records there through the early 1950s. Although in 1955 Griscom and Snyder stated that the martin had never recovered to its pre-1903 abundance, they did note a "small yearly increase." A slow recovery was underway.

A large die-off occurred in late June 1972 when Hurricane Agnes stalled over the eastern seaboard and produced days of torrential rains. Populations from Virginia to Massachusetts and west to the Great Lakes were wiped out. Between ninety and one hundred percent of nestlings and thousands of adults perished. Birds were absent from some of these areas for up to ten years afterward.

By 1993, Veit and Petersen wrote in *Birds of Massachusetts* that Purple Martins were established in two major areas in Massachusetts, Plymouth County and the Parker River National Wildlife Refuge. During the '50s, '60s, and '70s, martins colonized sites in interior Plymouth County, most notably in Middleboro and South Carver. In 1955 on the North Shore a single nest box at the Parker River National Wildlife Refuge on Plum Island was the site of a first local nesting record. Additional boxes were provided there in the mid-'60s and '70s. The coastal colony on Plum Island has been successful since the 1970s. In 1996, a colony was started in Marshfield at the Daniel Webster Wildlife Sanctuary (Clapp 1998; Petersen and Merservey 2003).

Although small increases have been reported, weather continues to wreak havoc on the Purple Martin in New England. Mid-summer cold and rain were responsible for the loss of many nestlings during 2004 and 2005. Forbush (1904) wrote of the June 1903 storm that "One could sail a boat over the meadows along the Ipswich River," a report that could easily have been written of the extremely wet spring of 2006. Returning adult and subadult birds faced hardship at that time. Fortunately, the severity of loss experienced at the beginning of the twentieth century was not repeated at the beginning of the twenty-first.

In spite of this difficult history, over the last three seasons, numerous martins have fledged from the Plum Island colony. Birds have returned and nested in subsequent seasons. The slow recovery is continuing.

Methods and Materials

Nesting units are located on the PRNWR at Parking Lot #1 and at the Refuge's Old Headquarters at the north end of Plum Island. They are set in place in mid-April and remain up through early September. Each unit is mounted on a pole approximately twenty feet high and is equipped with a pulley and crank system to permit it to be lowered for monitoring.

Two types of units are used: wooden houses and plastic gourds. Each is given a unique identifying code to indicate its location and type. Although martins at other colonies utilize gourds, they have not been popular at the Refuge. Based on recommendations from two experienced martin landlords, a cluster of twenty-four gourds was hung at Old Headquarters in 2004. Although the support structure proved to be a popular perch for the martins, none nested in the gourds the first year. In 2005, a single gourd was used and successfully fledged three young. In 2006, no gourds were used. The martins of the PRNWR have traditionally preferred wooden houses over aluminum ones. The reason they select the wooden housing is unclear. It may be fidelity to the natal site or the placement of the houses relative to sun or wind. From a management viewpoint, gourds are easier to monitor and require less maintenance. It is interesting that the gourd used in 2005 was considerably cleaner at the end of the season than any of the compartments in the wooden houses. The total number of compartments available has varied in recent years (see Table 1).



Typical martin nest made of dried grasses and lined with green leaves

Nest monitoring and data collection begin each spring, soon after the first martin returns to the Refuge. All units are checked every five to ten days from the end of April to about the end of August, usually in the evening between 5:30 and 8:00. Adult and subadult birds do not appear to be disturbed by this activity. They remain at a distance, flying over the area, their musical chortle a defining sound of spring and summer evenings. Each unit is lowered, and the compartments are opened and inspected. Nests of

Table 1. Results of Monitoring the Purple Martin Colony on Plum Island

		2004	2005	2006
Compartments available		116	108	104
Nests with eggs		45	38	21
Total eggs	(E)	225	179	96
Eggs hatched	(H)	163	101	71
Young fledged	(F)	61	50	71
Percent hatched	(H/E)	72	56	74
Percent fledged	(F/H)	37	50	100
Percent overall success	(F/E)	27	28	74
Non-PUMA nests remov	/ed	218	173	109

House Sparrows, European Starlings, or squirrels, as well as any expired martin adults or young, are removed and discarded.

Martin eggs are allowed to remain in the nest for at least seven days beyond the projected hatch date, after which they are removed and discarded. If a unit has no martin activity after several weeks, the entrance is plugged to discourage sparrows and starlings from taking over a site where martins could nest in a future season. A record is kept for each compartment, and an entry is made each time it is checked. The record for an individual compartment could have as many as fifteen to twenty entries by the end of the season.

For each compartment with a nest, the following information is entered onto the record:

- 1) Date of completed clutch. A clutch is considered complete when two consecutive nest checks result in the same number of eggs counted.
- 2) Date eggs were laid. Martins lay one egg per day around sunrise. Once the clutch is complete, we can determine the latest possible day the first egg was laid simply by counting the eggs. The earliest possible date of the first egg would be the day following the previous count.
- 3) Projected hatch date. The incubation period for Purple Martins is usually fifteen to eighteen days. We estimate an approximate hatch date by adding a sum of days equal to fifteen plus one less than the number of eggs in the clutch to the date the first egg was laid.
- 4) Actual hatch date. Once the nestlings hatch, a set of standard photographic reference cards available from the Purple Martin Conservation Association is used to age the oldest nestling and determine its actual hatch date.
- 5) Earliest possible fledge date. This date is determined by adding twenty-six days to the assumed hatch date.
- 6) Dates to band. Prior to ten days of age, a nestling's legs are too short and too fat to accommodate a band without pinching. After twenty-four days of

age, removal of nestlings from the nest compartment risks premature fledging. The actual hatch dates and earliest possible fledge dates are used to determine the window of time when nestlings can be safely banded, between twelve and twenty days of age.

Nestlings are banded according to the protocols and technique used at the banding station operated by Massachusetts Audubon Society's Joppa Flats Education Center. This is located on the Parker River Refuge. All banding records are submitted to the Bird Banding Laboratory in Laurel, Maryland. Unlike nest monitoring, banding is done during the morning hours, usually beginning at 8:00. In preparation for banding, nestlings from an individual compartment are removed and placed in a holding container. The container is an open bucket that is too deep for escape and guards against the risk of premature fledging. For comfort, it is lined with dried pine needles.

One by one, nestlings are removed from the container, examined, and banded. Each bird is banded with a size 1A or 2 standard aluminum USGS band on its right leg.

In addition, nestlings from the 2004 season received a red plastic band on the left leg. For the 2005 season blue bands were used, and green bands were applied in 2006.

Any visible parasites, such as blowfly larvae, are removed during the banding process. After the nestlings are banded, they are returned to the holding container. Their nests are replaced with a layer of fresh, dry pine needles; dry grass clippings; or cedar shavings, and the nestlings are returned to their compartment.

7) Successful fledging. Lacking any signs of predation, young gone from the nest between the date of banding and the projected fledge date are considered to have fledged (Hill 1989, 1992, 1994, 1997, 2002; Kostka 1999; Pyle 1997).







Purple Martin chick at 15 days old

Data Summary and Discussion

Results from three seasons of monitoring are shown in Table 1. In comparison to a fourteen-year study (1984–1997), which followed more than 2000 nests at sites in Pennsylvania, Ohio, and New York, our data are scanty. In the larger study, eggs had a hatch rate of seventy-five percent, and fifty-three percent of the eggs resulted in fledged young. At the Plum Island colony, the hatch rate was sixty-seven percent, with twenty-six percent of eggs resulting in fledged young. The Plum Island results should be interpreted with caution; they cover only three seasons, each of which was marked by weather extremes.

It is clear that weather continues to be a major challenge for the Purple Martins of Plum Island. Adverse conditions during nestling development resulted in the low overall success rates for 2004 and 2005. Although inclement weather challenged the adult and subadult birds early in the 2006 season, it was followed by favorable conditions during nestling development. This contributed to the overall success rate of seventy-four percent for 2006. If this productivity is looked at as the ratio of hatched eggs to fledged young, it was 1:1. In other words, if it hatched in 2006, it fledged!

Conclusion

During our work with the martins, we have seen the challenges they face. We have seen them build nests, counted their eggs, and seen them hatch. We have seen their young grow from helpless chicks into sometimes-feisty nestlings, held them to band, and watched them after they fledged. We have seen them return to their natal site. At the end of each season we always wish that we had spent more time just watching and enjoying them.

Our intention in writing this paper is to share with you what we have learned about a species that is often overlooked. When you visit Plum Island during future nesting seasons, we ask that you pause after passing through the gate to the Refuge. Take a closer look at these birds. Can you find a martin with a silver band? Does it also sport a color band? These birds have traveled far. They belong to all of us, and they belong to none of us. Let's hope that they will continue to return to Plum Island for many seasons.



Banded as a chick in 2004, this was the first banded martin seen in 2005.

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FROM MASSWILDLIFE: BEARS AND BIRDFEEDERS

To avoid possible seasonal conflicts between people and bears in central and western Massachusetts, MassWildlife recommends that bird feeders be taken down by mid-March and that other preventive actions be taken. "There is little in the way of natural foods and bears learn to seek out high-energy human foods such as bird seed," says Jim Cardoza, MassWildlife Bear Project Leader. "This may lead to conflicts that pose hazards to both bears and people." Though Massachusetts is the third most densely populated state in the country, it is also home to approximately 2000 resident bears, with the majority living west of the Connecticut River. Bears also reside as far east as Worcester County and northern Middlesex County.

Bears have excellent long-term memories and remember which foods are available at different seasons and where these foods can be found. Even if a feeder is inaccessible to bears, they will be attracted by the scent of seed and suet, and they will scavenge seed spilled on the ground. Once they learn the location of these foods, they will return. Bears are typically shy and fearful of people, but deliberate feeding or indirect availability of human food, coupled with a lack of harassment, can cause bears to become accustomed to people. If bears lose their fear of people and develop a taste for human foodstuffs, bears can become bolder and may cause damage that ultimately leads to harm to people or to the demise of the animal.

If a bear is passing through a neighborhood without stopping, enjoy the sight. However, if the bear stops to feed on trash, bird seed, or other human generated foods, remove those foods after the bear has left and advise all neighbors to do the same. Due to their fear of people, bears tend to leave a yard when people step outside. Garbage and pet food must be secured from bears. Keep garbage in airtight containers, securely stored in a cellar, garage, or shed. Put trash out for roadside pickup the day of trash pickup, not the night before. Keep trash cans clean and wash them regularly to remove food scraps and fluids. Bears can break into small sheds with loose doors, especially when attracted by sweet or meaty smells. Ammonia or bleach may help deodorize trash containers. Refrain from feeding pets outdoors. Do not deposit sweet or meaty items in your compost pile since bears will soon find it. In residential areas where bears are known to be present, the entire neighborhood must take recommended actions or bears will move from yard to yard seeking food. Cardoza noted these actions also reduce problems with other common wildlife species such as coyotes, raccoons, skunks, and foxes. For more detailed black bear information, click the Wildlife button on the MassWildlife website (www.mass.gov/masswildlife).

FIELD NOTES

Commensal Foraging of Brown Pelicans and Egrets with Double-crested Cormorants and White Ibises

William E. Davis, Jr.

Mutualistic foraging, where several individuals forage together and take advantage of prey scared into motion by the others, is common in wading birds such as herons, ibises, and Wood Storks. In some situations one bird will function as a "Beater," with one or more birds following and taking prey scared into motion by it (Davis 2000, 2003). Mergansers and cormorants are commonly followed by wading birds (Christman 1957), and Brown Pelicans have been recorded following cormorants, Wood Storks (Rodgers 1978), and even Pied-billed Grebe (Davis 2003). The Brown Pelican "regularly exploits feeding activities of other species to access prey" (Shields 2002).

On the morning of 20 February 2007, at the west impoundment at J. N. "Ding" Darling National Wildlife Sanctuary, at Sanibel Island, Florida, I observed a Snowy Egret and a Reddish Egret foraging in shallow water with four White Ibises. The egrets walked among the ibises and attacked fish the ibises presumably had disturbed. The Reddish Egret was not following its usual highly active foraging style, but instead walked slowly among the ibises, turning side to side. It captured at least six two-inch fish during the three minutes that I watched it. There was a clear "beater" effect with the ibises probing the muddy substrate and taking mostly polychaete worms, while the egrets captured fish.

I later observed five Double-crested Cormorants actively foraging in a tide rip where a narrow channel emptied into a large pool. An adult Brown Pelican walked at the pool edge and made a series of short flights to reach the cormorants about fifty feet away. The same Reddish Egret I had watched earlier also flew in to join the cormorants and began foraging. During the following ten minutes the cormorants swam and foraged actively, churning up the water, and the pelican made a half dozen bill-thrusts into the pool and filled its pouch with water, presumably capturing small fish. The Reddish Egret foraged at the pool's edge in shallow water, staying close to the cormorants. There appeared to be a beater effect, but the egret and pelican may have joined in simply because the presence of the cormorants, which also are pisciverous, signaled a concentration of prey. The cormorants then swam further out into the pool and down a channel, followed by the pelican for about 150 feet. An immature Brown Pelican also flew in and joined the adult foraging behind the cormorants. The immature pelican joining the adult suggests the possibility that the use of "beaters" may be culturally transmitted and that the behavior may have a strong learning component.

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An In-vent-ive Roost

J. Thomas Brownrigg

On December 27, 2006, at 4:10 p.m., I was looking out our sun room window and noticed a Carolina Wren fly toward a rectangular vent located on the outside of our house. The vent connects to the range hood in our kitchen. About ten seconds later, I saw a second wren fly to the same spot. I noticed two bird tails poking out of the vent. The next day, at about the same time, the birds again went back to the vent, and I took some photographs.

We have since noticed that the wrens, a resident pair, use the vent as a roost every night. They usually go into the vent around dusk and leave before dawn the following morning. The vent is ten inches wide, three inches high, two inches deep, and located about five feet above our deck. Warm air from the kitchen passes out through the vent, making it a warm, safe place for the birds to spend a cold night.





WRENS IN THE HOOD VENT BY J. THOMAS BROWNRIGG

BIRDING AT THE PRUDENTIAL CENTER

by Henry T. Wiggin, Brookline

On January 25, 2007 the Massachusetts birding community lost a longtime friend and stalwart supporter, Henry T. Wiggin of Brookline. I first met Henry on a Mass Audubon Cape Cod campout in 1958, where I also first made the personal acquaintance of three of Henry's closest friends and regular birding associates, Ruth P. Emery and Arthur and Margaret Argue. In his inimitable style, Henry was wearing his kaki "bill cap" with an oversized visor, a useful field mark for all who knew him. An avid Boston Red Sox fan, a charming smile and a salty vocabulary always punctuated his conversation whenever I encountered him in the field in the years that followed. Ever sharp-eared, Henry was at his best in the dense hemlock forests of popular birding venues such as Crooked Pond in Boxford.

A member of the Nuttall Ornithological Club since 1959, Henry dutifully served that organization as a trustee for more than 30 years and as treasurer from 1971-1976. He was an ardent conservationist and a member of the Brookline Conservation Commission for many years, and I vividly recall many a letter in Massachusetts Wildlife magazine bearing his name through the decades.

One of Henry Wiggin's most poignant commentaries appeared in an article he published in Bird Observer in 1974 on birding at the Boston Prudential Center. Henry's account of the demise of migratory birds striking the Prudential Center in the early 1970s was a sad precursor to future events, as noted below by the journal's current editor, Paul Fitzgerald.

Wayne Petersen

In Vol. 2, No. 5, Bird Observer published Henry Wiggin's account of birding at the Prudential Center from 1967 to 1974. The account documents the appalling toll taken on birds from collisions with the glass windows of this single structure.

Henry's observations proved prophetic: avian mortality from collisions with windows and other structures, such as communications towers, is now a conservation issue of great and growing concern. Extrapolating Henry's findings at the Pru to every tall structure, every plate glass window in North America, suggests a death toll of inconceivable proportions. Indeed, some authorities estimate the annual loss from collisions with manmade structures in North America to be as high as a billion birds.

In April, 2006, Bird Observer published a feature on the subject of bird collisions with glass by one of the world's authorities and activists in this field, Dr. Daniel Klem of Muhlenberg College, in Allentown, PA. In his paper, Dr. Klem cited Henry Wiggin's Prudential observations, made thirty years earlier.

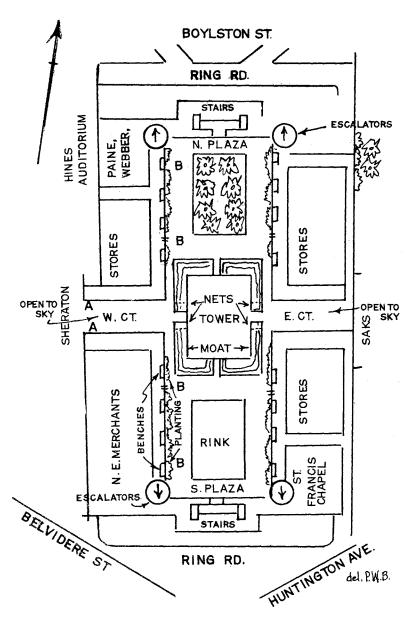
Perhaps the most fitting tribute we can pay to Henry Wiggin and his life in birding is to reprint the 1974 article in its entirety.

Paul Fitzgerald, Editor

If a birder were to bird only the Prudential Center, he might come to some weird conclusions. Based on his observations there, he would think

- 1) White-throated Sparrows are by far the most abundant species in this part of the state, in numbers equal to or exceeding all the other species combined.
- 2) The Sparrow-Finch family (Fringillids) far outnumbers all other families put together, by a factor of 7.
- 3) Alas, the poor Robin, it must have gone the way of the Labrador Duck!!

 Although thrushes are the third most prevalent family at the Pru (after



A — Used to be excellent, poor since addition to hotel. Prior to 1974 I would free anywhere from one to thirty birds daily during migration season. The birds would come down the opening at West Court and then bang against the glass. They seemed unable to figure out that if they flew straight up they could escape.

B — The westerly side: by far, more birds on this side than on the easterly side.

- Fringillids and Wood Warblers), there has <u>NEVER</u> been a Robin record from there.
- 4) The swallows too have vanished, like the Carolina Parakeet. There are no swallow records from the Pru.
- 5) The Short-billed Marsh Wren is a fairly regular migrant, with four positive identifications in the last years.
- 6) Lincoln's Sparrow is a regular, <u>EASILY SEEN</u> migrant in both spring and fall. A steady Pru observer should see at least three or four Lincoln's Sparrows annually, and he will have an excellent look at them. On May 4,1968, 18 dead Lincoln's Sparrows were picked up at the Pru after a thick fog. I saw 5 on May 12, 1970. Most of them were exhausted two in my hands at once and another only two feet away! On May 25, 1971, there were 6 live and 3 dead individuals of this species.
- 7) The Orange-crowned Warbler is a regular fall visitor (8 individuals in 7 autumns).
- 8) Migrating birds are relatively easy to pick up in one's hands, although the White-crowned Sparrow must be handled cautiously it bites!
- 9) On migration, birds alight with complete disregard for normal habitat preferences; and not one in a hundred ever sings.

NUMBERS AT THE PRUDENTIAL CENTER: SEPTEMBER 1967—MAY 1974 Species: 67 species have been picked up dead, plus 2 additional subspecies.

91 species have been seen alive, plus 2 additional subspecies.

Individuals: (per cents within each category are rounded off, and values less than 0.5% are omitted)

Species or Family		<u>Dead</u>		<u>Live</u>
	<u>Number</u>	% of Total	<u>Number</u>	% of Total
Black Duck			1	
Hawks			18	
American Woodcock	10		1	
Mourning Dove	1			
Goatsuckers/Swifts	3		7	
Ruby-throated Hummingbird	5		1	
Woodpeckers	3		2	
Flycatchers	1		4	
Jays/Crows/Titmice			9	
Nuthatches/Creepers	18	1	7	
Wrens	3		10	
Mimic Thrushes	20	1	41	1
Kinglets/Gnatcatchers	18	1	30	1
Pipits			3	
Thrushes	78	3	92	2
Starlings				2
Vireos		3		4
Wood Warblers	450	18	351	8

House Sparrows		10
Blackbirds/Orioles	1	2
Scarlet Tanager	1	3
Sparrows/Finches	<u>1898</u> <u>76</u>	<u>4084</u> <u>87</u>
Totals	2513 100	4682 100

MEMORABLE DAYS AT THE PRUDENTIAL CENTER:

- September 11, 1967: My first day of birding there, my office having moved from downtown Boston to the Prudential's 45th floor the day before. On my lunch period, as I was walking to one of the stores, there at my feet, inside the glass, on the concrete, hopped a Long-billed Marsh Wren.
- October 2, 1967: 31 individuals of 11 species dead; 33 birds of 14 species live, including (Bicknell's) Gray-cheeked Thrush and a Black-headed Grosbeak. All birds were only a few feet away, which is the rule rather than the exception at the Prudential.
- October 5, 1967: Bennett Keenan saw a Cooper's Hawk chase a Rufous-sided Towhee. I missed that, but did see our first Short-billed Marsh Wren. Ben went to the Massachusetts Audubon's Boston office (they had one in those days) and brought Ruth Emery back. The power mowers were in operation by then, but the wren continued to hop around within three feet or all who were interested. The 17 species at the Pru that day also included a Yellow-throated Vireo, an Orange-crowned Warbler, and a Lincoln's Sparrow.
- October 13, 1961: Over 200 dead birds (70% White-throated Sparrows and 30% Dark-eyed Juncos), plus an Orange-crowned Warbler, exhausted but alive.
- December 4, 1967: A Peregrine Falcon zoomed past my 45th floor office. (Peregrines were also seen December 8, 1968, September 29, 1969, November 17, 1970, October 4, 1972, October 17, 1972 and April 13, 1973.)
- December 26, 1967: A Rough-legged Hawk circled around.
- May 4, 1968: Approximately 700 dead birds of 2l species, including 40 Swamp Sparrows, 18 Lincoln's Sparrows, 3 Whip-poor-wills and l Least Flycatcher (the only record for that species).
- May 10, 1968: A White-eyed Vireo was singly loudly in the flowering shrub in front of the office of Paine, Webber, Jackson and Curtis.
- October 17, 1968: Bennett Keenan, Herbert Pratt and I finally saw well a Seaside Sparrow after 30 minutes of chasing it. The bird would hide in the pachysandra, not fly until it was almost stepped on, then take off and fly 50 feet or so, dropping again, as if shot, into another pile of pachysandra.
- October 23, 1968: Another Short-billed Marsh Wren, so close that one's binoculars couldn't focus on it.
- April 29, 1969: A Merlin was trapped between the storefronts and the glass. It zoomed around madly, startling more than one early arriver at the Pru, before one of the maintenance men put thick gloves on and caught it. Another flung the door open, and the hawk was thrown out the door. He flew off to wild cheers by one and all.
- September 18, 1969: A Water Pipit flew overhead, calling.
- September 22, 1969: Keenan found 3 dead Ruby-throated Hummingbirds, that had flown into the glass all within a foot of each other.

- September 29, 1969: Highlights included a Winter Wren, a Red Bat, and a Peregrine Falcon.
- October 8, 1969: Short-billed Marsh Wren number 3.
- October 22, 1969: 280 dead birds of 25 species, including a Woodcock, a Grasshopper Sparrow, 9 White-crowned Sparrows, 2 Lincoln's Sparrows, and 3 Yellowbreasted Chats. Around 300 birds of 11 species alive.
- November 14, 1969: 134 dead Fox Sparrows at the Pru, and 46 dead birds of other species, including 25 Tree Sparrows and 2 Woodcocks.
- November 26, 1969: 7 Red Crossbills flew by the 49th floor dining room at the Merchants.
- May 29, 1970: The only Common Crow ever seen at the Pru flew by.
- September 15, 1970: 63 individuals dead of 14 species, including 17 Northern Waterthrushes and a Mourning Warbler. Alive were 42 individuals of 8 species, including 15 Northern Waterthrushes, 15 American Redstarts and a Winter Wren.
- October 1, 1970: One of the maintenance men rescued a Common Nighthawk that was drowning in the moat. He didn't know what to do with the soggy goatsucker Ah, that crazy little birdwatcher would know what to do with it. The trouble was that he thought that I was on the 43rd floor (I'm on the 45th). So up he came on the elevator with the reviving Nighthawk starting to flap its wings and spreading water in all directions. The maintenance man, who could speak maybe 15 words of English, strode steadily ahead, in through an office door, and proudly presented the bedraggled bird to the President of a multi-million dollar corporation. After five minutes of pandemonium, the maintenance man took back his unwanted gift, went back down the elevator, out the door, and let the bird fly off.
- October 8, 1970: A Scarlet Tanager was drowning in the moat. Naturally, I waded in (only slightly over my knees) and rescued the bird. I took him home, fed him some of my dog's hamburger, and he flew off. I have also gone into the moat to rescue 2 Lincoln's Sparrows going down for the last time. Would I do it for a White-throat? I just don't know; I've never seen one caught in the moat.
- November 12, 1970: Rescued a Yellow-breasted Chat that was banging continuously against the glass behind a bench.
- January 25, 1971: A Black Duck spent a week in the moat, surviving on the cracked corn that I fed him daily.
- May 3-13, 1971 (4 dates): 4 different Whip-poor-wills rescued from behind the benches and released outside.
- May 6, 1971: A dead Louisiana Waterthrush, which was taken by Massachusetts Audubon.
- May 25, 1971: The finest day ever at the Pru, and probably there will never be a finer. 17 individuals of 9 species dead, including an Orange-crowned Warbler and 3 Lincoln's Sparrows. Alive: 47 individuals of 19 species, including 1 Common Nighthawk, 1 Yellow-bellied Flycatcher (perched three feet from me on a railing), 1 Long-billed Marsh Wren, 1 Philadelphia Vireo, 1 Worm-eating Warbler, 1 Orange-crowned Warbler, 1 male Cerulean Warbler, 1 male Kentucky Warbler and 6 Lincoln's Sparrows.

- May 28, 1971: A stunned Mourning Warbler was picked up by Hollis Leverett and released.
- September 27, 1972: The only Blue Jay ever seen at the Pru flew over.
- September 10, 1973: An Osprey circled twice, then flew off. An Olive-sided Flycatcher was fluttering against the glass in front of the Merchants Bank. I caught him, took him outside, and let him loose.
- May 16, 1974: A dead Red-breasted Nuthatch and a Yellow-throated Vireo.
- May 23, 1974: Only two birds were at the Pru, one a Gray Catbird, the other a Short-billed Marsh Wren. Once again, the bird was at my feet so that all field marks could be picked out by the naked eye.

DISCUSSION:

Birding at the Prudential Center often runs to extremes. On certain days, the entire area is flooded with birds; on other days, it is nearly deserted. Bennett Keenan and I, who have studied the Prudential's birds more thoroughly than anyone else, have concluded that the best birding there results from a combination of several factors:

- 1) The weather should be favorable for migration at the point from which the birds take off. In the spring, this might mean clear weather in Philadelphia; in the fall, good weather in mid-Maine.
- 2) Winds should parallel the migration route in the spring, i.e., they should come from the south-west. In the fall north-west winds are best, since they tend to concentrate the birds along the Atlantic Coast.
- 3) The best birding results at the Pru if the above conditions are fulfilled and if fog or rain should happen to move in during the early morning hours, when the migrants are already over the Boston area. Apparently, the birds become disoriented, mill around, and are finally attracted by the light on top of the Prudential tower. As daylight comes, the birds are brought down by the many kinds of ground cover, shrubs and trees, on both the Huntington Avenue and the Boylston Street side of the Prudential complex.

Needless to say, our theory does not always work. Sometimes conditions occur which seem perfect for Pru birding — and there are no birds. Other times there is no rain or fog, yet the birds are there. As a general rule, however, Ben's and my theory succeeds more often than it fails.

Another point to remember about Prudential birding: generally the birds act totally differently at the Pru than they do anywhere else that I have ever birded. Birds hop around at your feet. When a bird does fly, no matter what the species, it behaves like a Sharp-tailed or a Seaside Sparrow, flying just a short distance and then dropping vertically into a small clump of ground cover from which it is extremely difficult to flush. Many times I have seen birds go under such clumps no bigger than a pocket handkerchief—never to see them again.

I have wondered for years why the birds always favored the west side of the Prudential area. In my years there, I have seen hundred of birds trapped between the

storefronts and the glass, but always on the western side, and never a bird trapped on the eastern side. This spring Margaret Argue pointed out that the western side was the sunny side, and this could be an explanation. It would not explain why the birds are also on the west side on those days when it is foggy or rainy, but I do think Margaret's point is well-taken. Even outside the glass, the birds constantly favor the western side of the complex.

Many migrants glance off the glass windows, fall into the moat, and drown. It would cut down mortality if the moats could be drained from April 1 to May 30, and again from September 15 to November 15: The Prudential management did install four nets (position shown on the chart), and this has cut down on the deaths considerably — a fine, public-spirited action.

A possible explanation for the failure of Robins or swallows to be recorded at the Pru is that they are diurnal migrants. They are not so apt to lose their bearings during the daylight hours and would not land at the Pru as the nocturnal migrants do. But why should White-throated Sparrows outnumber all the rest of the species put together? And why does the Sparrow-Finch family outnumber all other families by a 7 to 1 ratio? Why have there been so many Short-billed Marsh Wrens there? Is that species actually less rare than birders realize? The species is such a skulker that it may slip through this area unseen, except at the Pru where this is not possible. Why has the birding at the Pru been less productive in 1972-1974?

I would appreciate it if anyone with a possible answer for any of my questions would call me. I also hope to see more birders at the Prudential. How many Shortbilled Marsh Wrens have you seen lately? *



ABOUT BOOKS

Slipped (In) Discs and Texts That Talk

Mark Lynch

Bird Songs: 250 North American Birds in Song. Les Beletsky. 2006. Chronicle Books. San Francisco, California.

The Songs of Wild Birds. Lang Elliott. 2006. Houghton Mifflin Company. Boston, Massachusetts.

The Art of Pishing: How to Attract Birds by Mimicking Their Calls. Pete Dunne. 2006. Stackpole Books. Mechanicsburg, Pennsylvania.

One of the best things about having grandchildren is getting to tell them about those crazy ancient days, far in the dim and misty past, when phones were tethered to walls by long rubbery cords, and pocket calculators were state-of-the-art PCs. I foresee a time very soon when I will sit Samantha, my eldest granddaughter, on my knee and tell her about those plate-sized black discs that contained music that could only be heard when you dragged a needle across them. Samantha is growing up in a house without a phonograph or even a CD player. Her parents play music stored digitally on their PC or iPod. Such has been the rapid evolution of sound technology in my lifetime.

At the start of the twentieth century it was a challenge to simply record and then reproduce sounds, but very soon — and for decades — audio technology was focused on finding ways to more accurately reproduce sound and music. This culminated in the mid-twentieth-century era of the fastidious audiophile with his Ampex tape recorders, "surround sound," and a zoo of amplifiers, speakers, and players. True, clean sound often at high decibels was the ultimate goal, and a roomful of bulky technology made that possible. But by the end of the twentieth century, for the average consumer, convenience became the main goal of sound technology. Some clarity and fidelity was sacrificed during the digital revolution, in exchange for the ability to listen to what you wanted when and where you wanted. The furniture-sized home sound systems quickly made way for the serenely portable and personal MP3 players of today.

Any hardcore birders "of a certain age" can trace these developments in sound reproduction technology by searching through some of the dustier corners of their library. Like many of you, I own quite a collection of vinyl birdcall records in varying conditions of being scratched or warped, as well as birdcall cassette tapes, and of course a large collection of CDs. I no longer play either the records or the cassettes because I no longer own a record or cassette player. Indeed, many of the newest and most interesting additions to my audio bird library are now not even CDs, but MP3 files, and there is little doubt in my mind that the shiny CD has seen its best days already.

Throughout this evolution of sound hardware, attempts to integrate recordings with written texts about birds have yielded mixed results. Three new "books combined with recordings" are serious efforts to improve on the past by using sound technology in new ways to teach about birds and birding.



Les Beletsky's *Bird Songs* is certainly unique, if a bit awkwardly cobbled together. The back cover of the large hardbound text has been extended two and a half inches, and embedded in this lip is a small sound system complete with speaker, volume controls, and an LCD screen powered by three AAA batteries. The text of *Bird Songs* combines large, colorful illustrations with several paragraphs describing each bird's habits and habitat, and a detailed description of that species' various

vocalizations. At the top of each page is a number in boldface. When you go to the audio player and dial up that number, you hear a short example of that bird's song or call, sometimes repeated two or three times.

The aim of *Bird Songs* is to enable you to read about a species, see a picture of it, and then hear its song or call, no matter where you are: whether at home, on the beach, or in the field. It's a commendable idea, but its execution leaves something to be desired. To begin with, only a single type of call or song is given per species. For example, while the text describes several different and interesting vocalizations of the Peregrine Falcon, you can only hear the *kak-kak-kak* call.

I was also confused by the organization of the birds in the text by habitat type: "Seabirds, Shorebirds and Waterbirds," "Forest Birds," "Woodland Birds," and finally "Open Country Birds." This is rarely a satisfying system, which makes it difficult to look up species by name. At one point the author explains the distinction between the second and third categories:

Woodland birds inhabit areas with many trees, but not dense forests. Rather, woodland birds are found where the trees are spread out, and where there are borders between wooded areas and more open areas containing patches of shrubs and thickets. (p. 186)

This makes for some interesting choices. For instance, Black-capped Chickadee has been placed in "Woodland" rather than "Forest Birds." Yellow Warbler and Chipping Sparrow are also in "Woodland" rather than "Open Country Birds." Rock Pigeon, Willow Flycatcher, Cactus Wren, Palm Warbler, and Cliff Swallow are all lumped together in the "Open Country" section. These are just a few examples of the confusing and misleading groupings of species that always occur with this type of organizing system. When are authors and publishers going to realize that grouping birds by broad habitat doesn't work?

Still more problematic is the audio quality in *Bird Songs*. While nonpasserines like Red-tailed Hawk, Barred Owl, and Whip-poor-will sound fine, songbird vocalizations are a mixed bag. Some are all right, but some of them sound horrible. When I listened to the songs of Baltimore Oriole and Chestnut-sided Warbler, I

actually thought my batteries had run low and replaced them. The Chipping Sparrow recording doesn't even sound close to the songs I know, reminding me more of a slightly sped-up and slurred Carolina Wren. Since the original recordings come from the esteemed Cornell Lab of Ornithology, I have to believe the fault lies with the book's rather simple audio system. Passerine songs are complex, and even good sound systems may not do them justice. *Bird Songs* is a good concept in combining text and audio, but it's one that needs much better sound reproduction technology to realize its full potential.

In contrast to the above publication, Lang Elliott's *The Songs of Wild Birds* is all about state-of-the-art sound recording. The author is no stranger to book/CD combinations, and his decades of experience in wildlife recording have once again produced a wonderful audio and reading experience. *The Songs of Wild Birds* book describes fifty species of birds in taxonomic order. Although there are details of behavior and range, the main focus is on the



complexities and meaning of the birds' vocalizations; the fifty birds covered represent songs and calls that Elliott finds particularly interesting. The writing is colorful and conversational, with plenty of anecdotes from the author's field work. Opposite each page of text is a full-page, color photograph of that particular species, sometimes with a second smaller photo if another species is mentioned in the text. At the bottom of the text are detailed sonograms. It's an attractive layout.

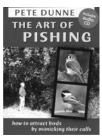
The text is revelatory and there is much here to interest the experienced birder as well as the novice. For example, under "Virginia Rail" (p. 28):

An amazing thing about the *oink* series is that it is often given as a duet, with male and female mates calling antiphonally during each outburst. The female's notes are higher in pitch than the male's. While recording Virginia Rails in the Adirondack Mountains, I was fortunate to capture several *oink* duets in full stereo. The splendid example on the compact disc allows you to hear the whereabouts of each bird, as well as its individual contributions to the duet.

This brings us to the CD that is included at the back of the book: it's a treat. Each cut on the CD corresponds to a bird in the text, and each is masterfully narrated by the author. (A support website contains even more vocalizations but without Elliott's narration.) Though there is some overlap between the script used on the CD and the species descriptions in the text, typically the CD narration is shorter and more focused. Elliott tells you what to listen for, and this is followed by a long, rich example of the call or song. Despite plenty of atmospheric background noises and calls from other birds, the bird in question's vocalizations are always clear as a bell. The result is a recording that is instructive but with a lush, evocative sense of place.

While many best-known calls are covered, Elliott finds new ways to present the material, and that is what separates this CD from most previous bird recordings. For example, Elliott reminds us that in films, the calls of Red-tailed Hawks are often erroneously paired with footage of Bald Eagles. You then hear the Red-tailed's call,

followed of course by the eagle's actual call. You can listen to a Pileated Woodpecker's "boisterous, laughlike outburst" compared to the nasal *kent* calls of the Ivory-billed Woodpecker. You not only hear a Mourning Dove's signature coo-ing call, but also the unique sound of their wings when they land. The listener is treated to the rarely heard "complex song" of the Blue-Gray Gnatcatcher and the flight calls of migrating woodland thrushes. The short insect-like call of a Henslow's Sparrow is slowed down to 1/8 speed to magically reveal the complexities of its song. This is a recording and book that is about the joy and wonder of discovering the variety of bird sounds, and it is therefore fitting that one of the deans of avian vocal behavior, Donald Kroodsma, agreed to write the Forward. Slip the CD into your player, dial up "American Woodcock," and you will immediately be transported to your favorite wet field at dusk in early spring.



I bought Pete Dunne's *The Art of Pishing* simply because I could not believe anyone could write an entire (albeit thin) book on such a subject. Was this the result of a bet? Leave it to Dunne to investigate something in birding that so many of us do so often, but so few talk about. Think about it: when was the last time you criticized your birding bud's "pishing" technique?

This book and CD are both ultimately useful and genuinely funny, which is a rare combination. A photo of a lonely barrier beach is captioned, "Clearly not a place conducive to pishing."

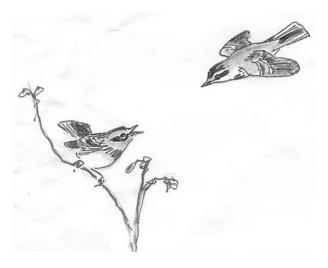
Dunne describes for the reader and then demonstrates for the listener six pishes and calls you can use to attract birds and gives the details on how and when to use them. Besides refining the birder's standard pish and owl calls, Dunne introduces such exotic sounds as the "stuttering pish," the "whisper pish," and the "knock-down pish." Merely reading about these would have been pointless since I would have had only the vaguest of notions what he was attempting. You really have to hear this stuff performed. While writing about how to imitate an Eastern Screech Owl, Dunne describes exactly where to place a viscous blob of spit on the tongue to create that particular quivering tone and why it is important to also hold the head back. All I can tell you is that all of this only makes sense when he walks you through this rather phlegmy process on the CD, demonstrating the different sounds you can make as he proceeds. "A sinus condition helps," Dunne wryly adds. *The Art of Pishing* is really a CD with an included book, not vice versa.

Though there is some overlap in narration between text and CD, the book is filled with Dunne's entertaining digressions and anecdotes. In a rare moment of total seriousness on both the CD and in the book, Dunne, talks about when it's not appropriate to pish. This includes during the nesting season or in situations when several birding groups are about. The book ends with "The Pisher's Pledge," which is a good example of the tone of this publication:

On my honor
I will do my best
For birds and birding
To pish with gusto
And a rising inflection
But not conduct myself
In a manner that puts birds at risk
Or causes angst
To birders and nonbirders alike
So help me pish. (p. 91)

The proof, of course, is in the pishing. To field test Pete Dunne's technique, I brought his CD to Westport and played his pishes at several well-known stops alternating with my "old style" pish. All I will tell you is that it works, and many more birds came to Dunne's "combination pish" than to mine. I immediately started to refine my pishing technique.

The Art of Pishing is unique and fun. Though almost all of us pish at one time or another, I can think of no other book or recording that does such a complete job of educating the birder on the technique of pishing and how to get the most out of this odd field tool. But even the best of pishes is of limited usefulness, and birds may react only briefly if at all. "After all, these are professional birds," Dunne adds with perfect deadpan delivery. He ends this unique recording by quoting Dr. Harold Axtell: "Pishing will do one of three things. It will either attract birds, scare them away, or it will do nothing." Can a Zen of Pishing be far behind?



TOWNSEND'S WARBLERS BY JIM BAIRD

Announcing the Massachusetts Breeding Bird Atlas 2

In April 2007 volunteers from around the Commonwealth will begin the work of updating the Massachusetts Breeding Bird Atlas. Volunteers can sign up through the Mass Audubon Atlas 2 website, and fieldwork will be divided into seven regions in the state. The Atlas 2 regions follow the Important Bird Area regions, and the Regional Coordinators are:

North Shore Jim Berry jim.berry3@verizon.net Berkshires Rene Laubach rlaubach@massaudubon.org mwilson@k12s.phast.umass.edu CT River Valley Mary Alice Wilson Central Mark Lynch moa.lynch@verizon.net Greater Boston Marj Rines marj@mrines.com South Shore Glenn D'Entremont gdentremont@juno.com Cape Cod and Islands Blair Nikula odenews@odenews.org

The new Atlas will repeat the basic methodology from Atlas 1. Starting in the Spring of 2007, volunteers will be asked to spend a minimum of twenty hours finding all the nesting species in each of 970 ten-square-mile blocks across the state. At the end of five years, when the resulting data are compared to those of Atlas 1, we will have a greatly enhanced understanding of how populations of Massachusetts' breeding birds have changed in the previous three decades. Although grounded in sound scientific methodology, a breeding bird atlas is not, for the most part, carried out by specialists. To be successful hundreds of volunteers are needed — people like you — to go into the fields and forests and urban parks of Massachusetts and find out where the birds are. Please help fill in the pieces of this living puzzle and ensure the future of our Commonwealth of birds.

For more information or to sign up for Breeding Bird Atlas 2 go to http://www.massaudubon.org/birdatlas/bba2/>

How you can help

Participating in the Massachusetts Breeding Bird Atlas 2 is exciting for the accomplished or novice birder alike.

- If you have read the methods and handbook, and you feel you can commit to a minimum of twenty hours in a block per year, you are invited to become a Primary Atlaser.
- If you are unable to commit that much time, you can send sightings of a single breeding bird that you see. It's easy. All you need is the species name, the location of the bird, and a breeding bird code.
- If you'd like to participate at a level between the Primary Atlaser in a block and a single species reporter, you may want to learn about Mass Audubon's Oriole Project.

Print and electronic editions of the Atlas 1

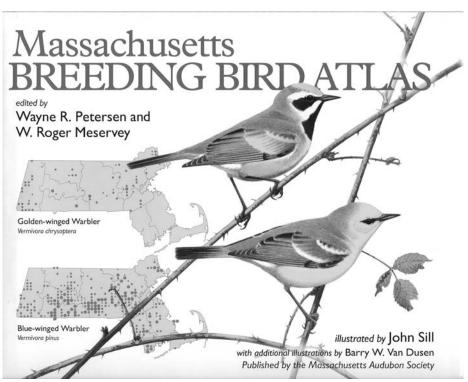
The Massachusetts Breeding Bird Atlas 1 was a monumental effort to map the distribution of the breeding birds in the Commonwealth and was the first of its kind in

the United States. The data from Atlas 1 will serve us well when we compare it to the data we will collect during Atlas 2 and evaluate changes in breeding bird populations since 1979.

Results from Atlas 1 were published in hardcover in 2003 and presented detailed distribution maps from the 1974-1979 Breeding Bird Atlas 1 surveys. In preparation for the new second generation of surveys and to increase access to this information, Mass Audubon has prepared an online edition of this first Massachusetts Breeding Bird Atlas.

For more detailed information of the online Atlas 1 visit http://www.massaudubon.org/birdatlas/index/

Bird populations change quickly, more quickly than many of us thought. For a look at some probably increasing species, connect to the maps and read the description of Wild Turkey and Red-tailed Hawk. Golden-winged Warbler, Pied-billed Grebe, and American Bittern may tell us a different story; a story that will not be revealed until the second Atlas surveys are completed.



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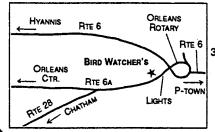
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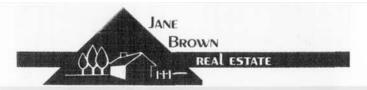


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BIRD SIGHTINGS

November/December 2006

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

This entire period was exceptionally mild and virtually without snow, affording great birding for most of the Christmas Bird Counts. The month of November was very mild with an average temperature in Boston of 49.1°, 4.2° above normal, and was the fifth warmest November on record. The high mark was 69° on November 16 and again on November 30, which broke the record for the highest temperature, surpassing 68° in 1881! The low was just 32° on November 21, with no killing frost in many locations all month. Rainfall totaled 5.80 inches, 1.82 inches over average, and most of that fell on Thanksgiving Day with 2.10 inches. Measurable amounts fell on thirteen days and traces on two days. Rainfall amounts were higher in areas west and south of Boston. Of the four weekends only one Sunday had rain. No snow was recorded in most of the state.

December was the mildest on record in the Boston area, with temperatures averaging 41.1° , 6.3° above normal, breaking the record of 40.7° in 1990. There were only six days all month when the temperature fell below average; in fact, from December 10 through 28 the average daily reading was nearly 10° above normal. The month was very dry, with rainfall of only 1.89 inches in Boston, 1.84 inches less than the average for December. Snowfall totaled just 0.8 of an inch, 6.8 inches below normal. This was the third least amount of snow in 106 years of record keeping.

R. Stymeist

WATERFOWL THROUGH ALCIDS

Several **Greater White-fronted Geese** were found during the reporting period. These included a single bird that lingered in West Concord through November and into early December. A single bird was also seen in Rochester in early November, and two birds turned up together in Ipswich at the end of November. Following a report from Plymouth of a Black Brant were a series of reports of similar birds at the same site. These included an adult Black Brant and two probable juvenile hybrid Black X Pale-bellied Brant. These birds tended to associate closely with the adult Black Brant and almost certainly made up a family group. It is quite possible that sightings of Black Brant at this site (three or more) involved the same individual, which followed this flock of Pale-bellied Brant repeatedly and finally managed to mate and successfully breed with one of them. At least six **Cackling Geese** were reported during the period, all but one from the Connecticut River Valley. This species is still on the review list of the Massachusetts Avian Records Committee, and it is requested that any sightings of this species be sent, with details, to the committee.

As many as six Eurasian Wigeon were reported, all of which were males, as is typical of reports of this species. The difficulty of distinguishing females probably accounts for this discrepancy, but some interesting aspect of the bird's biology might also be at work here. Although nonhardy species such as Blue-winged Teal did not linger through December even with the unseasonable weather, Redheads seemed to linger in greater numbers than usual in recent times. In December a total of at least twenty different Redheads were found around the state. Four King Eiders, including one female, were at typical sites throughout coastal Massachusetts. The increased wintering population of Harlequin Ducks continued this season with the Rockport area continuing to host the lion's share, at least 115 individuals.

Two **Pacific Loons** were reported in the first half of November, including one in Provincetown, which has hosted this species annually for the last several years. The **Eared Grebe** continued to be seen throughout the period in Gloucester. **Western Grebes** were reported at both Hull and Revere on November 26. Since these sites are separated by the great city of Boston, most human commuters would assume two birds, but we must remember that these birds aren't limited to travel by the expressway! The Revere bird did remain for a few days, while the sighting at Hull was not repeated.

A rather productive pelagic trip to Nantucket Shoals was organized by the Brookline Bird Club on November 18. Some of the more interesting sightings included 20 Northern Fulmar, 7500 Greater Shearwater, 2 Sooty Shearwater, and 3 Manx Shearwater. The count of Greater Shearwaters probably represents one of the highest single day counts for Massachusetts in November. An **American White Pelican**, a rare visitor to the state, was reported on Plum Island on December 10. Although this species was nearly annual in the 1980s, it has been scarcer of late, possibly as a result of population declines in its normal range. Although not accompanied by details, a **Magnificent Frigatebird** was reported from Nantucket at the end of November. As mentioned in the last issue, all frigatebird species are prone to wandering, and it should not be presumed that every frigatebird found in Massachusetts is Magnificent.

Several species of less hardy herons seemed to linger longer than normal with the warmer weather. These included three Great Egrets in Falmouth through December 16, a Great Egret on December 3 in Annisquam, a Snowy Egret through December 30 in West Gloucester, a Little Blue Heron December 12–26 in Millbury, and a Green Heron on November 19 in Salisbury. The sighting of the Little Blue Heron was particularly impressive for its location and date. That bird may have represented the first December record for any white heron/egret in Worcester County.

A few Black Vultures made it into the records during November/December. Most interesting was a bird that lingered at the end of December on Chappaquiddick Island. Turkey Vultures continue to increase their winter presence on the north shore of Massachusetts, as well as in the rest of the state. This year they were well represented throughout that region, including an impressive count of ten in Manchester on December 31. Osprey records are rare in Massachusetts after November, especially north of Boston. This year a single bird was seen at Worcester on December 3, and most impressively another lingered in West Boxford from December 22 to 30. The Osprey in Falmouth was somewhat more typical though still impressive on December 16. Broad-winged Hawks typically undergo very precise migrations, normally during the second half of September and the second half of April, though they are somewhat regular from March through October. Because earlier and later records are extremely rare, a Broad-winged Hawk in Granville on November 9 is worthy of mention. There are fewer than five records for November in the state.

Following up on a noteworthy fall, **Yellow Rails** continued to dazzle certain lucky Massachusetts observers in November and December. These included a sighting of two on Nantucket on December 29, a site where this species has been recorded during the winter months on several occasions. The shorebird sighting of the period was certainly the **American Avocet** discovered in Rowley in the second half of November. This very cooperative bird treated many observers and photographers to spectacular views! Nearly as interesting was the discovery of two Willets at East Orleans, which lingered from December 17 through at least December 31. There are fewer than 10 December records for the state. A Red Knot in Rockport during the first half of December was noteworthy, especially for the northerly locale.

A first winter gull identified as a **Thayer's Gull** was carefully examined and photographed in Provincetown in late December. The taxonomy of Thayer's Gull is still being worked out,

and with luck our understanding of the field identification of this species will continue to evolve. Several Forster's Terns lingered into December, including a single bird in Truro on December 27. Dovekies put on a decent show during December throughout coastal Massachusetts. This species is often the most difficult regularly occurring alcid to find, but when found, they can be quite cooperative.

J. Trimble

	-	-	-				
	te-fronted Goose			American Wi			
11/4-12/4	W. Concord	1	S. Walker + v.o.	11/1-25	Marstons Mills	30	V.O.
11/4	Rochester	1 ad 2	M. Maurer	11/1-12/18		40 max 12	
11/24 Snow Goose	Ipswich	2	I. Giriunas	11/3 11/4	Barnstable GMNWR	108 45+	M. Keleher P. + F. Vale
11/1	W. Tisbury	11	A. Keith	11/4	Pittsfield (Pont.		C. Blagdon
11/1, 12/12		2, 6	J. Berry	11/14	Arlington Res.	22	I. Davies
11/7-12/27	PI		x 11/9 v.o.	11/19	Westport	37	E. Neilsen
11/11	S. Dart. (A. Pd)		E. Nielsen	12/31	Nantucket		G. d'Entremont#
12/10	Orleans	6	C. Thompson	American Bla	ack Duck		
12/11	Westboro	7 7	K. Paulson#	thr	P.I.	950 max	
12/13-15	Concord		P. Morlock	11/19	Boston (Fens)	380	R. Stymeist
12/14	Acton	8	P. Cozza	12/8	Plymouth	600	D. Furbish
12/22	DWWS	$\frac{7}{20}$	MAS (Galluzzo)	12/13	Newbypt H.	530 370	R. Heil
12/26 Brant	Edgartown	20	D. Carter	12/28 Mallard	Ipswich	370	R. Heil
11/1	Duxbury B.	50+	R. Bowes	11/9	P.I.	167	D. Weaver#
11/1, 12/7	Nahant	278, 370	D. Pivacek	11/19	Boston (Fens)	228	R. Stymeist
11/3	P.I.	34	J. McNeal	Blue-winged			
11/3	Holyoke	10	S. Kellogg	thr	Chilmark	1-2	A. Keith
11/3	Plymouth	221	J. Sweeney	11/1	Cheshire	1	B. Lafley
11/19	Boston H.	747	TASL (M. Hall)	11/3	Barnstable	2	M. Keleher
11/28	Centerville	86	N. Soulette	11/3	P.I.	pr	J. McNeal
12/1	Duxbury	100	D. Furbish	11/11	Marstons Mills	1 (CCBC (Keleher)
Black Brant 11/19-22	Dlymouth	1	G. Harriman#	Northern Sho thr	Arlington Res.	3	
Black x Pale-	Plymouth bellied Brant	1	О. Папппап#	thr	P.I.	3 1-5	V.O. V.O.
11/19	Plymouth	2 juv	G. Harriman) Marstons Mills	1-2	v.o. v.o.
Cackling Goo		2 Ju.	G. TIMITIMI	11/10-12/3		1	A. Keith
11/3-11	Hadley/Amherst	t 1-2	J. $Smith + v.o.$	11/21	Jamaica Plain	3 f	P. Peterson
12/3	Southwick	1	S. Ricker	11/25, 12/	30 GMNWR	5, 2	v.o.
12/13	Longmeadow	1	J. Wojtanowski	12/1	Newbypt	9	D. Larson
12/15-24	Turners Falls	1	J. Smith + v.o.	Northern Pint			
12/30-31	Rockland	I ph	C. + D. Ranney	thr	P.I.	154 max 87	
Canada Goos 11/19	Boston H.	590	TASL (M. Hall)	11/19 11/22	Westport Arlington Res.	2	E. Neilsen
12/9	Boston (F.Pk)	640	A. Birch	11/25	GMNWR	3	O. Spalding S. Sutton
12/25	P.I.	1110+	J. McNeal	11/30	Pittsfield (Onot		N. Mole
12/28	Ipswich	965	R. Heil	12/16	Athol	1	J. Johnstone
Mute Swan	•			12/28	Plymouth	3	K. Doyon
11/7	Ipswich	40	J. Berry	12/29	Yarmouth	18	M. Keleher
11/11	Barnstable		CCBC (Keleher)	Green-winger		1000	
11/19	Westport	42	E. Neilsen	thr	P.I.	1000 max	
11/29 12/1-31	Turners Falls	21 15	L. Therrien	11/1-26	Arlington Res. 6 Pittsfield	35 max 36, 6	v.o. Gagnon, Mole
Wood Duck	Framingham	13	E. Taylor	11/5, 12/10	Wachusett Res.	50, 0 57	M. Lynch#
11/1	Newton	10+	M. L. Kaufman	11/26	E. Boston	57	S. Zendeh
11/2	Chestnut Hill	10	M. Kaufman	11/25	GMNWR	140	S. Perkins
11/5	Wachusett Res.	12	M. Lynch#	12/18	W. Tisbury	7	T. Whiting#
11/11	Newbypt		SSBC (Emmons)	12/29	Yarmouth	9	M. Keleher
11/26	Wayland	11	B. Harris	Canyasback			
12/10	Wakefield	4	D. Williams	thr	Cambr. (F.P.)	42 max	
12/25 Gadwall	Waltham	2	J. Forbes	11/2-3 11/13-14	Millbury	1	A. Marble# R. Laubach
thr	P.I.	55 max 1	2/1 T. Wetmore	12/9	Pittsfield (Pont. Harwich	24	B. Nikula
thr	Woburn (H.P.)	8-10	M. Rines	12/22-30	W. Boxford	2 m	T. Walker#
11/4	N. Falmouth	11	BBC (Stymeist)	12/29	Falmouth	1 m	M. Keleher
11/4-15	Pittsfield (Pont.)		C. Blagdon	12/31	Nantucket		G. d'Entremont#
11/14	Arlington Res.	13	I. Davies	Redhead			
12/13	Plymouth	16	G. Harriman	11/3-12/4	GMNWR	pr	v.o.
12/28	Ipswich	28	R. Heil	11/8	Braintree	1	P. Peterson
12/31	Gloucester (E.P.	.) 40	H. Miller	11/10	Falmouth	2	J. Trimble#
Eurasian Wig		1	Watmara Parad	11/11	W. Newbury	1 m 1	I. Davies
11/2, 26 11/3-12/2	P.I. Marstons Mills	1 1 m	Wetmore, Berard M. Keleher	11/17 11/thr	Cambr. (F.P.) Turners Falls	2	B. Miller B. Lafley
11/3-12/2	Acoaxet	2 m	E. Neilsen	12/1	Scituate	1 f	J. Galluzzo
12/16	Plymouth	1 m	K. Doyon	12/1-15	Turners Falls	2	B. Lafley
12/31	Eastham	1 m	R. Clem#	12/21	P'town	$\frac{2}{6}$	J. Bosler#
				12/24	Stoughton	1 m	G. d'Entremont

Redhead (con	ntinued)			Black Scoter			
12/28	Truro	6	S. Grinley#	thr	P.I.	600 max	v.o.
12/29	W. Boxford	2 m	T. Walker	11/1	Nahant	7	L. Pivacek
12/31	Nantucket	1 m	G. d'Entremont	11/1	Cambr. (F.P.)	8 11	E. Wylde
Ring-necked 11/thr	Cambr. (F.P.)	240 max	B. Miller	11/4 11/5	Holyoke Plymouth	23	C. Gentes P. Kinnaly
11/4	Pittsfield	1000	C. Blagdon	11/5	Braintree	6	S. Carey
11/5	S. Groveland	440	J. Berry#	11/17	S. Quabbin	12	L. Therrien
11/19	Southboro	1137	M. Lynch#	11/23	Rockport (A.P.		R. Heil
12/2	W. Newbury	414	D. Chickering#	11/24	Dennis Nontrolest	185	P. Flood
12/29 12/30	Duxbury W. Boxford	112 350	K. Doyon J. Berry#	12/31 Long-tailed D	Nantucket	650 G	. d'Entremont#
Greater Scau		330	J. Bellyn	thr	P.I.	880 max	v.o.
thr	P.I.	12 max	v.o.	11/3-17	Lincoln	1	M. Rines
11/5, 23	Wachusett Res		M. Lynch#	11/5	Wachusett Res		M. Lynch#
11/5 11/19	Fairhaven	80 54	BBC (Stymeist) E. Neilsen	11/5 11/13	Fairhaven Pittsfield (Pon		BBC (Stymeist) R. Laubach
11/19	Westport Boston H.		TASL (M. Hall)	11/13	Rockport (A.P.		R. Laubach R. Heil
11/25	Falmouth	674	M. Lynch#	11/19	Boston H.		ASL (M. Hall)
12/28	Truro	70	S. Grinley#	11/24	Dennis	300	P. Flood
Lesser Scaup	D11 .	<i>c</i> o.	W D	12/6	Nant. Sound 43		E. Ray
11/1 11/5	Pembroke Cheshire	60+ 15	W. Petersen T. Gagnon	12/28 Bufflehead	Ipswich	40	R. Heil
11/19	Westport	174	E. Neilsen	thr	P.I.	80 max	v.o.
12/16	E. Falmouth		CBC (B. Nikula)	11/1	Pittsfield (Ono		N. Mole
12/27	Lynnfield	24	R. Heil	11/1, 12/11		34, 114	L. Pivacek
12/27	Lynn	32	R. Heil	11/1	S. Quabbin	33	L. Therrien
12/29 King Fider	Nantucket	17 (G. d'Entremont#	11/3 11/5	Plymouth	96 250+	J. Sweeney R. Bowes#
King Eider 11/18	Rockport	1 m	J. Robinson	11/3	Duxbury B. Mashpee	286	M. Malin
11/19	Marshfield	i	D. Furbish	11/19	Boston H.		ASL (M. Hall)
12/17	E. Orleans	1 f	CBC (R. Heil)	12/2	Mashpee	100	M. Keleher
12/18-31	Gloucester	1 m	v.o.	12/15	Scituate	100+ M	IAS (Galluzzo)
Common Eid thr	er Ipswich	600+	J. Berry	Common Gol 11/5, 23	Wachusett Res	. 44, 28	M. Lynch#
11/3	Plymouth	394	J. Sweeney	11/5, 25	Braintree	30+	S. Carey
11/14, 12/		1400, 560	R. Heil	11/13-12/3		81 max	v.o.
11/18	Chatham (MI)	800	D. Manchester	11/19	Boston H.		ASL (M. Hall)
11/19	Westport	1650	E. Neilsen	11/19	Southboro	46	M. Lynch#
11/19 11/23	Boston H. Rockport (A.P.		TASL (M. Hall) R. Heil	11/25 12/16	Falmouth Agawam	31 50	M. Lynch# S. Kellogg
11/24	Dennis	2200	P. Flood	12/18	Gloucester (B.		P. + F. Vale
12/7	Nahant	1130	L. Pivacek	12/24	Turners Falls	31	S. Surner
12/31	Nantucket	8500	G. d'Entremont#	12/29	Hull	25	C. Dalton
Harlequin Du	ick Boolmort (A.D.	115 mar		Barrow's Gol		1	E Doume
thr 11/5	Rockport (A.P. Duxbury B.	2 m	v.o. R. Bowes#	11/1-12/31	Turners Falls Southboro	1 1 f	F. Bowrys M. Lynch#
11/18-12/3		30 max		11/19	Haverhill		S. + J. Mirick
11/18, 12/2		1 f	Wilson, Larson	11/19	Boston H.	1 T	ASL (M. Hall)
11/19	Boston H.		TASL (M. Hall)	11/25	Falmouth	1 m	M. Lynch#
11/19	Acoaxet Bourne	19 1 m	E. Neilsen	11/28-12/2 12/9	25 Cotuit GMNWR	1 T. 1 f	Burgess + v.o.
11/27 12/1-31	E. Orleans	5 max	K. Doyon v.o.	12/16	Marion	1 n	D. Sibley D. Furbish
12/10	Nahant	1	J. Williams	12/24	Gloucester	1 m	P. + F. Vale
12/27	Wellfleet H.	1	B. Nikula	12/29	Barnstable	1 m	G. Hirth
12/31	Nantucket	11 (G. d'Entremont#	Hooded Merg		2.4	
Surf Scoter 11/1, 12/7	Nahant	178, 52	L. Pivacek	thr 11/thr	P.I. Arlington Res.	34 max 73	V.O. V.O.
11/1, 12//	S. Quabbin	2	L. Therrien	11/111	Pittsfield (Pon		N. Mole
11/3	Plymouth	185	J. Sweeney		0 Marlboro	20, 52	Nims, Moore
11/10	Pittsfield (Pont		B. Lafley	11/4	Pembroke	60	W. Petersen
11/19	Marshfield	300	D. Furbish	11/10	Falmouth	68 47	R. Stymeist#
11/19 11/19	Westport Boston H.	160 396	E. Neilsen TASL (M. Hall)	11/19 12/24	Boston H. E. Brookfield	47 T 52	ASL (M. Hall) M. Lynch#
11/24	Dennis	600	P. Flood	12/28	Ipswich	78	R. Heil
12/15	Hull	300 N	MAS (Galluzzo)	12/30	Groveland	60+	J. Berry#
12/29	Nant. Sound	1000	G. d'Entremont#	Common Mer		7. 2 00	
White-winged		040 mar		11/3, 12/29	9 Milibury 0 Lynnfield	7, 200 35, 175	D. Berard
thr 11/1, 12/7	P.I. Nahant	940 max 230, 130	v.o. L. Pivacek	11/3, 12/10	Pittsfield (Pon	t.) 240	Vale, Williams R. Laubach
11/12	P'town	550	B. Nikula	11/14, 12/2		75, 135	D. + I. Jewell
11/13	Rockport (A.P.		R. Heil	11/26	Peabody	220	D. + I. Jewell
11/18	Nant. Sound	500 977	BBC (R. Heil)	12/10	Marlboro	110	S. Moore#
11/19 11/24	Boston H. Dennis	325	TASL (M. Hall) P. Flood	12/30 Red-breasted	Southwick Merganser	128	R. Packard
11/25	S. Quabbin	2	L. Therrien	thr	P.I.	162 max	v.o.
12/16	Orange	1	R. Scherer#	thr	P'town	5800 max	v.o.
12/31	Nantucket	300	G. d'Entremont#	11/1, 12/9	Duxbury B.	100, 700	R. Bowes

Red-breasted Merganser (continued)	11/3		21 J. Sweeney
11/5 Wachusett Res. 2 f	M. Lynch# 11/4		52 R. Farrell
11/5 Pittsfield (Pont.) 3	T. Gagnon 11/5		14 BBC (Stymeist)
	S. Williams 11/5		26 M. Lynch#
11/19 Westport 175	E. Neilsen 11/7		14 L. Therrien
	SL (M. Hall) 11/11		30 E. Taylor
11/19 Marshfield 268	D. Furbish 11/19		39 TASL (M. Hall)
11/19 Mashpee 600	G. Hirth 12/15		20 MAS (Galluzzo)
11/24 Dennis 325	P. Flood 12/29		15 G. Hirth
Ruddy Duck		ed Grebe	20 12/10
thr W. Newbury 120	v.o. thr		28 max 12/18 v.o.
thr Melrose 143 max D		Duxbury B.	2 R. Bowes
11/1-12/16 Braintree 190 max	v.o. 11/1		N. Mole
11/1-12/10 Marlboro 278 max	v.o. 11/12		10 B. Nikula
	W. Petersen 11/23		29 R. Heil
11/5 Pittsfield (Mud) 74	T. Gagnon 11/24		P. Flood
11/19 Westport 260	E. Neilsen 11/24	Cambr. (F.P.)	P. Roberts
11/27 Chilmark 133	A. Keith 11/25	S. Quabbin	3 L. Therrien
	G (Galluzzo) 11/25	Barnstable (S.N.)	
Ring-necked Pheasant	12/10		45 S. Zendeh
11/5 Revere 1	A. Birch 12/29		11 C. Dalton
11/6 Cumb. Farms 1 f	D. Furbish Eared G		_
11/11 Mattapan 1	A. Birch# thr	Gloucester	1 v.o.
11/12 Newbury 3 m	P. + F. Vale Western		
11/29 E. Boston (B.I.) 1	P. Peterson 11/26	Hull	1 B. Cassie
	. + I. Jewell 11/26-		1 ph S. Zendeh + v.o.
Ruffed Grouse	Northern		
11/8 Pepperell 1 F	E. Stromsted 11/18	Nant. Shoals	20 BBC (R. Heil)
11/23 Wachusett Res. 1	M. Lynch# 11/23	Rockport (A.P.)	5 lt R. Heil
12/30 Sudbury 1	J. Forbes# Greater S	hearwater	
Wild Turkey	11/11,	12 N. Truro	6, 20 B. Nikula
11/21 Wayland 20	R. Nava 11/11,	12 P'town	3, 25 B. Nikula
11/22 Truro 24	T. Kelly 11/13,	23 Rockport (A.P.)	2, 8 R. Heil
12/15 Lexington 27	M. Rines 11/18	Nant. Shoals 750	DO BBC (R. Heil)
12/31 Framingham 35	E. Taylor 11/25,	12/3 P'town	2, 1 B. Nikula
Northern Bobwhite	12/2	Eastham	8+ B. Nikula
12/13 Needham 1 ph	J. Soma Sooty Sh	earwater	
12/19 WBWS 10 1	I. Davies# 11/18	Nant. Shoals	BBC (R. Heil)
12/22 C O-leans 12 C - C			
12/22 S. Orleans 12 C. + S	. Thompson Manx Sh	earwater	
			3 BBC (R. Heil)
12/27 W. Tisbury 1	S. Whiting# 11/18	Nant. Shoals	3 BBC (R. Heil)
12/27 W. Tisbury 1 Red-throated Loon	S. Whiting# 11/18 Large sho	Nant. Shoals earwater species	
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max	S. Whiting# 11/18 Large sho v.o. 12/2	Nant. Shoals earwater species Eastham	
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823	S. Whiting# 11/18 Large sho v.o. 12/2 R. Heil Northern	Nant. Shoals carwater species Eastham Gannet	8+ B. Nikula
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE	S. Whiting# 11/18 Large she v.o. 12/2 R. Heil Northern 3C (R. Heil) 11/3	Nant. Shoals earwater species Eastham Gannet Manomet 1:	8+ B. Nikula 52 J. Sweeney
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130	S. Whiting# 11/18 v.o. 12/2 R. Heil 12/2 Northern 3C (R. Heil) 11/3 D. Furbish 11/7	Nant. Shoals earwater species Eastham Gannet Manomet 1: Bourne 2	8+ B. Nikula 52 J. Sweeney 60 K. Doyon
12/27 W. Tisbury 1	S. Whiting# 11/18 v.o. 12/2 R. Heil 12/2 Northern BC (R. Heil) 11/3 D. Furbish 11/7 SL (M. Hall) 11/11,	Nant. Shoals earwater species Eastham Gannet 1: Bourne 2: 12 P'town 150	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula
12/27 W. Tisbury 1 Red-throated Loon FI. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H.	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern BC (R. Heil) 11/3 D. Furbish 11/7 EL (M. Hall) 11/11, P. Flood 11/11	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula F. Bouchard
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263	S. Whiting# 11/18 Large sh V.O. 12/2 R. Heil Northern 3C (R. Heil) 11/3 D. Furbish 11/7 EL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil
12/27 W. Tisbury 1	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern BC (R. Heil) 11/3 D. Furbish 11/7 EL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis
12/27 W. Tisbury 1 Red-throated Loon	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern GC (R. Heil) 11/3 BL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil)
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1	S. Whiting# 11/18 v.o. 12/2 R. Heil Northern BC (R. Heil) 11/3 D. Furbish 11/7 EL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24,	Nant. Shoals carwater species	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil) 11100, 370 B. Nikula#
12/27 W. Tisbury 1	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern BC (R. Heil) 11/3 D. Furbish 11/7 SL (M. Hall) 11/11, P. Flood 11/11 T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, 11/24	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil) 1100, 370 B. Nikula# 00+ P. Flood
12/27 W. Tisbury 1	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil BC (R. Heil) 11/3 LD. Furbish 11/7 KL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, B. Nikula# 12/22,	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil) 1100, 370 B. Nikula# 00+ P. Flood 7, 257 R. Heil
12/27 W. Tisbury 1	S. Whiting# 11/18 v.o. R. Heil C (R. Heil) 11/3 D. Furbish 11/7 IL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, 11/24 B. Nikula# 12/22, (Fitzgerald) 12/29	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 100 BBC (R. Heil) 1100, 370 B. Nikula# 00+ P. Flood 7, 257 R. Heil
12/27 W. Tisbury 1	S. Whiting# 11/18 v.o. R. Heil C (R. Heil) 11/3 D. Furbish 11/7 IL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, 11/24 B. Nikula# 12/22, (Fitzgerald) 12/29	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil) 1100, 370 B. Nikula# 00+ P. Flood 7, 257 R. Heil
12/27 W. Tisbury 1 Red-throated Loon Thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/12 P'town 1 11/19 Hull 1 TASL Common Loon Text Table Table	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil D. Furbish 11/7 SL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24 B. Nikula# (Fitzgerald) V.o. 12/10	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 1100, 370 B. Nikula# 100+ P. Flood 17, 257 R. Heil 100 G. d'Entremont#
12/27 W. Tisbury 1 Red-throated Loon Thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/12 P'town 1 11/19 Hull 1 TASL Common Loon Ten. 125 max	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil D. Furbish 11/3 D. Furbish 11/7 SL (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24 B. Nikula# (Fitzgerald) Large sh v.o. 12/20 America V.o. 12/20	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 00 BBC (R. Heil) 11100, 370 B. Nikula# 100+ P. Flood 77, 257 R. Heil 100 G. d'Entremont#
12/27 W. Tisbury 1 Red-throated Loon Thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/12 P'town 1 11/19 Hull 1 TASL Common Loon thr P.I. 125 max 11/12 P'town 75 Table Ta	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil C. R. Heil C. Furbish L. (M. Hall) 11/11, P. Flood 11/11 M. Lynch# 11/13, T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, B. Nikula# 12/22, (Fitzgerald) R. Bowes Double-co	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 00 BBC (R. Heil) 11100, 370 B. Nikula# 100+ P. Flood 77, 257 R. Heil 100 G. d'Entremont#
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * Table Tabl	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern BC (R. Heil) 11/3 D. Furbish 11/7 EL (M. Hall) P. Flood 11/11, P. Flood 11/11, T. Collins T. Collins 11/17 R. Bowes S. Kellogg 11/24, 11/24 B. Nikula# 12/22, America 12/10 C. R. Bowes D. S. Kula# 11/11	Nant. Shoals carwater species	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 0, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 00+ S. Ellis 00 BBC (R. Heil) 1100, 370 B. Nikula# 00+ P. Flood 7, 257 R. Heil 00 G. d'Entremont# 1 P. Roberts 00 L. Pivacek
12/27 W. Tisbury 1 Red-throated Loon Throated Loon	S. Whiting# 11/18	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 00 BBC (R. Heil) 11100, 370 B. Nikula# 10+ P. Flood 77, 257 R. Heil 10 G. d'Entremont# 1 P. Roberts 1 P. Roberts 1 P. Roberts 1 T. Wetmore 1 Nikula
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/12 P'town 1 11/19 Hull 1 TASL Common Loon thr P.I. 125 max 11/1 Duxbury B. 80+ 11/12 P'town 75 11/13, 28 Rockport (A.P.) 216, 74 11/14 Pittsfield 31 11/18 Nant. Sound 215 BE 11/15 Rockport (A.P.) 215 BE 11/18 Nant. Sound 215 BE 11/15 11/18 Nant. Sound 215 BE 11/16 11/18 Nant. Sound 215 BE 11/16 11/18 Nant. Sound 215 BE 11/18 Nant. Sound 215 DE 11/14 11/16 Nant. Sound 215 DE 11/14 11/16 Nant. Sound 215 DE 21/16	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil Northern 12/3 D. Furbish 11/7 SL (M. Hall) P. Flood 11/11 P. Flood 11/11 T. Collins S. Kellogg 11/24, 11/24 B. Nikula# 12/22, 4merica 12/10 C. R. Bowes D. Nikula# 11/1 R. Heil 11/5 T. Collins 11/11 SL (R. Heil) 11/5 SL (R. Heil) 11/11	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 100 BBC (R. Heil) 11100, 370 B. Nikula# 100+ P. Flood 17, 257 R. Heil 100 G. d'Entremont# 1 P. Roberts
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/124 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/2 Southwick 1 Pacific Loon * 11/12 P'town 1 11/12 P'town 1 17ASL Common Loon thr P.I. 125 max 11/10 Duxbury B. 80+ 11/12 P'town 75 11/13, 28 Rockport (A.P.) 216, 74 11/14 Pittsfield 31 11/18 Nant. Sound 215 BE 11/19 Duxbury B. 80+ 11/19 Ouzhbin 18 11/19 Ouzhbin 18 11/19 Ouzhbin 18 11/19 Duxbury B. 11/19 Duxbury B. 11/19 Ouzhbin 18 11/19 Ouzhbin	S. Whiting# 11/18 Large sh v.o. 12/2 R. Heil D. Furbish 11/3 D. Furbish 11/17 SL (M. Hall) 11/11, P. Flood 11/11 T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, B. Nikula# 12/22, (Fitzgerald) 12/29 America 12/10 Double-c B. Nikula# 11/1 R. Heil T. Collins 11/11 SL (M. Hall) 11/19	Nant. Shoals carwater species Eastham Gannet Manomet 1: Bourne 2: 12 P'town 150 Chatham 3: 23 Rockport (A.P.) Orleans 7/ Nant. Shoals 22: 12/27 Eastham (F.E.) Dennis 35: 26 Rockport (A.P.) 13 Nantucket 40: n White Pelican * P.I. rested Cormorant Nahant 40: P.I. 2: P'town 44: Chatham 55: Boston H. 2:	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 1100, 370 B. Nikula# 00+ P. Flood 7, 257 R. Heil 00 G. d'Entremont# 1 P. Roberts 00 L. Pivacek 00 T. Wetmore 00 B. Nikula 70 F. Bouchard 170 F. A. Flood 170 F. Bouchard 170 F. Bouchard 170 F. Bouchard 170 F. A. Flood 170 F. Bouchard
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Table Tabl	S. Whiting# 11/18 R. Heil D. Furbish 11/7 BL (M. Hall) P. Flood 11/11 M. Lynch# 11/13 T. Collins 11/17 R. Bowes 11/18 S. Kellogg 11/24, 11/24 B. Nikula# 12/22, America 12/10 R. Bowes B. Nikula# 11/5 T. Collins 11/17 R. Heil 11/5 T. Collins 11/11 BL (M. Hall) 11/19 H. Allen P. Flood P. + F. Vale 12/30 M. Kelcher C. (Stymeist) W. Petersen S. Carey J. Berry# J. Berry# Magnific	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 1100, 370 B. Nikula# 00 BBC (R. Heil) 1100, 370 B. Nikula# 00 G. d'Entremont# 1 P. Roberts 1 P. Roberts 00 L. Pivacek 00 T. Wetmore 00 B. Nikula 70 F. Bouchard 80 TASL (M. Hall) 10 J. Berry 3 S. Williams 2 J. Hoye# 15 R. Bowes 14 J. Berry 16 R. Bowes 17 R. Bowes 18 R. Bowes 19 J. Berry 10 B. Nikula 10 J. Berry 11 R. Bowes 12 J. Berry 13 R. Bowes 14 J. Berry 15 R. Bowes 16 R. Bowes 17 R. Bowes 18 R. Bowes 19 R. Nikula 19 R. Heil 10 R. Heil 10 R. Heil
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12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/24 Dennis 2100 11/25 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/12 P'town 1 11/19 Hull 1 TASL T	S. Whiting# V.O. R. Heil V.O. R. Heil D. Furbish SL (M. Hall) P. Flood M. Lynch# 11/13 T. Collins S. Kellogg S. Kellogg S. Kellogg Hilze V.O. R. Bowes S. Nikula# (Fitzgerald) V.O. R. Bowes B. Nikula# R. Heil T. Collins G. (R. Heil) H. Allen P. Flood P. + F. Vale C. (Stymeist) W. Petersen J. Berry# E. Neislen M. Keleher K. Doyon 11/18 Large sh. 11/21 Northern 11/3 11/11 11/11 11/11 11/12 11/12 11/15 11/11 11/15 11/11 11/11 11/15 11/11 11/15 11/11 11/15 11/11 11/15 11/11 11/15 11/11 11/15 11/11 11/15 11/11	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 1100, 370 B. Nikula# 00 BBC (R. Heil) 1100, 370 B. Nikula# 00 G. d'Entremont# 1 P. Roberts 1 P. Roberts 1 P. Roberts 00 L. Pivacek 00 T. Wetmore 00 B. Nikula 170 F. Bouchard 180 TASL (M. Hall) 10 J. Berry 13 S. Williams 1 J. Hoye# 15 R. Bowes 14 J. Berry 16 R. Bowes 17 R. Bowes 18 R. Bowes 19 R. Bowes 10 R. Bowes 10 R. Bowes 11 C. Freeman 1 V.O.
Table Tabl	S. Whiting# V.O. R. Heil V.O. R. Heil D. Furbish J. Lift (M. Hall) P. Flood M. Lynch# T. Collins R. Bowes S. Kellogg B. Nikula# S. Kellogg V.O. R. Bowes B. Nikula# R. Heil T. Collins T. Lift T. Collins T. Collins T. Collins T. Collins T. Tollins To	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 100 BBC (R. Heil) 1100, 370 B. Nikula# 07, 257 R. Heil 00 G. d'Entremont# 1 P. Roberts 00 L. Pivacek 00 T. Wetmore 00 B. Nikula 70 F. Bouchard 10 J. Berry 3 S. Williams 2 J. Hoye# 15 R. Bowes 14 J. Berry 15 R. Bowes 14 J. Berry 16 R. Bowes 17 R. Bowes 18 R. Heil 19 R. Bowes 19 R. Bowes 10 R. Bowes 10 R. Bowes 11 C. Freeman 1 V.O. 10 W. Petersen
12/27 W. Tisbury 1 Red-throated Loon thr P.I. 56 max 11/13, 28 Rockport (A.P.) 998, 823 11/18 Nant. Sound 330 BE 11/19 Marshfield 130 11/19 Boston H. 62 TAS 11/125 Barnstable (S.N.)263 11/28 Stockbridge 1 12/2 Duxbury B. 50+ 12/3 Southwick 1 Pacific Loon * 11/19 Hull 1 TASL TAS	S. Whiûng# N.O. R. Heil D. Furbish EL (M. Hall) P. Flood M. Lynch# T. Collins S. Kellogg S. Kellogg S. Kellogg H. America V.O. R. Bowes B. Nikula# R. Heil T. Collins T. Tollins Tollins Tills Tollins Tollins Tills Tollins Tollins Tollins Tills Tollins Tollins Tills Tollins Tills Tollins T	Nant. Shoals carwater species Eastham Gannet Manomet 1: Bourne 2: 12 P'town 15C Chatham 3: 23 Rockport (A.P.) Orleans Nant. Shoals 2: 12/27 Eastham (F.E.) Dennis 35. Rockport (A.P.) 13 Nantucket Nuhite Pelican P.I. rested Cormorant Nahant 40 P.I. 2: P'town 44 Chatham 55 Boston H. 2: Gloucester Boston P'town Thomant Duxbury B. Rockport (A.P.) 16 Rockport (A.P.) 17 Nantucket 18 Bittern Duxbury B. Rockport P'town 16 Rockport (A.P.) 18 Nantucket 18 Bittern P.I. Butrage Pd WMA Newbypt 15C	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 1000, 370 B. Nikula# 100+ P. Flood 1000 G. d'Entremont# 1 P. Roberts 1 C. Freeman 1 V.O. 1 W. Petersen 1 P. + F. Vale
Table Tabl	S. Whiûng# N.O. R. Heil D. Furbish EL (M. Hall) P. Flood M. Lynch# T. Collins S. Kellogg S. Kellogg S. Kellogg H. America V.O. R. Bowes B. Nikula# R. Heil T. Collins T. Tollins Tollins Tills Tollins Tollins Tills Tollins Tollins Tollins Tills Tollins Tollins Tills Tollins Tills Tollins T	Nant. Shoals	8+ B. Nikula 52 J. Sweeney 00 K. Doyon 00, 800 B. Nikula 80 F. Bouchard 1020, 2600 R. Heil 100+ S. Ellis 00 BBC (R. Heil) 1100, 370 B. Nikula# 10+ P. Flood 10- P. Roberts 10 G. d'Entremont# 1 P. Roberts 1 C. Freeman 1 V.O. 1 W. Petersen 1 P. + F. Vale

American Bitt	ern (continued)		12/2	Mashpee	3 M. Keleher
12/14	P'town (R.P.)	1 O. Spalding#	12/10	Falmouth	2 imm R. Heil#
12/18 12/28	Gloucester (E.P.) Ipswich	P. Peterson R. Heil	12/28 Cooper's Hav	Ipswich vk	2 R. Heil
Great Blue He			11/1	Barre Falls	4 Hawkcount (BK)
11/26	Peabody	4 D. + I. Jewell	11/3-27	Chatham (MI)	14 Hawkcount (DM)
12/12 12/16	Hingham E. Gloucester	5 E. Taylor 7 R. Heil	11/18 11/27	Mt. Watatic P.I.	2 Hawkcount (TP) 3 T. Wetmore
12/31	Dartmouth	4 A. + D. Morgan	12/10	DWWS	2 MAS (S. Avery)
Great Egret	P.I.	6 may	12/11	Nahant	2 L. Pivacek
11/1-10 11/1	Worcester	6 max v.o. 1 B. Mulhearn	Northern Gos 11/4	Millbury	1 ad D. Berard
11/27	Dartmouth	 A. Morgan 	11/4	Ashburnham	1 T. Pirro
11/28 12/2-13	Chilmark	1 W. Woesner v.o.	11/5 11/17	W. Groton Medford	1 E. Stromsted 1 f imm P. Roberts
12/2-13	Falmouth Annisquam	3 v.o. 1 J. Barber	11/20	Wayland	1 f imm P. Roberts 1 imm M. Daley
Snowy Egret	•		11/21	Boxford	1 immJ. MacDougalĺ#
11/3 11/3	P.I. N. Falmouth	1 J. McNeal# 2 I. Nisbet	11/27 12/10	Granville P.I.	1 Hawkcount (JW) 1 ad P. Roberts
12/9-30	W. Gloucester	S. Hedman	12/14	Athol	1 J. Johnstone
Little Blue He		4. 5.4	Red-shoulder		
12/12-26 Cattle Egret	Millbury	1 imm R. Johnson#	11/thr 11/2-24	Granville Barre Falls	66 Hawkcount (JW) 27 Hawkcount (BK)
11/12	Deerfield	1 D. Mako	11/4	Ashburnham	1 T. Pirro
Green Heron	0.11.1	1 03/11/1	11/5	Fairhaven	1 BBC (Stymeist)
11/19 Black-crowne	Salisbury d Night-Heron	P. Meleski#	11/10 11/18	Falmouth Mt. Watatic	1 ad R. Stymeist# 8 Hawkcount (TP)
11/16	Cambr. (Alewife)	1 K. Hartel#	11/27	Acushnet	2 K. Langevin#
11/17	Boston (P.G.)	1 M. Kaufman	12/3	Dartmouth	1 M. Lynch#
11/21 12/30	Belmont Winthrop	2 juv C. Thrope 1 imm P. + F. Vale	12/10 12/15	Hawley Pembroke	1 ad M. Lynch# 1 ad D. Furbish
Black Vulture			12/29	DWWS	1 MAS (Galluzzo)
11/2	Russell	2 T. Swochak 1 K. Keadv#	Broad-winged		1 Hamiltonia (IW)
12/21-31 Turkey Vultur	Chappaquiddick	1 K. Keady#	11/9 Red-tailed Ha	Granville wk	1 Hawkcount (JW)
11/1-24	Barre Falls	6 Hawkcount (BK)	11/thr	Granville	363 Hawkcount (JW)
11/11	S. Dart. (A. Pd)	5 E. Nielsen 5, 4 T. Wetmore	11/1-24 11/3-27	Barre Falls Chatham (MI)	129 Hawkcount (BK) 31 Hawkcount (DM)
11/26, 12/2 12/3	W. Tisbury	5, 4 T. Wetmore S. Whiting#	Rough-legged		31 Hawkcount (DM)
12/16	Athol	1 J. + L. Duprey	11/21	Chatham (MI)	1 dk USFWS (DM)
12/28 12/31	Ipswich Manchester	2 R. Heil 10 K. + D. Young	12/3 12/10	Granville P.I.	1 Hawkcount (JW) 1 lt imm P. Roberts
Osprey	Manchester	10 K. + D. Toung	12/10	DWWS	1 dk MAS (Galluzzo)
11/5	Wachusett Res.	2 M. Lynch#	12/31	DWWS	1 lt S. Grinley#
11/18 11/23	Granville Wachusett Res.	1 Hawkcount (JW) 1 M. Lynch#	Golden Eagle 11/thr	Granville	5 Hawkcount (JW)
12/3	Worcester	1 B. Mulhearn	11/3	Barre Falls	1 Hawkcount (BK)
12/16	Bourne	1 Buzzards Bay CBC	11/4	New Salem	1 B. Lafley
12/22-30 Bald Eagle	W. Boxford	1 T. Walker	11/4 12/16	Quabbin (G35) S. Quabbin	1 ad B. Lafley 1 juv J. Hoye#
11/thr	Granville	21 Hawkcount (JW)	American Ke		,
11/1	W. Newbury	1 D. Chickering	11/thr	Granville	4 Hawkcount (JW)
11/4 11/5, 23	New Salem Wachusett Res.	4 B. Lafley 2, 2 M. Lynch#	11/1 11/2	Barre Falls Cambridge	2 Hawkcount (BK) 2 S. Simpson 4 TASL (M. Hall)
11/5, 11	Barre Falls	1, 2 Hawkcount (BK)	11/19	Boston H.	4 TASL (M. Hall)
11/11 11/25	P.I.	1 T. Wetmore 1 ad P. Ippolito#	12/1 12/9	Revere B. Salisbury	2 A. Birch 3 J. Fenton
11/25	Woburn (H.P.) Boston (Logan)	1 ad P. Ippolito# 1 ad N. Smith	12/19	Melrose	2 A. Birch 3 J. Fenton 2 D. + I. Jewell
12/15	Amesbury	 S. McGrath 	12/31	Cumb. Farms	4 D. Furbish
12/16 12/21	S. Quabbin Dartmouth	3 J. Hoye# 1 imm A. Curtis	Merlin 11/thr	Granville	4 Hawkcount (JW)
12/24	Halifax	1 R. Finch#	11/1-11	Barre Falls	3 Hawkcount (BK)
12/31	Bradford	1 ad A. Clark	11/3-25	Chatham (MI)	3 Hawkcount (DM)
Northern Harr thr	ner P.I.	15 max v.o.	11/7 Peregrine Fal	P.I.	2 D. + I. Jewell
thr	Duxbury B.	1-3 R. Bowes	thr	P.I.	1-2 v.o.
thr	Cumb. Farms	5-6 D. Furbish	thr	Boston (Logan)	N. Smith
11/thr 11/1-20	Granville Barre Falls	Hawkcount (JW) Hawkcount (BK)	11/10 11/19	Chilmark Boston H.	2 A. Keith 3 TASL (M. Hall)
12/29	Barnstable	2 G. Hirth	11/20	Mt.A.	2 ad R. Stymeist
12/31	DWWS	5 P. + F. Vale	12/thr	Gloucester	2 v.o. 2 MAS (Galluzzo)
Sharp-shinned 11/thr	Hawk Granville	48 Hawkcount (JW)	12/15 12/17	Nantasket B. Sunderland	2 MAS (Galluzzo) 2 A. Richards
11/1-20	Barre Falls	51 Hawkcount (BK)	12/17	Hadley	 D. Ziomek
11/3-27 11/4	Chatham (MI)	90 Hawkcount (DM) 5 T. Pirro	12/19 Yellow Rail *	Deerfield	F. Bowrys
11/4	Ashburnham S. Dart. (A. Pd)	2 E. Nielsen	12/1	Scituate	1 ph D. Ludlow
11/21	Chatham	16 USFWS (DM)	12/29	Nantucket	2 R. Veit#

Virginia Rail				11/25	Duxbury B.	3	C. Dalton#
11/19	Mashpee	5	M. Keleher	12/2-17	Rockport (A.P.)		E. Masterson
12/10	Falmouth	5 2	R. Heil#	12/27	Eastham	1	B. Nikula
12/28	Ipswich	1 3	R. Heil	Sanderling 11/1-12/1	o ni	110	
12/30 Sora	Nantucket	3	G. d'Entremont	11/1-12/1	o P.1. Chatham (S.B.)	110 max 700	v.o. B. Nikula
11/1	Nantucket	1	E. Andrews#	11/10	Plymouth B.	130	K. Doyon
Common Mo			~	11/10	Nahant	100+	I. Davies
12/31 American Co	Nantucket	1	G. d'Entremont#	11/18, 12/ 11/24	6 Duxbury B.	195, 30 130	R. Bowes P. Flood
thr	Ipswich	26 m	ax v.o.	12/3	Dennis P'town (R.P.)	300	J. Young
thr	Woburn (HP)	24 m	ax v.o.	Semipalmate		500	J. Toung
thr	GMNWR	180 m		11/5	Chatham (S.B.)		B. Nikula
	Braintree	62 m		11/6	P.I.	1	P. Brown
11/14 11/19	Richmond Westport	22 390	T. Collins E. Neilsen	White-rumpe	Chatham (S.B.)	1	B. Nikula
12/9	Harwich	28	B. Nikula	11/11-23	P.I.	i	V.O.
12/29	Nantucket	59	G. d'Entremont#	Baird's Sand			
Black-bellied		20	11/11	11/15 De et e e e l Com	P.I.	1 ph	B. Harris
thr 11/1-12/23	P.I. 2 Duxbury B.		ax 11/11 v.o. ax 11/1 R. Bowes	Pectoral San 11/1-2	Chilmark	2	A. Keith
11/4	Plymouth B.	150+	K. Doyon	11/2, 18	Rowley		Grinley, Nielsen
11/5	Chatham (S.B.)		B. Nikula	11/5	Chatham (S.B.)	2	B. Nikula
11/11	Edgartown	177	A. Keith	11/14	P.I.	1	R. Heil
12/1 12/14	Cumb. Farms P'town (R.P.)	3 1	W. Petersen O. Spalding#	11/16 Purple Sandı	Longmeadow	1	J. Wojtanowski
12/28	Ipswich	1	R. Heil	thr	P.I.	2-8	v.o.
American Go				11/13, 12/	/26 Rockport (A.l		R. Heil
11/1-15	Rowley		MAS (B. Gette)	11/23	Salisbury	28	S. Grinley#
11/24-26	Cumb. Farms	1	W. Petersen	12/1	Scituate	100+	J. Galluzzo
Semipalmate thr	Piover Pembroke	1-2	W. Petersen	12/7 12/21	Nahant P'town	62 15	L. Pivacek J. Bosler#
11/1, 18	Duxbury B.	2, 1	R. Bowes	12/29	Nantucket		G. d'Entremont#
11/1-2	Melrose	ĺ	D. + I. Jewell	Dunlin			
11/1-17	P.I.	2-5	T. Wetmore	thr	Duxbury B.	1225 max	
11/5 11/9	Chatham (S.B.) Edgartown	55 1	B. Nikula A. Keith	thr 11/4	P.I. Newbypt	270 max 185	v.o. P. + F. Vale
11/15	Wellfleet	1	M. Keleher	11/5	GMNWR	1	R. Walton#
Killdeer	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	•	1/1/ 110101101	11/5	Chatham (S.B.)		B. Nikula
11/2-18	Rowley	34 m		11/15	Wellfleet	31	M. Keleher
11/5	Wachusett Res.	7	M. Lynch#	11/24	Eastham (F.E.)		B. Nikula#
11/11 11/25	Plymouth Hingham	8 4	K. Doyon S. Schwenk	12/21 12/22	P'town (R.P.) Rockport (A.P.)	50 55	J. Bosler# R. Heil
11/26	Arlington Res.	i	K. Hartel#				10.11011
12/13				Long-billed	Downchei		
	Newbypt H.	1	R. Heil	Long-billed 1 11/1-26	P.I.	1-2	v.o.
12/16	Longmeadow	1 2	R. Heil S. Svec	11/1-26 Wilson's Sni	P.I. pe		
12/16 12/22	Longmeadow Chilmark	1	R. Heil	11/1-26 Wilson's Sni 11/1-17	P.I. pe P.I.	5 max	v.o.
12/16	Longmeadow Chilmark stercatcher	1 2	R. Heil S. Svec A. Keith	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3	P.I. pe P.I. 31 Cumb. Farms		
12/16 12/22 American Oy 11/9 11/26	Longmeadow Chilmark estercatcher Monomoy Chatham (S.B.)	1 2 1	R. Heil S. Svec	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16	P.I. pe P.I. 1 Cumb. Farms /3 Amherst Rowley	5 max 6, 4 20, 6	v.o. D. Furbish H. Allen P. Peterson
12/16 12/22 American Oy 11/9 11/26 American Av	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.)	1 2 1 48 5	R. Heil S. Svec A. Keith M. Brady# B. Nikula	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/	P.I. pe P.I. 31 Cumb. Farms /3 Amherst Rowley /18 Pembroke	5 max 6, 4 20, 6 3 5, 16	v.o. D. Furbish H. Allen P. Peterson W. Petersen
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) rocet Rowley	1 2 1 48 5	R. Heil S. Svec A. Keith M. Brady#	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10	P.I. pe P.I. 31 Cumb. Farms /3 Amherst Rowley /18 Pembroke E. Boston (B.I.)	5 max 6, 4 20, 6 3 5, 16	v.o. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) rocet Rowley wlegs	1 2 1 48 5	R. Heil S. Svec A. Keith M. Brady# B. Nikula	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25	P.I. pe P.I. 31 Cumb. Farms /3 Amherst Rowley /18 Pembroke E. Boston (B.I.) Sandwich	5 max 6, 4 20, 6 3 5, 16	v.o. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson
12/16 12/22 American Oy 11/9 11/26 American Ay 11/12-20 Greater Yello thr 11/1-25	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) occet Rowley wlegs Wellfleet Duxbury B.	1 2 1 48 5 1 L 34 ma 30 ma	R. Heil S. Svec A. Keith M. Brady# B. Nikula . Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31	P.I. pe P.I. 31 Cumb. Farms 33 Amherst Rowley 418 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket	5 max 6, 4 20, 6 3 5, 16	v.o. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello thr 11/1-25 11/1-29	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) occet Rowley wlegs Wellfleet Duxbury B. P.I.	1 2 1 48 5 1 L 34 ms 30 ms 45 ms	R. Heil S. Svec A. Keith M. Brady# B. Nikula . Ferraresso + v.o. ax v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o.	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W	P.I. pe P.I. 31 Cumb. Farms 73 Amherst Rowley 718 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket	5 max 6, 4 20, 6 3 5, 16	v.o. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d. d'Entremont# G. d'Entremont#
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) cocet Rowley wlegs Wellfleet Duxbury B. P.I.	1 2 1 48 5 1 L 34 ms 30 ms 45 ms 1-5	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W	P.I. pe P.I. 11 Cumb. Farms 13 Amherst Rowley 148 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC)	5 max 6, 4 20, 6 3 5, 16 1 1 1	v.o. D. Furbish H. Allen P. Peterson W. Peterson S. Zendeh D. Gibson d 'Entremont# A. Birch
12/16 12/22 American Oy 11/9 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) /ocet Rowley wlegs Wellfleet Duxbury B. P.I. ! Pembroke Eastham (F.E.)	1 2 1 48 5 1 L 34 ma 30 ma 45 ma 1-5 20	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula#	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W 11/9	P.I. pe P.I. 31 Cumb. Farms 33 Amherst Rowley /18 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I.	5 max 6, 4 20, 6 3 5, 16 1 1 1 0 5	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d. d'Entremont# A. Birch S. Grinley#
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) cocet Rowley wlegs Wellfleet Duxbury B. P.I.	1 2 1 48 5 1 L 34 ms 30 ms 45 ms 1-5	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W	P.I. pe P.I. 11 Cumb. Farms 13 Amherst Rowley 148 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC)	5 max 6, 4 20, 6 3 5, 16 1 1 1	v.o. D. Furbish H. Allen P. Peterson W. Peterson S. Zendeh D. Gibson d 'Entremont# A. Birch
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 12/28 12/31 Willet	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) /ocet Rowley wlegs Wellfleet Duxbury B. P.I. ! Pembroke Eastham (F.E.) N. Falmouth Dartmouth	1 2 1 48 5 1 L 34 ma 30 ma 1-5 20 1 2	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/11 11/17	P.I. pe P.I. 21 Cumb. Farms 23 Amherst Rowley 24 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket 600dcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif	5 max 6, 4 20, 6 3 5, 16 1 1 1 5 2 1 1 (e) 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d. d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines#
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-12/12 11/24 12/28 12/31 Willet 12/17-24	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Occet Rowley Wlegs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth	1 2 1 48 5 1 L 34 m: 30 m: 45 m: 1-5 20 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbe#	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/17 12/2 12/30	P.I. pe P.I. P.I. 31 Cumb. Farms 73 Amherst Rowley 718 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6 2 1 1 1 6 1 1 1 1 1 6 1 1 1 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d. d'Entremont# G. d'Entremont# R. Stymeist# S. Kellogg M. Rines# C. Lewantowicz
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Occet Rowley Wlegs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth	1 2 1 48 5 1 L 34 ms 30 ms 45 ms 1-5 20 1 2 3	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/1 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble#	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30	P.I. pe P.I. P.I. S.I. Cumb. Farms Amherst Rowley R.E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6 2 1 1 1 6 1 1 1 1 1 6 1 1 1 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d. d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines#
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-12/12 11/24 12/28 12/31 Willet 12/17-24	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Occet Rowley Wlegs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth	1 2 1 48 5 1 L 34 m 30 m 45 m 1-5 20 1 2 3 1 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/17 12/2 12/30	P.I. pe P.I. P.I. P.I. Samherst Rowley Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket	5 max 6, 4 20, 6 3 5, 16 2 1 1 6 5 2 1 1 6 1 2 1 2 6	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d 'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# C. Lewantowicz d 'Entremont# R. Heil
12/16 12/22 American Oy 11/9 11/26 American Av 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Yocet Rowley Wlegs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Ylegs Pembroke Arlington Res. P.I.	1 2 1 48 5 1 L 34 mi 1-5 20 1 2 3 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30 Pomarine Jac 11/23, 28 11/24, 12/	P.I. pe P.I. P.I. S.I. Cumb. Farms Amherst Rowley R.E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) Z.7 Eastham (F.I.)	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6, 6 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# C. Lewantowicz d'Entremont# R. Heil B. Nikula#
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) rocet Rowley Welgs Wellfleet Duxbury B. P.I. 4 Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans vlegs Pembroke Arlington Res. P.I. odwit	1 2 1 48 5 1 L 34 m: 30 m: 45 m: 1-5 20 1 2 3 1 1 2	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/17 12/2 12/30 Pomarine Jac 11/23, 28 11/24, 12/ 11/24	P.I. pe P.I. P.I. P.I. Sanherst Rowley P.I. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) P.I. Estham (F.F.)	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 (e) 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson G. d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# C. Lewantowicz G. d'Entremont# B. Nikula# P. Flood
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/12 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Occet Rowley Welgs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V	1 2 1 48 5 1 L 34 mm 30 mm 45 mm 1-5 20 1 2 3 1 1 2 2 7. 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula I. Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/11 11/17 12/2 12/30 Pomarine Jac 11/23, 28 11/24, 12/ 11/24 11/24 11/24	P.I. pe P.I. P.I. P.I. SI Cumb. Farms Amherst Rowley P.I. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket Goodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) Pennis Ptown	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 2 1 1 2 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# K. Lewantowicz d'Entremont# R. Heil B. Nikula# P. Flood B. Nikula
12/16 12/22 American Oy 11/9 11/26 American Ar 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Occet Rowley Wlegs Welffeet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V. Plymouth	1 2 1 48 5 1 L 34 m: 30 m: 45 m: 1-5 20 1 2 3 1 1 2	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/ 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/17 12/2 12/30 Pomarine Jac 11/23, 28 11/24, 12/ 11/24	P.I. pe P.I. P.I. P.I. Cumb. Farms Amherst Rowley R. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) P.T. Eastham (F.F.) Dennis P'town P.I.	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6 2 1 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 1 1 1 2 1 1 1 1 1 2 1 1 1 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson G. d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# C. Lewantowicz G. d'Entremont# B. Nikula# P. Flood
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/11-12 Ruddy Turnsi 11/5	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) //ocet Rowley wlegs Wellfleet Duxbury B. P.I. l Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans //egs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V Plymouth tone Chatham (S.B.)	1 2 1 48 5 1 L 34 mi 30 mi 45 mi 1-5 20 1 2 3 1 1 2 2 7 1 1 1 12	R. Heil S. Svec A. Keith M. Brady# B. Nikula I. Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/3 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30 Pomarine Jac 11/23, 28 11/24, 12/1 11/24 12/3 12/13 12/12, 26 Parasitic Jace	P.I. pe P.I. 31 Cumb. Farms //3 Amherst Rowley //18 Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eg Rockport (A.P.) //27 Eastham (F.I Dennis P'town P.I. Rockport (A.P.) ger	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 (e) 1 1 2 (e) 1 1 2 (e) 1 1 2 (f) 6, 6 3 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# K. Lewantowicz d'Entremont# P. Flood B. Nikula# P. Flood B. Nikula R. Heil R. Heil
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-12/12 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/11-12 Ruddy Turnsi 11/5 11/8, 15	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Cocet Rowley Wlegs Welffleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V Plymouth tone Chatham (S.B.) Duxbury B.	1 2 1 48 5 1 L 34 mm 30 mm 1-5 20 1 2 3 1 1 2 2 7 1 1 12 2 2 1 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/1 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula R. Bowes	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30 Pomarine Jau 11/23, 28 11/24, 12/1 11/24 12/3 12/13 12/12, 26 Parasitic Jae 11/4, 11,	P.I. pe P.I. P.I. P.I. S.I. Cumb. Farms Amherst Rowley R. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) 27 Eastham (F.I. Dennis P'town P.I. Rockport (A.P.) ger 12 P'town	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6 6, 6 3 1 1 1 1 2 1 1 2 1 1 1 2 1 1 1 2 1 1 1 2 1 1 1 1 2 1 1 1 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# G. d'Entremont# S. Grinley# R. Stymeist# S. Kellogg M. Rines# S. Kellogg M. Rines# C. Lewantowicz G. d'Entremont# R. Heil B. Nikula# P. Flood B. Nikula R. Heil R. Heil R. Heil B. Nikula
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/1-12 Ruddy Turnsi 11/8, 15 12/18	Longmeadow Chilmark stercatcher Monomoy Chatham (S.B.) rocet Rowley Welgs Wellfleet Duxbury B. P.I. 4 Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V Plymouth tone Chatham (S.B.) Duxbury B. Gloucester (B.R	1 2 1 48 5 1 L 34 mi 30 mi 45 mi 1-5 20 1 2 3 1 1 2 2 7 1 1 1 12 2 1 1 1 1 2 1 1 1 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula R. Bowes P. + F. Vale	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 Pomarine Jae 11/23, 28 11/24, 12/1 12/3 12/13 12/22, 26 Parasitic Jae 11/4, 11, 11/11	P.I. pe P.I. P.I. P.I. S.I. Cumb. Farms P.I. Sandwich Marshfield Nantucket Codcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) P.T Dennis P'town P.I. Rockport (A.P.) P.I. P.I. Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.)	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 (e) 1 1 2 (e) 1 1 2 (e) 1 1 2 (f) 6, 6 3 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# A. Birch S. Grinley# R. Stymeist# S. Kellogg M. Rines# K. Lewantowicz d'Entremont# P. Flood B. Nikula# P. Flood B. Nikula R. Heil R. Heil
12/16 12/22 American Oy 11/9 11/26 American At 11/12-20 Greater Yello thr 11/1-25 11/1-12/12 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/11-12 Ruddy Turnsi 11/5 11/8, 15	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Cocet Rowley Wlegs Welffleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V Plymouth tone Chatham (S.B.) Duxbury B.	1 2 1 48 5 1 L 34 mm 30 mm 1-5 20 1 2 3 1 1 2 2 7 1 1 12 2 2 1 1	R. Heil S. Svec A. Keith M. Brady# B. Nikula Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/1 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula R. Bowes	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30 Pomarine Jau 11/23, 28 11/24, 12/1 11/24 12/3 12/13 12/12, 26 Parasitic Jae 11/4, 11,	P.I. pe P.I. P.I. P.I. S.I. Cumb. Farms P.I. Sandwich Marshfield Nantucket Codcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) P.T Dennis P'town P.I. Rockport (A.P.) P.I. P.I. Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.) P.T Rockport (A.P.)	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 (e) 1 1 2 (e) 1 1 2 (e) 1 1 2 (f) 6, 6 3 1 1 2 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# G. d'Entremont# S. Grinley# R. Stymeist# S. Kellogg M. Rines# S. Kellogg M. Rines# C. Lewantowicz G. d'Entremont# R. Heil B. Nikula# P. Flood B. Nikula R. Heil R. Heil R. Heil B. Nikula
12/16 12/22 American Oy 11/9 11/26 American Ar 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/11-12 Ruddy Turns: 11/5 11/8, 15 12/18 12/29 Red Knot 11/4	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) rocet Rowley Welgs Wellfleet Duxbury B. P.I. 4 Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans vlegs Pembroke Arlington Res. P.I. odwit Cape Poge, M.V Plymouth ione Chatham (S.B.) Duxbury B. Gloucester (B.R Nantucket Plymouth B.	1 2 1 48 5 1 L 34 ms 30 ms 45 ms 1-5 20 1 2 3 1 1 2 2 . 1 1 1 12 2 . 1 .) 4 9 21	R. Heil S. Svec A. Keith M. Brady# B. Nikula I. Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/4 v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula R. Bowes P. + F. Vale G. d'Entremont# K. Doyon	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/1 11/16 11/24, 12/1 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/11 11/17 12/2 12/30 Pomarine Jae 11/24, 12/1 12/3 12/13 12/22, 26 Parasitic Jae 11/11 Laughing Gu 11/11 11/11	P.I. pe P.I. P.I. P.I. P.I. Cumb. Farms Amherst Rowley R. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) 27 Eastham (F.I. Dennis P'town P.I. Rockport (A.P.) ger 12 P'town P'town Ill P'town Rockport (A.P.)	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 (e) 1 1 2 6, 6 3 5, 16 1 1 2 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson G. d'Entremont# A. Birch S. Kellogg M. Rines# S. Kellogg M. Rines# C. Lewantowicz G. d'Entremont# B. Nikula# P. Flood B. Nikula R. Heil B. Nikula R. Heil B. Nikula B. Nikula B. Nikula R. Heil B. Nikula R. Heil B. Nikula R. Heil B. Nikula
12/16 12/22 American Oy 11/9 11/26 American An 11/12-20 Greater Yello thr 11/1-25 11/1-29 11/1-12/14 11/24 12/28 12/31 Willet 12/17-24 Lesser Yellov 11/1 11/6 11/15 Hudsonian G 11/11 11/11-12 Ruddy Turnsi 11/5 11/8, 15 12/18 12/29 Red Knot	Longmeadow Chilmark Stercatcher Monomoy Chatham (S.B.) Cocet Rowley Welgs Wellfleet Duxbury B. P.I. Pembroke Eastham (F.E.) N. Falmouth Dartmouth E. Orleans Vlegs Pembroke Arlington Res. P.I. Olwitt Cape Poge, M.V Plymouth Ione Chatham (S.B.) Gloucester (B.R Nantucket	1 2 1 48 5 1 L 34 ms 30 ms 45 ms 1-5 20 1 2 3 1 1 2 2 . 1 1 1 12 2 . 1 .) 4 9 21	R. Heil S. Svec A. Keith M. Brady# B. Nikula I. Ferraresso + v.o. ax v.o. ax 11/1 R. Bowes ax 11/1 V.v.o. W. Petersen B. Nikula# I. Nisbet A. + D. Morgan J. Trimble# W. Petersen K. Hartel# B. Harris A. Keith K. Doyon# B. Nikula R. Bowes P. + F. Vale G. d'Entremont#	11/1-26 Wilson's Sni 11/1-17 11/6, 12/3 11/15, 12/3 11/15, 12/1 11/16 11/24, 12/ 12/10 12/25 12/26 12/31 American W 11/9 11/11 11/17 12/2 12/30 12/30 Pomarine Jac 11/23, 28 11/24, 12/ 11/24 12/3 12/13 12/12, 26 Parasitic Jae 11/4, 11, 11/11 Laughing Gu 11/11	P.I. pe P.I. P.I. P.I. S.I. Cumb. Farms Amherst Rowley R.I. Pembroke E. Boston (B.I.) Sandwich Marshfield Nantucket oodcock Boston (BNC) P.I. Belmont Southwick Cambr. (Alewif Westfield Nantucket eger Rockport (A.P.) 27 Eastham (F.I. Dennis P'town P.I. Rockport (A.P.) ger 12 P'town P'town Ill P'town	5 max 6, 4 20, 6 3 5, 16 2 1 1 1 6 6 1 1 2 1 1 2 1 1 2 1 1 2 1 1 2 1 2	V.O. D. Furbish H. Allen P. Peterson W. Petersen S. Zendeh D. Gibson d'Entremont# G. d'Entremont# S. Kellogg M. Rines# S. Kellogg M. Rines# S. Kellogg M. Rines# S. Heil B. Nikula# P. Flood B. Nikula R. Heil R. Heil B. Nikula B. Nikula B. Nikula

V:-1 G II	G
Little Gull	Common Tern
11/24 Eastham (F.E.) 1 ad B. Nikula#	11/4, 19 P'town 900, 20 B. Nikula
11/25 Falmouth 1 1W M. Lynch# 12/3 Wellfleet H. 2 J. Young	11/11 P.I. 1 J. Miller 11/15 Wellfleet H. 6 P. Rennert
12/3 Wellfleet H. 2 J. Young 12/5 Gloucester 1 J. Frontierro	11/15 Wellfleet H. 6 P. Rennert 11/24 Eastham (F.E.) 2 S. + J. Mirick
12/29 Nantucket 3 G. d'Entremont#	11/24 Easthain (1:E.) 2 S. + J. Willek 11/24 Dennis 2 P. Flood
Black-headed Gull	Forster's Tern
11/9 Rockport 1 ad M. Flor	11/3, 12/8 Plymouth 5, 1 Sweeney, Furbish
11/22-12/3 Wellfleet H. 1 ad v.o.	11/4 N. Falmouth 1 I. Nisbet
11/24 Cotuit 1 M. Keleher	11/9 Edgartown 6 A. Keith
11/25-12/31 Gloucester 1-3 v.o.	11/11 P. I. 2 SSBC (Emmons)
11/30 Newbypt 1 P. Cozza	11/11 P'town 2 B. Nikula
12/15 Hingham H. 1 C. Nims#	11/19, 12/1 Duxbury 4, 2 D. Furbish
12/24 Plymouth B. 1 K. Doyon	12/2 Wellfleet H. 3 P. Gilmore#
12/29 Nantucket 1 ad G. d'Entremont#	12/27 N. Truro 1 CBC (M. Lynch)
Bonaparte's Gull	Dovekie
thr P.I. 90 max v.o.	thr Rockport (A.P.) 3-4 v.o.
11/5, 12/2 Duxbury B. 50, 180 R. Bowes#	12/15 Hingham 1 MAS (Galluzzo)
11/5 Pittsfield (Pont.) 1 T. Gagnon	12/16-31 P.I. 1-3 v.o.
11/11 P'town 500+ B. Nikula	12/18 Gloucester 5 P. Brown
11/11 Wasque Pt. 200 A. Keith	12/18 W. Tisbury 1 R. Woodruff#
11/13, 28 Rockport (A.P.) 91, 74 R. Heil	12/22 P'town 3 J. Bosler#
11/17 Orleans 200+ S. Ellis	12/27 Eastham (F.E.) 4 B. Nikula
11/19 Boston H. 78 TASL (M. Hall)	12/28 Wellfleet H. 1 S. Grinley#
11/24, 12/27 Eastham (F.E.) 600, 90 B. Nikula# 11/26, 12/24 Lynn B. 500, 200 J. Ouigley	Common Murre 11/13, 23 Rockport (A.P.) 2, 20 R. Heil
11/26, 12/24 Lynn B. 500, 200 J. Quigley 12/6 Gloucester 130 J. + M. Nelson	11/13, 23 Rockport (A.P.) 2, 20 R. Heil 12/19 P'town 3 I. Davies#
12/29 Nantucket 3000 G. d'Entremont#	12/19 P town 3 I. Davies# 12/22, 26 Rockport (A.P.) 2, 8 R. Heil
Thaver's Gull (details submitted) *	12/28 P'town (R.P.) 1 S. Grinley#
12/21-29 P'town 1 1W ph T. Johnson + v.o.	Thick-billed Murre
Iceland Gull	11/23, 28 Rockport (A.P.) 3, 3 R. Heil
11/13 Rockport (A.P.) 1 1W R. Heil	11/24 Eastham (F.E.) 2 S. + J. Mirick
11/24-12/30 Gloucester 2-4 v.o.	12/22, 26 Rockport (A.P.) 2, 2 R. Heil
11/26 Gardner 2 T. Pirro	12/24 Gloucester 1 P. + F. Vale
12/18 Hadley 1 H. Allen	12/28 P'town (R.P.) 3 S. Grinley#
12/21 P'town 17 J. Bosler#	Razorbill
12/24 Turners Falls 1 J. Smith	11/12, 25 P'town 17, 20 B. Nikula
12/29 Millbury 1 2W D. Berard#	11/13, 28 Rockport (A.P.) 24, 123 R. Heil
12/29 Nantucket 15 G. d'Entremont#	11/18 Nant. Shoals 40 BBC (R. Heil)
Lesser Black-backed Gull	11/24 Eastham (F.E.) 50+ S. + J. Mirick
thr Reports of indiv. from 12 locations	12/13, 18 P.I. 24, 40 R. Heil
11/thr Gardner 1-3 T. Pirro	12/21 P'town 1575 J. Bosler#
11/5 Chatham (S.B.) 6+ B. Nikula	12/22, 26 Rockport (A.P.) 165, 99 R. Heil
12/17 Gloucester (E.P.) 2 CBC (M. Lynch)	12/29 Barnstable 60 G. Hirth
12/29 Nantucket 26 G. d'Entremont# Glaucous Gull	Black Guillemot 11/5 Gloucester (E.P.) 2 J. Liller#
11/24 Gloucester 1 1W J. Miller	11/1 Boston H. 5 R. Stymeist#
12/3 Gardner 1 1W J. Willief	11/19 Marshfield 7 D. Furbish
12/13 Duxbury B. 1 R. Bowes	11/23, 12/26 Rockport (A.P.) 11, 10 R. Heil
12/21 P'town (R.P.) 1 ad J. Bosler#	12/2, 17 Duxbury B. 2, 5 R. Bowes
12/22 Rockport (A.P.) 1 1W R. Heil	12/7 Nahant 3 L. Pivacek
12/31 Gloucester (E.P.) 1 H. Miller	12/18 Gloucester 87 P. + F. Vale
"Nelson's" Gull	12/29 Hull 13 C. Dalton
12/16-21 E. Gloucester 1 imm R. Heil	12/31 Nantucket 1 G. d'Entremont
Black-legged Kittiwake	Atlantic Puffin
11/11, 12/21 P'town 150, 230 Nikula, Bosler	11/3 Rockport (A.P.) 5 B. Zajda
11/12 Scituate 10 D. Whipple	11/24 Eastham (F.E.) 2 S. + J. Mirick
11/18 Nant. Shoals 600 BBC (R. Heil)	12/13 P.I. 1 R. Heil
11/23, 12/22 Rockport (A.P.) 110, 53 R. Heil	12/31 P'town (R.P.) 7 J. Hoye#
11/24 Dennis 220 P. Flood	Large alcid species
11/24, 12/27 Eastham (F.E.) 90, 75 B. Nikula# 11/24 Wellfleet H. 75 S. + J. Mirick	11/23, 12/22 Rockport (A.P.) 34, 136 R. Heil
11/24 Wellfleet H. 75 S. + J. Mirick 12/29 Nant. Sound 5 G. d'Entremont#	11/25, 12/31 P'town 60, 160 B. Nikula 12/2 Eastham 155 B. Nikula
12/2) Ivant. Sound 5 G. d Entremont#	12/2 Eastriam 133 D. Mikula



HARLEQUIN DUCKS BY GEORGE C. WEST

OWLS THROUGH FINCHES

In the following summary only some of the highlights from the annual National Audubon Christmas Bird Count (CBC) are included. *Bird Observer* urges you to go to the Audubon website http://www.audubon.org/bird/cbc/> to see the complete results of all thirty-four organized counts in Massachusetts.

Over the past several years organized banding locations have discovered that many Northern Saw-whet Owls migrate through our area. Could the same be true of Barn Owls? Norman Smith unexpectedly banded three Barn Owls during November: two at Daniel Webster in Marshfield and another at the Wellfleet Bay Wildlife Sanctuary. Another juvenile bird successfully fledged from Chilmark on the Vineyard. As many as four Snowy Owls were noted on a single day from Logan Airport, and others were found at Plum Island, Salisbury, and South Beach in Chatham. Up to eight Long-eared and two Short-eared owls patrolled the fields of Daniel Webster Wildlife Sanctuary in November during a period when twelve Northern Sawwhets were caught and banded. Plum Island hosted as many as five Short-eared Owls during November/December, and a Short-eared in Hadley was only the second record for western Massachusetts since 1999. The Saw-whet Owl movement was somewhat disappointing this year compared to the last few years, not only in Massachusetts but also along the east coast. Warm weather and lack of snow in northern New England apparently contributed to fewer captures than in previous years. In November seventeen were banded in the Blue Hills, twelve at DWWS, three at Lookout Rock in Northbridge, two in Wellfleet, and on November 18, nine were netted and banded in Lincoln.

It was another exciting period for hummingbirds. A very late Ruby-throated Hummingbird was banded in Lanesboro on November 19. In Plymouth an *Archilochus* hummingbird appeared at a feeder on December 16, where it remained through the end of the month. A few photographs were taken, but the consensus is still uncertain as to whether it is a Ruby-throated or a Black-chinned. The first state record of Calliope Hummingbird was as recent as 2002, after an increasing pattern of vagrancy in the Northeast. This year *three* Calliope Hummingbirds were well documented with photographs, one in West Falmouth feeding on Pineapple Sage and two birds a few miles apart, one male and one female at feeders in South Dartmouth. Three documented Rufous Hummingbirds were banded during the period, all on Cape Cod. Finally, another hummingbird was seen on November 28 in Chilmark but was not identified.

A Red-headed Woodpecker was noted from Sutton, still a very uncommon bird in our area. Red-bellied Woodpeckers continue to increase; Seth Kellogg reports that the western Christmas Bird Counts recorded 295, the highest number ever.

Flycatcher was well documented and photographed in Danehy Park in Cambridge on November 5. Although the identification of *Empidonax* flycatchers is difficult, Gray Flycatcher is one of the most distinctive of the group in behavior, color, and structure. Many observers were able to see this bird at close range on November 6. They obtained excellent photographs, which were sent to experts around the country, all of whom agreed with the identification. Interesting and almost as significant was the discovery of a Least Flycatcher in the same area; this bird continued until December 2, the second latest record for the state. A flycatcher netted at Manomet on November 10 was identified as belonging to the "Western" flycatcher complex: either Pacific Slope (*Empidonax difficilis*) or Cordilleran flycatcher (*Empidonax occidentalis*). The bird gave no calls of any sort during handling or after its release and was never relocated despite considerable effort. Full measurements were obtained and further investigations with study skins are underway. A Scissor-tailed Flycatcher was in reported in Truro through November 18. Every fall we routinely see Ash-throated Flycatchers, and during

this period one was seen in Annisquam and another in East Orleans. Not to be outdone, at least four Western Kingbirds were noted during the period.

The third and the *most* cooperative state record of **Bell's Vireo** was noted in Falmouth on November 25. The bird remained into December and was recorded on the Buzzard's Bay CBC. The first two records of this species were from the banding station at Manomet (October 24–26, 2005, and September 8, 2006). The mild weather and abundance of food in the area were undoubtedly reasons why this bird remained in the area for so long. There were seven Blueheaded Vireos noted during the period, with two in December on the Boston and Quincy CBC. Also late was a Red-eyed Vireo in Rockport on November 21.

A **Gray Jay** was reported from Windsor with no details. This is a very rare visitor to the state; the last record was from Petersham during the same period in 1995. Only one **Cave Swallow** was noted as compared to over thirty individuals last year. A *Petrochelidon* swallow in Groveland may well have been another Cave. As with the lingering vireos, a number of other species were reported beyond their usual departure dates, including a Blue-gray Gnatcatcher on December 3, a Veery on November 13, and an Indigo Bunting on November 18. Among the sixteen warbler species noted during the period, a **Black-throated Gray Warbler** was photographed along Salt Pond in Falmouth, where it remained for two days, and an "**Audubon's**" **Warbler** (a subspecies of Yellow-rumped Warbler) was photographed at a feeder in Eastham.

The **Green-tailed Towhee** that was banded on Plum Island on Halloween was last seen on the island on November 17. This is just the second record of this species in the state since 1995. A very interesting towhee was found in the thickets behind the Falmouth Town Hall on December 10; the observers believed it was a male **Spotted X Eastern Towhee**. The bird showed the typical extensive white patch at the base of the primaries, like an Eastern Towhee, but also had two obvious and clear rows of bright white spotting at the "shoulder," one row on the median coverts, and one row apparently on the scapulars. Quoting Rick Heil, "These were not just narrow pale fringes but bright white rounded or oval spots. Oddly, the greater coverts appeared to lack any white tipping, and the rest of the back was also black. The tertials were edged broadly with white. The eye was dark reddish."

Other unusual birds during this incredible season were a **Varied Thrush** in Edgartown, a Lark Sparrow in Bourne, a **Le Conte's Sparrow** at Great Meadows and another photographed in Lincoln, a **Painted Bunting** in Huntington, and a **Yellow-headed Blackbird** in Holliston. The winter finch outlook is bleak, although most amazing was the discovery of a **Pine Grosbeak** that hit a window in Chatham; it was photographed before recovering and flying off. There was one report of two Red Crossbills from Plum Island, Common Redpolls from five locations, Pine Siskins from just two places, and Evening Grosbeaks from two locations in western Massachusetts. Purple Finch numbers were well below average.

R. Stymeist

Barn Owl				Snowy Owl			
11/3	WBWS	1 b	N. Smith	11/11-12/1	0 P.I.	1	v.o.
11/10	DWWS	2	N. Smith	11/12, 30	Boston (Logan)	3, 4	N. Smith
11/29	Chilmark	1 juv	 A. Keith 	12/3, 17	Boston (Logan)	3, 3	N. Smith
Eastern Scree	ech-Owl	•		12/4-7	Salisbury	1	S. Grinley
11/11	Belmont	4	R. Stymeist#	12/17	Chatham (S.B.)	1	CBC (M. Brady)
11/21	Cape Ann	5	R. Heil	Barred Owl			• • • • • • • • • • • • • • • • • • • •
12/3	Essex	2	P. Brown	11/18	Haverhill	1	D. + S. Larson
Great Horned	l Owl			11/25	Halifax	2	D. Furbish
11/11	Belmont	2	R. Stymeist#	12/10-15	Boston	1	A. Gamble#
11/16	Lexington	2	M. Rines	12/17	Lancaster	1	S. Sutton
11/25	Sudbury	2	J. Hines	12/22	E. Middleboro	1	M. Fioretti
11/29	Waltham	2	E. Smith	12/23	Beverly	1	S. McGrath
12/24	Newbury	pr	L. Leka	Long-eared C)wl		
12/31	DWWS	pr	S. Grinley#	11/10-18	Lexington	1	G. Dysart#
12/31	Newton	pr J.	Zanichkowsky	11/18, 21	DWWS	1 b,	1 b N. Smith

Long agrad (Owl (continued)			11/5	Wachusett Res.	. 1	M. Lynch#
12/thr	DWWS	8 max	N. Smith	11/18	Belchertown	1	M. Lynch# M. Lynch#
12/7	Essex	1-3	J. Berry#	11/26	Ipswich	i f	J. Berry
12/12-31	Lexington	1	M. Rines#	12/10	Hawley	1	M. Lynch#
12/17	Hadley	1	A. Magee	12/31	Westford	1	S. Selesky#
Short-eared (Owl Salisbury	1 M	VC (P. Cotto)	Least Flycato 11/5-9) 1 T	Trimble Lye
11/1 11/3-12/3		1 MA 1-5	AS (B. Gette) v.o.	12/1-02	Cambr. (Daneh Cambr. (Daneh		. Trimble + v.o. R. Stymeist#
11/5	Chatham (MI)		. Manchester		cher (details sub		R. Stymeista
11/6	Cumb. Farms	1	D. Furbish	11/5-6	Cambr. (Daneh		Trimble + v.o.
11/14-15			M. Thomas#		catcher (details s		
11/30-12/		in) 2	N. Smith	11/10		imm b T	. Lloyd-Evans#
12/thr 12/1	DWWS m S. Monomoy	ax 2	N. Smith M. Brady#	Eastern Phoe	Melrose	3	D. + I. Jewell
12/21	Hadley	1	J. Smith	11/4	New Salem	1	B. Lafley
12/28	Duxbury B.	1	D. Furbish	11/12	Amherst	1	M. A. Wilson
Northern Sav	v-whet Owl			11/25	Westboro	1	L. Lane
thr	Reports of indiv			11/30	W. Newbury	1	S. McGrath
11/thr	Blue Hills	17 b 12 b	N. Smith	12/10	Falmouth	1	R. Heil#
11/thr 11/2	DWWS Northbridge		N. Smith S. Wheelock#	12/17 12/26	Hadley Marshfield		D. Ziomek d'Entremont#
11/3	WBWS	2 b	N. Smith	12/29	IRWS	1 juv	R. Heil
11/3	Manomet	1 b	S. Howell#		d Flycatcher (no		
11/18	Lincoln	9 b	K. Clayton	12/9-19	Annisquam	1 F. I	Bouchard + v.o.
12/30	Westfield	2	D. McLain	12/19	E. Orleans	1	D. Reynolds
	d Hummingbird	1 :	M T1-#	Western King		2) 1	I V
11/13-20 Archilochus	Lanesboro	1 1111111 111	M. Lynch#	11/25 11/25-12/	Gloucester (E.I 2 Eastham (F.H.)		J. Young Goodrich + v.o.
12/16-31	Plymouth	1 ph	D. Baptista	12/3	Rockport		C (S. Hedman)
	mmingbird *	. p	D. Dupusta	12/15-24	Gloucester (E.I		V.O.
11/1-8	W. Falmouth	1 ph P. T	rimble + v.o.		d Flycatcher		
	1 S. Dartmouth		Dennis + v.o.	11/3	Truro	1 .	R. Beatty
12/5-31	S. Dartmouth		Dennis + v.o.	11/12-18	N. Truro	1 ph	B. Nikula#
11/1-12/2	nmingbird (details 7 Cotuit	1 b ph	T. Burgess	Northern Shi thr	Reports of indi	v from 19	ocations
11/1-16	Dennis	1 b ph	McGibbon	thr	P.I.	1-2	V.O.
11/17-12/		1 b ph	Grant	11/22-12/	25 Wayland	2	B. Harris
Hummingbir		_		White-eyed \		_	
11/28	Chilmark	1	A. Fischer	11/10	Nahant	1	I. Davies
Belted Kingf 11/3	isner Millbury	2	D. Berard	11/24-12/3	5 Rockport (H.P. (details submitted)) 1	L. Ferraresso
11/3	Bourne		C (Stymeist)	11/25-12/			ntremont + v.o.
11/9	Melrose		D. + I. Jewell	Blue-headed		pii G. u E	nucinone i v.o.
12/30	Sudbury	2	J. Forbes#	11/1	Boston (BNC)	3	B. Gordon
Red-headed			M D 1	11/5-9	P.I.	1	B. Gette
11/23-12/3		I imm ph	n M. Bowden	11/26	Tisbury	1	P. Uhlendorf#
Red-bellied V 11/5	Fairhaven	5 BB	C (Stymeist)	12/11-17 12/16	Lexington Hingham		G. Dysart# BC (C. Dalton)
11/10	Falmouth		R. Stymeist#	Red-eyed Vii	reo	1 C	DC (C. Daiton)
11/19	Southboro	5	M. Lynch#	11/1	Manomet	1 b T	. Lloyd-Evans#
11/21	Boston (F.Pk.)	6	J. Miller	11/4	Bourne	1 I	BBC (Stymeist)
11/26	Medford		. LaFontaine	11/7	Woods Hole	1 C	CBC (G. Hirth)
11/30	Lexington	3 12 CD(M. Rines	11/18	Arlington Res.	1	J. Forbes
12/14 Yellow-bellie	W. Brookfield	13 CBC	C (M. Lynch)	11/21 Grav Jav (n	Rockport	1	R. Heil
11/5	Sandwich	1 C. +	S. Thompson	11/4	Windsor	1	C. Quinlan
11/5	Fairhaven	1 (C. Longworth	American Cr			
11/20	Mt.A.	2	R. Stymeist	11/18	Mt. Watatic	381	T. Pirro
12/9	Woburn (H.P.)	1	P. Ippolito	11/19	Framingham	3000	E. Taylor
12/15 12/15-31	Royalston Gloucester	1 J. N 1 m	Morris-Siegel D. Sandee	12/thr 12/24	Framingham Leicester	1000 300+	E. Taylor
12/17	Amherst	1	J. Marcum	Fish Crow	Leicestei	300+	M. Lynch#
12/30	Russell	i	T. Swochak	11/2	Billerica	3	D. Chickering
Hairy Woodp	ecker			11/15	Scituate	3	D. Furbish
11/19	Mashpee	3	M. Keleher	12/15	Waltham	7	J. Forbes
11/19	Southboro	3 3	M. Lynch#	12/16	W. Springfield		I. + K. Conway
12/2 Northern Flic	Waltham sker	3	J. Forbes	12/21 Common Ra	Waltham ven	10	J. Forbes
11/11	S. Dart. (A. Pd)	5	E. Nielsen	11/2	Carlisle	2	T. Brownrigg
11/21	Cape Ann	4	R. Heil	11/4	New Salem	4	B. Lafley
11/25	Falmouth	3	M. Lynch#	11/26	Quabbin Pk	2	M. Lynch#
11/25	Sudbury	3 3	J. Hines	11/30	Wayland	2	H. Norwood#
12/3 12/3	Cumb. Farms S. Dart. (A.Pd)	4	D. FurbishE. Neilsen	12/17 Horned Lark	Lancaster	1	S. Sutton
12/9	Mattapan		A. Birch#	thr	P.I.	90 max	v.o.
12/10	Winchester	2 2	M. Rines#	11/3	Northampton	250	J. Smith
Pileated Woo	dpecker			11/7	Ipswich 1	80+	J. Berry
11/5	Quabbin (G 52)	1 m	B. Zajda	11/12	Hadley	250	J. Smith

Horned Lark (continued)		Blue-gray Gna	atcatcher		
11/16 Rowley 140	P. Peterson	12/3	Marston Mills	1	M. Garvey
11/18 Mt. Watatic 36	T. Pirro	Eastern Blueb			
11/26 Cumb. Farms 175	J. Sweeney#	11/4	Millbury	12	D. Berard#
12/1 Revere B. 32	A. Birch	11/18	Chatham (MI)	17	D. Manchester
12/17 Lancaster 55 12/28 Ipswich 100+	S. Sutton R. Heil	11/24 11/26	Wayland Quabbin Pk	13 10	B. Harris M. Lynch#
Tree Swallow	IX. Heli	12/17	Northampton	474	CBC
11/24 Wellfleet H. 3	S. + J. Mirick	12/24	Sherborn	20	E. Taylor
12/10 Chatham 1	S. Riley#	12/24	Eastham	11	A. Curtis
12/26 Gay Head 75	S. Bermudes	Veery			T 1 1 T "
Cave Swallow (details submitted) * 11/17 P.I. 2	T. Spahr	11/13 Hermit Thrusl		imm b	T. Lloyd-Evans#
Petrochelidon species	1. Spain	11/1, 12/7		7, 2	L. Pivacek
11/5 S. Groveland 2	J. Berry#	11/3	Melrose	10	D. + I. Jewell
Barn Swallow	•	11/5	Fairhaven	14	BBC (Stymeist)
11/10 Chatham (MI) 1	D. Manchester	11/14	P.I.	11	R. Heil
Red-breasted Nuthatch 11/19 Mashpee 5	M. Keleher	11/14, 26 11/21	Hingham Cape Ann	9, 8 16	C. Dalton R. Heil
11/26 Windsor 9	R. Packard	11/21	Falmouth	15	R. Stymeist#
11/26 Hubbardston 4	M. Lynch#	12/3	S. Dart. (A.Pd)		E. Neilsen
12/10 Hawley 8	M. Lynch#	12/30	S. Quabbin	2	D. Ziomek
12/14 Boston (A.A.) 3	B. Mayer	12/30	Nantucket	15	G. d'Entremont#
Brown Creeper 11/12 W. Springfield 9	T. Zepko	American Rol	oin Westford	2165	S. Sutton
11/26 W. Springfield 9 11/26 Hubbardston 4	M. Lynch#	11/5	Wachusett Res.		M. Lynch#
11/26 Hingham 4	C. Dalton	11/5	Methuen	6000+	J. Berry#
12/2 Mashpee 4	M. Keleher	11/7	Worcester	600+	M. Lynch#
12/17 Lancaster 4	S. Sutton	11/16	Cambridge	620	R. Stymeist#
12/25 Sudbury 4 Carolina Wren 4	J. Forbes#	11/20 12/17	Mt.A. Northampton	475 7555	R. Stymeist CBC
11/5 Fairhaven 21	BBC (Stymeist)	12/17	Boston (A.A.)	500+	A. Joslin
11/12 Southboro 8	M. Lynch#	Varied Thrus		3001	71. 3031111
11/16 Longmeadow 10	J. Wojtanowski	11/23	Edgartown	1	M. Defeo
11/16 Cambr. (Alewife) 8	R. Stymeist#	Gray Catbird	D.1		
11/21 Falmouth 29 11/21 Cape Ann 19	R. Stymeist#	thr	P.I.	1-6	v.o. E. Neilsen
11/21 Cape Ann 19 12/7 Nahant 7	R. Heil L. Pivacek	11/19 11/21	Westport Cape Ann	6 9	R. Heil
12/24 Stoughton 7	G. d'Entremont	12/3	Falmouth	10	M. Lynch#
House Wren		12/3	S. Dart. (A.Pd)	16	E. Neilsen
11/4 Wellesley 1	S. McGrath	12/18	Gloucester (E.F		P. Peterson
11/5 Fairhaven 2 11/30 Cambr. (Alewife) 1	BBC (Stymeist)	12/30 Brown Thrash	Boston (A.A.)	1	A. Joslin
11/30 Cambr. (Alewife) 1 12/17 Hadley 1	R. Stymeist# C. Ellison#	11/11	S. Dart. (A. Pd)) 2	E. Nielsen
Winter Wren	C. Emson	11/19	Westport	2	E. Neilsen
11/5 Fairhaven 5	BBC (Stymeist)	11/21	Lanesville	1	R. Heil
11/21 Cape Ann 3	R. Heil	11/21	Falmouth	1	K. Hartel#
12/3 S. Dart. (A.Pd) 4 12/5 Marblehead 5	E. Neilsen R. Heil	12/3 12/10	S. Dart. (A.Pd) P.I.	2 1	E. Neilsen P. Roberts
12/3 Warbienead 3 12/10 Falmouth 3	R. Heil#	12/16	Mattapoisett	1	D. Furbish
12/30 Southwick 3	R. Packard	American Pip		•	2.14.01011
Marsh Wren		11/1	Amherst	45	J. Smith
thr P.I. 8 max		11/1-12/13		20 ma	
11/19 Acoaxet 3 11/19 Mashpee 4	E. Neilsen M. Keleher	11/2 11/3	Worthington Northampton	49 110	R. Packard J. Smith
12/14 GMNWR 1	P. Morlock	11/4	Burrage Pd	100	W. Petersen
12/14 W. Brookfield 3	CBC (M. Lynch)	11/6	Cumb. Farms	35	D. Furbish
12/29 IRWS 1	R. Heil	11/11	Edgartown	40	M. Pelikan
Golden-crowned Kinglet	M. Kalahan	11/16	Rowley	50	J. McNeal
11/3 Barnstable 11 11/4 Wachusett Res. 23	M. Keleher S. Sutton	12/17 12/30	Hadley Southwick	47 42	S. Surner R. Packard
11/5 Fairhaven 20	BBC (Stymeist)	Cedar Waxwii			rt. I dekurd
11/10 Falmouth 18	R. Stymeist#	11/3	P.I.	40	T. Wetmore
11/17 P.I. 15	T. Spahr	11/23	Wachusett Res.		M. Lynch#
11/19 Westport 31	E. Neilsen	12/5	Rockport (H.P.)		J. Frontierro
11/26 Wayland 12 11/27 Millbrook 30	B. Harris H. Norwood	12/9 12/16	Boylston E. Gloucester	68 45	M. Lynch# R. Heil
12/3 S. Dart. (A.Pd) 17	E. Neilsen	12/22	Lexington	30	T. Bronson
Ruby-crowned Kinglet		12/28	Essex	115	R. Heil
11/1 Nahant 5	L. Pivacek	Orange-crown			
11/5 Fairhaven 5 11/21 Falmouth 8	BBC (Stymeist)	thr	Reports of indi		
11/21 Falmouth 8 11/21 Cape Ann 8	R. Stymeist# R. Heil	11/14 11/14	Hingham Saugus	2 2	C. Dalton D. + I. Jewell
11/26 Medford 5	R. LaFontaine	Nashville War		2	D. 1 1. JOWEII
12/3 S. Dart. (A.Pd) 5	E. Neilsen	11/1	Nahant	1	L. Pivacek
12/10 Falmouth 6	R. Heil#	11/4	Bourne	1	BBC (Stymeist)
12/18 Gloucester (E.P.) 2 12/27 Ludlow 1	P. Peterson J. Fleming	11/10	Medford	1 1	R. LaFontaine
1717.1 LUCIOW I	J. Fleilling	12/3-16	Boston (Fens)	1	R. Stymeist#

Northern Parula	12/18 P.I. 70+ R. Heil
11/3 P.I. 1 J. Miller	12/16 1.1. 70+ R. Hell 12/25 Ipswich 50+ J. Berry
11/7 Amherst 1 J. Smith	12/26 Marshfield 100 G. d'Entremont#
12/3 Gloucester 1 P. Brown#	12/31 Cumb. Farms 50+ D. Furbish
Chestnut-sided Warbler 11/7 Edgartown 1 R. Culbert	Chipping Sparrow 11/5 Wachusett Res. 2 M. Lynch#
Black-throated Blue Warbler	11/14 P.I. 4 R. Heil
11/3 Salisbury 1 D. Chickering	12/15-31 Melrose 8 max D. + I. Jewell
11/7 Worcester 1 m B. Mulhearn	12/17 Hadley 2 S. Surner
11/17 P.I. 1 m T. Spahr	12/19 Hatfield 1 F. Bowrys
12/8-19 Granby 1 L. Hoffman Yellow-rumped Warbler	12/22 W. Bridgewater 1 imm D. Furbish Clay-colored Sparrow
11/4 Sutton 14 D. Berard	11/7 Marshfield 1 C. Dalton
11/5 Fairhaven 27 BBC (Stymeist)	11/29 Nahant 1 T. Martin
11/5 Revere 30+ A. Birch	11/30 Cambr. (Alewife) 1 K. Hartel#
11/11 Chatham (MI) 77 D. Manchester 11/21 Cape Ann 24 R. Heil	12/25 E. Bridgewater 1 E. Giles# Field Sparrow
11/21 Cape Ann 24 R. Heil 12/3 S. Dart. (A.Pd) 35 E. Neilsen	11/5 Fairhaven 6 BBC (Stymeist)
12/10 Falmouth 21 R. Heil#	11/16 Lincoln 3 M. Rines
12/16 W. Springfield 1 M. + K. Conway	11/19 Westport 12 E. Neilsen
12/28 Essex 17 R. Heil	12/1-9 Bourne 15 G. d'Entremont
12/29 Nantucket 25 G. d'Entremont# Audubon's Warbler	12/3 S. Dart. (A.Pd) 9 E. Neilsen 12/6 Worc. (BMB) 2 B. Mulhearn
12/23-31 Eastham 1 ph J. Hanson	12/8 Chilmark 6 A. Keith
Black-throated Gray Warbler (details submitted) *	12/17 Lancaster 2 S. Sutton
11/19-20 Falmouth 1 J. Liller#	12/30 P.I. 1 R. Heil
Black-throated Green Warbler	Vesper Sparrow
11/1 Nahant 1 L. Pivacek 11/13 Cambridge 2 B. Stevens	11/1 Aquinnah 2 P. Buckley# 11/7 Plympton 1 J. Sweeney
Pine Warbler	12/3 Fairhaven 2 M. Maurer
11/6 P.I. 1 P. Brown	Lark Sparrow
11/19 Medford 1 R. LaFontaine	$12/\overline{2}$ -10 Bourne 1 ad D. Furbish + v.o.
11/27 Acushnet 3 K. Langevin# 12/2 Mashpee 2 M. Keleher	Savannah Sparrow 11/4, 12/19 P.I. 15, 2 T. Wetmore
12/2 Mashpee 2 M. Keleher 12/16 Holyoke 1 T. Gagnon	11/4, 12/19 F.I. 13, 2 1. Wethlore 11/4 GMNWR 10+ P. + F. Vale
Palm Warbler	12/3 Cumb. Farms 10 D. Furbish
11/thr Reports of indiv. from 12 locations	12/17 Northampton 22 CBC
11/5 Groton 6 E. Stromsted	12/22 W. Bridgewater 23 D. Furbish
11/7 Marshfield 4 C. Dalton 11/21 Falmouth 2 K. Hartel#	12/28 Ipswich 17 R. Heil 12/31 Nantucket 6 G. d'Entremont#
12/21 Carlisle 1 T. Brownrigg	Ipswich Sparrow
Blackpoll Warbler	11/1 Salisbury 1 MAS (B. Gette)
11/6-7 Harwich Port 1 B. Nikula	11/25 Duxbury B. 3 C. Dalton#
11/7 Plympton 1 J. Sweeney	11/25 Barnstable (S.N.) 2 M. Lynch#
American Redstart 11/11 Sandwich 1 CCBC (Keleher)	12/10 E. Boston (B.I.) 1 S. Zendeh 12/30 P.I. 1 R. Heil
Connecticut Warbler	12/31 Nantucket 2 G. d'Entremont#
11/14 P.I. 2 R. Heil	Le Conte's Sparrow *
Common Yellowthroat	11/1, 24 GMNWR 1 Leahy, Klockner
11/thr Reports of indiv. from 8 locations 11/21 Falmouth 3 R. Stymeist#	11/15 Lincoln 1 ph N. Soulette Nelson's Sharp-tailed Sparrow
12/24 Eastham 1 A. Curtis	11/3-5 GMNWR 1 P. Cozza
Wilson's Warbler	11/25 Eastham (F.H.) 2 C. Goodrich#
11/11, 12/3 MNWS 1 Noble, Smith	12/2 Edgartown 1 A. Keith
11/20, 12/3 Mt.A. 1 Stymeist, Petersen 11/22 Nahant 1 T. Martin	Saltmarsh Sharp-tailed Sparrow 11/11 Edgartown 1 A. Keith
11/22 Nation 1 1. Waldin 12/3 S. Dart. (A.Pd) 1 E. Neilsen	11/11 Edgartown 1 A. Keith Seaside Sparrow
Yellow-breasted Chat	11/25 Eastham (F.H.) 2 C. Goodrich#
thr Reports of indiv. from 12 locations	Ammodramus species
12/3 S. Ďart. (A.Pd) 2 E. Neilsen 12/3 Falmouth 5 M. Lynch#	11/6 Arlington Res. 1 K. Hartel#
12/3 Falmouth 5 M. Lynch# 12/11 Nahant 2 L. Pivacek	Fox Sparrow 11/6 Wayland 6 B. Harris
12/14 Eastham 2 C. + S. Thompson	11/11, 12/7 Lexington 6, 3 R. LaFontaine#
Green-tailed Towhee *	11/16 Lincoln 4 M. Rines
11/1-17 P.I. 1 J. Standley + v.o.	11/21 Falmouth 8 R. Stymeist#
Eastern Towhee	12/7 Nahant 3 L. Pivacek 12/30 Sudbury 2 J. Forbes#
11/1 Nahant 2 L. Pivacek 11/12 Pittsfield (Onota) 1 N. Mole	12/30 Sudbury 2 J. Forbes# 12/30 Southwick 1 J. Zepko
11/19 Westport 3 E. Neilsen	Lincoln's Sparrow
11/21 Falmouth 9 R. Stymeist#	11/19, 12/3 Boston (Fens) 1 R. Stymeist
12/3 S. Dart. (A.Pd) 5 E. Neilsen	11/25-12/9 Falmouth 1 G. d'Entremont
12/24 Brookline 1 P. Peterson 12/30 Norwell 1 f A. Childs	12/16 Athol 1 B. Mallet 12/30 Stow 1 B. Volkle#
Spotted X Eastern Towhee	Swamp Sparrow
12/10 Falmouth 1 R. Heil#	11/Î Nahant 13 L. Pivacek
American Tree Sparrow	11/5 Fairhaven 19 BBC (Stymeist)
11/19 Westport 32 E. Neilsen 11/19 Halifax 50 J. Sweeney	11/7 Marshfield 12 C. Dalton 11/19 Westport 11 E. Neilsen
11/19 Haman 30 J. Sweeney	11/1/ Westport II E. Nellsell

Swamp Spari	row (continued)			11/12	Wakefield	3	P. + F. Vale
11/19 -	Mashpee	11	M. Keleher	11/13	P.I.	2	C. Floyd#
12/3	S. Dart. (A.Pd)	11	E. Neilsen	12/16	Athol	5	J. Johnstone
12/26	P.I.	9	T. Wetmore	12/16	Longmeadow	1	S. Svec
White-crown				12/17	Hatfield	ī	S. Sauter
11/19	Woburn (H.P.)	1	P. Ippolito#	12/30	Westfield	6	T. Swochak
11/19	Cumb. Farms	5	J. Sweeney	Common Gra		U	1. Swochak
		1		11/1	Westford	1215	C C
11/20-12/			S. Kellogg				S. Sutton
11/23	Groveland	1	D. Chickering	11/5		0,000	J. Berry#
12/17	Hadley	5	C. Page	11/5	Granville	3000	Hawkcount (JW)
12/22	Mattapan	1 imn	n S. Williams	11/5	Wachusett Res.		M. Lynch#
Lapland Lon	gspur			11/5	E. Bridgewater	800	J. Sweeney
11/1	Salisbury	2	MAS (B. Gette)	11/8	Pepperell	2000	E. Stromsted
11/3-12/19	9 P.I.	15 max	v.ó.	11/11	Ayer	1500	E. Stromsted#
11/3	Northampton	25	J. Smith	12/thr	Medford	350	R. LaFontaine
11/5	Chatham (S.B.)	60	B. Nikula	12/1	Jamaica Plain	900	A. Joslin
11/10	Scituate (S.B.)	3	C. Nims	12/30	Southwick	300	
						300	S. Kellogg
11/11	S. Dart. (A. Pd)	1	E. Nielsen	Brown-heade		2.5	
11/15	Duxbury B.	2	R. Bowes	11/18	Rowley	25	F. Bouchard
11/27	GMNWR	1	M. Iliff	12/3	Peabody	38	D. + I. Jewell
12/21	Hadley	3	J. Smith	12/22	W. Bridgewater	35	D. Furbish
12/28	Ipswich	2	R. Heil	12/27	Concord	8	M. Small
Snow Buntin				12/29	IRWS	9	R. Heil
thr	P.I.	190 max	v.o.	12/31	W. Medford	40	R. LaFontaine
11/1	Ipswich	220	J. Berry	Baltimore Or		40	R. Lai ontaine
11/1		50	K. Doyon	11/10		2	A Vaith
	Plymouth B.				Aquinnah		A. Keith
11/3	Northampton	250	J. Smith		16 Lexington	1	R. LaFontaine#
11/5	Chatham (S.B.)		B. Nikula	11/14	P.I.	2	R. Heil
11/12	P'town	80	B. Nikula	11/17	Arlington	1	M. Rines
11/12	Boston (Logan)	700	N. Smith	11/19	Woburn (H.P.)	1	m ad P. Ippolito#
11/19	Salisbury	300	P. Meleski#	11/22-23	Westwood	1	S. Sweet#
11/23	Eastham (F.E.)	50	M. Taylor	11/28	Centerville	1 :	m imm N. Soulette
12/5	Rockport	25	J. Berry#	12/3	Gloucester	1	P. Brown#
12/29	Nantucket	30	G. d'Entremont	12/16	Cambr. (F.P.)	2	B. Kenney
		30	O. u Entremont	12/18-31		1	D. + I. Jewell
Indigo Bunti			C 77 1		Malden		
11/18	Rockport (H.P.)	1	S. Hedman	12/22	Falmouth	1	D. Belcher
Painted Bun				12/28	Nahant	2	m 1yr L. Pivacek
	5 Huntington	1 m p	h S. Hamlin#	Pine Grosbea			
Dickcissel				12/25	Chatham	1	f ph C. Kennedy
11/5	Fairhaven	1	BBC (Stymeist)	Purple Finch			
Red-winged	Blackbird			Î1/18	Mt. Watatic	5	T. Pirro
11/3	Millbury	500	D. Berard	11/26	Hingham	3	C. Dalton
11/5		1000+	J. Berry#	11/27	Newton	1	
11/5	Wachusett Res.		M. Lynch#	12/9	Boylston	î	M. Lynch#
11/7	Wayland	280	G. Dysart	12/19	Southampton	1	K. Lewantowicz
		400		12/19		2	
11/9	Plympton		J. Sweeney		Blandford	2	M. + K. Conway
11/9	Groton	650	E. Stromsted#	Red Crossbil		_	
11/19	Cumb. Farms	250	J. Sweeney	11/11	P.I.	2+	I. Davies#
12/22	W. Bridgewater	600	D. Furbish	Common Red	dpoll		
12/31	Southwick	150	S. Kellogg	11/8	Scituate	2	D. Furbish
Eastern Mead	dowlark		00	11/18	Mt. Watatic	8	T. Pirro
11/10	Chatham (MI)	3	D. Manchester	11/19	P.I.	12	T. Wetmore
11/11	P.I.	ĭ	I. Davies	11/26	Granville	6	Hawkcount (JW)
11/11	S. Dart. (A. Pd)	2	E. Nielsen	12/16	Pittsfield	6	L. Roberson
11/11		$\frac{2}{2}$	G. Hirth		THISTICIU	U	L. Roberson
	Mashpee			Pine Siskin	DI	2	I MaNt. 1
12/thr	DWWS	35 max		11/3	P.I.	2	J. McNeal
12/31	Cumb. Farms	22	D. Furbish	11/15	Littleton	4	G. Marley
	ed Blackbird			Evening Gro			
11/thr	Holliston	1 m p	h J. Trifero	11/4	Washington	4	E. Neumuth
Rusty Blackb	oird	•		12/16	Orange	1	R. Scherer#
11/7, 12/2	5 Wayland	20, 2	Dysart, Harris		C		
,		- /	J,				

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or e-mail. Send written reports to Bird Sightings, Robert H. Stymeist, 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 e-mail submission, visit: http://massbird.org/birdobserver/sightings/>.

Species on the Review List of the Massachusetts Avian Records Committee (indicated by an asterisk [*] in the Bird Reports), as well as species unusual as to place, time, or known nesting status in Massachusetts, should be reported promptly to the Massachusetts Avian Records Committee, c/o Marjorie Rines, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773, or by e-mail to <marj@mrines.com>.

ABBREVIATIONS FOR BIRD SIGHTINGS

Taxonomic order is based on AOU checklist, Seventh edition, 42nd, 43rd, 44th, 45th, 46th, and 47th Supplements, as published in *The Auk* 117: 847-58 (2000); 119:897-906 (2002); 120:923-32 (2003); 121:985-95 (2004); 122:1026-31 (2005); 123:926-936 (2006) (see http://www.aou.org/checklist/index.php3).

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



RED-BREASTED MERGANSER BY GEORGE C. WEST

ABOUT THE COVER

Brown Pelican

The Brown Pelican (Pelecanus occidentalis) is, by any measure, a spectacular bird. Highly gregarious throughout the year, these birds are often seen in flocks, flying in lines or Vs, alternately gliding and flapping, often with wing tips skimming the waves. They may also soar, riding thermals, great prehistoric-looking birds. They have webbed feet, which make them excellent swimmers, although they cannot remain on the water for more than an hour without getting waterlogged. They walk with difficulty on land and adopt a rolling gate, shifting their weight from side to side. This coastal marine species is unmistakable, whether sitting atop pilings, gliding on long wings (six feet or more tip to tip), or plunge-diving head-first from heights of up to 200 feet. The predominantly dark body, large size (up to eleven pounds), long pink and brown bill (fifteen inches), and massive gular pouch are distinctive. Adults are gray-brown below, silver-gray above, and yellow-headed, with brown necks during breeding season and white necks the rest of the year. Males may be twenty percent heavier than females. Young birds are brown with white below and lack the yellow head. They take three to five years to achieve adult plumage. Five subspecies are generally recognized for this widely distributed species, with a sixth, P. o. thagus, the Peruvian Pelican, considered by some taxonomists to be a separate species. Our Atlantic Coast pelicans are P. o. carolinensis.

Brown Pelicans breed from Maryland south through Texas and south through Central America and the Caribbean to Venezuela. On the West Coast, breeding colonies are scattered along the coast from southern California through Central America. Most birds are resident, but some populations are at least partial migrants, and a postbreeding dispersal commonly brings pelicans north of their breeding range. In the east they winter from Chesapeake Bay south to northern South America. They are considered vagrants in Massachusetts, with about a dozen records through the early 1990s. Sightings are usually in the fall, a result of postbreeding dispersal.

Brown Pelicans are monogamous, producing a single brood per year. They are long-lived and may not breed until their fifth year. They typically nest on warm coastal and estuarine islands, either natural or dredge-spoil, and in mangroves in the southern parts of their range. They are largely silent. Territorial during breeding season, males choose a nest site and defend it using threat displays that include head swaying with bill open and wings drooping or a bowing display with head held forward, bill pointing down and wings slightly open. They will defend the nest site and surrounding perches with bill thrusts and snapping mandibles, uttering a coarse, low-pitched *hrraa-hrraa*. The head swaying also functions to advertise for females. Among established pairs it is a greeting ceremony. In appeasement displays the bill is held nearly horizontal with the wings spread, or the head swings side to side with the bill tucked against the neck. These behaviors are also used as a greeting ceremony at the nest.

As a nuptial ceremony, males spread their wings and present perspective mates with nest material. The receptive female then builds a nest; in North America and Baja California usually on the ground or in low shrubs, in trees elsewhere. The nest is

constructed of sticks and twigs if available, or grass and seaweed. The usual clutch is three chalky white eggs that are incubated by both parents for four to five weeks until hatching. Brown Pelicans do not develop brood patches, but rather incubate the eggs using the bottoms of their webbed (totipalmate) feet. The chicks are altricial, without down, and helpless. As the chicks develop, they fight and develop dominance hierarchies with the first-hatched chick usually becoming dominant. The fights often lead to siblicide, the youngest chick either starving or being beaten to death.

Both parents feed the young by regurgitation, at first onto the nest floor, and later from the gular pouch. Finally, older chicks stick their bills down their parents' throats and retrieve whole fish. The young birds first fly at eleven to twelve weeks and are then largely independent.

Brown Pelicans usually forage by headfirst plunge-diving and trapping fish in their expanded gular pouch. Typically they sight prey, fold their wings at the wrist, and dive, extending their heads forward as they enter the water and simultaneously raising their wings. They do not become completely immersed and can forage to a depth of only about six feet. Their pouch may trap up to ten liters of water, which they slowly expel, trapping any fish. They may also forage while sitting on the water. Brown Pelicans frequently forage in mixed species flocks, and may, when surface feeding, use other birds such as cormorants as "beaters." They follow the beater and catch fish disturbed by it. Brown Pelicans drink seawater and expel the salt through salt glands located in front of their eyes. Their food consists largely of small schooling fish such as menhaden or mullet, but they occasionally take marine invertebrates.

Brown Pelicans were particularly hard hit by organochlorine pesticides. Endrin and DDT and its metabolites drove the species to near extinction in North America from the late 1950s to mid-1970s. Endrin killed pelicans directly while DDT caused eggshell thinning resulting in reproductive failure. Beginning in the early 1970s, federal controls on these pesticides made possible a remarkable recovery, and by the turn of the century, Brown Pelican numbers reached pre-DDT levels. Brown Pelicans still suffer from human interactions, however. In Florida, sport-fishing lines and hooks are currently a major cause of mortality, and persecution of these birds by commercial fisherman who view them as competitors is, sadly, not uncommon. Gulls and corvids are major nest predators. Despite their difficulties, Brown Pelican numbers continue to increase, and their future, so bleak three decades ago, now seems secure. **William E. Davis, Jr.**

About the Cover Artist

Ikki Matsumoto is a Japanese-born artist who came to the United States in 1955 as a twenty-year-old student. At the Art Academy of Cincinnati he studied under the noted wildlife artist, Charles Harper. After graduation his initial work was in advertising as an illustrator and designer, but in 1975 he moved his family to Sanibel Island, Florida, where he established a new career as a painter and printmaker using native birds as his subjects. He and his wife Polly now operate a gallery and frame shop there, and he continues to produce paintings and prints for exhibitions in Florida and in Tokyo. You can find more of his work and additional gallery information at http://www.ikkimatsumoto.com.

AT A GLANCE

February 2007



DAVID LARSON

This month we see a swimmer, but, as is often the case with pictures in this column, the bird is presented at just the wrong angle to make its identity obvious. With this in mind, how can we identify the mystery bird?

Using peripheral clues, the shoreline and emergent vegetation, we can probably eliminate most seabird species, unless of course the bird is in an atypical habitat, always a possibility with "At a Glance" photos. Since the bird is not obviously black and white or strongly countershaded (i.e., dark above, white below), all alcid species and many ducks can be ruled out. Likewise, since the pictured bird has dark-centered, white undertail coverts, it cannot be a Sooty Shearwater or a cormorant. Its relatively low carriage in the water suggests a grebe or possibly a loon species.

This bird is not long and slim enough, however, to be a loon. Likewise, the lack of pattern on the back, the apparent absence of white on the underparts, and the strongly contrasting dark (black?) back of the head are unlike any loon species. And don't forget those white undertail coverts, a feature never seen in a loon. Grebes, especially the little freshwater Pied-billed Grebe, may show white undertail coverts when swimming directly away from an observer. Pied-billed Grebes, however, never exhibit a dark, blackish back to their head, a feature strikingly obvious in the pictured swimmer.

So what's left? Ducks are left. Waterfowl, however, even females, usually exhibit some form of distinctive patterning on the back or head, and most species tend to have longer tails than the bird in the picture. More importantly, no duck species has the strongly dark-colored head contrasting with the evenly colored pale back seen in the pictured bird. These features, along with the mystery bird's divided, dark-centered white undertail coverts and overall uniform coloration, are unequivocal characteristics of an American Coot (*Fulica americana*), the species shown in the picture.

The American Coot is an uncommon spring and variously common fall migrant on freshwater ponds and lakes throughout Massachusetts. Despite its routine presence during migration and in winter, it is a rare and local breeder in the state with only a handful of confirmed nesting records. David Larson was responsible for capturing this cryptic image of an American Coot.

Wayne R. Petersen

FROM THE U.S. FISH AND WILDLIFE SERVICE

The Migratory Bird Conservation Commission recently approved funding to purchase waterfowl habitat and fund an array of wetlands, migratory waterfowl and associated conservation projects in the U.S. and Mexico. With the Commission's approval, over 277,000 acres of wetlands will be restored in the two countries and over 6000 acres of waterfowl habitat will be added to eight National Wildlife Refuges in seven states.

"The projects approved by the Commission are prime examples of how cooperative conservation works," said Interior Secretary Dirk Kempthorne. "The Interior Department and our state and private partners all support the shared goal of North American wetlands conservation. And as we approach the 75th anniversary of the Federal Duck Stamp program, stamp purchases by hunters, conservationists and stamp collectors continue to secure National Wildlife Refuge lands for ducks, geese and other wildlife, as well as present and future generations of people who love the outdoors."

The Commission approved the use of more than \$13 million under the Migratory Bird Conservation Fund to acquire 6566 acres of habitat for the National Wildlife Refuge System. The Fund receives revenue from Duck Stamp sales, import duties on firearms and ammunition, and right-of-way payments to the refuge system. New refuge acquisitions, all previously approved by the Service and each of the states, include, in Massachusetts, the acquisition of 149 acres to conserve and protect migratory waterfowl habitat and provide feeding, resting and nesting habitat at the Silvio O. Conte National Fish and Wildlife Refuge in Hampshire County.

Additional information can be found on the U.S. Fish and Wildlife Service Website. U.S. project descriptions:

http://www.fws.gov/birdhabitat/Grants/NAWCA/Standard/US/ApprovProj.shtm.

AT A GLANCE



DAVID LARSON

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

MORE HOT BIRDS



This **Wilson's Warbler** (right) was found in Nahant by Tom Martin on January 2, 2007, and identified by Linda Pivacek as a western subspecies (*cryseola* or *pileolata*). It was last seen on February 14. This photograph is © Bruce de Graaf, February 11, 2007.

On January 22, 2007, Jane Orr noticed a warbler in Cambridge that turned out to be a **Townsend's Warbler** (left). Among the hundreds of people who saw and photographed this bird into March, Bruce deGraaf © got this great photo on February 11, 2007.



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