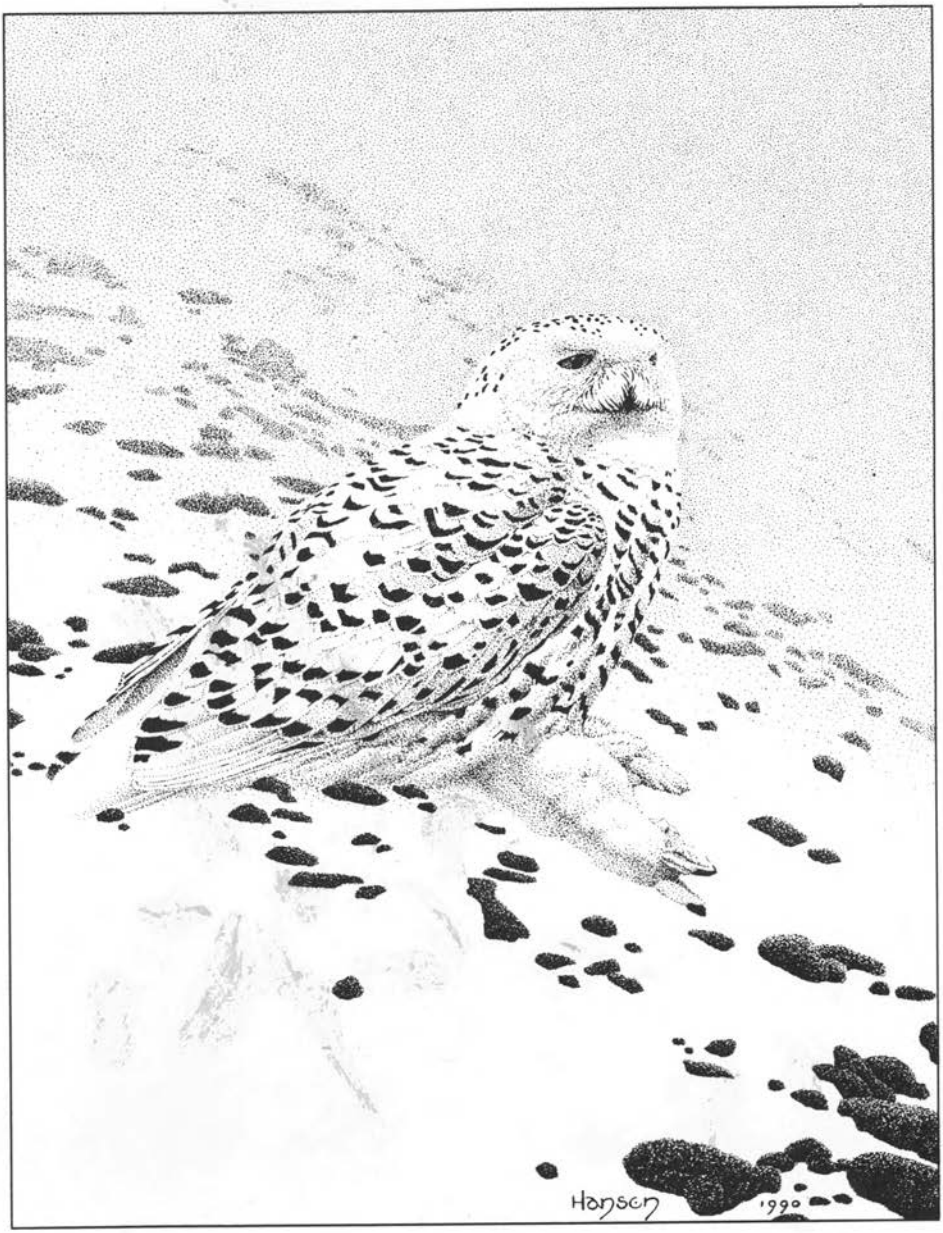
BIRD OBSERVER



VOL. 23 NO. 6

DECEMBER 1995

BIRD OBSERVER

• a bimonthly journal •

To enhance understanding, observation, and enjoyment of birds.

VOL. 23, NO. 6 DECEMBER 1995

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POSTMASTER: Send address changes to *BIRD OBSERVER*, 462 Trapelo Road, Belmont, MA 02178. SECOND CLASS POSTAGE PAID AT BOSTON, MA.

SUBSCRIPTIONS: $16 for 6 issues, $30 for two years in the U. S. Add $2.50 per year for Canada and foreign. Single copies $4.00. An Index to Volumes 1-11 is $3. Back issues: inquire as to price and availability.

CHANGES OF ADDRESS and subscription inquiries should be sent to
Bird Observer Subscriptions, P. O. Box 236, Arlington, MA 02174.

ADVERTISING: full page, $80; half page, $40; quarter page, $25. Send camera-ready copy to Bird Observer Advertising, P. O. Box 236, Arlington, MA 02174.

BIRD SIGHTINGS: Send reports of any given month in writing by the eighth of the next month to
Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172.

MATERIAL FOR PUBLICATION: *BIRD OBSERVER* welcomes for publication contributions of original articles, photographs, art work, field notes, and field studies. Please send these or other suggestions to the editor in chief:
Martha J. Steele, P. O. Box 236, Arlington, MA 02174.
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ISSN: 0893-4630

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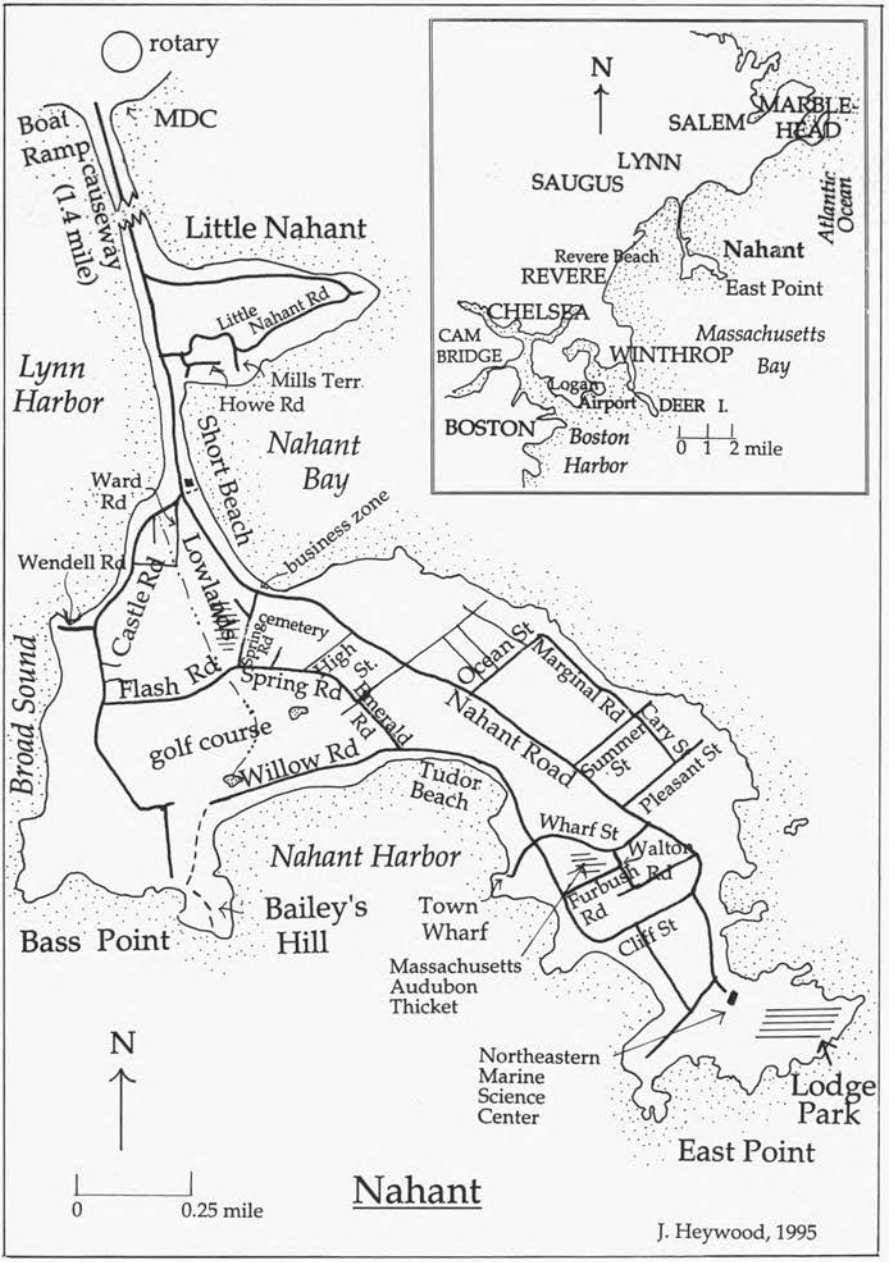
Manomet Observatory's Birder's Exchange collects new and used optics and field guides for distribution to Latin American ornithological groups. The Observatory has many pending requests for equipment, but their supplies are running low. Optical equipment must be in good working order. For information, call Manomet at 508-224-6521.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BIRDING THE NOOKS AND CRANNIES OF NAHANT

by Linda Pivacek

A migrant trap skirted by rocky coastline, beaches, and mudflats—Nahant is a place for all seasons. During winter rafts of eiders and scoters are accompanied by many other seabirds. In spring and fall birders can enjoy migrating land birds and shorebirds on this tiny island and can always hope to turn up a rarity such as Painted Bunting, Franklin's Gull, or Summer Tanager, all of which have been reported in the past. With this article I hope to increase the reader's chances for a productive birding trip to Nahant by exploring the many nooks and crannies on the island.

The smallest town in Massachusetts, Nahant is a 1.2-square-mile island connected to the mainland by a mile-long causeway. Early maps show that it comprised three small islands: Little Nahant, Bass Point, and East Point. Today, the central area between these points is wetlands, occupied by a soggy golf course and unfortunately interlaced with drainage ditches. The current plan is to allow Lodge Park at East Point and Bailey's Hill at Bass Point to remain as natural and unspoiled as possible.

The first documented use of the island was as pasture land, where livestock could be protected from wolves by erecting a barrier across the narrow neck of beach extending to the mainland. In the nineteenth century Nahant became a seaside resort accessible by steamship, where Boston's elite summered on grand estates. Today some overgrown old gardens still provide food and cover for birds, but many old estates have been divided, and much of the open space has been developed for residential housing.

Getting There

The causeway leading to Nahant begins at a rotary on Lynn Shore Drive in Lynn, twelve miles north of downtown Boston. From the south, go north on Route 1A in Revere, cross the General Edwards Bridge spanning the Pines River from Revere to Lynn, and continue for two miles on the Lynnway, following signs to Nahant. Enter the Nahant rotary (the ocean will be in front of you), and take the first right onto the causeway. From the north, take Humphrey Street in Swampscott to Lynn Shore Drive in Lynn. After one mile, go halfway around the Nahant rotary, and follow the causeway to Nahant as above. From the west on Route 1 in Lynnfield, follow Route 129 east for 4.2 miles through a few curves and traffic lights to where Route 129 turns left. Continue straight onto Chestnut Street for 1.3 miles to a traffic light at Broad Street. Cross Broad Street at the traffic light onto Atlantic Street. After two blocks the road bears right and joins Lynn Shore Drive, less than a mile north of the Nahant rotary.

Parking in Nahant can be a problem. Nonresidents may be ticketed, especially for parking in lots that require stickers such as East Point and Short Beach. "No parking" signs are on almost all streets. In my experience, however, restrictions generally are not enforced except during beach weather, especially on weekends. If there is a field trip or birders responding to a "hot line" bird, notifying the local police has always worked for me.

Finding Birds in Nahant

Birding can begin immediately upon exiting the rotary: take the first right to the Metropolitan District Commission (MDC) boat ramp and park. You will need a scope to find the Purple Sandpipers on the rocks surrounding the channel marker. Scan for seabirds and shorebirds in Lynn Harbor. For wintering seabirds and migrant spring and fall shorebirds, carefully cross over the causeway to Lynn Beach near the brick MDC building. If possible, take advantage of the afternoon light, and plan to be here within two hours of high tide. There are more birds at this time, and you can get closer to them. To do this, you may want to visit this site on your way out of Nahant. If so, try parking at one of the free small parking lots on either side of the brick MDC building. This area is great for shorebirds and gulls due to the presence of *Pilayella littoralis* algae, a boon to birds and birders and a bane to beachgoers.

Fall brings the greatest number and variety of shorebirds, which feast on creatures associated with the decaying algae deposited on the beach with the receding tide. Search through the Semipalmated Sandpipers and Sanderlings for Red Knots and Buff-breasted, Baird's, and White-rumped sandpipers. Several Western Sandpipers are often present. Lesser Black-backed Gulls make annual appearances. Scan among the Bonaparte's Gulls feeding in the mats of floating algae in the sea for Black-headed Gull and Little Gull. Keep a sharp eye out for one of the Peregrine Falcons lured to this spot . . . like any other birder.

After driving across the causeway (1.4 mile) and passing Little Nahant on your left, take the first right onto Castle Road. Immediately, and carefully, turn left by the pharmacy, and park in front of the houses along Ward Road. Cross Castle Road opposite the pharmacy, and take the short path to the shore to survey the flats at Broad Sound. At high tide in the fall, move slowly and quietly over the dune as the shorebirds feeding at the wrackline come into view very suddenly. A sizable flock of Brant winters in the sound, and Harbor Seals lounge on "Seal Rocks" during low to midtide.

Before returning to your car, cross to the opposite side of Nahant Road, and take the path to the right of the Coast Guard Station to Short Beach. This is one of several vantage points on this trip to look for birds on the beach and in Nahant Bay. After returning to your car, proceed along Castle Road. For wintering seabirds, take the first right onto Wendell Road, which shortly dead-ends. Common Goldeneye, Bufflehead, Brant, and Red-breasted Merganser can

be close to shore at this spot. In late winter and early spring search for King Eider in the rafts of Common Eider.

Return to Castle Road, and go right. Take the third left onto Flash Road, pass the golf course on your right, and bear right onto Spring Road. For spring and fall migrants, take the second left onto High Street, and park at the end. This is the back gate to the cemetery, which is worth checking. Return to Spring Road, go left, then quickly right onto Emerald Road, and take the second right onto Willow Road, which shortly dead-ends. Park near the golf course clubhouse restaurant, and check the golf course edges for Ipswich Sparrow. The half-mile path to Bailey's Hill leaves from the far side of the "Oceanview" function hall on the beach. Try pishing along the hillside path to attract songbirds during migration. Keep bearing to the right, until you reach the gate where a small parking lot is located (chances of a parking ticket are high if you choose this lot). In the winter search the ocean across from the parking area for Barrow's Goldeneye among the sea ducks. A short hike up the paved road leads to the top of Bailey's Hill, where you should scan for ducks, loons, grebes, and other seabirds.

Retrace your steps, and drive back along Willow Road. After passing Tudor Beach and Town Wharf on your right, take the first left onto Furbush Road. After 0.1 mile, park in the Massachusetts Audubon parking area on your left (room for only two cars) to explore the area in and around the Massachusetts Audubon Sanctuary, known locally as "the Thicket." During spring and fall migration the Thicket and the surrounding residential streets are usually the best bet for warblers, vireos, thrushes, and other songbirds in Nahant. The sanctuary itself is very small and is minimally maintained. It can be very muddy and difficult to get through—watch out for poison ivy.

From the parking lot, continue on foot along Furbush Road, and go left onto Walton Road. The area across from the Thicket along Walton Road can be very productive; stop and listen. In this area and in the Thicket itself, Yellow-breasted Chat can be found in both spring and fall, and occasionally in winter. Orange-crowned Warbler has turned up here also. In late spring the Mourning Warbler is best located by its loud, clear song. Walk left onto Wharf Street, and proceed for about fifty yards to the path on the left entering the sanctuary, which is not marked well and is not maintained. In spring a White-eyed Vireo is sometimes singing near the entrance.

Stop and listen frequently along the path, which ends at a drainage ditch. Move quietly to view the ditch. Both Louisiana and Northern waterthrushes and other migrants frequent this area. An effort is underway to erect another "bridge" across the ditch. Past efforts have fallen prey to vandals. To approach the ditch from the opposite side, one must walk back around the sanctuary, and hunt for a path leading in from the other side, which in some years is more apparent than in others.

One can either walk or drive to East Point from the Audubon Sanctuary. Head back down Furbush Road, and turn left onto Willow Road, and left again onto Cliff Street. If you are driving, park on Cliff Street near the village church. Continue on Cliff Street and go right onto Nahant Road. Enjoy the ocean view and, hopefully, seabirds along the way to East Point. The Northeastern Marine Science Center will be straight ahead, and Lodge Park is the area on top of the hill. Stop and scan the ocean and coves at any vantage point. Walk through the pedestrian opening in the gate, and proceed up the asphalt roadway to the top. In winter sea ducks, Great Cormorant, loons, grebes, and Red-breasted Mergansers are usually present. King Eider is sometimes found in the rafts of Common Eider. Careful and patient observation may produce Black Guillemot or Razorbill. Take your time walking the periphery of this area, for there are lots of hidden corners to explore. Snowy Owls may go unnoticed sitting motionless on the rocks. Walk across the center of the grassy top to find Snow Buntings and Lapland Longspurs. This can also be a good spot for Ipswich Sparrow.

Upon leaving the East Point area, drive northwest on Nahant Road for 0.2 mile. The ocean will be on your right. Just before the road bends left away from the ocean, there is a small pull-out with a wooden platform. Stop and scan for seabirds. To avoid a parking ticket, do not venture far from your car.

Drive to Pleasant Street, the second prominent street on your right, and park beside the public library and playground. In spring listen for bird song; good birding can be found anywhere along these streets graced with old mature trees. Drive to Cary Street, one block beyond the playground, turn left, and take the next right onto Summer Street, which dead-ends. This is a good place to scope for seabirds. Return, and go right on Cary Street, which becomes Marginal Road. Stop along this road to get an excellent view of Nahant Bay. From October to May thousands of scoters and many other seabirds may be in the bay. Scan the scoters to find the smaller profile of the Harlequin Duck. Search for Barrow's Goldeneye. In May the Red-necked Grebes are fabulous in their breeding plumage. Common and Red-throated loons and Horned Grebes are often in good view from the road.

At the end of Marginal Road, go left onto Ocean Street, and take the fourth right onto Nahant Road. At 0.4 mile you will reach Short Beach. If you park in the business zone, you will be able to do some birding on foot. This is about the only place to get something to eat in Nahant. You can check Nahant Bay from this vantage point while you eat. Leave your car at the business zone while you bird the Lowlands area. Walk about sixty yards along Spring Road to the gated entrance to the composting and lobster trap storage area on the right. Follow the dirt road, and explore. Birding for spring and fall migrants can be good. In October look for Lincoln's, White-crowned, and Swamp sparrows. Dickcissel can sometimes be found.

Drive past the Coast Guard Station at Short Beach, and take the next right

onto Little Nahant Road. Take the first right onto Howe Road, and park after the road bears to the left. Walk back to where the road turned left, and follow the paved path to Short Beach. This is the end of the beach where the *Pilayella littoralis* algae collects and the shorebirds and gulls congregate. Little Gull has recently frequented this end of Short Beach, and Iceland and Glaucous gulls are possible. From a high point on the beach, scope the rocky shore of Little Nahant for another opportunity to see Harlequin Duck and Barrow's Goldeneye, which favor this shore.

After returning to your car, drive back up Howe Road, and turn right onto Little Nahant Road. When you reach the T, turn right, and go straight on Mills Terrace, where the road ends in 100 feet. Park along the road, and walk along the path for another good vantage point for Nahant Bay. At high tide the rafts of scoters will be in closer view. King Eider occasionally turns up here along with Oldsquaw, Common Goldeneye, Common Eider, Bufflehead, and Greater Scaup.

Return to Little Nahant Road, take a right, proceed to the crest of the hill, and bear left at the hairpin turn. At the bottom of the hill turn right onto the causeway. (The nearer right turn leads to the beach parking lot.) The causeway will lead you back to Lynn. If you wish to stop at the MDC building on the beach at the end of the causeway, try parking in one of the small lots on either side of the building. For both of these lots, which are more available when beachgoers are not around, carefully bear right when you reach the end of the fencing on the right side of the causeway. You will be at the first lot. If it is full, drive along the inner right hand road, and take the first right immediately after passing the building, and drive into the parking lot.

A Short Visit

Nahant Bay is the wintering site for large numbers of sea ducks. In most years a small number of Harlequin Ducks are present, and in some years King Eider and Barrow's Goldeneye can be found. The bay can be viewed from Marginal Road, Short Beach, and Little Nahant. Wintering Yellow-breasted Chats and Orange-crowned Warblers sometimes turn up at the Massachusetts Audubon Thicket and in Little Nahant. A winter route should include East Point for King Eider, Black Guillemot, Razorbill, Northern Gannet, Snow Bunting, Lapland Longspur, and Snowy Owl. The eastern coast of Bailey's Hill is a favorite wintering spot for Barrow's Goldeneye. Look for Purple Sandpipers on the rocky shores.

In spring and fall, with favorable weather conditions, the Massachusetts Audubon Thicket is the most reliable place for warblers, Philadelphia and White-eyed vireos, thrushes, and other migrants. The Lowlands composting area can also host a number of migrants—the October sparrows include Lincoln's and White-crowned sparrows and possibly a Dickcissel. One has a chance to see

Ipswich Sparrow at East Point and the golf course along Willow Road. Although the cemetery has not produced the numbers of migrants that it has in the past, Painted Bunting, Summer Tanager, and Cerulean Warbler have been found during spring migration within the past eight years. Impressive numbers of fall shorebirds congregate on Nahant/Lynn Beach near the MDC building. Look for Buff-breasted, Baird's, Western, and White-rumped sandpipers and Lesser Black-backed and Little gulls among the more common species.

Not considered by many birders to be a destination in itself, Nahant is convenient to several nearby North Shore birding spots. A great place for "drop-by" birding! Any of several areas could be included on your itinerary: Belle Isle Marsh in East Boston, Winthrop shore, Point of Pines in Revere, Marblehead Neck, and Salem Woods.

LINDA PIVACEK has resided and birded in Nahant for more than ten years. She pursues her birding hobby whenever and wherever she can, venturing as far as South America and Africa. Linda supports her habit by working as a biostatistician at Boston University School of Medicine.

UNITED STATES POSTAL SERVICE

Statement of Ownership, Management, and Circulation
(Required by 39 U.S.C. 3685)

1. Publication Title: Bird Observer
2. Publication No.: 3 6 9 - 8 5 0
3. Filing Date: Oct. 31, 95
4. Issue Frequency: Bi-monthly
5. No. of Issues Published Annually: 6
6. Annual Subscription Price: $16.00
7. Complete Mailing Address of Known Office of Publication (Not Printer): 462 Trapelo Rd. Belmont, MA 02178-1421
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer): 462 Trapelo Rd. Belmont, MA 02178-1421
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do Not Leave Blank)
Publisher (Name and Complete Mailing Address): Bird Observer of Eastern Massachusetts, Inc. 462 Trapelo Rd. Belmont, MA 02178-1421
Editor (Name and Complete Mailing Address): Martha J. Steele, 36 Lowis Ave. Arlington, MA 02174
Managing Editor (Name and Complete Mailing Address): n/a
10. Owner (Do Not Leave Blank.)

Full Name	Complete Mailing Address
Bird Observer of Eastern Massachusetts, Inc.	462 Trapelo Rd. Belmont, MA 02178-1421

11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check here. [X] None

Full Name	Complete Mailing Address
None	

12. For completion by nonprofit organizations authorized to mail at special rates. (Check one)
[X] Has Not Changed During Preceding 12 Months
[ ] Has Changed During Preceding 12 Months (If changed, publisher must submit explanation of change with this statement)

13. Publication Name: Bird Observer
14. Issue Date for Circulation Data Below: August 1995

15. Extent and Nature of Circulation	Average No. Copies Each Issue During Preceding 12 Months	Actual No. Copies of Single Issue Published Nearest to Filing Date
a. Total No. Copies (Net Press Run)	1050	1050
b. Paid and/or Requested Circulation (1) Sales Through Dealers and Carriers, Street Vendors, and Counter Sales (Not Mailed)	5	0
(2) Paid or Requested Mail Subscriptions (Include Advertisers' Proof Copies/Exchange Copies)	887	883
c. Total Paid and/or Requested Circulation (Sum of 15b(1) and 15b(2))	892	883
d. Free Distribution by Mail (Samples, Complimentary, and Other Free)	32	32
e. Free Distribution Outside the Mail (Carriers or Other Means)	0	0
f. Total Free Distribution (Sum of 15d and 15e)	32	32
g. Total Distribution (Sum of 15c and 15f)	924	915
h. Copies Not Distributed (1) Office Use, Leftovers, Spoiled	126	135
(2) Return from News Agents	0	0
i. Total (Sum of 15g, 15h(1), and 15h(2))	1050	1050
Percent Paid and/or Requested Circulation (15c / 15g x 100)	96.5%	96.5%

16. This Statement of Ownership will be printed in the December 1995 issue of this publication. [ ] Check box if not required to publish.
17. Signature and Title of Editor, Publisher, Business Manager, or Owner: Martha Steele, editor — Date: 11/3/95

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CONSERVATION OF CLIFF SWALLOWS IN MASSACHUSETTS

by Mara Silver

This article presents results from 1993 and 1994 of my work in management strategies for Cliff Swallow *(Hirundo pyrrhonota)* conservation in Massachusetts. An earlier article, which appeared in *Bird Observer* (21[3]:150), presented results for 1991 and 1992, which are briefly summarized here.

Cliff Swallows have been declining in Massachusetts. Poor adhesion of nests to nest surfaces and competition from House Sparrows *(Passer domesticus)* for nesting sites appear to be the primary factors. The decline of agriculture and its associated decrease in open land may also be a factor. This trend may result in fewer local mud puddles from which the swallows obtain their nesting material. There may be other undocumented factors.

Historical

The first recorded sighting of breeding Cliff Swallows in Massachusetts was in the Boston area, in Hingham and Attleboro in 1842 (Bent 1942). Henceforth, Cliff Swallow populations increased greatly as more buildings became available for nest sites, and fields were cleared for farming (Bent 1942). In the eastern United States Cliff Swallow populations probably reached their maximum numbers between 1840 and 1860 (Forbush 1908). In Massachusetts the Cliff Swallow was a "common summer resident" in 1870 (Griscom and Snyder 1955). A slow population decline commenced about 1880, when introduced House Sparrows spread throughout New England (Forbush 1929, Bull 1964). House Sparrows, as cavity nesters, compete directly with Cliff Swallows (Samuel 1969). The decline in this century has continued due to factors mentioned above, as well as to loss of open agricultural land and habitat loss due to development (unpublished Breeding Bird Atlas). There may be other undiscovered factors.

Natural History and Ecology

Cliff Swallows are members of the family Hirundinidae, which includes swallows and martins. They are a migratory, highly colonial species. The birds travel between South America and large areas of North America.

In New England the breeding season lasts from early May until early August. The birds build bottle-shaped mud nests under the eaves of buildings and bridge superstructures. Once paired, both sexes participate in nest-building. Clutch size averages three to four eggs. Both parents incubate eggs and feed nestlings. The incubation period is approximately twelve to fourteen days, and the nestling period is approximately twenty-four days. Parents continue to feed fledglings before all leave for South America. Breeding activity within a colony

is closely synchronized.

1991 and 1992 Results

In 1991 I started a project under the sponsorship of the Natural Heritage and Endangered Species Program at the Massachusetts Audubon Society's (MAS) Graves' Farm Sanctuary in Hampshire County. Management activity was limited to House Sparrow control. The remainder of the time was spent observing the colony. Of the nesting attempts (including renesting), six were foiled by House Sparrows, seven nests fell, one nest was both usurped by House Sparrows and fell, and two nests produced young.

In 1992 the project was resumed under the auspices of the MAS. Management activity included House Sparrow control, the addition of thirty gallons of natural clay to the swallows' mud source, and the installation of three fired (i.e., will not disintegrate in water) stoneware clay "nest ledges." It was hoped that the addition of clay to the mud source would improve nesting material and decrease the incidence of nest falling. The nest ledges provided a nest base for the swallows to complete, again to decrease the incidence of nest falling. Of the thirty active nests, fifteen were usurped by House Sparrows, and eleven nests fell. Swallows used one of the three nest ledges. Thirteen to fifteen Cliff Swallow pairs were successful. (When nests fell with nestlings, they were returned to the eaves in substitute nests, and several pairs renested after the House Sparrow attack, contributing to the number of successful pairs.)

Management Strategies — 1993-1994

The 1993 and 1994 results from the Graves' Farm site are as follows.

House Sparrow Control. By 1993 the House Sparrow population had been reduced to just a few pairs. In mid-May two males attempted to enter Cliff Swallow nests, and they harassed the swallows at the nest entrances. House Sparrows are wary and in past years appeared to learn they were being pursued. In 1993 sparrows were purposely ignored, became bold, were caught by surprise, and shot. No House Sparrows were seen at the colony for the rest of the season, and the sparrows did no damage to the colony.

In 1994 no House Sparrows were present at the colony. A male was seen approximately 200 yards away calling on a bird nesting box for several days in May, but then left.

Nest Ledges. On April 29 and 30, 1993, seventy-five nest ledges were installed under the eaves of the barn, thirty-eight on the north side and thirty-seven on the south. These are modeled to replicate half-finished Cliff Swallow nests for the swallows to complete. They are made of the same material as the nest ledges used in the 1992 study. They were installed on the north side first. As they were being installed, Cliff Swallows were investigating and landing on them. Swallows built on the north side first, possibly because the nest ledges

were there first. Of a total of sixty-three pairs that nested, fifty-eight used the nest ledges. Of these fifty-eight nests, one crumbled from its ledge. Of the five nests that were not built onto nest ledges, two fell. There were forty-five to fifty-five successful pairs.

In 1994 seventy-five additional nest ledges were installed on April 24 and 25 for a total of 150, seventy-five on each side of the barn. No swallows visited them while they were being installed. Of the thirty-five pairs that arrived to nest, thirty-three used the nest ledges. Two pairs used two nests that were built in 1992. Four pairs nested on the north side of the barn, and thirty-one on the south side. The fewer pairs on the north side may have resulted from the removal of mud from the nest ledges after the 1993 breeding season. Nests were left intact on the south side. Swallows readily occupied complete nests and seemed to prefer them. Of the thirty-five nesting pairs, over twenty-five were successful. Two pairs of Barn Swallows *(Hirundo rustica)* attempted to nest on nest ledges, one pair on each side of the barn, on the western end. The pair on the north side began nest building, and both pairs were seen chasing Cliff Swallows from the vicinity. Within a few days however, both pairs had abandoned the sites, although the Cliff Swallows had not appeared to put up a fight.

Mud Supply. In 1993 the mud puddle from which the swallows got their nesting material was located on the north side of the barn. It was kept wet through the breeding season. Ten gallons of natural clay were added in mid-June. At various times in early spring swallows were sighted gathering mud of a different composition from wet areas in the field north of the barn. It appears the composition of nesting material might not be as crucial when being added to nest ledges, as so few nests crumbled from them. In 1991 and 1992 almost all nests built directly onto eaves fell entirely off the surface, indicating the area of attachment as the most vulnerable part of the nest.

In 1994 the mud puddle was again kept wet through the breeding season. No clay was added. All farming activity ceased at the farm after February. Henceforth it became necessary to both dig up the puddle, as no farm vehicles were traversing it, and to cut the tall grass around the puddle, which the farmer had done. Without these activities the puddle quickly fills in with vegetation. One swallow was found dead at the puddle before the grass around it was sufficiently short, probably killed by a domestic cat. The swallows appear to be more tentative about mud collecting when there is tall vegetation around the puddle.

Management Strategies at Other Locations — 1994

At two locations (Williamsburg, Hampshire County, and Princeton, Worcester County), management strategies were implemented to try to lure Cliff Swallows to sites where they formerly bred but are now vacant.

At the Williamsburg site, located about two miles west of the Graves' Farm

site, Cliff Swallows had last nested in 1987. Numbers of breeding Cliff Swallows at this site had declined rapidly after 1982. Five nest ledges were installed in late April under the eaves of the barn, the traditional nesting site. Two of these nest ledges were installed in 1993. Swallows did not prospect or nest at the farm either year. House Sparrows are controlled at the farm by removing their nests. Mud supply is provided by two small springs on the property.

At the Princeton site (MAS Wachusett Meadow Wildlife Sanctuary), Cliff Swallows had last nested in 1986, at which point there were four pairs. Twenty-eight of thirty-five nest ledges were installed on April 9 on a large barn, a traditional nesting site. The remaining six were installed at a later date inside another barn, again a traditional nesting site. On June 20 one pair nested on the same side of the barn as the nest ledges but did not use the ledges. The nest, built north of the ledges, fell on July 16, after which the swallows left. House Sparrows are controlled at the sanctuary with traps. It may be that there was not a sufficient mud supply at this site. Active farms, but not necessarily sanctuaries, often contain muddy areas. There was a small puddle immediately next to the barn, but it was surrounded by tall vegetation. I believe that to attract Cliff Swallows to presently vacant sites, ample mud in open areas must be visible to birds prospecting for nest sites.

The two remaining study sites, in Rutland and Lunenburg, Worcester County, host active Cliff Swallow colonies. The owners of these properties have an interest in their colonies and their conservation, and agreed to participate in the project.

At the Rutland site, Alta Vista Farm, ten nest ledges were installed on April 16 on one side of a barn where Cliff Swallows had not nested. In past years the swallows nested above the doorway of a barn where their excrement had become a nuisance. It was hoped they would use the nest ledges and nest away from the doorway. Of the five nesting pairs, two used the nest ledges. The remaining three nested in another location on the opposite side of the barn. At this site House Sparrows are not controlled, but no damage from sparrows occurred. Mud is plentiful at this site.

At the Lunenburg site, Woodruff Farm, ten nest ledges were installed on April 16 on the side of a building where many of the resident Cliff Swallows nest. None of the more than twenty-five nesting pairs used these nest ledges. However, a small amount of mud was added to eight of them, and two to three inches of mud were added to two. Many of the nests at this farm are complete nests that have remained up for years and are composed of both mud and cow manure. The question of whether or not cow manure strengthens Cliff Swallow nests is worthy of inquiry. As at Graves' Farm, swallows quickly took up residence in previously constructed nests. House Sparrows are trapped in bird boxes and sparrow traps at this farm. Mud is plentiful.

Conclusions

The increase in numbers of breeding Cliff Swallows at Graves' Farm during the 1991-1994 period suggests that management activities benefited the colony. With the implementation of House Sparrow control, installation of nest ledges, and a sufficient mud supply the colony began to recover. The cause of the decrease in pairs of breeding swallows from sixty-three in 1993 to thirty-five in 1994 is not known. The spring of 1994 was cold. Cliff Swallows are vulnerable to both cold and wet weather (Krapu 1986). Colonies move locally. Cliff Swallows that otherwise might have nested at the farm may have nested at another site nearby, although none were detected at surrounding farms.

One pair of Cliff Swallows was successfully attracted to a site where they formerly bred. If just a few birds nest, others are likely to follow, as the species is extremely colonial. The importance of mud at these sites to attract the swallows' interest cannot be overemphasized.

It remains to be seen whether the Cliff Swallow colonies in Rutland and Lunenburg will benefit from management. It is necessary to evaluate each site individually and to choose management activities accordingly. For instance, at the Rutland site nests fall with some frequency. but at the Lunenburg site they do not. Each site is unique.

To answer questions raised in this study and to come to conclusions, further years of experimentation and observation are necessary. Preliminary results, however, indicate that it may be possible through human intervention to conserve the Cliff Swallow in Massachusetts.

Update. In 1995 approximately twenty-two of twenty-six Cliff Swallow pairs that nested at Graves' Farm were successful. Nest-building began on May 3, and birds continued to arrive through the end of May. On June 5 there were forty-five to fifty pairs of Cliff Swallows at the Farm, but by June 12 some later-arriving birds abandoned the site approximately halfway through nest-building. All but one nest, which was attached to an old Eastern Phoebe nest, were built onto nest ledges. A mud puddle was created and maintained. Mud was also supplied in a four-foot-square mud pan. Two male House Sparrows were eliminated on May 31. A pair of House Sparrows remained, and the male destroyed at least one nest on June 13. The female was eliminated on June 15, and the male on June 20. No House Sparrow damage was observed after this point.

At Wachusett Meadow Sanctuary, on the large barn, which is the traditional nesting site, eleven of the twenty-eight nest ledges that were installed in 1994 showed signs of Cliff Swallow activity in 1995, with a small amount of mud added to each of them by June 6. None of these pairs stayed to nest. Mud was supplied in a mud pan. At Alta Vista Farm in Rutland three of the eleven active nests were built onto nest ledges. No House Sparrow damage or fallen nests

were observed. At Woodruff Farm in Lunenburg, of the approximately thirty active nests, none were built onto nest ledges, although mud was added to all of them.

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MARA SILVER is a field ornithologist and has studied the same Cliff Swallow colony for the past four years. Mara is also a naturalist and leads bird walks and other public programs.

Mara wants to thank Brad Blodget and Wayne Petersen for making the project possible and the Mann Family and Paul Woodruff for their participation in it. She also wishes to thank Paul Kuzeja for his invaluable help with every part of the project. This report is dedicated to the memory of John and Dwight Graves.

RAM ISLAND: RECOVERY IN PROGRESS

by Richard A. Harlow, Jr.

Ram Island in Mattapoisett, Massachusetts, has a history of avian study beginning around 1937, when Dr. Oliver L. Austin, a physician, started a bird banding operation on the island, extending his work on several other islands and shores in southeastern Massachusetts. For twenty years he banded Common Terns *(Sterna hirundo)* and Roseate Terns *(Sterna dougallii)* on Ram Island, and in 1947 he banded 3403 terns on Ram Island, the highest number of terns in the state that year. The second largest total was 1886 terns banded on Bird Island. Thus, Ram Island was home to a significantly large tern colony for both Common and Roseate terns, and at times, a larger colony than Bird Island is today.

Ram Island is located just off the mainland, between West Island in Fairhaven, Brant Island in Mattapoisett, and Mattapoisett Harbor. The island is slightly larger than one hectare in size, larger in area than Bird Island (located off Marion), but lower in elevation. The island has a small, narrow, and southerly tidal opening, which is being overgrown by cord grass, and leads to a somewhat oval shallow tidal pond that does not completely empty at low tide. This tidal pond is thought to be a remnant of a spring-fed freshwater pond that had once been on the island 100 years ago. The southwest and southeast points of land are dissected by this narrow tidal opening and have large and medium-sized glacial erratics that extend beyond the land at low tide. These exposed points of rocks all meet in a foul area at the entrance to the channel. At the northern end of the tidal pond there is a narrow swale that is slightly elevated above the pond and is wet only during the highest moon tides. This swale comes between the west and east sides of the island until it almost reaches the northern tip, and then the swale is blocked by a sand and cobble berm that is fifteen to twenty feet from the ocean. At the northern tip of the island there is a bar that extends underwater almost to the mainland. Although there are about two feet of water over the bar during mean low water, there is certainly the opportunity for a person or an animal to wade to the island under the right conditions, such as a moon low tide and a strong northwest wind. All the shores of the island are surrounded by large submerged and half submerged glacial erratics, with a few cut granite blocks on the westerly side, that evidence past human habitation or use when the island was larger in size.

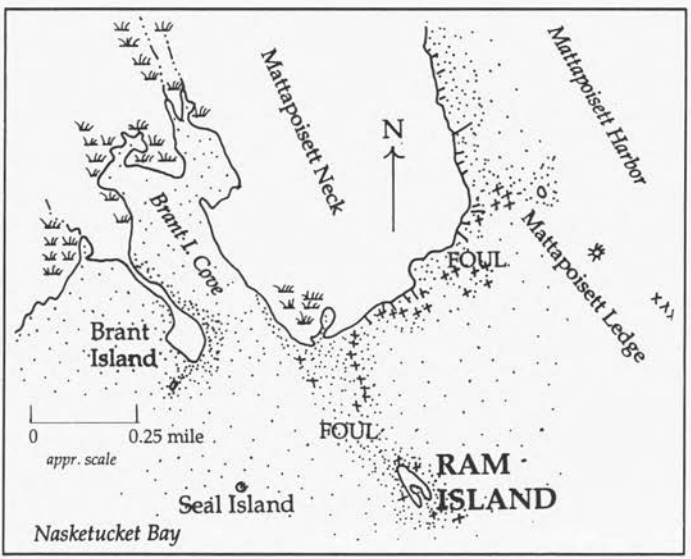
I received my banding license in 1960 and in 1966 became involved with banding adult terns and chicks on both Bird and Ram islands. During the late 1960s and early 1970s the Massachusetts Audubon Society determined that they needed more data on the various tern colonies in the state, with emphasis on the Roseate Tern population. They conducted research on both islands and

determined that it was logistically more advantageous to work on Bird Island rather than Ram Island, especially when gulls overran Ram Island in 1972-1973 and displaced the last terns to Bird Island. From 1972 to 1989 gulls and cormorants completely usurped all terns from Ram Island, and their fecal matter practically denuded the island of all its vegetation, contributing to a more rapid deterioration of the island from wave and wind erosion. Along with the gull and cormorant occupation, we are not aware of other species attempting to nest on the island.

Within a healthy natural ecosystem, biodiversity should be high relative to the processes regulating that ecosystem. Unfortunately, an overpopulation by one or two animal species, unless checked by predation or disease, tends to decrease biodiversity within a given area. That is what happened to Ram Island.

Due to the increase in human refuse, fisheries wastes, and open dumps, both the Herring and Great Black-backed gull populations dramatically increased over the past thirty years. The new-found winter food supply allowed otherwise marginal members of the gull population to successfully live through the winter, when they might otherwise have died. Therefore, their increased numbers could now successfully compete against other species for nesting space in the spring. Because gulls, for the most part, do not migrate and begin their nesting in April, they already have eggs when terns arrive in May and subsequently chicks when terns are just beginning to incubate. When the gull population exploded in the 1960s and 1970s, their numbers were too great for some habitual tern-nesting sites. Ram Island was one of those sites.

When traditional tern-nesting areas have already been taken over by gulls or by human use, the terns then have to nest wherever they can. Although terns do



well in alternative sites, these sites tend to be more prone to predation and cannot produce enough young to offset deaths in their population that are caused by predation or environmental factors. This results in the slow elimination of the species from those areas that are dominated by gulls. The same would be true if those nesting areas were frequented by off-road vehicles or otherwise developed by human habitation or human activity. When Ram Island was fully occupied with gulls in 1972, terns ended up being displaced and had to move to Bird Island or find alternative nesting sites.

When the northeastern population of Roseate Terns was listed as an endangered species on December 2, 1987, federal money became available to help protect the species. Therefore, in 1989 the Massachusetts Division of Fisheries and Wildlife (MDFW), which owns Ram Island, visited the island and verified that there was a Herring Gull population of 700 pairs, or 1400 individuals (the gull population had been greater than 1000 pairs in the 1970s), plus fifty pairs of Great Black-backed Gulls and 100 pairs of Double-crested Cormorants. Therefore, a total of 1700 large birds were directly competing for nesting space that otherwise could be used by terns.

MDFW decided in 1989 to focus on recovering Ram Island from gulls and cormorants and restoring the island to conditions for nesting terns. Thus, a Roseate Tern restoration program was established and a "Recovery Team" set up by the U.S. Fish and Wildlife Service under the Endangered Species Act. From 1989 until 1992 gulls and cormorants were discouraged from nesting on Ram Island by continual but controlled human harassment during the nesting season. By 1992, for the first time in twenty years, terns began to investigate and nest again on Ram Island. One pair of Common Terns and three pairs of Least Terns nested on the island; gull nests decreased from 750 to 91. In 1993 ninety-eight pairs of Common Terns and two pairs of Roseate Terns nested, while only fifty-six gull pairs nested.

By the end of the 1994 breeding season, the island had 300 pairs of Common Terns, 130 pairs of Roseate Terns, and 50 pairs of Least Terns, with only three actual Herring Gull nest attempts. My job on Ram Island was to establish and develop a research program, modeled somewhat after Dr. Ian Nisbet's Bird Island program (including criteria and protocol), that would provide baseline data as this island began to be restored to its use as a tern colony. In early May 1994 Ian Nisbet, Jack Dixon, Sid Chowdri, and I set out initial transects across the entire island using a transit, tape, and compass. This survey would allow us to plot nest and vegetation locations. When the survey was completed, we had permanent six foot rebars at the intersections of each quadrat, flagged with the appropriate coordinate. Dividing the island into ten-meter-square quadrats gives us a measurable way to track annual changes on the island.

The 1994 focus for Ram Island was to maintain consistent and frequent

human presence on the island to discourage gull nesting and gull harassment of terns. Observations, nest and chick data, and banding were the primary objectives for 1994. All nests were marked with numbered stakes and identified as to their quadrats. We limited our entry into the colony during the week to keep human activity to a minimum. Once the chicks were hatching, we limited our banding to early morning to prevent any stress caused by the combination of our presence and the heat of the day.

During July and August we did a complete vegetative survey of the island, noting presence and dominance of each species on a quadrat basis.

The terns occupied the island in three distinct subcolonies: the southeast, comprising Common and Roseate terns; the southwest comprising Common and Least terns; and the north colony comprising Common and Least terns. The southeast end of the island held the highest concentration of Common Terns (166 nests) and the only concentration of Roseate Terns (134 nests). It was at this end of the island that an abundant growth of seaside goldenrod, ragweed, and spike grass with some saltmeadow hay created an optimum habitat for Roseate Terns to nest. The north colony had forty-nine Common Tern nests, and the southwest end of the island had ninety-five Common Tern nests. Least Terns were active at both the north and the southwest colonies amounting to a total of fifty nests.

The first tern nest, with three eggs, was marked on May 29. The first of these eggs was probably laid on May 24 or May 25, about one week later than the first 1994 eggs on Bird Island. The majority of early chicks on Ram Island had fledged by July 22, and the colony was considered very productive. We also had a good late-nesting contingent that was approaching some kind of success with piping eggs and healthy newly hatched chicks by this date.

Up until July 22, we observed only minimal tern harassment from Great Black-backed and Herring gulls. We suspected, but could not prove, that three resident Ruddy Turnstones might be responsible for holes in eggs. Several fledged tern chicks mysteriously died. However, they looked healthy, their feathers were in good shape, and their weights were reasonable. One dead chick had its breast area plucked and part of the breast meat eaten. The others had no apparent predatory marks.

When we left the island on July 22, we were looking forward to banding many chicks, especially in the north section upon our return on July 25. But when we arrived on the island and viewed the colonies before entering them, as was our usual practice, we noticed that the north colony was decidedly ambivalent, with no members coming out to greet us. We would usually be investigated by several aggressive members of the north colony when we landed on the island, but this time not a one was interested. After a cursory look over the three colonies, we immediately checked the north end of the island. What we found put a knot of major concern in my stomach. Not a single egg or chick

could be found! It was like a vacuum cleaner had swept the whole north colony clean. Moving with major concern to the southwest colony, we found only a few chicks that could not be accounted for, and generally everything else looked okay, with new eggs, piping eggs, and chicks. The same was true with the southeast colony, with the exception of one seemingly healthy but dead fledged chick.

We considered the possible tern predators that could have devastated the north colony. Great Horned Owl, Great Black-backed Gull, Herring Gull, a falcon, Black-crowned Night-Heron, or something else. We had discounted daytime predation, at least while we were on the island. We suspected a nocturnal predator, and the only way to verify that situation was to be there in the evening. On the evening of July 25, at about 9:00 PM, a vocal Black-crowned Night-Heron and at least one, but possibly two, immature night-herons landed in the island pond. It seemed that they were concentrating primarily on the southwest end, but they were also seen in the southeast colony, and one night-heron was caught in the rays of a flashlight with a tern chick in its bill. It is hard to relay to the reader how helpless we felt at this point, watching what seemed to be a very dynamic and healthy tern colony wither away by the slow attrition of eggs and chicks that were finding their way into the gullets of night-herons. Also, when we came back the very next morning to see a lethargic southwest colony hanging on to the few eggs and chicks that were left and the southeast colony in an uproar over a very local phenomenon, we wondered what could be wrong now. When we investigated that disturbance, we flushed an immature Merlin from the carcass of a fledged chick. The other mystery seemed to be solved—a falcon was taking down fledged chicks and raising havoc with the colony.

For the rest of July and the first two weeks in August, not being able to do anything about the night-herons, we watched in resigned frustration as the nesting colony slowly diminished in size. The adults and fledged chicks did not seem to be affected and used the rocks on the shore to roost and loaf, but it was simply a matter of time before all eggs and chicks would be eliminated. Such was the case, except for two Roseate Tern chicks that were able to elude predators until they fledged in the third week of August.

This may seem to the reader like a poor year. On the contrary, watching the colony grow, develop, and successfully fledge chicks up to July 22 can certainly be considered very positive. In the sample nests on the island, the Common Terns had raised 2.2 young per nest, the Roseate Terns 1.6 young per nest, and the Least Terns 1.2 young per nest. Considering that the year before had recorded only ninety-eight Common Terns and two pairs of Roseate Terns, with both tern species only marginally successful, then 1994, by comparison, can be considered a success.

During the course of the season, we made careful observations of which

species were using the island and how their presence affected the avian diversity of the island. We had a total of fifty-five species of birds using island space, including the shore or the pond, for nesting, food, or resting. Birds that nested and successfully raised chicks to fledging on the island included four pairs of American Oystercatchers, two pairs of Killdeers, five pairs of Willets, two pairs of Spotted Sandpipers, and two pairs of Sharp-tailed Sparrows. We also had a scouting pair of Black Skimmers that acted as though they would like to nest, but never did. The island bird list showed diversity that was quite adequate for an island that could not boast of more than three nesting species between 1975 and 1991.

The year 1994 was only the beginning. We have a good start at collecting information, and barring any major catastrophe the 1995 tern population should grow in numbers. It will be extremely interesting to collect and compare data over the next several years.

RICHARD A. HARLOW, JR., has been a teacher of biology, oceanography, and advanced placement biology at Tabor Academy in Marion, Massachusetts, for over thirty years. He has combined classroom study with field study for his students. He initiated and directed for twelve summers an Oceanography Program emphasizing interrelationships within the ocean and between the ocean, seabirds, and shorebirds. He has been an active birder since 1950. He authored two different observational notes, one in *Bird Banding* in 1971 and one in the *Wilson Bulletin* in 1973. He coauthored with Andrew Martinez *Marine Life of the North Atlantic, Canada to New England* in 1994. Dick would like to thank the following individuals for their assistance, advice, and guidance in the project: Brad Blodget, Ian Nisbet and his assistant Jamien Jacobs, Jeremy Hatch, Jack Dixon, Scott Hecker, and especially Dick's summer assistant, Bill Peacock.

DOWNY WOODPECKER AND WHITE-BREASTED NUTHATCH USE "VICE" TO OPEN SUNFLOWER SEEDS: IS THIS AN EXAMPLE OF TOOL USE?

by William E. Davis, Jr.

During the past three winters I have watched Downy Woodpeckers and White-breasted Nuthatches using knotholes as "vices" to hold sunflower seeds while shucking them. I have found no direct reference to this behavior for either species, although nuthatches are well-known cachers of food and presumably open cached food items where they are cached. The purpose of this paper is to document this vice-using behavior and to discuss whether it should be considered as tool use.

On February 2, 1993, I watched a male Downy Woodpecker at my sunflower feeder remove a seed and fly five feet directly to a knothole (hole #1) that was 6.5 feet above the ground in a vertical three-inch stem of the same lilac cluster from which the feeder was suspended. The Downy proceeded to insert the seed into the knothole, which had a hard, flat lower surface (Figure 1), and pound it open and eat the seed. It repeated this procedure five times in three minutes. The woodpecker did not hold the seed with its feet the way chickadees and titmice do when they open sunflower seeds and, in fact, did not touch the seed with its feet at any time. On March 3 I watched the same male Downy (it had a distinctive pattern of red, white, and black on its nape) make nine trips to hole #1 and six trips to a second knothole (hole #2) five feet from the feeder on a nearly horizontal stem 4.5 feet above the ground in the same lilac complex (Figure 2).

On March 7, at about 9 AM, a White-breasted Nuthatch was observed pecking and probing holes #1 and #2. The nuthatch made about ten trips from the sunflower feeder to a large sugar maple. On one occasion I observed it shuck a sunflower seed and then cache the seed in the end of a broken branch, and my impression was that most of the seeds were cached. One cached and unshucked seed, presumably cached by a nuthatch, was present in hole #2 prior to male woodpecker activity at holes #1 and #2 at about 9:30 AM, but subsequent examination showed that the cached sunflower seed had been opened and eaten. A second seed was subsequently cached in hole #1 by a nuthatch. Repeated examinations in subsequent weeks following woodpecker feeding bouts at both holes indicated that the woodpecker was eating every seed and caching none. The nuthatch(s) opened seeds and ate them, and also cached seeds, both shucked and unshucked.

By March 10, a female Downy Woodpecker, also with a distinctive head pattern making subsequent identification of this individual possible, usually joined the male in feeding on sunflower seeds and usually used hole #2 for

Figure 1. Hole # 1 with dime for perspective.

Figure 2. Hole #2 with lens cap for perspective.

shucking and eating seeds. The female occasionally used other knotholes in the lilac and had a favorite knothole on an apple tree thirty feet from the feeder. On one occasion the male was using hole #1, while the female was using hole #2.

On seven subsequent dates, the latest May 5, 1993, the two woodpeckers used a total of five holes as "vices," with the male specializing in hole #1 and the female hole #2. During this period, one male and one female nuthatch used a variety of knotholes in the lilac for caching and eating sunflower seeds. I made scattered observations in 1994 and 1995 of female and male Downy Woodpeckers and two male White-breasted Nuthatches (one banded, one unbanded) using lilac knotholes, especially hole #2, as "vices," but do not know whether the woodpeckers were the same birds as in 1993, since one or two molts had occurred that may have altered their distinctive head patterns. I never saw woodpeckers cache seeds.

I initially thought that this use of a "vice" was an example of "tool use" in birds, since they were jam-fitting seeds into appropriate-sized knotholes to immobilize them, thus freeing up their feet for grasping the lilac while husking the seeds—clearly an analog to human use of a vice. A review of the literature revealed that what constitutes "tool use" is widely debated, and that although some authorities agree on a definition, there are many behaviors that are problematic and can be argued either way.

van Lawick-Goodall (1970) defined tool use in birds as "the use of an external object as a functional extension of . . . beak, . . . or claw, in the attainment of an immediate goal." By this definition the Downy Woodpeckers and White-breasted Nuthatches are clearly using tools, since a knothole is "an external object," which acts "as a functional extension of the claws" (which are used for the same purpose as the knothole by chickadees and titmice) "in the attainment of an immediate goal" (husking the sunflower seed). This would seem to be consistent with Millikan and Bowman's (1967) conclusion that the practice of shrikes in impaling prey on thorns and other birds jamming prey into forks of branches while flaying them (using a fixed device as an extension of the body) constitutes tool use. However, van Lawick-Goodall rejects this because the bird does not manipulate the fixed object (which constrains her original definition considerably). Another major contributor to the debate, Beck (1980), concludes that to be a tool, an object has to be unattached to any object (e.g., branch) and must be manipulated by the user. By these definitions the woodpeckers and nuthatches are not using tools because the knothole is not free of the substrate, and they do not manipulate them in their beak or claws. The definitional problems get even more esoteric with distinctions between "materials" and "tools." The use of spiderwebs to help hold a nest together, for example, or "anting"—wiping feathers with ants held in its beak—would be a use of materials, not a use of tools. Even distinctions this fine become blurred in, for example, the case of a Hooded Crow, which hauled up, with its beak, a

fishing line through a hole in the ice and ate the hooked fish!

In a series of review articles, Boswall (1977, 1978, 1983) details the endless definitional struggles and presents an array of bird behaviors that, tool using or not aside, are fascinating behaviors. They include the well-known examples, generally accepted as tool use by birds, of the Woodpecker Finch of the Galapagos Islands, which uses a twig or cactus needle to probe under bark for insects, or the Egyptian Vulture, which with its beak hurls stones on ostrich eggs, and some less well-known examples including the use of feathers and other objects by Green Herons as "bait" for fish. Boswall also presents a wide spectrum of behaviors that are not generally accepted as tool use (e.g., use of "anvils" against which birds bash prey items, gulls' dropping of clams and other prey on rooftops or parking lots). Included in the latter category are a number of woodpecker behaviors analogous to the vice using of my Downy Woodpeckers and White-breasted Nuthatches. Examples include the Lewis' Woodpecker's removing bark to make a "chopping block" for prey, the Great Spotted Woodpecker's use of a vice, or the Acorn Woodpecker's hollowing out "storage holes" for acorns. It turns out that tool use among birds is very rare, and even most accepted tool use behaviors are rarely used by the birds that practice them (e.g., the bait fishing by Green Herons [Davis and Kushlan 1994]).

So, are my Downy Woodpeckers and White-breasted Nuthatches using tools or are they not? The majority of experts would most certainly say that they are not. I find it a little disconcerting, however, that when I am down in my cellar using the vice on my workbench, I am apparently not using tools.

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WILLIAM E. DAVIS, JR., is president of Bird Observer. Ted is professor of science at Boston University.

BOOK REVIEW: *A Guide to the Birds of Mexico and Northern Central America*

by Peter C. Alden

A Guide to the Birds of Mexico and Northern Central America by Steve N.G. Howell and Sophie Webb. 1995. New York: Oxford University Press. $39.95 paper, $75 cloth.

Not too many years ago, a trip to the western United States was a major expedition that would be the envy of those restricted to weekend birding at familiar haunts in Massachusetts. Going to Mexico or Guatemala was positively the end of beyond, particularly as there was no "Peterson."

From 1953 until 1972 one had to use Emmet Reid Blake's *Birds of Mexico: A Guide for Field Identification*: well organized and portable, but with no range maps, no voices, a hundred or so black-and-white drawings (many of U.S. species), and a single color plate of a Collared Aracari. On the dozens of birding trips I led down there in the 1960s we used only Blake. In 1966 *The Birds of Tikal* by Frank B. Smithe gave us color plates of a selection of Caribbean slope forest birds, very useful at Palenque, Chiapas. In 1969 my *Finding Birds in Western Mexico* was published by the University of Arizona Press. The beautiful plates by John O'Neill added about 100 species of Pacific slope specialties. Still, many hundreds of species were not illustrated.

In the early 1970s there were many hundreds of birders touring this new frontier alone and on birding tours. Suddenly, between 1970 and 1973, no less than four major field guides appeared: Hugh Land's *Birds of Guatemala*, Ernest P. Edward's *A Field Guide to the Birds of Mexico*, Roger Tory Peterson and Edward L. Chalif's *A Field Guide to Mexican Birds and Adjacent Central America*, and L. Irby Davis' *A Field Guide to the Birds of Mexico and Central America*. This was followed by a long period when relatively few birders focused on Mexico and Guatemala due to media reports on tourist muggings in Mexico and a civil war in Guatemala. Traveling birders started to focus on Belize, Costa Rica, Venezuela, Ecuador, East Africa, India, and Australia, while Mexican wildlife tourism appeared to center on small luxury cruises to Baja and the Gulf of California (an area lacking in endemic birds).

From November 1981 onward, Steve Howell and Sophie Webb, author and artist team, began an intensive and exhaustive field exploration of thousands of sites in these countries, combed research papers, grilled colleagues for details, and prepared plates and range maps for a monumental book. Steve grew up in Britain, and it's a bit of a slap to American ornithologists that none of "us" would devote a decade to producing such a superb compendium of knowledge on our neighboring republic and winter home to so many of "our" birds.

The book itself covers 1070 species from Tijuana to western Nicaragua,

with 1087 maps, 71 color plates, and 44 linecuts. You might note that it does not call itself a field guide, and it is rather heavy to take in the field. While all birders traveling to these lands will want to own this great work, I presume that in the field only one person in a party will be forced to carry this, while the others will use the Peterson and Chalif guide as a quick reference. The accurate plates by Sophie Webb are most comprehensive in plumages and include a number of diverse subspecies for the first time. As in all the other guides, most species present in the United States and covered abundantly in U.S. field guides are not illustrated. You will have to bring a U.S. guide as well, unless you know all such species cold.

The range maps (for all species), the detailed descriptions of voices, and the attention to habitats, subspecies, and similar species are all of high quality. Much of this information is presented for the first time. The descriptions, while painstakingly accurate and complete, suffer from extreme length. It took 462 words to describe the Hook-billed Kite. Roger Peterson once said that anyone can write ten pages on any bird, but it is an art to capture its essence and key field characters in a few sentences. The front matter chapters and the appendices (particularly those on offshore islands) are all worth active inspection. I would have loved to see a chapter on bird finding, but with the extant size and weight, I realize this could not be included.

Kudos to Steve and Sophie for this incredible volume. I presume many more birders will now head south of the border for their own enjoyment and to refine even further our knowledge of this rich avifauna.

PETER C. ALDEN lives in Concord, Massachusetts, and is a freelance safari and wildlife tour leader, cruise lecturer, and author. In travels to over 100 countries on seven continents, he has seen well over 5000 bird species, but no longer keeps track of numbers. Recent travel gigs have included Greenland, Baffin Island, and Antarctica (Overseas Adventure Travel); New Zealand, South Africa, Namibia, Tanzania, and Venezuela (Friends of the Museum of Comparative Zoology, Harvard University); Tanzania (Massachusetts Audubon Society); and Indonesia and Malaysia (Pearl Cruises). His most recent book is the *National Audubon Society Field Guide to Africa Wildlife* (Chanticleer Press: A. Knopf). He currently is working on a series of regional North American field guides.

A Case of Swanslaughter

Part of Clark Pond on Great Neck in Ipswich can be seen from our home on a hill one hundred feet above sea level and set back about five hundred feet from the pond. In the early afternoon of April 7, 1995, we were watching the swans that live there. A pair of Mute Swans has nested on the pond for about twelve consecutive years, always chasing away any other swans intruding into the area, including a Whooper Swan that continually tried to muscle in on the territory in 1994.

On this day, however, we noted three swans swimming and feeding peacefully. Through our binoculars, one appeared to be a Whooper Swan, sometimes swimming with the Mute Swans, sometimes flying to a smaller part of the pond set off by grasses. We drove to Clark Road where we could observe the birds more closely. From there we could also see a third Mute Swan swimming on Plum Island Sound, just off the narrow beach that separates the sound from the pond.

The Whooper flew into the smaller part of the pond for a short time, then returned to the north end of the pond where the Mute pair was feeding. After just a minute or two, the Whooper again took flight, this time flying directly at the Mute swimming on the sound, and aggressively attacked it. They struggled, wings flapping, the Whooper standing on top of the Mute, holding it under the water. Viewed through a telescope, it seemed to be grasping the neck of the Mute in its beak.

The tide was beginning to come in, and as the struggle was stopping, the pair drifted out of our sight, with the Whooper still on top of the dying Mute Swan.

We drove to Bowdoin Road, nearer to the sound, but we could see no sign of the swans there. We then drove a short distance to the Ipswich Bay Yacht Club and down the boat ramp, where we saw them. The Whooper was standing on the Mute, which was lying dead on its side, grounded at the edge of the water. It pulled at the Mute's feathers with its beak. Twice it spread its wings, raised its beak straight up as high as it could, and squawked in different pitches. A flock of Herring Gulls was circling the area, squawking loudly at this time.

We got out of the car with a camera, but a walker was approaching the swans, and the Whooper took off in low flight back to the pond. It stayed near the grasses on the sound side of the pond and did not rejoin the pair of Mutes still feeding on the Clark Road side of the pond.

From the time the attack began until the Whooper returned to the pond, we estimate that about twenty to twenty-five minutes passed.

Everyone on Great Neck is familiar with the swans, watching the cygnets

with interest as they grow up on the pond each summer. In fact, the Mute Swan has become the emblem of Great Neck. This spring opened with a strange chapter in the story of the Clark Pond swans. This incident has raised a lot of questions in our minds about the nature of these beautiful birds.

Gina and Web Jackson, Ipswich, Massachusetts

Death — and Life — on the Mystic

On Sunday, February 12, 1995, my wife Julie and I were birding at the nearby Mystic Lakes, looking for the American Coot, Hooded Mergansers, Common Mergansers, and Ring-necked Ducks that had been using the open areas of the lower lake and the river. The lower lake was now over ninety-five percent frozen, with only a narrow seam of open water below the upper dam and along the adjacent edges. Ten Mallards and nine coots were working those edges.

In the shallow, crystal clear water I was able to clearly watch the coots' unusual feet as they propelled the birds along. Coot's toes are highly segmented, with long, horizontal flaps of soft skin that fold up as they lift their feet and unfold when they put their feet down. The flaps help them to walk easily in muddy areas and enable them to swim relatively well without truly webbed feet.

I began taking pictures. After a few minutes three coots emerged from the water and started feeding within about six feet of me, in perfect February afternoon light. They browsed in the leaf litter, something I had never seen before, plopping down like young goslings and pecking around them. I finished a roll of film but did not reload because I had left my camera pack in the car and, besides, I had enough good shots of coot now. (Every amateur photographer can imagine what happened next.)

Suddenly, there was an audible panic among the three coots, which began running toward the water. Two made it, but the third, which apparently had been feeding farthest inland, did not. Suddenly a spectacularly beautiful adult Red-tailed Hawk was standing on the coot's back, with one foot on its neck holding its head down to the ground.

The captive bird was alive, seemingly uninjured, no more than six feet away from me. I was in shock, having been totally unaware of the Redtail until then. The hawk was now clearly aware of my presence, but did not know what to make of me. Perhaps the hawk really had not been aware of me either, until then.

The Red-tailed Hawk stood on the coot, looking directly at me, the late afternoon February sun reflecting off its rufous-washed breast. I thought that if I suddenly moved toward the hawk, it might release the coot. Over the past two years, I have grown extremely fond of coot and have followed individual coot all winter long in the Mystic River and lakes. I had just spent an hour photographing and watching these awkward, unusual, and very personable birds.

Thoughts then turned to this magnificent Red-tailed Hawk. I had been this close to a healthy, live, wild Redtail only once in my life, when an immature Redtail I was watching flew directly at me, ploughed into a pile of leaves several feet from me, and pulled a rodent out of the leaf litter.

Should I move? Should I intervene? I did not want the coot to die, but I was also concerned about the hawk. It had been very cold for two days. This was an adult urban Red-tailed Hawk that had struck only an hour or so before sunset. It could be starving, and it had earned this kill. I decided to not interfere.

I realized that I might have seen the hawk before. A year earlier, when I had been snowshoeing the southern shore of the Mystic Lakes, I saw a gray ghost shoot low through these very woods. Goshawk came instantly to mind because the bird looked quite pale and was rifling through the lower trees along the shore. It turned out to have been pursuing a squirrel, which it did not catch, but as it came up, I realized it was a relatively pale, light-backed Red-tailed Hawk.

The hawk still did not know what to make of me. Neither of us moved, staring at each other for over five minutes. Then the hawk slowly took wing, carrying the live coot by the neck and shoulders in one foot. The Redtail visibly struggled to get off the ground, moving only a few yards. It slowly heaved onto a tree branch no more than ten feet away from and slightly above me. The raptor and its prey were in an awkward position, directly facing the brunt of a strong, freezing wind. The coot dangled beneath the branch, feet flailing to gain support, and wings occasionally spread to fly away, but in vain.

The hawk took several pecks at the front of the coot's neck, but did not seem to deliver a coup de grace. The hawk then jumped/flew a few feet farther downwind on the branch, to get better support and possibly escape the bone-chilling wind. By this time, the coot had gone entirely limp and was clearly dead.

I slowly backed away from the hawk and worked my way to the car where Julie had been observing everything. Suddenly, the Redtail jumped off the branch with its prey and, barely able to keep aloft, struggled vigorously to fly off with the coot. Exposed to the buffeting winds, it had to work very hard to clear ten feet, but it gradually disappeared into the denser woods, presumably looking for shelter and privacy.

Julie asked "After that, do you still love hawks?" She was only half joking. I was in shock and awe. I have seen a fair number of hawk kills over my lifetime but mostly of small rodents, insects, or fish. Never had I seen something so close to me, something I had been watching and photographing for an hour, slain only a few feet in front of me. I was saddened by the death of the coot, but impressed by the skills and strength displayed by the hawk.

I also marveled at serendipity. I have been looking avidly at hawks for more than two decades, and never had I seen anything like this, so close, so intense, and so personal. As we were leaving, an elderly gentleman who had arrived as

the hawk was flying off said he had seen the hawk in the area many times before, occasionally going unsuccessfully after house cats prowling the lakeshore.

On the way home, Julie and I discussed how heavy the coot must have been, as the Red-tailed Hawk had obviously had difficulty lifting it. We thought that it was probably heavier than a Mourning Dove, more likely the weight of a pigeon, two species that Red-tailed Hawks, especially urban ones, often prey on. We were soon educated. John Terres, in his superb *Encyclopedia of Birds*, reports that Mourning Doves range from 4.4 to 5.5 ounces and common pigeons from 10 to 16 ounces. American Coot, however, weigh from 13.5 to 29 ounces. Now we understood why the Red-tailed Hawk had struggled. According to William S. Clark in *A Field Guide to Hawks*, Redtails range from 24 to 52.8 ounces. This Red-tailed Hawk had looked small to me; probably a male. Therefore, it was possible that the hawk had lifted something as heavy as one-half its own body weight or more.

We monitored the remaining eight coots through the winter and were a bit surprised to see all eight survive. Perhaps the Red-tailed Hawk did not like the taste of coot or just had an aversion to heavy lifting. Whatever, we shall never forget that day on the Mystic.

Paul M. Roberts, Medford, Massachusetts

BIRD SIGHTINGS
JULY 1995
SUMMARY

by Richard A. Forster, Marjorie W. Rines, and Robert H. Stymeist

July was hot, dry, and cloudy. The temperature averaged 75.9°, 2.4° above normal. This year tied with 1915 as the seventh warmest July in 125 years. There were 9 days with 90° temperatures or higher, and on July 14, the temperature hit 100° in Boston. The humidity, or dew point, was also high, making this month very uncomfortable. Rainfall totaled 1.06 inches, 0.78 inch below average, for the sixth month in a row with below average rainfall. Thunderstorms were noted on six days, producing some spotty rainfall, however few areas got any significant amounts. R. H. S.

LOONS THROUGH WOODPECKERS

Pelagic birds were quite well represented both in terms of variety and numbers, particularly for species such as Greater and Sooty shearwaters, and Wilson's Storm-Petrel. The best counts were recorded on a seabird survey of Stellwagen Bank. This survey coincided with northeast winds which tends to result in more seabirds on the banks. Early reports of Cory's Shearwater in July are often indicative of greater numbers in late summer and early fall. The presence of 25 **Audubon's Shearwaters** at an unspecified distance southeast of Nantucket is interesting and suggestive of a regular presence in those waters at this season. Herons were reported from the usual locations in typical numbers. The **Little Egret** continued at Nantucket. The count of Glossy Ibis coming in to the evening roost at Plum Island may well have represented the highest count for the state. The most interesting among a rather mundane report of ducks was a Ruddy Duck apparently summering in Pembroke. Four reports of Sharp-shinned Hawk in midsummer were interesting, and a Peregrine Falcon in Concord was most likely a local Boston breeder or wandering nonbreeder.

Two reports each for King and Clapper rails are about average for these elusive and poorly known marsh-dwelling birds. Virginia Rail was widely distributed and in surprising numbers at some localities, but Soras were much scarcer. Shorebird migration proceeded on schedule. The only rare species - a **Black-necked Stilt** and a **Ruff** - were both at Plum Island and both were carryovers from June. The typical early arriving species had built up in considerable numbers by midmonth, while others, notably Whimbrel and Semipalmated Plover, attained good concentrations at the end of the month. Both Marbled Godwit and Western Sandpiper appeared early at North Monomoy. The later-arriving shorebirds began arriving by the end of the month. Stilt Sandpiper numbers were low at Plum Island, and apparently no appreciable numbers of Hudsonian Godwits had arrived by the end of the month. A single Wilson's Phalarope was a paltry monthly total. Red-necked Phalaropes and both Pomarine and Parasitic jaegers appeared in offshore waters at the end of the month.

Apparently two different Little Gulls were at Newburyport during the month. Two Lesser Black-backed Gulls at North Monomoy were at an unusual date. A flurry of Caspian Terns early in the month included a remarkable two birds at Quabbin Reservoir. The usual few Royal Terns appeared at southeastern coastal areas. One observer reported sighting a **Sandwich Tern** which is almost annual in occurrence. Black Skimmers were more widely reported than usual. The most unusual bird recorded this month in offshore waters was an adult Atlantic Puffin.

A pair of Monk Parakeets was observed at a nest in Blackstone, most likely birds from the well-established colony in Warwick, Rhode Island. Monk Parakeets build nests for protection as well as for breeding. Hence, because no young have been reported it cannot be concluded that any breeding activity occurred. The Northern Saw-whet Owl in Wellfleet was very likely a breeding bird. Whip-poor-wills were typically sparsely recorded. Sherborn hosted nesting pairs of both Red-bellied and Red-headed woodpeckers. R. A. F.

Date	Location	Number	Observers
Common Loon			
4	Quabbin (G40)	1 ad	S. Arena
9	Quabbin (G35)	3	M. Lynch#
12	S. Monomoy	6	W. Petersen
27	Duxbury B.	1	W. Petersen
Cory's Shearwater			
1	SE of Nantucket	1	J. Berry
22	Jeffries Ledge	1	J. Hoye#
23	Stellwagen Bank	3	H. D'Entremont
Greater Shearwater			
1	SE of Nantucket	40+	J. Berry
26	Jeffries Ledge	115	S. Charette#
28	Stellw. Bank	2500+	S. Highley
Sooty Shearwater			
9, 23	Jeffries Ledge	1, 18	S. Charette#
12	S. Monomoy	1	W. Petersen
28	Stellw. Bank	1000+	S. Highley
30	Eastham	1	R. Beida
Manx Shearwater			
23, 28	Jeffries Ledge	4, 1	S. Charette
28	Stellw. Bank	5	S. Highley
Audubon's Shearwater			
1	SE of Nantucket	25	J. Berry
Wilson's Storm-Petrel			
thr	Jeffries Ledge	700 max	S. Charette#
1	SE of Nantucket	200	J. Berry
8	Nant. Sound	1200	B. Perkins
10	Mass. Bay	160+	M. Rines#
21	Gloucester	50+	J. Soucy#
22	Rockport (H.P.)	200+	J. Soucy#
28	Stellw. Bank	1000s	S. Highley
30	Eastham	10	R. Beida
Leach's Storm-Petrel			
28	Stellwagen Bank	3	S. Highley
Northern Gannet			
15	Rockport (H.P.)	2	J. Soucy
23	P.I.	2	M. Rines#
30	Stellwagen Bank	17	M. Lynch#
30	Eastham	10	R. Beida
American Bittern			
2	P.I.	1	M. Rines
30	Wayland	1	J. Hoye#
Least Bittern			
16	P.I.	2	M. Lynch#
Great Blue Heron			
1	Stow	2 pr + 3 yg	M. Lynch#
3	GMNWR	25	P. Roberts
21	P.I.	11	W. Drew#
Great Egret			
2, 16	E. Boston	2, 3	S. Zendeh
4	Lakeville	1	W. Petersen
8	GMNWR	1	M. Rines#
11, 23	P.I.	20, 15	W. Drew#
12	S. Monomoy	1	W. Petersen
13	Manchester	80	S. Perkins#
14	Freetown	1	T. Aversa
16, 30	Rowley	13, 40	J. Berry
31	Easton	4	S. Arena
Little Egret			
8	Nantucket	1	R. Lockwood#
Snowy Egret			
2, 16	E. Boston	49, 51	S. Zendeh
16, 30	Rowley	33, 57	J. Berry
23	P.I.	640	R. Heil
Little Blue Heron			
22	Manchester	28	J. Hoye#
Tricolored Heron			
1-16	P.I.	1-2	v. o.
Cattle Egret			
thr	Ipswich	10-12	J. Berry
Green Heron			
1	Stow	5	M. Lynch#
8	Ipswich	4	J. Berry
23	P.I.	3-4	J. Berry
Black-crowned Night-Heron			
thr	Watertown	55 max 7/1	R. Stymeist
2, 6	E. Boston	5, 6	S. Zendeh
3	GMNWR	30	P. Roberts
Glossy Ibis			
2, 16	E. Boston	10, 41	S. Zendeh
3	GMNWR	1	P. Roberts
4	Cumb. Farms	19	R. Stymeist#
16	Pepperell	1	E. Stromsted
29	P.I.	276	R. Heil
30	N. Monomoy	16+	B. Nikula#
30	Rowley	15	J. Berry
Wood Duck			
1	Stow	55	M. Lynch#
4	Quabbin (G40)	4 ad + 10 yg	S. Arena
14	Yarmouthport	20	S. + E. Miller
23	Newbypt, P.I.	5, 7	R. Heil
Green-winged Teal			
1	P.I.	27	R. Heil
Blue-winged Teal			
16	Newbury	1 f + 8 yg	R. Forster
Gadwall			
1	P.I.	62 ad	R. Heil
1	Rowley	2	S. Perkins#
American Wigeon			
22	P.I.	2	G. d'Entremont#
Common Eider			
22	Cape Ann	55	J. Berry
27	Duxbury B.	150	W. Petersen
Oldsquaw			
12, 23	Chatham	1	W. Petersen
Black Scoter			
1	P.I.	2	W. Petersen#
Surf Scoter			
1	P.I.	1	W. Petersen#
23	Chatham	1	W. Petersen#
White-winged Scoter			
16	P.I.	2	R. Forster
27	Squantum	1	R. Donovan
Hooded Merganser			
3	Hardwick	1 ad + 7 yg	S. Arena
3	Quabbin (G34)	1 ad + 3 yg	S. Arena
Common Merganser			
4	Quabbin (G40)	2	S. Arena
Red-breasted Merganser			
22	Newburyport	1	J. Hoye#
Ruddy Duck			
3	Pembroke	1 m	W. Petersen
Turkey Vulture			
4	Ipswich	12	J. Nove
23	Brookfield	7	M. Lynch#
24	Essex	4	N. Nash
Osprey			
15	S. Hanson	2	W. Petersen#
23	W. Newbury	1	R. Heil
31	Lexington	1	M. Rines
Bald Eagle			
1	Newbury	1 imm	C. Ralph
9	Quab. (G35)	2 ad + 2 imm	M. Lynch#
31	Plymouth	1	P. Bailey
Northern Harrier			
13	Monomoy	1 m	M. Lynch#
27	Provincetown	1 m	T. Aversa
29	P.I.	1	M. Lynch#

Sharp-shinned Hawk

3	Worcester (BMB)	1	J. Coyne
7	Easton	1	K. Ryan
27	Yarmouthport	1	S. + E. Miller
29	N. Andover	1	S. Charette

Cooper's Hawk

1	Lynnfield	1	M. Hall
4	N. Dartmouth	1	M. Boucher
5	W. Roxbury	1	T. Aversa
7	Lincoln	pr + 3 yg n	W. Petersen#
10	Newbury	1	R. Lockwood
11, 20	Worcester (BMB)	1	J. Liller
22	Phillipston	1 ad	R. Forster#
26	Dedham	1	R. Forster

Red-shouldered Hawk

thr	Sherborn	6	E. Taylor
thr	E. Boxford	1	J. Brown#
thr	Concord	1	R. Lockwood
4	N. Dartmouth	2	M. Boucher
15	S. Hanson	2	W. Petersen#
15	Middleboro	1	W. Petersen#

Broad-winged Hawk

16	Freetown	1	G. d'Entremont

American Kestrel

1	Westport	1	J. Hoye#
18	W. Roxbury	pr + 2 yg	T. Aversa
18	Bedford	11	S. Perkins#

Peregrine Falcon

30	GMNWR	1	R. Walton#

Ruffed Grouse

1	Worcester (BMB)	3	C. Phillips
3	Quabbin	1 ad + 5 yg	S. Arena
5	Concord	2	R. Lockwood

Wild Turkey

2	Ware	2 ad + 5 yg	S. Arena
3	E. Boxford	1	J. Brown#
22	Sherborn	16 ad + 29 imm	E. Taylor

Northern Bobwhite

9	Cumb. Farms	5	J. Hoye#
9	WBWS	3	J. Hoye#
19	S. Dartmouth	1	M. Boucher

Clapper Rail

3	Squantum	1	R. Donovan
11	W. Barnstable	1	S. + E. Miller

King Rail

1	Stow	1	M. Lynch#
14	Cumb. Farms	1	T. Aversa

Virginia Rail

1	Stow	13	M. Lynch#
2	Ware	5	S. Arena
13	Wellesley	pr + yg	R. Forster
14	Yarmouthport	2	S. + E. Miller
15	S. Hanson	5	W. Petersen#
16	Newbury	12	R. Forster
23	P.I.	pr + 5 yg	J. Berry

Sora

1	Stow	1	M. Lynch#
9	P.I.	1	P. + F. Vale

Common Moorhen

5	P.I.	2	BBC (T. Young)

Black-bellied Plover

1	P.I.	8	W. Petersen#
29	Newburyport	150+	M. Lynch#
30	Chatham (S.B.)	300	B. Nikula

Semipalmated Plover

11, 21	P.I.	12, 113	W. Drew#
20	Scituate	50	B. Harrington
28	Duxbury B.	350	M. Kasprzyk
29	Newburyport	230	R. Heil
30	GMNWR	19	R. Walton#
30	Chatham (S.B.)	700	B. Nikula
31	S. Dart. (A.Pd)	75	LCES (J. Hill)

Piping Plover

7, 11, 21	P.I.	58, 54, 41	fide W. Drew
13, 31	S. Dart. (A.Pd)	23, 7	LCES (J. Hill)
30	Chatham (S.B.)	60	B. Nikula

Killdeer

3	GMNWR	34	P. Roberts
3	Groton	24	E. Stromsted
7	P.I.	51	W. Drew#
12	S. Monomoy	1	W. Petersen

American Oystercatcher

8	Nantucket	4	R. Lockwood
8	N. Monomoy	60	R. Heil
9	Boston (Lovells I.)	4	R. Stymeist#
31	S. Dart. (A.Pd)	2	LCES (J. Hill)

Black-necked Stilt

1-17	P.I.	1	v. o.

Greater Yellowlegs

8, 29	P.I., Newbypt	20, 30	M. Lynch#
28	N. Monomoy	150	B. Nikula

Lesser Yellowlegs

1	P.I.	40+	W. Petersen#
3	GMNWR	8	P. Roberts
23	Newburyport	800	R. Heil

Solitary Sandpiper

3	GMNWR	1	P. Roberts
21, 28	E. Sandwich	1, 7	S. + E. Miller

Willet

1	P.I.	31 ad	R. Heil
13, 31	S. Dart. (A.Pd)	22, 9	LCES (J. Hill)
28	N. Monomoy	200	B. Nikula

Spotted Sandpiper

4	Groton	4	T. Aversa
12	S. Monomoy	pr + 1 yg	W. Petersen
15	W. Brdgwtr	pr + 1 yg	W. Petersen#
15	Middleboro	pr + 1 yg	W. Petersen#
16	P.I.	8	M. Lynch#
21	S. Dart. (A.Pd)	2	J. Hoye#

Upland Sandpiper

4	Cumb. Farms	10	R. Stymeist#
16	Newbury	2	R. Forster#
17-28	Bedford	14	A. Jones#

Whimbrel

13	P.I.	5	M. Rines
19	S. Dartmouth	9	M. Boucher
20	Yarmouth	1	L. High
20	Scituate	1	B. Harrington
27	Duxbury B.	1	W. Petersen
30	N. Monomoy	437	W. Harrington#

Hudsonian Godwit

16	Newburyport	4	R. Forster#
20	Chatham (S.B.)	10	S. + E. Miller
29	Newburyport	17	R. Heil

Marbled Godwit

8	N. Monomoy	2	R. Heil
20	Chatham (S.B.)	5	S. + E. Miller

Ruddy Turnstone

28	Duxbury	35	M. Kasprzyk

Red Knot

20	Scituate	20	B. Harrington
27	Duxbury B.	300	W. Petersen
30	Chatham (S.B.)	800	B. Nikula

Sanderling

20	Scituate	50	B. Harrington
24	Plymouth	465	M. Kasprzyk
30	Chatham (S.B.)	1200	B. Nikula

Semipalmated Sandpiper

13	S. Dart. (A.Pd)	90	LCES (J. Hill)
23	Newburyport	5000+	R. Heil
24	Plymouth	1470	M. Kasprzyk
28	Duxbury	3840	M. Kasprzyk

Semipalmated Sandpiper (continued)
28 N. Monomoy 2300 B. Nikula
Western Sandpiper
8 N. Monomoy 1 ad R. Heil
Least Sandpiper
7, 11, 21 P.I. 180, 235, 110 W. Drew#
13 Monomoy 700+ M. Lynch#
16, 30 Rowley 55, 9 J. Berry
18 W. Roxbury 10 T. Aversa
20 Scituate 25 B. Harrington
White-rumped Sandpiper
7, 21 P.I. 20, 1 W. Drew#
13 Monomoy 3 M. Lynch#
27 Duxbury B. 1 W. Petersen
Pectoral Sandpiper
27 Duxbury B. 1 W. Petersen
30 GMNWR 1 R. Walton#
Dunlin
13 Monomoy 10+ M. Lynch#
Stilt Sandpiper
22 Squantum 1 W. Petersen#
22 P.I. 16 W. Petersen
27 WBWS 1 R. Forster#
Ruff
1-9 P.I. 1 v.o.
Short-billed Dowitcher
5, 28 N. Monomoy 400, 1400 B. Nikula
7, 29 P.I. 495, 500 W. Drew#, M. Lynch#
28 Duxbury 20 M. Kasprzyk
Long-billed Dowitcher
22 P.I. 6 W. Petersen#
Common Snipe
15 S. Hanson 1 W. Petersen#
Wilson's Phalarope
16 P.I. 1 R. Forster#
Red-necked Phalarope
22 Jeffries Ledge 2 J. Hoye#
30 Stellwagen Bank 15 M. Lynch#
Pomarine Jaeger
30 Stellwagen Bank 1 G. d'Entremont#
Parasitic Jaeger
28 Stellwagen Bank 2 T. Aversa#
30 Stellwagen Bank 1 M. Lynch#
Laughing Gull
8 N. Monomoy 175 R. Heil
21 P.I. 3 M. Pelikan
Little Gull
1 Newburyport 1 1S W. Petersen#
29 Newburyport 1 ad R. Heil
Common Black-headed Gull
1 P.I. 1 1S R. Heil
Bonaparte's Gull
16, 29 Newbypt 50, 200 M. Lynch#
Lesser Black-backed Gull
8 N. Monomoy 2 R. Heil
Caspian Tern
2 P.I. 2 J. Hoye#
8 Plymouth 1 J. Arena
9 Quabbin (G35) 2 ad M. Lynch#
Royal Tern
4 M.V. 2 V. Laux
8 North Beach 2 ad R. Heil
13 Monomoy 1 M. Lynch#
Sandwich Tern
16 Nantucket 1 b E. Ray
Roseate Tern
1 Newburyport 8 W. Petersen#
13 S. Dart. (A.Pd) 6 LCES (J. Hill)
23 Chatham (S.B.) 250+ W. Petersen#
Common Tern
7, 21 P.I. 33, 10 W. Drew#
13, 31 S. Dart. (A.Pd) 24, 60 LCES (J. Hill)
Arctic Tern
5 N. Monomoy 7 B. Nikula
7 Plymouth B. 3 C. Hepburn
Forster's Tern
8 P.I. 1 P. + F. Vale
8 N. Monomoy 5 R. Heil
16 Newburyport 3 R. Forster#
23 Yarmouthport 1 S. + E. Miller
Least Tern
8 N. Monomoy 150 R. Heil
Black Tern
7 Plymouth B. 2 C. Hepburn
22 P.I. 1 W. Petersen#
23 Yarmouthport 1 S. + E. Miller
30 Chatham (S.B.) 4 B. Nikula
Black Skimmer
2 Fairhaven 1 M. LaBossiere
4 Wellfleet 1 S. Shapiro
4 M.V. 2 V. Laux
16 S. Dartmouth 3 R. McGeough
18 Mashpee 1 S. + E. Miller
23 Chatham (S.B.) 1 ad W. Petersen
Atlantic Puffin
9 Jeffries Ledge 1 ad S. Charette#
Monk Parakeet
4 Blackstone pr M. Lynch#
Black-billed Cuckoo
4 N. Dartmouth 1 M. Boucher
15 Bridgewater 1 W. Petersen#
16 Lexington 1 M. Pelikan
Yellow-billed Cuckoo
1 ONWR 1 M. Pelikan
1 P.I. 1 R. Heil
2 Lexington 1 M. Pelikan
4 E. Boxford 1 J. Brown#
15 Middleboro 2 W. Petersen#
24 Acushnet 1 M. LaBossiere
Eastern Screech-Owl
thr Mt.A. 4-5 R. Stymeist#
Great Horned Owl
15 Concord 2 R. Lockwood
19 N. Dartmouth 1 M. Boucher
Barred Owl
3 Quabbin (G49/50) 4 S. Arena
4 Quabbin (G40) 4 S. Arena
4 Pepperell 3 L. High
4 Concord 1 R. Lockwood
11 Boxford 2 T. Aversa
Northern Saw-whet Owl
8 Wellfleet 1 A. Hirschkop#
Whip-poor-will
9 Wellfleet 1 J. Hoye#
15 Plymouth 16 S. Arena#
31 Dover 2 E. Taylor
Chimney Swift
thr Sherborn 20+ E. Taylor
16 Lawrence 70+ M. Lynch#
Ruby-throated Hummingbird
thr E. Boxford 3-5 J. Brown#
3, 4 Quabbin(G49, 40) 1, 1 S. Arena
10 N. Dartmouth 1 M. Boucher
10 Natick 1 E. Taylor
15 W. Brookfield 1 M. Lynch#
16 Boxboro 1 R. Lockwood
31 Lexington 3 M. R ines
Red-headed Woodpecker
thr Sherborn 2 ad + 3 imm E. Taylor
Red-bellied Woodpecker
thr Medford pr n (2nd brood) M. Rines
thr Sherborn 4 ad + 4 juv E. Taylor

Pileated Woodpecker

4	Concord	1	R. Lockwood
4	Quabbin (G40)	2	S. Arena
9	Quabbin (G35)	1	M. Lynch#
22	Boxford	1	J. Hoye#

FLYCATCHERS THROUGH GROSBEAKS

Breeding birds continue to be found in early July, although no noteworthy species, such as last year's last year's Sedge Wren or Henslow's Sparrow, were reported. The Golden-winged Warbler in Groveland bred with a Blue-winged Warbler, and two fledglings were noted. As many as five Louisiana Waterthrushes were encountered this month, compared with just two last July. A few reports of Evening Grosbeaks from central Massachusetts may have indicated possible breeding in our area. R. H. S.

Eastern Wood-Pewee

3, 4	Quabbin (49, 40)	9, 9	S. Arena
4	Ipswich	6 m	J. Berry

Acadian Flycatcher

4	Chilmark	1	P. Miliotis
11	Boxford (C.P.)	1	T. Aversa

Alder Flycatcher

1	Brookfield	1	S. Arena
31	Lexington	1	M. Rines

Willow Flycatcher

3	Ipswich	6	J. Berry
11	Groveland	4	T. Aversa
20	Worcester (BMB)	6	J. Liller
20	Lexington	6	M. Pelikan
23	P.I.	3	J. Berry
23	Chatham	1	W. Petersen#

Least Flycatcher

3, 4	Quabbin (G49, 40)	7, 16	S. Arena

Great Crested Flycatcher

4	Quabbin (G40)	22	S. Arena
4	Ipswich	3	J. Berry

Eastern Kingbird

29	P.I.	18	M. Lynch#
29	Wakefield	10	P. + F. Vale

Purple Martin

thr	P.I.	50+	M. Lynch#
23	W. Newbury	13	R. Heil
30	Holliston	3	R. Forster

Tree Swallow

30	Rowley	5000	J. Berry

N. Rough-winged Swallow

4	Wakefield	4	P. + F. Vale
15	Wellesley	17	R. Forster
18	W. Roxbury	7	T. Aversa

Bank Swallow

23	W. Newbury	45	R. Heil

Cliff Swallow

1	Newburyport	7 pr n	W. Petersen#
27	Duxbury B.	1	W. Petersen

Fish Crow

3	Randolph	4+	G. d'Entremont
3	N. Eastham	1	B. Nikula
15	S. Hanson	2	W. Petersen#
16	Hanson	9	W. Petersen

Common Raven

3	Quabbin (G34/35)	1	S. Arena#

Red-breasted Nuthatch

thr	Brookline	3	H. Wiggin#
4	Concord	5	R. Lockwood
4	Quabbin (G40)	11	S. Arena
15	Lakeville	2	W. Petersen#

White-breasted Nuthatch

4	Ipswich	10	J. Berry

Brown Creeper

3	Quabbin (G49/50)	1	S. Arena
31	W. Barnstable	1	S. + E. Miller

Carolina Wren

16	Rockport (H.P.)	1	J. Berry
27	Natick	1	E. Taylor

House Wren

4	Quabbin (G40)	4	S. Arena

Winter Wren

4	Quabbin (G40)	1	S. Arena
11	Boxford	pr + 2 yg	T. Aversa
15	Concord	2	R. Lockwood

Marsh Wren

4	Wakefield	13	P. + F. Vale
8	P.I.	25	M. Lynch#

Blue-gray Gnatcatcher

3, 4	Quabbin (G49, 40)	2, 7	S. Arena
4	Wakefield	2	P. + F. Vale
11	Boxford	6	T. Aversa
28	Provincetown	2	T. Aversa

Eastern Bluebird

thr	Sherborn	50	E. Taylor
thr	Boxford	pr + 3 yg	J. Brown
4	Concord	3	R. Lockwood
16	Pepperell	3	E. Stromsted
29	Andover	4	S. Charette

Veery

3-4	Quabbin	50	S. Arena
4	Ipswich	22	J. Berry

Hermit Thrush

thr	Sherborn, Dover	8, 8	E. Taylor
thr	E. Boxford	3	J. Brown#
3-4	Quabbin	43	S. Arena
4	Ipswich	4	J. Berry
4	Wellfleet	5	S. Perkins#
11	Boxford	8	T. Aversa

Wood Thrush

3	Quabbin (G49/50)	7	S. Arena
4	Ipswich	13	J. Berry
11	Boxford	12	T. Aversa

Gray Catbird

thr	P.I.	57 max	M. Lynch#
4	Wakefield	19	P. + F. Vale

Brown Thrasher

2	P.I.	3	M. Lynch#
2	Lexington	3	M. Pelikan
17-18	Bedford	7	S. Perkins#

Solitary Vireo

3-4	Quabbin	21	S. Arena#
15	Halifax	1 m	W. Petersen#

Yellow-throated Vireo

1	Stow	3	M. Lynch#
3	MBWMA	1BBC	(S. Charette)
4	Quabbin (G40)	pr	S. Arena#

Warbling Vireo

1	Stow	7	M. Lynch#
4	Wakefield	4	P. + F. Vale

Red-eyed Vireo

3-4	Quabbin	82	S. Arena#
4	Ipswich	14 m	J. Berry

Blue-winged Warbler

25	Framingham	2	R. Forster

Golden-winged Warbler
1 Groveland 1 R. Lockwood
Lawrence's Warbler
15-17 Lincoln 1 C. Calmer
Northern Parula
1 Mashpee 1 B. Nikula
4 Middleboro 1 m W. Petersen
Yellow Warbler
3-4 Quabbin 22 S. Arena#
4, 29 Wakefield 18, 2 P. + F. Vale
16, 29 P.I. 33, 6 M. Lynch#
19 Watertown 2 yg migr R. Stymeist#
Chestnut-sided Warbler
3-4 Quabbin 29 S. Arena#
15 W. Brookfield 15 M. Lynch#
Yellow-rumped Warbler
3-4 Quabbin 45 S. Arena#
15 Lakeville 1 W. Petersen#
Black-throated Green Warbler
3-4 Quabbin 25 S. Arena#
4 Ipswich 12 J. Berry
Blackburnian Warbler
4 Quabbin (G40) 5 S. Arena#
11 Boxford 1 m T. Aversa
Pine Warbler
4 Quabbin (G40) 21 S. Arena#
4 Ipswich 3 J. Berry
Prairie Warbler
2 Worcester (BMB) 8 B. Rasku
3 MBWMA 7 BBC (S.Charette)
3 Quabbin (G34/35) 3 S. Arena#
9 Easton 3 m J. Berry#
Black-and-white Warbler
4 Ipswich 1 m J. Berry
5 W. Roxbury 1 f T. Aversa
American Redstart
3-4 Quabbin 46 S. Arena#
15 Brookline 1 ad H. Wiggin
Worm-eating Warbler
14 Freetown 2 T. Aversa
Ovenbird
3-4 Quabbin 56 S. Arena#
4 Ipswich 27 J. Berry
Northern Waterthrush
2 Boxford 1 M. Rines
14 Cumb. Farms 3 m T. Aversa
15 Concord 1 R. Lockwood
Louisiana Waterthrush
3 W. Townsend 1 R. Forster
4 Athol 1 R. Forster#
15 Sturbridge 2 M. Lynch#
17 W. Concord 1 R. Forster
28 Provincetown 1 T. Aversa
Common Yellowthroat
3-4 Quabbin 106 S. Arena#
4 Ipswich 30 J. Berry
16 P.I. 22 M. Lynch#
Canada Warbler
4 Ipswich 2 J. Berry
4 Concord 1 R. Lockwood
9 Quabbin (G35) 1 M. Lynch#
Scarlet Tanager
3-4 Quabbin 15 S. Arena#
4 Ipswich 15 J. Berry
15 N. Brookfield 12 M. Lynch#
Rose-breasted Grosbeak
3 Quabbin (G49/50) 4 S. Arena#
3 MBWMA 8 BBC (S. Charette)
Indigo Bunting
4 N. Dartmouth 3 M. Boucher
18 W. Roxbury 9 T. Aversa
Rufous-sided Towhee
3 MBWMA 14 BBC (S. Charette)
4 Quabbin (G40) 23 S. Arena#
9 Easton 15 J. Berry
Chipping Sparrow
4 Ipswich 10 J. Berry
4 Quabbin (G40) 50+ S. Arena#
22 N. Dartmouth 16 M. Boucher
29 Andover 25 S. Charette
Field Sparrow
9 Easton 2-3 m J. Berry#
23 P.I. 3 m J. Berry
Savannah Sparrow
14 Cumb. Farms 30+ T. Aversa
17-18 Bedford 63 A. Jones#
Grasshopper Sparrow
15 Bridgewater 1 W. Petersen#
17-18 Bedford 1 A. Jones#
19 S. Dartmouth 2 M. Boucher
Sharp-tailed Sparrow
1 P.I. 75 R. Heil
8 Barnstable 8 S. Arena#
16, 30 Rowley 15, 10 J. Berry
21 S. Dart. (A. Pd) 20 J. Hoye#
Seaside Sparrow
1 Rowley 5 S. Perkins#
1 Newburyport 3 W. Petersen#
31 S. Dart. (A. Pd) 1 LCES (J. Hill)
Swamp Sparrow
1 Brookfield 16 S. Arena#
White-throated Sparrow
4 Quabbin (G40) 11 S. Arena#
Bobolink
1 P.I. Sound 6 S. Perkins#
2, 16 P.I. 45, 30 M. Lynch#
8 Pepperell 140 E. Stromsted
14 Cumb. Farms 150 T. Aversa
16, 30 Rowley 20+, 0 J. Berry
Red-winged Blackbird
16 P.I. 200+ M. Lynch#
Eastern Meadowlark
8, 16 Pepperell 7, 1 E. Stromsted
9 Sherborn 2 E. Taylor
11 Newbury 3 T. Aversa
14 Cumb. Farms 14 T. Aversa
17-18 Bedford 27 A. Jones#
Common Grackle
9, 30 Framingham 50, 3200 E. Taylor
Orchard Oriole
1 Framingham 1 R. Forster
1 P.I. 1 R. Heil
14 Brookline 2 H. Wiggin
15-16 Wellesley 3-4 R. Forster
19 S. Dartmouth 9 M. Boucher
Northern Oriole
thr E. Boxford 9 J. Brown#
19 Boston (F.Pk) 7 T. Aversa
Purple Finch
thr E. Boxford 2-4 J. Brown#
4 Quabbin (G40) 4 S. Arena#
8 Ipswich 1 m J. Berry
16 Rockport 1 m J. Berry
Evening Grosbeak
9 Quabbin (G35) 1 M. Lynch#
27 Gardner pr D. Clapp
29 Ashburnham 5 R. Forster

BIRD SIGHTINGS
AUGUST 1995
SUMMARY

by Richard A. Forster, Marjorie W. Rines, and Robert H. Stymeist

August was sunny, dry, and warm, with temperatures averaging 72.8°, just a little above normal. The high was 96° in Boston on August 1, and the low was 55° on the 29th. Rain was nearly nonexistent, with only 0.82 inch recorded in Boston. This was the second driest August in 125 years. The low humidity combined with the lack of rain produced very dangerous fire hazards and several state forests were closed.

R. H. S.

LOONS THROUGH WOODPECKERS

Numbers of pelagic birds in offshore waters continued strong both in numbers and variety relative to recent years. Reports of Cory's Shearwaters increased during the month after as early appearance in July. Herons appeared in post-breeding aggregations as is typical for the season. Excellent numbers of Glossy Ibis continued early in the month at Plum Island, where other species were well reported at the evening roost. The vanguard of the freshwater duck flight appeared in the latter portion of the month. Among raptors the most interesting reports were the continued widespread appearance of what are most likely resident Cooper's Hawks. Conversely, most Sharp-shinned Hawks were probably migrants with reports concentrated late in the month. Merlins continued their recent trend of appearing in August.

The shorebird flight progressed very much on schedule with maximum high counts of most sandpiper species in the early part of the month and peaks of plovers somewhat later. The only unusual species was a **Curlew Sandpiper** present for more than a week in Scituate. Although Long-billed Dowitcher is an uncommon bird here, the peak count was well below the normal high count and to a lesser extent the same was true for Stilt Sandpiper. Could the persistent drought and resultant low water levels have been a factor? The arrival of other scarce western migrants – Baird's, Buff-breasted, and Western sandpipers – coincided with the passage of a cold front and accompanying northwest winds on August 24-25. Most notable among these were scattered inland reports of all species including a high of seven Baird's Sandpipers at Provincetown. White-rumped Sandpipers were also well reported during this period, but there was only a scattering of American Golden-Plovers. Pectoral Sandpipers also were scarce throughout the month.

Jaegers were scarce in offshore waters. A high count of 500 Laughing Gulls in East Boston was interesting. An adult **Franklin's Gull** graced the shores of Monomoy and South Beach for a brief period late in the month. Equally satisfying was a **Sabine's Gull** on Stellwagen Bank. Lesser Black-backed Gulls, mostly adults, began appearing at traditional locations for them. No southern terns were reported, and both Forster's and Black terns were observed in relatively low numbers.

Common Nighthawks were moving late in the month with a widespread movement noted on August 29.

R. A. F.

Date	Location	Number	Observers
Common Loon			
6	Wachusett Res.	pr + 2 yg	M. Lynch#
27	Lynn B.	1	G. d'Entremont#
28	S. Monomoy	5	W. Petersen#
Pied-billed Grebe			
24	Worcester	1	M. Lynch#
27	P.I.	1	G. d'Entremont#
Cory's Shearwater			
4	P.I.	3	P. Hunt
5	Jeffries Ledge	5	R. Lockwood
8, 27	Nantucket	25+, 4	S. Perkins
13	Great S. Channel	18	S. Arena#
Greater Shearwater			
5	Jeffries Ledge	25+	R. Lockwood
7, 27	Nantucket	1, 6	S. Perkins
12	Stellwagen Bank	100	R. Prescott
13	Great S. Channel	132	S. Arena#
Sooty Shearwater			
5	Stellwagen Bank	2	M. Lynch#
7, 27	Nantucket	90+, 1	S. Perkins
9	Jeffries Ledge	1	R. Heil
13	Great S. Channel	15	S. Arena#

Manx Shearwater
8, 9 Nantucket 3, 16 S. Perkins
9 Jeffries Ledge 2 R. Heil
29 Stellwagen Bank 1 W. Petersen#
30 Eastham 1 W. Petersen
Wilson's Storm-Petrel
5 Jeffries Ledge 200+ R. Lockwood
5 Stellwagen Bank 400+ M. Lynch#
7 Marshfield 85 R. Forster
9 Nantucket 800 S. Perkins
9 Chatham (S.B.) 3 S. + E. Miller
13 Great S. Channel 2700 S. Arena#
Leach's Storm-Petrel
5 Jeffries Ledge 1 R. Lockwood
13 Great S. Channel 11 S. Arena#
Northern Gannet
4, 27 P.I. 3, 1 P. Hunt
5 Stellwagen Bank 7 M. Lynch#
7 Marshfield 2 R. Forster
7-9 Nantucket 8 imm S. Perkins
9 Jeffries Ledge 20 R. Heil
20 Rockport 7 imm J. Berry
Great Cormorant
thr Nantucket 1 S. Perkins
31 Lynn 1 J. Quigley
American Bittern
5 Rowley 1 P. + F. Vale
9 P.I. 2 R. Lockwood
27 Boxboro 4 C. Paine
Great Blue Heron
thr P.I. 16 max 8/29 W. Drew#
12, 27 Rowley 16, 9 J. Berry
28 S. Dart. (A.Pd) 15 LCES (J. Hill)
Great Egret
thr Easton 3 max S. Arena
thr P.I. 49 max 8/29 W. Drew#
3 Norton 4 G. d'Entremont
7, 28 S. Dart. (A.Pd) 23, 45 LCES (J. Hill)
12, 27 Rowley 80, 16 J. Berry
13 Petersham 1 S. + L. Hennin
20 E. Boston 21 S. Zendeh
26 Randolph 3 G. d'Entremont
28 S. Monomoy 2 W. Petersen#
Snowy Egret
thr P.I. 254 max 8/29 W. Drew#
4 S. Peabody 8 T. Aversa
7, 28 S. Dart. (A.Pd) 91, 49 LCES (J. Hill)
12, 27 Rowley 92, ,110 J. Berry
17 Easton 1 ad S. Arena
20 Scituate 20 S. Perkins
20 E. Boston 164 S. Zendeh
Little Blue Heron
5 Gloucester 1 R. Lockwood
7, 18 S. Dart. (A.Pd) 2, 1 LCES (J. Hill)
21 Duxbury 1 E. Neumuth
20 P.I. 11 M. Pelikan
27 Rowley 6 J. Berry
Cattle Egret
14 Hamilton 6 D. + I. Jewell
19, 29 Ipswich 2, 6 J. Berry
Green Heron
7 Boston 5 T. Aversa
20 GMNWR 7 M. Pelikan
22-31 Hamilton 4 N. Nash
26 Cuttyhunk 5 M. Rines#
27 Newbury 4 G. d'Entremont#
29 Lexington 4 S. Perkins#
Black-crowned Night-Heron
23, 29 Lexington 4, 11 S. Perkins#
Yellow-crowned Night-Heron
2 P.I. 1 imm R. Heil
4 S. Peabody 1 imm T. Aversa
31 WBWS 1 imm W. Petersen#
Glossy Ibis
2 P.I. 265 R. Heil
4 S. Peabody 2 T. Aversa
14 N. Monomoy 16 B. Nikula
26 Provincetown 1 T. Aversa
28 S. Monomoy 2 W. Petersen#
Whooper Swan
20 P.I. 1 BBC (C. Floyd)
Wood Duck
thr Wakefield 46 max P. + F. Vale
19 ONWR 20+ M. Pelikan
20 GMNWR 25 S. Perkins#
26 Holden 27 M. Lynch#
29 Ipswich 113+ J. Berry
Green-winged Teal
5 GMNWR 5 T. Aversa
6, 25 Nantucket 2, 5 S. Perkins
8, 29 S. Monomoy 12, 10 B. Nikula#
15 Lexington 11 T. Aversa
23 Lexington 25 S. Perkins#
American Black Duck
thr P.I. 157 max 8/29 W. Drew#
Northern Pintail
8, 29 S. Monomoy 4, 2 B. Nikula#
27 Princeton 1 M. Lynch#
Blue-winged Teal
8, 29 S. Monomoy 1, 40 B. Nikula#
13-29 Lexington 12 max v. o.
15 W. Barnstable 7 S. + E. Miller
16 P.I. 21 W. Drew#
22-31 Hamilton 9 N. Nash
Northern Shoveler
8, 29 S. Monomoy 1, 10 B. Nikula#
18-28 Melrose 6 D. + I. Jewell
29 P.I. 1 C. Paine
Gadwall
3 P.I. 28 W. Drew#
6 Wakefield 2 P. + F. Vale
8, 29 S. Monomoy 12, 30 B. Nikula#
American Wigeon
8 S. Monomoy 1 B. Nikula#
Ring-necked Duck
29 S. Monomoy 1 B. Nikula#
Greater Scaup
13 P.I. 1 f BBC (J. Center)
Lesser Scaup
3 P.I. 1 W. Drew#
Common Eider
5 Nantucket 5 S. Perkins
20 Rockport 5 J. Berry
21 Duxbury 125 E. Neumuth
Black Scoter
22 Duxbury B. 1 f S. Perkins#
28 Nantucket 1 f S. Perkins
28 S. Monomoy 4 W. Petersen#
Surf Scoter
27 Nantucket 1 f S. Perkins
White-winged Scoter
7 Marshfield 4 R. Forster
28 S. Monomoy 16 W. Petersen#
Hooded Merganser
9, 28 P.I. 1, 2 R. Lockwood
19 Newbury 4 R. Stymeist#
Ruddy Duck
thr Pembroke 1 W. Petersen
29 S. Monomoy 1 B. Nikula#
Turkey Vulture
4 Westport 13 M. Boucher
13 Mt. Wachusett 6 E. Taylor

Turkey Vulture (continued)

20	Rowley	10	J. Berry
24	Haverhill	10	J. Hogan

Osprey

thr	off Hyannis	pr + 2 yg	S. Perkins
7	S. Dart. (A.Pd)	9	LCES (J. Hill)
12	Rowley	1	J. Berry
19	P.I., Newbypt	1, 1	H. Wiggin#
31	Wayland	2	N. Patterson

Bald Eagle

7	Nantucket	1 imm	S. Perkins
11	Cuttyhunk	1 imm	S. Sweet
24	P.I.	1 imm	W. Drew#

Northern Harrier

6-10	Nantucket	16	S. Perkins
21	P.I./Newbypt	3	BBC (C. Floyd)
28	S. Monomoy	4	W. Petersen#

Sharp-shinned Hawk

7	Plainville	1	G. Valade
19	P.I.	1	R. Stymeist#
20	Worc. (BMB)	1	B. Rasku
25	Cape Ann	1	J. Brown#
26	Princeton	1	M. Lynch#
27	MNWS	1	P. + F. Vale

Cooper's Hawk

3	Concord	1 imm	R. Forster
5	Quabbin (G45)	1	T. Aversa
8	N. Scituate	1 imm	T. Aversa
13	Petersham	1	S. + L. Hennin
14	W. Harwich	1 ad	S. + E. Miller
19	Cumb. Farms	1	G. d'Entremont#
18	N. Attleboro	1	G. Valade
19	Littleton	1	M. Pelikan
21	Worcester	1	M. Lynch#
24	P.I.	1	W. Drew#
24	Boston	1	T. Aversa
24, 26	Boxboro	1 imm, 1 ad	C. Paine
25	Wellesley	1 imm	R. Forster
26	Lexington	1	M. Pelikan

Red-shouldered Hawk

1-20	E. Boxford	1	J. Brown#
3-15	Concord	3 max	R. Lockwood
7	Boylston	1	C. Phillips
11	N. Attleboro	1 imm	G. Valade

Broad-winged Hawk

19	ONWR	2-3	M. Pelikan
31	Wareham	3	M. LaBossiere

American Kestrel

thr	Saugus-Revere	2-3	J. Berry
13	Somerville	5	D. F. Oliver
15	Concord	2	R. Lockwood

Merlin

8, 29	N. Scituate	1, 1	T. Aversa
24	P.I.	2	W. Drew#
31	Princeton	1	M. Lynch#

Peregrine Falcon

22	Lexington	1	W. Harrington
25	P.I.	1 ad	P. Hunt
29	S. Monomoy	1	B. Nikula#

Ruffed Grouse

thr	Sherborn	1	E. Taylor
6	Holden	1 ad + 4 yg	M. Lynch#

Wild Turkey

6	Spencer	4 ad + 10 yg	M. Lynch#
7	Worc. (BMB)	1	J. Coyne
13	Mt. Wachusett	2	E. Taylor
19	Petersham	2	M. Lynch#
22	Lincoln	5	S.Ells
27	Newbury	2 ad + 10 yg	J. Berry

Northern Bobwhite

13	Chatham	2	R. Lockwood

Sora

8	S. Monomoy	1	B. Nikula#
23	Newburyport	1 juv	R. Heil
27	Medford	1	M. Rines
29	GMNWR	2	R. Lockwood

Common Moorhen

13	Harvard	1	S. + L. Hennin

Black-bellied Plover

5	Plymouth B.	100+	J. Hoye#
9, 29	P.I.	140, 87	W. Drew#
20	Boston H.	739	TASL (M. Hall)
21	Duxbury	800+	E. Neumuth
27	Chatham (S.B.)	3000	W. Petersen#
30	Eastham	2000	W. Petersen#

American Golden-Plover

19	Newburyport	1	R. Forster
22	Chatham (S.B.)	1	E.Banks
25	Duxbury	1	D. Clapp
25	Nantucket	1 ad	S. Perkins
26	P.I.	2	R. Forster#
28	S. Monomoy	1	W. Petersen#
29	Newburyport	4	C. Paine
31	Lynn	2	J. Quigley

Semipalmated Plover

thr	Princeton	20 max 8/27	M. Lynch#
thr	P.I.	457 max 8/9	W. Drew#
5, 15	Chatham (S.B.)	1300, 1500	B. Nikula
13, 20	Scituate	500, 700	S. Perkins
20	Boston H.	949	TASL (M. Hall)
21	Duxbury	1500	E. Neumuth

Piping Plover

14	S. Dartmouth	4	M. Boucher
15	Chatham (S.B.)	15	B. Nikula
24	P.I.	5	W. Drew#
26	Nantucket	9	S. Perkins

Killdeer

19	Hamilton	46	M. Rines#
26	Princeton	50+	M. Lynch#
26	Newburyport	65	P. + F. Vale

American Oystercatcher

6-11	Nantucket	20+	S. Perkins
18	S. Dart. (A.Pd)	5	LCES (J. Hill)
20	Boston H.	4	TASL (M. Hall)
20	N. Monomoy	85	R. Heil

Greater Yellowlegs

thr	P.I.	37 max 8/29	W. Drew#
14	N. Monomoy	325	B. Nikula
20	Boston H.	157	TASL (M. Hall)
21	Duxbury	65+	E. Neumuth
23	Lexington	10	S. Perkins#
31	Eastham	200	W. Petersen#

Lesser Yellowlegs

4	S. Peabody	24	T. Aversa
14	N. Monomoy	100	B. Nikula
16	P.I.	125	W. Drew#
17-31	Easton	14 max	S. Arena
20	Boston H.	55	TASL (M. Hall)
21	Duxbury	40+	E. Neumuth
23	Lexington	12	S. Perkins#

Solitary Sandpiper

4	S. Peabody	4	T. Aversa
13	Lynnfield	3	P. + F. Vale
13-31	Princeton	25 max	M. Lynch#
15	Douglas	7	R. Forster
18	Hamilton	4	N. Nash
17-31	Easton	9 max	S. Arena
30	Holliston	3	R. Forster

Willet

5, 14	N. Monomoy	120, 40	B. Nikula
7	S. Dart. (A.Pd)	8	LCES (J. Hill)
17	Duxbury B.	11	D. Clapp

Willet (continued)
26 P.I. 8 J. Berry
Spotted Sandpiper
16 P.I. 4 W. Drew#
13-31 Princeton 25 max 8/21 M. Lynch#
17-31 Easton 4 max S. Arena
20 Boston H. 13 TASL (M. Hall)
26 Cuttyhunk 4 R. Stymeist#
Upland Sandpiper
11, 26 Cumb. Farms 18, 2 T. Aversa
22 Lincoln 1 S. Ells
26 P.I., Newbury 1, 1 R. Forster
Whimbrel
7, 10, 27 Nantucket 7, 11, 3 S. Perkins
12 N. Monomoy 550 W. Harrington
13 Scituate 2 S. Perkins#
14 S. Dartmouth 26 M. Boucher
20 Boston (Lovell's I.) 3 R. Stymeist#
21 Duxbury 1 E. Neumuth
26 P.I. 8 P. + F. Vale
Hudsonian Godwit
5, 15 Chatham (S.B.) 160, 125 B. Nikula
14, 23 Revere B. 1, 3 P. + F. Vale
19 P.I. 10 J. Brown#
20 Boston H. 12 TASL (M. Hall)
Marbled Godwit
14-22 Duxbury B. 1 M. Carly + v.o.
20 N. Monomoy 6 R. Heil
Ruddy Turnstone
5 Plymouth B. 80 J. Hoye#
20 Rockport 1 juv J. Berry
20 Scituate 60 S. Perkins#
20 Boston H. 42 TASL (M. Hall)
21 Duxbury 100+ E. Neumuth
25 Chatham (S.B.) 25 S. Arena#
26 P.I. 7 ad J. Berry
Red Knot
5, 15 Chatham (S.B.) 1800, 700 B. Nikula
13, 20 Scituate 25, 200 S. Perkins
14 Lynn B. 1 juv R. Forster
21 Duxbury 200 E. Neumuth
26 P.I. 23 J. Berry
31 Eastham 60 W. Petersen#
Sanderling
5, 15 Chatham (S.B.) 1800, 1600 B. Nikula
20 Boston H. 333 TASL (M. Hall)
21 Duxbury 1000+ E. Neumuth
Semipalmated Sandpiper
5, 15 Chatham (S.B.) 2000, 700 B. Nikula
9, 29 P.I. 1140, 710 W. Drew#
13-31 Princeton 75 max 8/27 M. Lynch#
13, 20 Scituate 600, 600 S. Perkins
14 Lynn B. 1200 R. Forster
20 Boston H. 1508 TASL (M. Hall)
21 Duxbury 800+ E. Neumuth
Western Sandpiper
4, 26 P.I. 1, 1 P. Hunt, J. Brown
26 Lexington 1 juv R. Forster#
27 Chatham (S.B.) 1 W. Petersen#
27 Essex 1 imm D. Brown#
30 Eastham 10 W. Petersen#
30 Lynn 2 juv J. Quigley
31 WBWS 2 W. Petersen#
Least Sandpiper
13-31 Princeton 200+ max M. Lynch#
17-31 Easton 30 S. Arena
21 Duxbury 35 E. Neumuth
23, 29 Lexington 10, 20 S. Perkins#
29 P.I. 87 W. Drew#
White-rumped Sandpiper
5, 15, 27 Chatham (S.B.) 5, 15, 75 B. Nikula#
5 Plymouth B. 3 J. Hoye#
8, 20 Yarmouthport 1, 3 S. + E. Miller
12, 20, 27 Rowley 2, 4, 3 J. Berry
13, 20 Scituate 3, 3 S. Perkins#
24, 29 P.I. 25, 84 W. Drew#
26 Princeton 12 M. Lynch#
30 Eastham 100+ W. Petersen#
Baird's Sandpiper
22, 26 Princeton 1, 7 R. Bradbury
26 P.I. 1 P. Hunt
28 Lexington 1 C. Cook
29 S. Monomoy 1 B. Nikula#
Pectoral Sandpiper
2 Lexington 2 R. Forster
3 GMNWR 4 R. Forster
16 P.I. 2 W. Drew#
19 Cumb. Farms 4 G. d'Entremont#
26-31 Princeton 3-4 R. Bradbury
Dunlin
27 Chatham (S.B.) 3 W. Petersen#
30 Eastham 1 W. Petersen#
Curlew Sandpiper
10-20 Scituate 1 ad J. Norton + v.o.
Stilt Sandpiper
2 P.I. 19 ad R. Heil
20-26 Lexington 1 juv R. Forster
28 S. Monomoy 1 W. Petersen#
Buff-breasted Sandpiper
26 Princeton 1 B. Kamp
27 P.I. 1 S. + L. Hennin
27 Newburyport 1 imm G. d'Entremont#
29 S. Monomoy 1 J. Sones#
Short-billed Dowitcher
3, 9, 24, 29 P.I. 29, 400, 177, 155 W. Drew#
5 Plymouth B. 16 J. Hoye#
5, 15 Chatham (S.B.) 800, 650 B. Nikula#
12, 23 Revere B. 130, 157 P. + F. Vale
20 Boston H. 277 TASL (M. Hall)
Long-billed Dowitcher
2 P.I. 25 ad R. Heil
27 Chatham (S.B.) 1 ad W. Petersen#
Common Snipe
3 GMNWR 3 R. Forster
5 Lexington 2 R. Forster
27 Princeton 1 R. Bradbury#
American Woodcock
18 N. Scituate 1 T. Aversa
19 ONWR 3 M. Pelikan
Wilson's Phalarope
5, 14 N. Monomoy 1, 1 B. Nikula
27 P.I. 2 P. + F. Vale
Red-necked Phalarope
12 Stellwagen Bank 10 R. Prescott
13 Great S. Channel 84 S. Arena
26 P.I. 1 ad P. Hunt
27 P.I. 1 imm H. D'Entremont#
29 Chatham (S.B.) 1 B. Nikula
Pomarine Jaeger
13 Great S. Channel 1 S. Arena
27 Nantucket 1 S. Perkins
Parasitic Jaeger
5 Stellwagen Bank 1 M. Lynch#
8 Eastham 2 R. Beida
22 Chatham (S.B.) 1 E. Banks
27 Nantucket 1 S. Perkins
Jaeger species
13 Great S. Channel 2 S. Arena
27 Nantucket 1 S. Perkins
Laughing Gull
12 Revere B. 32 P. + F. Vale
13 Ipswich 1 juv J. Berry

Laughing Gull (continued)

20	Rockport	3 juv.	J. Berry
27	E. Boston	500	J. Quigley

Franklin's Gull

28-31	S. Monomoy, S.B.	1 ad	W. Petersen#

Bonaparte's Gull

14	Lynn B.	120	R. Forster
26	Newbypt H.	360+	J. Berry

Lesser Black-backed Gull

9	Nantucket	1 1S	S. Perkins
26	Lynn	1 ad	J. Quigley
30	Eastham (Nauset)	1 ad	W. Petersen#
31	Chatham	1 ad	W. Petersen#

Black-legged Kittiwake

26	Lynn	1 1S	J. Quigley#

Sabine's Gull

29	Stellwagen Bank	1	W. Petersen#

Roseate Tern

9, 27	Nantucket	550, 500+	S. Perkins
12	Monomoy/S.B.	1200	BBC(G. d'E.)
22	Duxbury B.	10	S. Perkins#

Common Tern

9	Nantucket	500	S. Perkins
12	Medford	1	D.F. Oliver
12	Monomoy/S.B.	1200	BBC(G. d'E.)
21	Duxbury	100	E. Neumuth

Arctic Tern

5	Plymouth B.	2	J. Hoye#

Forster's Tern

6	P.I.	4	J. Berry
8	Nantucket	1	S. Perkins
10	Lexington	1	M. Rines

Least Tern

5	Plymouth	30	J. Hoye#
14	S. Dartmouth	75	M. Boucher
12	Monomoy/S.B.	50+	BBC(G. d'E.)
25	Duxbury B.	85	D. Clapp

Black Tern

3	Chatham (S.B.)	3	S. + E. Miller
5	Newburyport	1	H. Wiggin#
9, 26	Nantucket	5, 3	S. Perkins
21	Worcester	4	F. McMenemy
22	Duxbury B.	1 juv	S. Hecker#
30	Eastham (Nauset)	3	W. Petersen#

Black Skimmer

3	Chatham (S.B.)	1	S. + E. Miller
14	N. Monomoy	2	B. Nikula
30	Eastham (Nauset)	4	W. Petersen#

Black-billed Cuckoo

2	Acushnet	2	M. LaBossiere
13	Falmouth	1	R. Van der Pyl
26	P.I.	1	K. Hamilton

Barn Owl

27	Nantucket	1	S. Perkins

Eastern Screech-Owl

thr	Concord	3	R. Lockwood
thr	Mt. A.	5 max	R. Stymeist#
12	Wayland	2	J. Hoye#
14	Wareham	3	M. LaBossiere
27	Ipswich	2	J. Berry
29	W. Newton	2	M. Murphy

Great Horned Owl

thr	Ipswich	1-2	J. Berry
2	N. Dartmouth	3	M. Boucher

Barred Owl

28	Wenham	3-4	J. Berry

Common Nighthawk

12 29	Worcester	2, 700	M. Lynch#
17, 21, 22	Weston	2, 22, 19	G. Ferguson
20, 27	Mt. A.	2, 126	R. Stymeist#
21, 31	Wayland	4, 29	N. Patterson
26	Boston	105	T. Aversa#
27	Westwood	160	S. Sweet
27, 31	Princeton	37, 35	M. Lynch#
29	Waltham	70	C. Ralph#
29	Lexington	110	S. Perkins#
29	Wellesley	120	R. Forster

Chimney Swift

24	Wakefield	90	P. + F. Vale
26	Randolph	50	G. d'Entremont
29	Worcester	80+	M. Lynch#
31	Newton	600	T. Kuklinski

Ruby-throated Hummingbird

thr	E. Boxford	7-9	J. Brown#
thr	Boxboro	2-3	C. Paine
5	Worc. (BMB)	2	C. Phillips#
5	N. Dartmouth	3	M. Boucher

Belted Kingfisher

10	Lexington	4	M. Rines
13	Wakefield	3	P. + F. Vale
27	Princeton	3	M. Lynch#

Red-headed Woodpecker

thr	Sherborn	2 ad + 1 imm	E. Taylor

Red-bellied Woodpecker

thr	Sherborn	2	E. Taylor
13	Medford	2 juv	M. Rines

Hairy Woodpecker

19	ONWR	2	M. Pelikan
26	Sherborn	2	E. Taylor

Pileated Woodpecker

15	Concord	1	R. Lockwood
17	Ashby	1	R. Forster
27	Sherborn	1	E. Taylor
31	Princeton	1	M. Lynch#

FLYCATCHERS THROUGH GROSBEAKS

Fall migration for songbirds begins in earnest in August and was well underway by midmonth. Olive-sided Flycatchers are indicative of migration, being among the last to arrive in the spring and one of the first to leave in the fall. Over 100,000 Tree Swallows were assembling at Plum Island by the end of the month, and at the same time most of the Purple Martins at Plum Island had left. The first Philadelphia Vireos were reported by August 26, and 25 species of warblers were recorded during the month. Among the highlights were a Cerulean Warbler at Marblehead Neck and six reports of Mourning Warbler at various locations. Dickcissels were found in three locations on Cape Cod, and early reports of Pine Siskin and Evening Grosbeaks give hope to another fine winter. An immature male **Yellow-headed Blackbird** on South Beach in Chatham was the passerine highlight of the month. R. H. S.

Olive-sided Flycatcher

19	P.I.	2	H. Wiggin#
20	Petersham	1	S. + L. Hennin
26	Lexington	1	M. Pelikan
27	Nantucket	2	S. Perkins

Eastern Wood-Pewee

5, 27	Medford	14, 12	M. Rines
13	Princeton	4	M. Lynch#

Eastern Wood-Pewee (continued)

19	ONWR	4	M. Pelikan
26	Worc. (BMB)	8	F.McMenemy#

Yellow-bellied Flycatcher

17	Wayland	1	N. Patterson
23	Boston (F.Pk)	1	T. Aversa
26	Worc.(BMB)	1	F. McMenemy#
26	Provincetown	2	T. Aversa
26	Cuttyhunk	1	M. Rines#
27	MNWS	1	G. d'Entremont#
28	Nantucket	1	S. Perkins
28	Grafton	1 b	M. Blazis

Acadian Flycatcher

5	Quabbin (G45)	4	T. Aversa

Alder Flycatcher

6	Lexington	1 m	M. Rines

Willow Flycatcher

8	Lexington	3	M. Pelikan

Least Flycatcher

15	Nahant	1	T. Aversa
25	Wellesley	1	R. Forster
26	P.I.	1	R. Forster
26	Eastham (F.H.)	4	T. Aversa
27	MNWS	2	G. d'Entremont#
28	Nantucket	1	S. Perkins

Eastern Phoebe

7	Worc (.BMB)	4	J. Coyne
13	Wakefield	5	P. + F. Vale

Great Crested Flycatcher

5	Medford	3	M. Rines
12	Falmouth	8	R. Van der Pyl
13	Braintree	2	G. d'Entremont
14	MNWS	1	R. Forster
17	Boston (F.Pk)	4	T. Aversa
25	Chatham	2	T. Aversa
26	Provincetown	2	D. Nyzio#
31	Worc. (BMB)	2	F. McMenemy

Eastern Kingbird

13	Lancaster	20	M. Lynch#

Horned Lark

5	Plymouth B.	2	J. Hoye#

Purple Martin

7	P.I.	30	BBC (W. Drummond)
13	Lexington	3 juv	M. Pelikan
23	P.I.	2	R. Lockwood
25	Nantucket	1 imm	S. Perkins
27	Chatham	1	B. Loughran#

Tree Swallow

13	Mt. Wachusett	600	E. Taylor
20	Westport	1500	M. Boucher
22	P.I.	100,000	M. Argue
27	Chatham	1000	B. Nikula

N. Rough-winged Swallow

6	Wakefield	7	P. + F. Vale
12	Attleboro	2	D. Nyzio#
26	Mashpee	20+	B. Nikula
29	Wellesley	11	R. Forster

Bank Swallow

26	Cuttyhunk	2	R. Stymeist#

Cliff Swallow

26	Cuttyhunk	2	M. Rines#
26	Cumb. Farms	10	T. Aversa
26	E. Falmouth	1	B. Nikula
26	Mashpee	1	B. Nikula

Barn Swallow

3	GMNWR	75	R. Forster
22	Methuen	600	J. Hogan#

Fish Crow

18	Wellesley	2	R. Forster
26	Cumb. Farms	22	T. Aversa#

Common Raven

13	Mt. Wachusett	1	E. Taylor
26	Princeton	1	M. Lynch#

Red-breasted Nuthatch

thr	Brookline	pr + 1 yg	H. Wiggin#
8	N. Scituate	2	T. Aversa
8	S. Monomoy	1	B. Nikula#
11	Mt.A.	5	M. Rines
25	Provincetown	3	T. Aversa
26	P.I.	3	R. Forster
27	MNWS	5	G. d'Entremont#

Carolina Wren

13	Mt.A.	2	M. Rines
20	Concord	1	S. Perkins#
24	Worc. (BMB)	3	F. Gately
26	Boxboro	1	C. Paine
26	Cuttyhunk	8	R. Stymeist#
28	Brookline	1	H. Wiggin#

House Wren

13	Braintree	2	G. d'Entremont
19	Ipswich	2	J. Berry
24	Medford	5	M. Rines
26	Cuttyhunk	2	M. Rines#
26	Worc. (BMB)	7	F. McMenemy#

Winter Wren

12	W. Groton	1	B. Nikula#
26	Boxboro	1	C. Paine

Marsh Wren

4	Salem	4	T. Aversa
20	GMNWR	4	M. Pelikan

Blue-gray Gnatcatcher

10	GMNWR	4	M. Rines
13, 27	Medford	2, 2	M. Rines
17	Wareham	1	M. LaBossiere
19	ONWR	1	M. Pelikan
25	P.I.	2	M. Pelikan
27	MNWS	3	G. d'Entremont#
31	Princeton	1	M. Lynch#

Eastern Bluebird

thr	E. Boxford	4 ad + 8 imm	J. Brown#
12	HRWMA	7	D. F. Oliver#
19	Princeton	10	M. Lynch#
21	S. Dartmouth	6	M. Boucher

Veery

25	Chatham	1	T. Aversa
27	E. Boxford	1	J. Brown#
27	Concord	4	M. Pelikan
28	Boston (F.Pk)	1	T. Aversa

Hermit Thrush

28	Wenham	4-5	J. Berry

Wood Thrush

1	W. Roxbury	1	T. Aversa
7	Worc. (BMB)	1	J. Coyne
13	Braintree	1	G. d'Entremont
13	Medford	1	M. Rines
27	Concord	1	M. Pelikan

Gray Catbird

26	Lexington	15+	M. Pelikan
26	Cuttyhunk	109	M. Rines#
26	Worc. (BMB)	25	F. McMenemy#

Brown Thrasher

26	P.I.	20	R. Forster

Cedar Waxwing

25-27	Nantucket	200	S. Perkins

White-eyed Vireo

23	Wareham	1	M. LaBossiere

Solitary Vireo

12	HRWMA	1	D. F. Oliver#
14	Spencer	1	C. Phillips

Yellow-throated Vireo

5	Quabbin (G45)	2	T. Aversa
19	ONWR	2	M. Pelikan

Yellow-throated Vireo (continued)

26	Princeton	1	M. Lynch#
27	MNWS	1	G. d'Entremont#

Warbling Vireo

9	Boston (F.Pk)	8	T. Aversa
20	Concord	7	S. Perkins
20	Milton	2	G. d'Entremont
26	Provincetown	1	T. Aversa
26	Lexington	2	M. Pelikan

Philadelphia Vireo

26	MNWS	1	J. Smith
26	Provincetown	1	T. Aversa#
28, 31	Chatham	1	W. Petersen

Red-eyed Vireo

13	Medford	6	M. Rines
19	ONWR	5	M. Pelikan
30	MNWS	4	N. Nash

Blue-winged Warbler

3	Wayland	2	N. Patterson
5, 24	Medford	2, 1	M. Rines
10	GMNWR	1	M. Rines
13	Braintree	1	G. d'Entremont
16	Yarmouthport	1	S. + E. Miller
16	Acushnet	1	M. LaBossiere
19	ONWR	1	M. Pelikan
22	E. Boxford	1	J. Brown#
26	Worc. (BMB)	2	F. McMenemy#
26	P.I.	1	P. + F. Vale
27	MNWS	3	G. d'Entremont#

Tennessee Warbler

26	Provincetown	1	T. Aversa
26	Jeffries Ledge	2	BBC (I. Giriunas)

Nashville Warbler

23	Newton	2	H. Miller

Northern Parula

25	P.I.	1	M. Pelikan
27	Medford	1	M. Rines

Yellow Warbler

13	Great S. Channel	1	S. Arena#
27	Medford	2	M. Rines
14	MNWS	3	R. Forster

Chestnut-sided Warbler

19	ONWR	3	M. Pelikan
23	Boston (F.Pk)	1	T. Aversa
24, 27	Medford	1, 7	M. Rines

Magnolia Warbler

22	N. Scituate	1	T. Aversa
26	P.I.	1	R. Forster
27	Medford	2	M. Rines
27	Boston (F.Pk)	2	T. Aversa

Cape May Warbler

26	Provincetown	2	D. Nyzio#
28	Nantucket	1	S. Perkins

Black-throated Blue Warbler

27	Boston (F.Pk)	3	T. Aversa

Yellow-rumped Warbler

25	P.I.	1	M. Pelikan

Black-throated Green Warbler

27	Medford	3	M. Rines
27	Concord	1	M. Pelikan

Blackburnian Warbler

25	Provincetown	1	T. Aversa
26	Melrose	1	I. + D. Jewell
27	Medford	1	M. Rines
27	Boston (F.Pk)	4	T. Aversa

Prairie Warbler

4	Nahant	1	T. Aversa
8	N. Scituate	1	T. Aversa
26	Cuttyhunk	2	R. Stymeist#
27	Medford	2	M. Rines

Palm Warbler

27	MNWS	1	P. + F. Vale

Blackpoll Warbler

8	N. Scituate	1 m	T. Aversa
26	Lexington	1	M. Pelikan

Cerulean Warbler

13	MNWS	1	R. Heil

Black-and-white Warbler

14	MNWS	1	R. Forster
14	Wareham	1	M. LaBossiere
19	ONWR	2	M. Pelikan
26	Cuttyhunk	1	M. Rines#
27	Medford	6	M. Rines
28	Melrose	1	P. + F. Vale

American Redstart

13, 27	Medford	6, 51	M. Rines
16	Wareham	4	M. LaBossiere
26	Worc. (BMB)	10	F. McMenemy#
26	Cuttyhunk	5	R. Stymeist#
27	Concord	4	M. Pelikan
27	MNWS	10	G. d'Entremont#

Ovenbird

13, 27	Medford	1, 1	M. Rines
15	MNWS	1	I. + D. Jewell
16	Wareham	1	M. LaBossiere
26	Provincetown	2	T. Aversa
26	P.I.	2	R. Forster
26	Boxford	2	I. + D. Jewell

Northern Waterthrush

4	MNWS	3	T. Aversa
17	Boston (F.Pk)	1	T. Aversa
26	Cuttyhunk	1	M. Rines#
27	Medford	1	M. Rines

Louisiana Waterthrush

12	W. Groton	1	B. Nikula#
17	Townsend	1	R. Forster

Mourning Warbler

15	MNWS	1	T. Aversa
26	P.I.	1	R. Forster
27	Boston (F.Pk)	1	T. Aversa
27	Nantucket	1 b	E. Andrews#
28	Grafton	2 b	M. Blazis

Common Yellowthroat

26	Cuttyhunk	67	M. Rines#
26	Worc.(BMB)	12	F. McMenemy#

Wilson's Warbler

24	Medford	1	M. Rines
29	N. Scituate	1	T. Aversa

Canada Warbler

6	E. Boxford	1	J. Brown#
11	W. Bridgewater	1	T. Aversa
13	Braintree	1	G. d'Entremont
15	MNWS	2	T. Aversa
26	Lexington	1-2	M. Pelikan
26	P.I.	1	P. + F. Vale
27	Medford	3	M. Rines
27	Nantucket	1 b	E. Andrews#

Scarlet Tanager

5	Medford	1	M. Rines
26	P.I.	1	P. + F. Vale
27	MNWS	1	G. d'Entremont#
27	Concord	3	M. Pelikan

Rose-breasted Grosbeak

19	Ipswich	4	J. Berry
20	Milton	2	G. d'Entremont#
26	Worc. (BMB)	6	F. McMenemy#

Indigo Bunting

10	Lexington	1	M. Rines
13	Braintree	1	G. d'Entremont#

Dickcissel

19	Yarmouthport	1	S. + E. Miller
25	Chatham	1	T. Aversa

Dickcissel (continued)

25	Truro	1	D. Nyzio#

Rufous-sided Towhee

20	Worc. (BMB)	16	B. Rasku
26	Cuttyhunk	85	M. Rines#

Chipping Sparrow

12	HWMA	25	D. F. Oliver#
23	N. Dartmouth	21	M. Boucher
31	Easton	45	S. Arena

Field Sparrow

7	Worc. (BMB)	16	J. Coyne

Vesper Sparrow

4, 16	N. Attleboro	3, 1	G. Valade

Savannah Sparrow

thr	N. Attleboro	27 max	G. Valade

Sharp-tailed Sparrow

12	Rowley	30	J. Berry
18	P.I.	7	N. Nash
18	S. Dart. (A. Pd)	6	LCES (J. Hill)
21	Duxbury	6	E. Neumuth

Seaside Sparrow

20	P.I.	1	BBC (C. Floyd)
28	S. Dart. (A. Pd)	2	LCES (J. Hill)

Bobolink

12	N. Attleboro	80	D. Nyzio#
19	Middleboro	5	G. d'Entremont#
20	GMNWR	14	S. Perkins#
25	Truro	15	T. Aversa
25-27	Nantucket	25	S. Perkins
26	Cuttyhunk	10	R. Stymeist#
31	Wayland	6	N. Patterson

Eastern Meadowlark

5, 26	Newburyport	6, 4	P. + F. Vale
11	Cumb. Farms	3	T. Aversa
12	N. Attleboro	3	T. Aversa

Yellow-headed Blackbird

27	Chatham (S.B.)	1 imm m	P. Trimble#

Common Grackle

2	N. Dartmouth	500+	M. Boucher
12	Framingham	500+	E. Taylor
20	Worc. (BMB)	304	B. Rasku
24	Wakefield	920	P. + F. Vale

Northern Oriole

thr	E. Boxford	8	J. Brown#
8, 26	Lexington	9, 7	M. Pelikan
12	Petersham	13	R. Forster#
26	Cuttyhunk	10	M. Rines#

Purple Finch

thr	E. Boxford	2-3	J. Brown#
18-20	Milton	1	G. d'Entremont

Pine Siskin

26	Boylston	1	C. Phillips

Evening Grosbeak

7	Worc. (BMB)	1	J. Coyne
19	Petersham	1	M. Lynch#

HOW TO CONTRIBUTE BIRD SIGHTINGS TO *BIRD OBSERVER*

This publication prints monthly compilations of reports of birds seen in the ten counties of eastern Massachusetts (Worcester County and east) and offshore waters. Space does not permit the inclusion of all material submitted. However, bird sightings sent to *Bird Observer* are archived at the Massachusetts Audubon Society. Our compilers select and summarize for publication sightings that provide a snapshot of birdlife during the reporting period. These sightings include early and late dates for migratory species, maximum counts of migrants and some common birds, and species found beyond their normal ranges.

Sightings for any given month must be reported in writing by the eighth of the following month. Send to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. Please organize reports by month and by species in current A.O.U. checklist order. Include name and phone number of observer, common name of species, date of sighting, location, number of birds, number of observers, and information relevant to age, sex, morph, etc.

Reports of difficult identifications, vagrants, rarities, or species unusual as to place, time, or prior nesting activity in Massachusetts also should be reported promptly to the Massachusetts Avian Records Committee, c/o Wayne Petersen, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773. Include, in addition to the above information, time of day and light available, weather conditions, the optics used and approximate distance from the bird, length of observation, observer's prior experience with the species, and field guide or other references used. Provide a description of the bird based solely on personal observation. Comment on the distinguishing field marks (observed and unobserved), vocalizations, activity, general behavior, habitat, and other birds present. Include with your report copies of any field notes and sketches.

LIST OF ABBREVIATIONS

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

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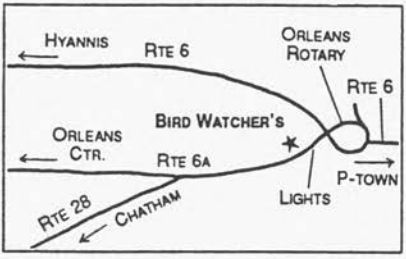

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ABOUT THE COVER: SNOWY OWL

To many birders the sight of a Snowy Owl *(Nyctea scandiaca)* perched atop a house beside the road or on a hay rack in a Plum Island salt marsh is the highlight of a birding year. A favorite subject of artists from prehistoric caves to modern galleries, this arctic species symbolizes the cold ferocity of arctic winters. As their name implies, Snowy Owls are largely white with dusky brown or black barring. Males are generally smaller and paler than females, and immature birds are the most heavily marked.

This monotypic species is circumpolar in its distribution and breeds on the polar tundra of North America from the Aleutians to Labrador. Snowy Owls are generally nomadic and unpredictable migrants, although the bulk of the populations is thought to winter in the great Plains of southern Canada and northern United States. Immature males tend to winter farthest south, and adult females farthest north. Some birds have demonstrated winter site fidelity, but in general the movements of Snowy Owls are complex and confusing. They are also an irruptive species, generally following a four-year cycle thought to reflect the variable abundance of lemmings. Snowy Owls have been recorded as far south as southern California and the Gulf states. In Massachusetts major irruptions have occurred during sixteen winters since 1876-1877, with nearly 300 individuals recorded during the winter of 1926-1927. Most are found on the salt marshes of Plum Island and Salisbury Beach, Boston and its harbor islands, and in smaller numbers south of Boston to Cape Cod. They generally arrive in November and December and leave by April. Remarkably, in the winter of 1986-1987 over forty owls were trapped and banded at Logan Airport.

Snowy Owls are seasonally monogamous breeders, producing a single brood. They are the consummate opportunists, breeding whenever and wherever lemmings are abundant. In average food abundance years they lay clutches of three to five white eggs, but in times of abundance clutches of seven to eleven eggs are common. In times of food scarcity they do not breed at all. They nest on mounds and hillocks in rolling tundra and are sometimes joined by geese or eider, which apparently nest in close proximity to the owls for protection from foxes and other predators. The male establishes a territory, and the female chooses the nest site. Males defend the nesting territory vigorously, attacking humans, wolves, and foxes that stray too close. Awesome predators, Snowy Owls usually attack from the rear and can inflict severe wounds with their talons.

Males vocalize more frequently than females, and males sometimes call to each other along territorial boundaries. Snowy Owls also have a broad repertoire of screams, shrieks, squawks, mews, cackles, and hisses. Males engage in aerial courtship displays consisting of exaggerated wing beats producing a jerky, undulating flight that often terminates in a plummet and a landing with wings

raised. On the ground the male drops a lemming he has brought in and postures with head down, tail fanned, and wings somewhat spread. Threat displays involve feather fluffing, wing spreading, and thrusting the head and neck down and forward. It is thought that males select the territory, females the nest site. The nest is usually an unlined scrape, shaped by the female's body into a shallow depression. Incubation begins with the first egg, and subsequent eggs appear at two-day intervals. This leads to asynchronous hatching. In an eleven-egg clutch the first chick may be twenty days old when the last egg hatches! In times of food (i.e., lemming) abundance the entire brood may survive to fledging.

The female is fed by the male and remains on the nest until the young fledge. The incubation period is four to five weeks, and although the chicks may leave the nest by two weeks of age, they may return to the nest until the third or fourth week, fly by the seventh or eighth week, and may be fed by the male for five weeks after fledging. The male brings in prey, which the female then feeds to the chicks. Hatchlings are fed by regurgitation, small chicks are fed small pieces of lemming soft parts, and older chicks dismembered lemmings. By one week of age chicks may begin to cast pellets of bone and fur.

Adult owls are diurnal predators that rely on their keen vision to find their prey, although they may use hearing to locate prey under snow. They attack while flying or from a perch. Although the Snowy Owl's principal prey are lemmings, they also take other rodents, as well as rabbits, birds, fish, and even marine invertebrates if other prey is scarce. In Massachusetts they take mainly rats and voles, as well as a variety of bird species.

Midden remains in caves suggest that Snowy Owls have been hunted by man since the last glaciation. Recently, however, they have received legal protection from hunting or trapping, except by Native Americans who still hunt them for food and feathers. In the vast arctic tundra their greatest dangers lie with the vagaries of weather conditions and their highly variable food supply, which periodically brings numbers of these magnificent birds to our winter marshes.

W. E. Davis, Jr.

ABOUT THE COVER ARTIST

Keith Hansen began birdwatching in the sixth grade in Maryland and illustrating birds in high school. He is currently working on the fourteenth book that he has illustrated, among which are *Discovering Sierra Birds*, *Checklist of North American Birds*, *The Natural History of the Point Reyes Peninsula*, and *More Tales of a Low-rent Birder*. He has watched birds all over North America, Central and South America, and many islands of the tropical Pacific. He spends

time on the Farallon Islands and at Point Reyes Bird Observatory. The Keith Hansen Wildlife Gallery in Marin County, California (address: P.O. Box 332-A, Bolinas, CA 94924, telephone 415-868-0402), includes nearly a hundred original works of art, western waterfowl identification cards, wildlife T-shirts, and wildlife stationery. The Snowy Owl first appeared on the cover of a Christmas Bird Count issue of *American Birds* in 1990. M. Steele

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AT A GLANCE *October 1995* ____ *Wayne R. Petersen*

Seabirds represent identification challenges found in few other bird groups. Because they are so often seen at a great distance and under adverse lighting and sea conditions, and because some observers have relatively little opportunity to observe them at all, they can be especially difficult to identify with confidence and accuracy.

Perhaps of all the seabird species that regularly occur in Massachusetts waters, none present more identification problems than do jaegers, one of which is the October mystery bird. Jaeger identification problems include those associated with plumage variation due to age, season, sex, and morph type. Indeed, jaeger identification, much like hawk identification, relies as much on structure of the bird, flight style, behavior, geographic location, and seasonality as it does on actual plumage characteristics.

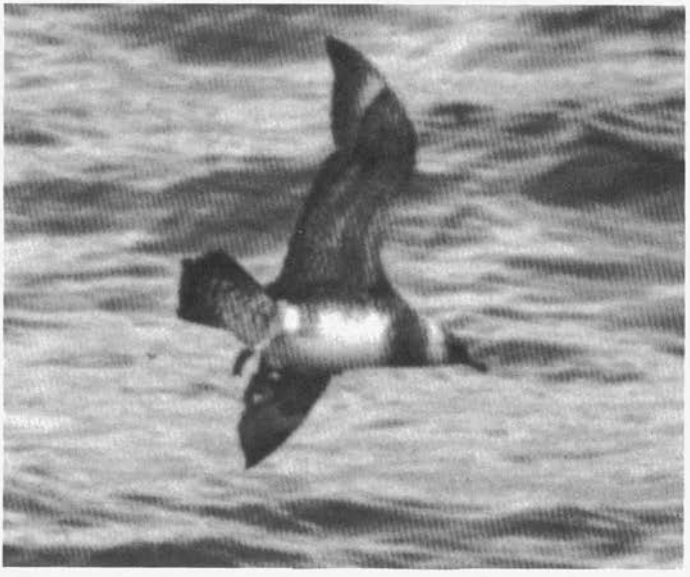
As a primer to jaeger plumages, it is helpful to remember that jaegers, like gulls, require anywhere from three to five years to acquire their breeding plumage; they have distinct winter and summer plumages; juvenile and immature jaegers often look quite different from adults in breeding plumage; and due to polymorphism, melanistic individuals are nearly totally dark, while light-morph adults have light underparts and a pectoral collar of varying extent across their upper breast. Given these plumage realities, it is possible to make some assumptions about the jaeger in the photograph.

First, because the pictured bird has a white lower breast and belly, it is a light morph. Second, the extensive barring on the wing linings, flanks, and undertail coverts indicate that the bird is not an adult, a point further suggested (but not conclusively made) by the short central tail feathers. It is further possible to determine that the bird is an immature (a bird at least one year old), not a juvenile. Juvenile Pomarine and Parasitic jaegers are ordinarily extensively dark below; Long-tailed Jaegers, although occasionally pale-bellied as juveniles, would be unlikely to show such a wide, dusky pectoral collar and would normally appear pale-headed, rather than dark-capped as in the jaeger in the

photograph. Furthermore, a Long-tailed Jaeger, even in immature plumage, would typically exhibit longer central tail feathers, and would appear grayer overall with slimmer and narrower wings, particularly where they join the body. On these points alone, it is safe to assume that the mystery jaeger is not a Long-tailed Jaeger.

The choice then becomes one between the two larger species, Pomarine and Parasitic. This is where the shape of the central tail feathers can be useful. In Parasitic Jaegers the central pair of tail feathers are acutely pointed in all plumages, while in Pomarine Jaegers (and also in juvenile Long-tailed Jaegers) these feathers are either blunt or somewhat rounded, as in the pictured jaeger. Furthermore, the body of the mystery jaeger appears heavy and robust, especially in the chest area, and the wings look broad at the base. These features, along with the breadth and duskiness of the chest collar, heaviness of the barring on the sides under the wings, and the relatively long appearance of the bill all point to the bird being an immature Pomarine Jaeger. What are not clearly visible in the photograph are the five or more ivory primary shafts (best seen from above) that are typical of Pomarine Jaegers, along with what typically appears as a second pale patch at the base of the primaries that is created by the light coloration of under-primary coverts.

Often more pelagic than the Parasitic Jaeger, Pomarine Jaegers are not uncommon in fall on the offshore New England fishing banks, and they are regularly seen from shore during northeasterly gales from September to November. The photograph of the immature Pomarine Jaeger *(Stercorarius pomarinus)* was taken at Cox's Ledge south of Block Island, Rhode Island.



Pomarine Jaeger *Wayne R. Petersen*

AT A GLANCE

Photo by Wayne R. Petersen

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

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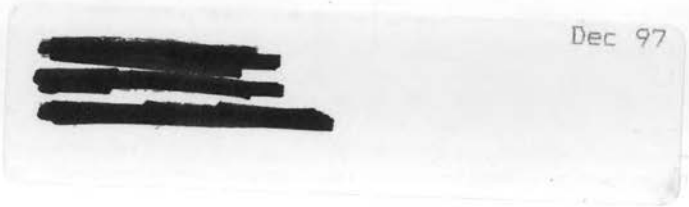

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