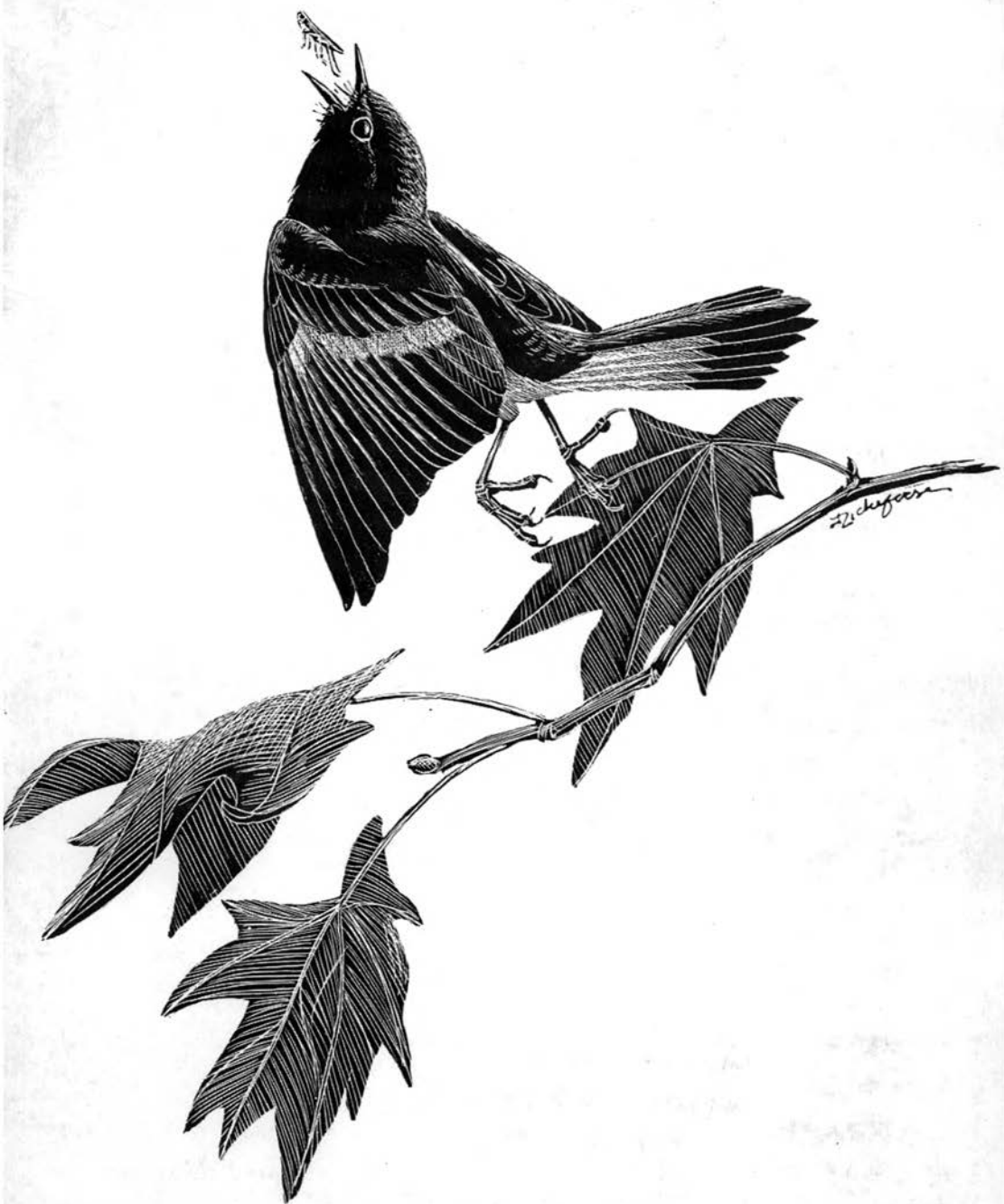


Bird Observer

VOLUME 29, NUMBER 3

JUNE 2001



HOT BIRDS



Some Hot Birds are rarities and some are oddities. In this issue, we cover both bases. First, this extremely accommodating male **Painted Bunting** was a fairly reliable feature of a yard in Malden this winter. This photograph was taken by David Larson, shooting with a digital camera through the lens of his binoculars, on March 11, 2001.

Marj. Rines snapped this image of an **European Starling** at her suet feeder in Arlington. Nicknamed "Cyrano de Vulgaris," this bird's beak is half again as long as a normal starling's bill.



A visit to a wildlife rehabilitation center brought Marj. Rines into the presence of this odd leucistic duck, apparently a **Wood Duck**. While leucism and albinism in ducks are not tremendously rare, this specimen is a very striking example.

In what could be a state first record of overwintering for this species, a female **Black-throated Blue Warbler** was resident on Cape Cod at least from December to the end of March. This copyrighted photograph was taken by Roger S. Everett in January 2001.



***Editor's note:** Please consider submitting your photographs of rare birds, unseasonable birds, or just interesting birds for publication in **HOT BIRDS**. We encourage you to get in touch with David Larson (<davlars@bu.edu> or 1921 Central Street, Stoughton, MA 02072) if you have a photograph for us to consider. We would be delighted to have more diversity in photocredits for this feature.*

CONTENTS

BIRDING THE BOSTON HARBOR ISLANDS	<i>John Nove</i>	173
TERNs NESTING IN BOSTON HARBOR: THE IMPORTANCE OF ARTIFICIAL SITES	<i>Jeremy J. Hatch</i>	187
THREE TIMES A LADY	<i>Rob Gough</i>	194
JAMES LEE PETERS AND THE <i>CHECK-LIST OF BIRDS OF THE WORLD</i>	<i>William E. Davis, Jr.</i>	196
ACADIAN FLYCATCHERS NESTING ON MARTHA'S VINEYARD, DUKES COUNTY	<i>Matthew L. Pelikan</i>	201
THE WIRED BIRDER Bird Imaging for Art and Documentation	<i>Shawn Carey, Donald Crockett, Stephen Mirick, and David Larson</i>	206
THE MURRELETS	<i>Brooke Stevens</i>	215
YOUNG BIRDERS A Winter Outing	<i>David Allen</i>	223
FIELD NOTES Drakes are From Mars: Hens are from Venus "Three's Company"	<i>Paul Roberts</i> <i>Joey Mason</i>	225 226
ABOUT BOOKS A Bird Guide of a Different Kind <i>Taking Wing: Archaeopteryx and the Evolution of Bird Flight</i>	<i>Karsten E. Hartel</i> <i>William E. Davis, Jr.</i>	229 231
BIRD SIGHTINGS: January/February 2001 Summary		233
ABOUT THE COVER: American Redstart	<i>William E. Davis, Jr.</i>	251
ABOUT THE COVER ARTIST: Julie Zickefoose		252
AT A GLANCE	<i>Wayne R. Petersen</i>	253

Please visit the newly redesigned Bird Observer website at
<<http://massbird.org/birdobserver/>>.





Bird Observer

A bimonthly journal — to enhance understanding, observation, and enjoyment of birds
VOL. 29, NO. 3 JUNE 2001

Editor Brooke Stevens
Production Editor David M. Larson

Department Heads

Cover Art William E. Davis, Jr.
Where to Go Birding Jim Berry
Feature Articles Marta Hersek
Book Reviews Mark Lynch
Bird Sightings Robert H. Stymeist
Marjorie W. Rines
At a Glance Wayne R. Petersen

Managers

Subscriptions Carolyn B. Marsh
Advertisements Robert H. Stymeist

Corporate Officers

President Marjorie W. Rines
Treasurer Sandon C. Shepard
Clerk John A. Shetterly
Assistant Clerk Barbara Lawless

Board of Directors

Dorothy R. Arvidson
Susan L. Carlson
William E. Davis, Jr.
Glenn d'Entremont
H. Christian Floyd
Janet L. Heywood
Harriet E. Hoffman
David M. Larson
Carolyn B. Marsh
Wayne R. Petersen
Brooke Stevens
Robert H. Stymeist
Fay Vale

Associate Staff

Theodore Atkinson
Seth Kellogg
René Laubach
Simon Perkins

SUBSCRIPTIONS: \$21 for 6 issues, \$40 for two years for U.S. addresses. Inquire about foreign subscriptions. Single copies \$4.00, see <<http://massbird.org/birdobserver/subform.htm>>.

CHANGES OF ADDRESS and subscription inquiries should be sent to: Bird Observer Subscriptions, P.O. Box 236, Arlington, MA 02476-0003, or E-mail to Carolyn Marsh at <jandcmarsh@mediaone.net>.

ADVERTISING: full page, \$100; half page, \$55; quarter page, \$35. Send camera-ready copy to Bird Observer Advertising, P.O. Box 236, Arlington, MA 02476-0003.

MATERIAL FOR PUBLICATION: BIRD OBSERVER welcomes submissions of original articles, photographs, art work, field notes, and field studies. Please send submissions to the Editor: Brooke Stevens, 5 Hemlock Road, Cambridge, MA 02138; E-mail: <Brookestev@aol.com>. If possible, please include a computer disk (Microsoft Word, txt, or rtf formats), or e-mail to the Editor as an attached file. Include author's or artist's name, address, and telephone number and information from which a brief biography can be prepared.

POSTMASTER: Send address changes to BIRD OBSERVER, P.O. Box 236, Arlington, MA 02476-0003. PERIODICALS CLASS POSTAGE PAID AT BOSTON, MA.

BIRD OBSERVER (USPS 369-850) is published bimonthly, COPYRIGHT © 2001 by Bird Observer of Eastern Massachusetts, Inc., 462 Trapelo Road, Belmont, MA 02478, a nonprofit, tax-exempt corporation under section 501 (c)(3) of the Internal Revenue Code. Gifts to Bird Observer will be greatly appreciated and are tax deductible. ISSN: 0893-463

Birding the Boston Harbor Islands

John Nove

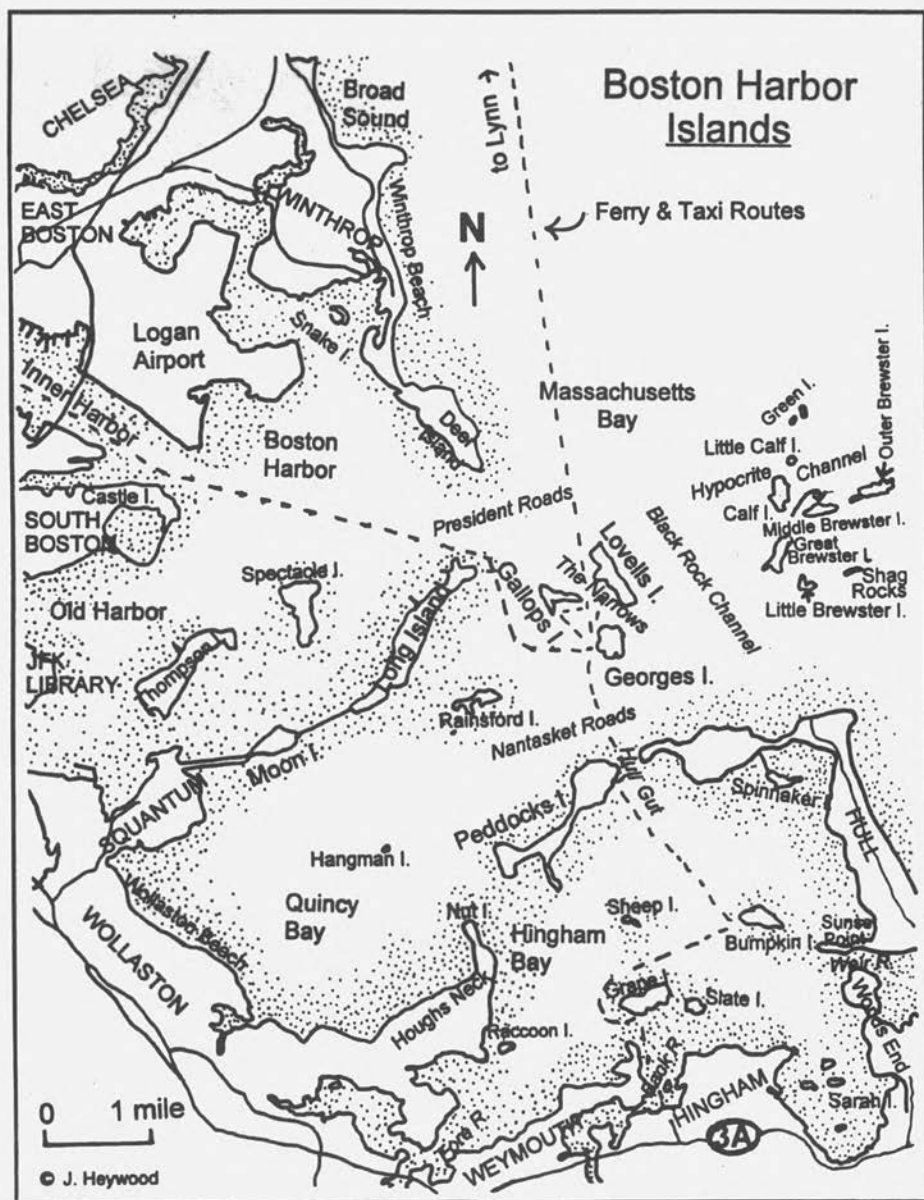
Introduction

After nearly a decade of lobbying by Representatives Gerry Studds and Joe Moakley and Senator Edward Kennedy, the Boston Harbor Islands National Recreation Area was created by an Act of Congress in 1996. Unique among sites in the National Parks system, it is managed by a partnership made up of the twelve owners and operators of the thirty islands named in the legislation together with several advocacy groups and the National Park Service (NPS) itself. After a five-year process of study and public input, a management plan was recently released that will guide the park as it moves into the new millennium. Of interest to birders and to visitors in general is the recommendation that calls for increased public access to the islands. At the same time, several of the more remote islands, traditionally used by colonial nesting species, are to remain undeveloped.

In operation since the early 1970s, the Boston Harbor Islands State Park, now a part of the Boston Harbor Islands National Park Area (the name it now goes by after Native Americans objected to using the phrase "recreation area" to describe islands on which some of their ancestors were imprisoned and died), is co-managed by the Massachusetts Department of Environmental Management (DEM) and the Metropolitan District Commission (MDC). Currently, six of the nineteen state-owned islands make up the nucleus of the Area, hosting nearly 125,000 visitors annually. They are staffed seasonally and are accessible by ferry and water-taxi link from Boston as well as from the North and South Shores. Of the six, Georges and Gallops are strictly day-use (following the convention used on nautical charts, apostrophes are not used for the islands' names in this article: Georges, not George's), while camping is permitted on the other four (Grape, Bumpkin, Lovells, and Peddocks). Public access to a seventh island, Thompson, owned by the Thompson Island Outward Bound Education Center, is somewhat limited, with transportation being provided by the Center's boat. In addition, regularly scheduled trips to Boston Light on Little Brewster Island began during the summer of 1999.

This article will focus on the six islands served by the park's ferry/water-taxi system during the summer season and on the logistics of getting around the park and the islands themselves. Some of the birding highlights of specific islands are mentioned in the text, but for the most part readers are referred to the list of breeding species at the end of the article. It was compiled during the 1980s and 1990s using the *Massachusetts Breeding Bird Atlas* criteria, and is a fairly comprehensive most-likely-to-be-seen list for the summer season. Off-season access is discussed at the end of the article as are the Harbor's heron rookeries.





Getting To and Around the Islands

Regular visitors to the islands have become accustomed to surprises, and the past season held its share: Peddocks, long a favorite for birders because of its varied habitats, and closed for several years because of a damaged pier, finally reopened. As if to balance the situation, structural damage to the pier on Lovells required that island to be closed for most of the 2000 season to all but private boaters. (Piers destroyed in

the early 1990s on Great Brewster and Calf Islands have yet to be rebuilt.) In addition, Gallops was closed for several weeks while asbestos from the debris of demolished World War II-era structures was removed. Several parts of the island still remain off-limits.

Understanding the water transportation system and its schedule is vital to enjoying a day of birding on the islands. Schedules designate two shoulder seasons that run from late April to mid-June and from Labor Day to Columbus Day. During these seasons, ferries depart every two hours from Boston starting at 10:00 a.m. and less frequently from Hingham and Salem; a single water taxi makes a loop of all the islands on weekends only. The summer season, extending from around the time of the third week of June to Labor Day, features hourly service from Boston, from 10:00 a.m. to 5:00 p.m. daily, with at least two water taxis providing northern (Lovells/Gallops) and southern service (Peddock/Bumpkin/Grape/Hingham) seven days a week. It's best to study the printed schedule beforehand and to stop by the NPS's information booth at the foot of Long Wharf (if you're traveling from Boston) on the day of your trip to inquire about last-minute changes. Schedules can be obtained by calling the NPS (617-223-8666; <www.BostonIslands.com>), by stopping by the park information booths at Long Wharf and Fan Pier, or by contacting Boston Harbor Cruises (BHC) (617-227-4321; <www.bostonharborcruises.com>).

Ferry transportation from Boston is currently provided exclusively by BHC. In addition to their Boston-based operation on Long Wharf and their South Shore hub at the commuter dock at Hewitts Cove in Hingham, BHC ran boats during the 2000 season from the Blaney Street pier in Salem. Boats from Boston travel to Georges Island, transportation hub of the park, in about 40 minutes. Current individual round-trip fares are \$8 for adults, \$7 for seniors (and individuals in groups of 25 or more with prior arrangement), and \$6 for children under 12. These prices include unlimited use of the water taxis. (Kids under 3 are free; the school group rate is \$2/student with one adult riding free for every 10 students.) Boats have a snack bar, toilet facilities, and a historical narration on the way out. (It's wise to avoid the hotdogs that have been spinning around on their wiener-wheel all day.) There is a snack bar and water on Georges. All the islands have composting toilets.

From Georges Island, free water taxis transport visitors to the five other islands. Although scheduled connections between ferry arrivals and taxi departures (and the reverse on the way home) were fairly smooth during the mid-1990s, the current schedule can be inconvenient. Arriving on Georges and having to wait 40 minutes for a taxi to Gallops, or arriving by taxi on Georges just as the ferry back to Boston is departing, can be aggravating on a humid, 90-degree day. The trip from Georges to Gallops or Lovells is about 10 minutes long, while the cruise from Georges down to Grape takes about 45 minutes with two stops along the way (Peddocks and Bumpkin). I strongly recommend taking the first (10:00 a.m.) boat out of Boston or Hingham to maximize your interisland taxi options during the day. I also recommend that, if you're taking the boat from Boston and hope to take the water taxi, that you quickly make your way from the ferry, once it docks on Georges, over to the taxi dock to get



in line for your boat. Island staff and volunteers from the Friends of the Boston Harbor Islands will be there to guide you.

On the Way

The ferry ride from Long Wharf, Boston, out to Georges Island can provide an interesting start to your day. Check the top of the Custom House Tower for the resident pair of Peregrine Falcons (and their offspring by mid-June) as you wait for the boat to leave. Since being reintroduced in downtown Boston over fifteen years ago, a pair has usually nested in the box

constructed just inside the topmost of the six tower-top windows that face the harbor. They're often seen perched on or flying around the tower, and lucky observers may have a chance to watch young birds learning to fly. Pigeons, Blue Jays, and other large songbirds seem to be their primary diet.

The three most ubiquitous species you'll encounter along the way are Great Black-backed and Herring gulls, and Double-crested Cormorants. All three species nest on several of the islands. Look for the latter fishing, stretching, perched on pilings, or flying by. Once beyond the Inner Harbor, other species become more common. Common Terns can usually be seen flying past the ferry or fishing nearby. Laughing Gulls are also regular summer visitors with from 50 to 100 present in the area each summer. The sewage discharge pipe off Deer Island has traditionally been the best place to observe them and other species of gulls, but with the opening of the new 9.5-mile wastewater discharge tunnel out into Massachusetts Bay, it will be interesting to see how the Harbor's gull population is affected.

Up until the mid-1990s, Common Terns nested on the remains of an old pier on Long Island Head. Damage to the pier left it unattached to the island and effectively kept mammalian predators from the nests. The derelict pier was eventually removed, eliminating a prime tern-nesting site. Other likely fly-bys include Black-crowned Night Herons, Great and Snowy egrets, and Glossy Ibis, all of which nest in colonies in the Outer Harbor.

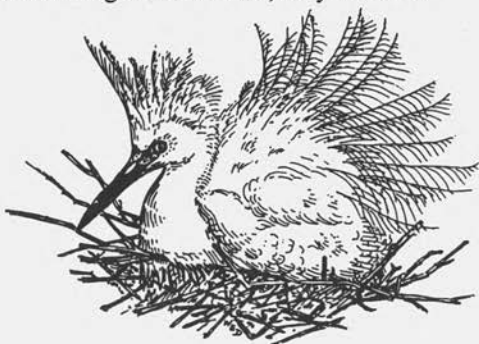


As the ferry makes its turn into the Nubble Channel, just beyond Long Island Head, it passes a gravelly bar called Nixes Mate, with its black and white pyramidal structure poised on a granite base. This eighteenth-century navigational marker is located on all that remains of what was once a ten-acre island. When the tide is low, birds, mostly gulls and cormorants, line up on the base and along the bar. It's also a place to sometimes find American Oystercatchers, a species that extended its breeding range north to and beyond the Harbor in the early 1990s. Oystercatchers have nested on Slate Island and now nest on Lovells Island and

Snake Island in Winthrop Bay. My most surprising in-transit bird has been Wilson's Storm-petrel. Small groups of them are most often seen from the Boston ferry on foggy mornings in August when the wind is blowing from the east; they are even more common on the boat down from the North Shore.

On-Island Camping

Camping is a good way to learn about Harbor birdlife. From the departure of the last taxi at the end of the afternoon through to the arrival of the first one late the next morning, campers have the islands pretty much to themselves. (Staff is on hand 24 hours a day for emergencies.) Grape, Lovells, and Peddocks are open for camping spring through fall; Bumpkin is open summers only. Each of the islands has about a dozen single-tent sites and one large group site. Peddocks has field-camping only; the sites on Lovells are sparsely vegetated and sandy, a short walk from the beach; Grape has forested sites and grassy paths, the most unspoiled of all the camping islands; Bumpkin's sites are in an old orchard, but the island's proximity to Hull with its police, fire, and ambulance sirens can be disconcerting. Reservations for Lovells and Peddocks are free and can be made through the MDC at 617-727-7676. Reservations for Grape and Bumpkin cost \$5/night and must be made through the DEM's computerized reservation system at 1-877-I CAMP MA. It is hoped that in the near future a single phone call will provide information and camping reservations for all the islands.



Exploring the Islands

What follows are some suggestions for trails to walk and places to visit on each of the islands. They have been favorites of mine over the past fifteen years, but as is the case with many things in the Harbor, and as you'll learn as you read what follows, change seems to be the only constant (how's that for a disclaimer!). Anyhow, use the suggestions as a starting point, and then explore the islands for yourself. In addition to the island maps/brochures available at information booths and on each of the islands, on-island staff is usually friendly and well informed. Roughly speaking, the trails on Gallops, Grape, and Bumpkin can be walked in about an hour and a half; allow two hours for Georges and Lovells, and three for Peddocks.

Georges Island (MDC)

From Seawall to Parade Ground – The most interesting walk on Georges follows part of the island's shoreline atop a granite seawall. Dating back to the early 1830s, the wall, now badly damaged in some areas, was built to secure the island from the forces of erosion prior to the construction of Fort Warren, the heart of Boston's nineteenth-century harbor defenses. From the ferry pier, walk left around the outside

of the fort, cutting diagonally across the picnic area with its catalpas and exotic pines. The seawall walk begins just beyond the chain-link fence and the island's compost heap (often a good place for Song and Savannah sparrows). The channel ahead of you, running between Georges and Gallops on one side and Lovells on the other, known as The Narrows, is a remnant of the ancient bed of the Charles River as it made its way to a then-distant sea as the last glacier was retreating. As the glacier continued to melt, sea level rose, flooding the area, isolating the Harbor's drumlin hills, and turning the riverbed into the Harbor's primary deep-water channel. It was the proximity to that channel that led to the siting of Fort Warren.

A walk around the perimeter of Georges Island, in addition to affording scenic views of the outer islands (including Little Brewster Island, oldest lighthouse site in the nation), can provide a window on the Harbor's seabird life. In the spring, Brant by the hundreds congregate in the offshore waters and often feed on the front lawn of



Fort Warren. Migrating ducks congregate in The Narrows as well, with a few eiders and scoters lingering through the summer. (In recent years, there has been only a single record of breeding Common Eiders, presumably on one of the outer islands, as evidenced by a hen with two babies seen feeding off Gallops.) In summer, both Common and Least terns are regulars here, along with Double-

crested Cormorants and Herring, Great Black-backed, Ring-billed, Laughing, and Bonaparte's gulls. Oystercatchers are a likely fly-by, and in late summer, migrating shorebirds, including Ruddy Turnstones, feed on the rocks below the seawall. The wall continues around the island with the expanse of the outer islands giving way to views of Hull and Peddocks Island to the south. As you go through the opening in the fence and the picnic area comes into view, notice the small *Phragmites* marsh on your right (probably no larger than forty square feet) that is fed by run-off from the fort and drumlin. As tiny as it is, it's a regular haunt in the spring for Red-winged Blackbirds. Mallards have also successfully nested in the area.

Cross the picnic area, then follow the sidewalk and steps running along the near side of the brick Administration Building (originally a mine storage facility) into the fort. The area inside the pentagonal ramparts of Fort Warren, the parade ground, is the domain of the Barn Swallow. Arriving in late April, they build their mud and straw



nests on the walls of the rooms in the fort. In addition to taking advantage of the lack of doors and windows, the birds can also get into these interior spaces through the cannon embrasures and narrow gun loops on the fort's outer walls. Look for a room with swallow activity, walk in and locate the nest, and then observe it from a more distant part of the room. Throughout the season you'll be rewarded with an up-close view of nest building, feeding and caring for young birds, and other aspects of their domestic life.

A half-filled cistern in the parade ground played host to a family of Mallard ducklings one spring. They toppled (were led?) into it before they could fly and were captive there until they could. The nearby horse chestnuts, the largest trees on the island, attract migrants each spring. While giving a tour one May, I was asked by a student, "Mista, what's that red bird?" Prepared for a Northern Cardinal, I was surprised to see a male Summer Tanager hopping along a branch.

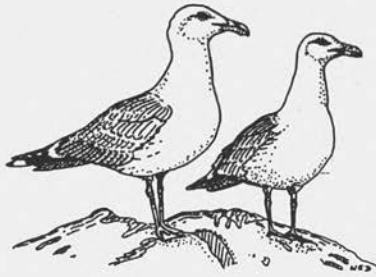
During the summer of 1999, a large World War II-era amphibious landing craft spent the season tied up and unused at one of the docks. Unlike the vessel that has valiantly served the islands for many years and continues to do so, this new one had several-inch-square perforations on its bow door which were discovered by a passing group of Rough-winged Swallows. They settled in and successfully raised families inside — a Harbor first. The following season, the landing craft was gone, and so were the swallows.

Gallops Island (DEM)

The Gull Colony and Peggys Point — Just 16 acres in size, Gallops is a 10-minute water-taxi ride from Georges. The island's most prolonged use was as the site of a quarantine station from the close of the Civil War through the 1930s. The station's physician-in-chief during the 1920s and 1930s, a horticulturist, was responsible for introducing many exotic ornamentals and fruit trees to the island. With the coming of World War II, a school for Merchant Marine radio operators, cooks, and bakers was established. It was primarily the debris from the buildings of that era that contaminated parts of the island with asbestos.

From the pier, take the main trail up the drumlin. Turn left and follow the trail past the two composting toilets. It was in this area, among the *Forsythias*, that about a dozen pairs of Black-crowned Night Herons nested for many years. Increased visitor pressure in the mid-80s eventually drove them off to the outer islands. It's also in this area that you're likely to encounter your first giant rabbit (technically, a European hare). In the late 1940s and the 1950s these animals were transported to islands around the world where they bred and were hunted seasonally for their meat. Others may have been introduced more recently. A 1999 literature search by the Massachusetts Division of Fisheries and Wildlife (MDFW) suggests that of all the hare populations studied to date, the animals on Gallops are, on average, the largest in the world.

The trail circumnavigates the island in a clockwise direction and leads to several scenic overlooks as well as to the gull colony located on the island's northeast corner. Although the area was primarily used by Herring Gulls through the early 1990s, the number of Great Black-backed Gulls has increased during recent years. The size of the entire colony presently stands at about thirty pairs. They nest in the ledges of the sandy cliffs as well as on the grassy areas above. Island staff members usually attempt to discourage nesting directly on the path, but sometimes the gulls prevail — and can often become quite indignant when walkers pass by. From mid-May through mid-July it's best to walk parts of this trail with a stick held vertically over your head. If conditions are truly dangerous (there have been several gull-scratched scalps over the



years, and the claws on gulls' feet are not known for their cleanliness), trail detours are set up by island staff.

Several scenic overlooks provide vistas of the Boston skyline, the massive new Deer Island water treatment plant, and the outer islands. They also provide vantage points from which to look for waterfowl. Small numbers of nonbreeding eiders and scoters remain in the Harbor all summer along with an occasional Brant as well. Sitting on one of the benches

overlooking The Narrows and Lovells Island, enjoying the sea breeze, contemplating how the different the area would be if the Statue of Liberty had been erected on Lovells (it was the runner-up site!), and watching birds fly by is a *very* pleasant way to spend an afternoon.

The path continues down steps to the Parade Ground. Turn left and continue parallel to the shoreline down to Peggys Point at the island's easternmost end. At low tide, the point — named after a lighthouse-keeper's daughter — is a feeding place for shorebirds, including the American Oystercatcher. Sanderlings are often found there from July on as well as Ruddy Turnstones later in the season. Several pairs of gulls also nest in this area. To complete the loop back to the pier, you can choose either the sandy beach or the upland path. The former has pieces of white mess-hall dinnerware that continue to wash ashore after nearly 60 years, while the latter has the islands' usual mix of resident Yellow Warblers, Gray Catbirds, and Song Sparrows.

Lovells Island (MDC)

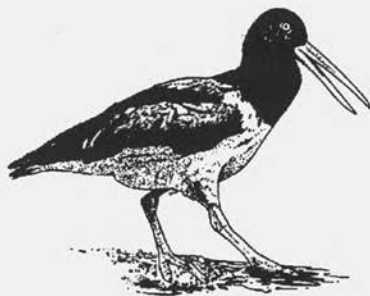
From the Tern Colony to Battery Terrill — Lovells features an interesting mix of habitats, including the Harbor's only significant dune system. At the end of the pier walk to the right along the beach toward the island's sandy southern tip. This area and the grassy/gravelly habitat behind it are favored nesting sites for both Killdeer and Spotted Sandpipers. Early in the 1990s, Least Terns began arriving, and at their peak, forty pairs attempted to breed here. Unfortunately, the area was subject to tidal flooding and disturbance by both dogs and people. Symbolic taping-off of the nesting-site had little effect, and the population fluctuated between five and twenty pairs, still the case today. The area around the point attracts feeding American Oystercatchers as well as migrating shorebirds.

From the island's southern tip, walk inland a short distance onto the now-sandy parade ground. One May morning about ten years ago, an old apple tree here had a bouquet of six hummingbirds in it. Take the main (paved) trail north, up the drumlin and along the spine of the island. Structures that were part of Fort Standish, built in the early years of the twentieth century, dominate the island. The areas in and around the conifers on the drumlin-top have resident Black-capped Chickadees, White-breasted Nuthatches, House Finches, Brown Thrashers, Northern Cardinals, and Cedar Waxwings. The area is also visited by the Great Horned Owls that feed on the island's hares.

As the trail descends to the bottom of the drumlin, you'll see a lowland with a small, dilapidated brick building at its center. The area surrounding this oil house has some of the characteristics of a marsh, but it is not truly tidal. It is inundated by seawater only during the winter storms that sometimes cut the island into three. Beyond it is a small drumlin that was hollowed out by the military to create a coastal-defense gun battery and underground ammunition storage bunkers. Walk counterclockwise around the drumlin. At low tide, the northern end of the island and the mudflats along the west-facing adjacent beach are among the best shorebird-watching areas in the Harbor. From mid-August on, migrants stop to feed on the small crustaceans that inhabit the sandy areas between the rocks as well as the mud. In addition to the more usual species of sandpiper and plover, the area attracts Whimbrels each fall. Continue counterclockwise around the island along the beach that faces Gallops Island and the Boston skyline. The area with the remains of a wooden pier and riprap is a favorite feeding area for American Oystercatchers. On at least two occasions, they successfully nested on the upper beach here, but in more recent years the pressure of humans and dogs in the spring has become intense. Follow the beach back to the pier, or take the inland path that passes the island's camping area.

Peddocks Island (MDC)

Four Heads Are Better Than One — The geology of Peddocks makes for interesting geography, which, in turn, makes for interesting birding. Made up of four heads (East, Middle, Princes, and West) connected by narrow, gravelly tombolos, this tied island system, shaped primarily by the last glacier, combines inland birding on and around the drumlins with coastal birding along the beaches and pocket marshes.



The water taxi docks at East Head, where the MDC maintains a Visitors Center and a field-camping area just beyond the pier. The highest of the four heads, it is made up of two drumlins with turn-of-the-century Fort Andrews and its mortar pits nestled between them. Follow the paved path that goes left from the dock past the chapel and up the drumlin. The trees among the deteriorating brick buildings to your right and the woods beyond them attract migrants in the spring and fall. Two resident newcomers, the Carolina Wren and the Red-bellied Woodpecker, can sometimes be heard calling in this area during the summer. The barking dog you may encounter as you approach the first tombolo is fairly friendly. Continue along the trail that leads to the Middle Head.

Middle Head, a former Portuguese fishing colony, now has a summer community of cottagers whose bungalows are being bought out, one at a time, by the MDC. Walk past the cottages staying on the trail that follows the right-hand (west) shoreline, and continue on toward West Head. To the left is the island's struggling salt marsh as well as access to Princes Head tombolo. Be aware of the status of the tide if you venture

out along the narrow spit to Princes Head — I once had to lead a group of seniors back through calf-deep water. In the mid-1980s, both Belted Kingfishers and Bank Swallows nested in the eroded cliff-face of Princes Head. At low tide during the late summer, the tombolo out to Princes Head is a gathering place for shorebirds. That, combined with the proximity of the salt marsh, makes it a good place to explore.

Just beyond is West Head, the fourth of the island's drumlins. It has been designated a wildlife sanctuary by the MDC, but the significance of the designation is unclear. It has a small fresh-water pond, usually with a few American Black Ducks; the area beyond the pond had a colony of Black-crowned Night-Herons through the early 1980s. The increase in commuter boat traffic past West Head has accelerated its erosion.

Depending on the tide, you may want to walk back along one or more of the beaches that face south toward Hingham Bay. As you approach East Head, walk inland, and then turn left and follow the paved road that leads up the drumlin. This trail will take you through the remains of many of the buildings of Fort Andrews, now pretty much overgrown. When the road forks, take the path to the right that leads past the mortar pits and back to the pier. As well as the usual Yellow Warblers and Common Yellowthroats, there have been summer sightings on East Head of Black-and-white and Blue-winged warblers as well as American Redstarts. And since the island is 188 acres in size, it's one of the best in the Harbor for raptors.

Grape Island (DEM)

Around the Island — Grape is the least disturbed of the Harbor Islands, having been used primarily for agricultural purposes from the time of the arrival of the first European settlers. Before them, Native Americans used it (and most of the other islands) as a summer camping area. They harvested fish, mollusks, and wild fruits, preserving some for winter use. The extent to which shellfish — primarily clams — were harvested is suggested by the shell midden (waste heap) on Grape that extends for more than an acre. (One edge of the eroding midden can be seen to the left of where the dock meets the island.) At low tide during the late summer and early fall, the exposed mussel and gravel bars that connect the Weymouth mainland to Grape Island at one end of the island, and Grape to Slate Island on the other, are good places to check for shorebirds. In the 1980s, Slate was the northernmost North American nesting site for American Oystercatchers, but they have since moved elsewhere in the Harbor to breed.

Grape has many grassy paths with a wider variety of trees and shrubs than most of the other islands. There are clumps of birch and poplar as well as the more urban tree of heaven. In addition to the usual staghorn sumac, the expanse of bayberry on the island's eastern end is the most extensive in the harbor. My recommendation here is to follow the beach to the right of the dock. It passes an area that was once inundated by the highest tides each month. A storm created a berm of sand and mussel shells that cut the area off from the sea. (Look for patches of the tiny, coral-flowered scarlet pimpernel in this area.) Because of its lowness, rain now collects in it, and the vegetation has begun reverting to species more characteristic of a fresh-

water marsh than a salt-water one. The area usually attracts a good mix of birds, especially during migration. It was near this area that a pair of Northern Harriers successfully nested in the mid-1980s, the only documented breeding of this declining species on the Islands in recent years.

Continue along the beach past the path to the left that heads into the camping area. The trail passes a young *Spartina* marsh then ascends a low bluff with a large willow and a view out toward Slate Island and the Hingham shoreline. Look over the edge of the bluff, and you'll see the slate that gives the nearby island its name. Used in the past for construction and for gravestones, this slate is one form of the Cambridge argillite that makes up the bedrock of the Harbor region. As mentioned above, when the tide is low, the exposed mussel beds just offshore are a popular feeding ground for migrating shorebirds. It's also a good place to watch Common Terns and the occasional Osprey look for fish. Ospreys nest nearby in the Back River estuary.

From here, depending on your schedule, you can head back to the dock for the next water taxi, or you can continue around the island, exploring its woodland habitats. The short walk described here can be done in the time it takes the taxi to drop you off on Grape, go from Grape to Hewitts Cove in Hingham, pick up passengers, then return to Grape on its way to Georges — but be sure to check the water taxi schedule to see what your time constraints actually are. Although Grape was once home to a substantial population of hares, (friendly) skunks are now the dominant mammals, with a few native eastern cottontails surviving as well. After six years of colonization, the skunks have yet to spray anyone.

Bumpkin Island (DEM)

Around Round — Formerly called both Pumpkin Island and Round Island, probably because of its shape, Bumpkin has the distinction of being the only Harbor island that was once owned by Harvard University. It was purchased early in the twentieth century by philanthropist Clarence Burrage who built a summer hospital for paraplegic children on its summit. The hospital was among the first in the nation to have its floors connected by ramps for ease of wheelchair accessibility. He offered the building — and his sloop — to the government when World War I broke out.

The island has a paved road that follows the long axis of the drumlin, a remnant from its years as a U.S. Navy training station. A second paved path starts at the foot of the dock and follows the coast to the left. Take that path, and follow it around the drumlin. After a scenic lookout on the left and the remains of both the Navy mess hall and an old barn on the right, the trail becomes grassy as it continues around the island. In addition to the more usual nesting species, Bumpkin has a resident Eastern Screech Owl whose pellets are often found along this path. Also look for roadways made in the grass by the island's large population of meadow voles, an attraction to mainland-based Red-tailed Hawks that often stop by Bumpkin for "dinner out."

When the trail reaches the paved road, take a left and walk down to the island's southeastern tip across from Sunset Point in Hull. Access to the mainland along a sand and mussel bar is possible at the time of the lowest tides each month. Pizza

deliveries to island staff are also possible at this time of month. This is an excellent place to watch herons returning to Sarah Island in Hingham Harbor at dusk through mid-July. Shorebirds migrating south in August and September also gather here to feed.

If the tide is low, you can walk along the shoreline and back to the dock. Otherwise, trace your steps back along the paved road to the first major — but grassy — left turn, which will take you back to the island's Visitors Center and the dock.

Island Heronries

For at least the past two decades, Middle Brewster Island in the outer Harbor and Sarah Island in Hingham Bay have been the sites of significant heronries. In early May of 1998 I stepped off a small boat onto Middle Brewster and was greeted by well over 100 Black-crowned Night-Herons, several dozen Great and Snowy egrets, and 20 Glossy Ibis. An MDFW survey in the mid-1990s tallied 207 pairs of night-herons on Middle Brewster. That same year, 148 pairs of Snowy Egrets were counted on Sarah Island along with a staggering 547 pairs of Black-crowned Night-Herons. Neither of these islands is accessible by public transportation.

Off-season Access

Late each winter, usually in February or March (sometimes both), the MDC sponsors a Winter Wildlife Cruise. Departing from Long Wharf in Boston, the ferry travels out among the Brewsters at low tide in search of hauled-out harbor seals. Along the way there are usually rafts of eiders and scoters as well as small flocks of most of the other winter sea ducks. I counted 11 Black Guillemots one year along with 6 Razorbills and over 150 Purple sandpipers. The trip usually includes an hour stopover on either Peddocks or Georges. Snow Buntings and Horned Larks are common on the islands in winter, and Georges Island is a favorite haunt of the Snowy Owl. On one trip in the early 1990s, in addition to a Snowy, there were three Short-eared Owls and one Barn Owl all in flight over Georges simultaneously. (Barn Owls successfully nested on Georges in the late 1980s, but were eventually driven off by workmen who disturbed their nesting site inside Fort Warren and by pressure from a growing population of Great Horned Owls.) In recent years, the New England Aquarium has also sponsored boat-based winter birding trips that explored the Harbor more extensively.




The BHC Hingham Commuter boat, which runs six days a week from Rowes Wharf, is another way of getting out among the islands off-season. The 30- to 40-minute trip takes the sheltered route under the Long Island Bridge and through Quincy Bay. A round-trip commuter boat from Hull to Long Wharf runs once a day on weekdays.

Land-based opportunities for observing Harbor waterfowl are available though Take a Second Look's Boston Harbor Winter Censuses. For more information, consult TASL's website at <www.szgraphics.com/TASL.htm>. In addition, Webb State Park in Weymouth, located on a peninsula that juts out into the Harbor toward Grape Island, and the drumlins of World's End in Hingham, managed by the Trustees of Reservations, are great places to watch winter sea ducks.

What's Next?

The future looks bright for public access to the islands. The perimeter path around the edge of Deer Island and its new wastewater treatment plant, accessible by car from Winthrop, and a great place to watch sea ducks and gulls in winter, is scheduled to open in 2001. Similarly, Nut Island, connected to the mainland by a causeway at the end of Hough's Neck in Quincy, and the former site of a wastewater treatment plant, is also in the process of becoming visitor-friendly. Spectacle Island, once the site of a horse-rendering plant and dump for the City of Boston, has been capped with a massive amount of fill from the Big Dig/Third Harbor Tunnel project. Plans call for it to open as a park in 2002 complete with trails, beach, marina, campsites, and Visitors Center designed and staffed by the New England Aquarium.

Slowest of the partners to become involved in increased public accessibility is the City of Boston, owner of Rainsford and Long Islands. The latter, accessible by car from Quincy via Moon Island and the Long Island bridge, is likely to provide excellent birding. Its piney landward end was a favorite roosting site for Barn Owls a decade ago, and its seaward end, jutting over a mile out into the harbor, offers sweeping views of the main harbor shipping channel on one side and Quincy Bay on the other. As of this writing, the island is open on a who-do-you-know basis and to special groups with permits. Plans are also underway for the Department of Environmental Management to acquire a conservation restriction on part of Thompson Island. A consequence of that may be easier access to the island, site of the Harbor's one true salt marsh as well as large grassy fields that were once mowed for hay.

Please note: As of mid-April 2001, plans call for Gallops Island to be closed during the 2001 season so that asbestos-containing waste may be removed. In its place, DEM hopes to open Great Brewster Island in June. This will require the installation of a temporary float system for docking and a modification of the water-taxi schedule. No other details are currently available. 

John Nove worked on the Harbor Islands for fifteen years as a volunteer with Friends of the Boston Harbor Islands and then as Visitors Services Supervisor for the Massachusetts Department of Environmental Management. He is currently Visitor Services Supervisor at Halibut Point State Park in Rockport. He wishes to thank Polly Stevens and Dennis Oliver for information on Peddocks Island and Liz Sorenson for a critical reading of the manuscript. Polly leads a Brookline Bird Club trip to the Islands each summer.

Breeding Species of the Boston Harbor Islands

Based on observations made during the summers of 1980-2000; single records are denoted by an asterisk (*)

Double-crested Cormorant	Red-eyed Vireo
Great Egret	Blue Jay
Snowy Egret	American Crow
Little Blue Heron	Tree Swallow
Green Heron	Northern Rough-winged Swallow
Black-crowned Night-Heron	Bank Swallow
Yellow-crowned Night-Heron*	Barn Swallow
Glossy Ibis	Black-capped Chickadee
Canada Goose	Tufted Titmouse
American Black Duck	White-breasted Nuthatch
Mallard	Carolina Wren
Common Eider	House Wren
Osprey	Marsh Wren
Northern Harrier*	Wood Thrush
American Kestrel	American Robin
Ring-necked Pheasant	Gray Catbird
Northern Bobwhite	Northern Mockingbird
Killdeer	Brown Thrasher
American Oystercatcher	European Starling
Spotted Sandpiper	Cedar Waxwing
American Woodcock	Yellow Warbler
Herring Gull	American Redstart
Great Black-backed Gull	Common Yellowthroat
Common Tern	Eastern Towhee
Least Tern	Chipping Sparrow
Rock Dove	Savannah Sparrow*
Mourning Dove	Song Sparrow
Barn Owl	Swamp Sparrow
Eastern Screech-Owl	Northern Cardinal
Great Horned Owl	Red-winged Blackbird
Ruby-throated Hummingbird	Eastern Meadowlark
Belted Kingfisher	Common Grackle
Downy Woodpecker	Brown-headed Cowbird
Northern Flicker	Baltimore Oriole
Willow Flycatcher	House Finch
Eastern Phoebe	American Goldfinch
Eastern Kingbird	House Sparrow

Terns Nesting in Boston Harbor: The Importance of Artificial Sites

Jeremy J. Hatch

Terns are familiar coastal birds in Massachusetts, nesting widely, but they are most numerous from Plymouth southwards. Their numbers have fluctuated over the years, and the history of the four principal species was compiled by Nisbet (1973 and in press). Two of these have nested in Boston Harbor: the Common Tern (*Sterna hirundo*) and the Least Tern (*S. albifrons*). In the late nineteenth century, the numbers of all terns declined profoundly throughout the Northeast because of intensive shooting of adults for the millinery trade (Doughty 1975), reaching their nadir in the 1890s (Nisbet 1973). Subsequently, numbers rebounded and reached a peak in the 1930s, declined again to the mid-1970s, then increased into the 1990s under vigilant protection (Blodget and Livingston 1996).

In contrast, the first terns to nest in Boston Harbor in the twentieth century were not reported until 1968, and there are no records from the 1930s, when the numbers peaked statewide. For much of their subsequent existence the Common Terns have depended upon a sequence of artificial sites. This unusual history is the subject of this article. For successful breeding, terns require both an abundant food supply and nesting sites safe from predators. Islands in estuaries can be ideal in both respects, and it is likely that terns were numerous in Boston Harbor in early times. There is no direct evidence for — or against — this surmise, but one of the former islands now lying beneath Logan Airport was called Bird Island (Fig. 1) and, like others similarly named, may well have been the site of a tern colony in colonial times. This island was shown on seventeenth- and eighteenth-century maps.

This long absence of nesting terns from Boston is attributable to rats, which are notorious predators on eggs and chicks of small seabirds worldwide. Norway rats (*Rattus norvegicus*) have been widespread on the Boston Harbor Islands, and they caused terns to abandon Snake Island in 1974 (see below). In addition, some islands have been occupied by Herring Gulls (*Larus argentatus*) and Great Black-backed Gulls (*L. marinus*), so that no nesting sites reliably free of predators have been available until the recent appearance of artificial islands in the form of abandoned and derelict wooden docks that have lost their connection to the land. Such sites provide safety from rats and other ground predators, but are ill-suited for chicks which generally fall to their deaths in the water.

The information reported here is a compilation of observations gathered by the author and assistants, or records obtained from the State Ornithologist, Massachusetts Division of Fisheries and Wildlife. Numbers of nesting pairs were generally derived from nest counts shortly before the first eggs hatched, or from estimates of flying adults at sites that were inaccessible for nest counts.

Common Terns

The annual totals for nesting Common Terns have fluctuated substantially. In the 1970s most reports were of fewer than 200 pairs (although 360 were reported in 1974). From 1985 to 1994 there were over 300 pairs each year, with a maximum of 630 in 1991. In the late 1990s there were fewer than 200 pairs, but the number increased to 330 in 1999, and 245 in 2000. Some fluctuations are caused by incomplete censuses, as when a new site is occupied late in the season and perhaps is unrecognized for several years, but most of these were probably the result of movements between colonies over a wider range.

Colony sites

The sites used repeatedly by Common Terns for nesting in Boston Harbor include one island, four derelict wooden docks, and one nesting platform constructed

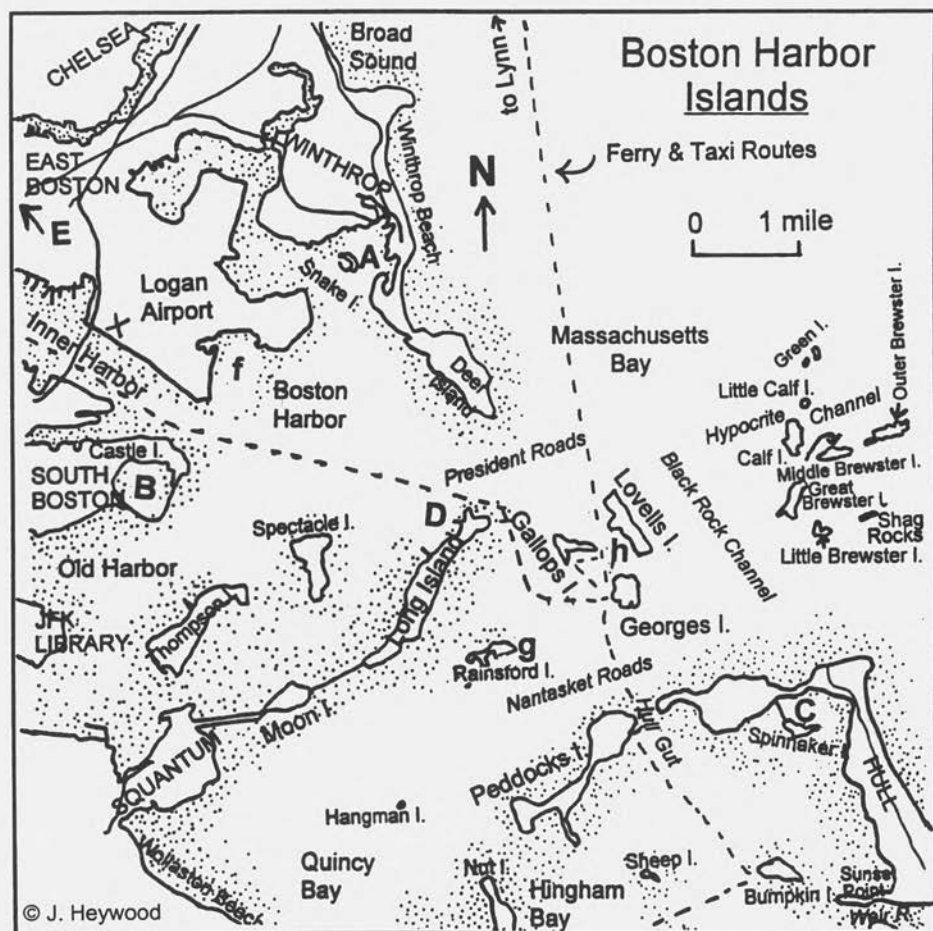


Figure 1. Map of Boston Harbor, Massachusetts, to show tern nesting sites. A-E = Common Terns (see Table 1); f-h = Least Terns (see text); X = location of former Bird Island.

specifically for terns (Table 1; Fig. 1, A-E). In addition, at last two minor sites have been used. This record may be incomplete, and additional records would be welcomed by the author.

A. Snake Island, Winthrop. This low, horseshoe-shaped island, located between Winthrop and Logan Airport, was the principal site for nesting Common Terns in 1972, but rats were present in 1974 and caused most of the terns to abandon the site that year. Removal of debris in 1975, by volunteers led by Deborah Howard of Massachusetts Audubon Society, improved matters only briefly. Subsequently, the island was used for deposition of dredge-spoil and there has been extensive growth of both terrestrial and saltmarsh vegetation. The open areas attractive to terns are now reduced, and the most recent year with more than 100 pairs nesting was 1993.

B. Pleasure Bay, South Boston. From about 1974 (possibly earlier) until 1977 terns nested on a dilapidated wooden structure (original purpose unclear) in the middle of what is now an enclosed sailing arena. The structure was removed before the 1978 breeding season. Although some young fledged from this site, others fell off the structure. We did not measure productivity at this site.

C. Hog/Spinnaker Island, Hull. Terns nested from c. 1977 to 1983 on a derelict dock that had formerly served Hog Island when it was occupied by the military. The peak number of nesting pairs was 190 in 1982. This structure was too dilapidated for any study of the terns or for restoration of the nesting area; it was removed early in 1984 and replaced by a platform specifically designed for nesting terns.

Starting in 1983, Hog Island was developed as a residential community and renamed Spinnaker Island. The site of the old dock is now occupied by a marina. In 1984, a new nesting site for terns was constructed north of the island, about 130 m from the old dock. The 9.2 meter-square platform is supported by eleven wooden pilings about 2 m above highwater, and covered by 7 cm of coarse sand (Fig. 2). Ninety-seven pairs nested that year. The number of nesting pairs peaked at 262 in 1991. In that year the nests were exceptionally crowded, with an average density of 3.1 nests per square meter. In recent years the numbers have been lower, possibly as a result of predation by Black-crowned Night-Herons (*Nycticorax nycticorax*).

D. Long Island Head. The remnants of the dock for former Fort Strong, located 200 m southwest of the lighthouse, were used by nesting terns from 1983 to 1994 (Fig. 3a). To enhance the structure as a nesting site, some holes in the deck were covered with plywood, and sections were surrounded by low wooden walls to prevent chicks from falling off. Fine gravel from the nearby shore was spread on the deck (Fig. 3b). The structure was removed before the 1995 breeding season.

The number of nesting terns fluctuated between 130 and 295 pairs through 1991, then fell to 12, 1, and 61 pairs in the last three years. There is no certain explanation for this marked decline, but the site is very close to a wooded hillside, which could have harbored Great Horned Owls (*Bubo virginianus*). These predators are known to visit tern colonies and to cause abandonment.

E. Donald McKay Docks, East Boston. Terns at this site have been monitored by Soheil Zendeh. Terns were first reported in 1997 (by Joe Pike). In 2000 the structure was disintegrating, but about 140 pairs attempted to nest.

Minor sites. The minor sites in Boston Harbor referred to above include Logan Airport, where Common Terns were reported nesting in 1968, the first record for Boston. There are no subsequent records of this species, but they may have nested there occasionally, unreported. A single pair nested at Belle Isle Marsh in 1990. Additional sites in nearby communities include the General Edwards Bridge, Saugus/Revere, where terns have mostly nested on wooden bridge abutments since 1981 or earlier (maximum 64 pairs in 1996); and in Amelia Earhart cove of the Mystic River, Everett, where they have nested on rotted pilings.

Studies of breeding biology and dispersal

Common Terns nested on the old wooden docks in a great variety of places. Some terns built rather substantial nests from fragments of rotten wood, debris from meals left by gulls in the winter, and pieces of vegetation; others chose small hollows where the decking had begun to rot; while others laid on bare boards without any nesting material at all. Clutches laid on the bare boards were commonly dispersed (possibly by high winds), and eggs were sometimes added to neighboring clutches. Some nests were on long ledges, only 9 cm wide, overlooking the water below. One pair laid eggs in the deeply-hollowed top of an isolated rotten piling only 28 cm in diameter. This unusual nest site was about 1 m away from the dock and 1.3 m above it. Although the tern chicks were safe from ground predators, mortality was high because many chicks of all ages fell from the nesting area on the deck to the water below. Common Tern chicks more than two days old usually respond to a predator by running and hiding under vegetation or other objects. On the unimproved sites the chicks showed negligible hesitation at the edge of a hole in the dock, and chicks hatched at exposed sites rarely survived beyond one or two days of age. This hazard precluded any close study at unimproved



Figure 2. Nesting platform for Common Terns at Spinnaker Island, Hull. Photograph by the author.

sites once hatching had begun. Nests within fenced areas at the Long Island site were followed until the oldest chicks were nearly ready to fly. At this point visits to the site ceased because of the risk that newly flying young would end up in the water. Estimated productivity (following the methods of Nisbet and Drury 1972) was more than one fledged young per nest for each year 1983-1988. In 1972, productivity at Snake Island was more than two chicks per pair (Nisbet pers. comm.).

Over 2000 young terns were banded, 1973-1987, at Snake, Long, and Spinnaker islands. Of these, 22 were subsequently encountered at ages 2 months to 11 years.



Figure 3: (a, left) Derelict dock at Long Island, Boston Harbor; nesting site for Common Terns. (b, below) Closer view of improved nesting areas on the Long Island dock. Photographs by the author.



Four were encountered during their first migration in New York or the Caribbean; the others were trapped and released alive by biologists, or their bands were read without handling. Two were found wintering in Brazil. The remainder were found during the breeding season at colonies in Maine (3), Massachusetts (8), and New York (4). These locations extend from Petit Manan Island, Maine, to Great Gull Island, NY (east of Long Island). In addition, one individual was trapped twice, aged 4 and 6 years, on Oneida Lake, near Ithaca, NY. This bird is particularly interesting because there are few reports of movements between the coastal and inland populations.

In 1987 and 1988, twelve previously-banded adults were trapped on nests at Long Island during studies of parental behavior. One had been banded as a wintering adult

TABLE 1. Principal nesting locations for Common Terns in Boston Harbor, MA

Loc ¹	Name	Type ²	Dates ³	Max No. Pr.	Notes
A.	Snake I., Winthrop	I	1970-74; 91-93	275	
B.	Pleasure Bay, S. Boston	D	1974-77	175	Removed
C.	Hog I., Hull	D	1977-83	190	Removed
C.	Spinnaker I., Hull	P	1984-present	262	
D.	Long I. Head	D	1983-94	295	Removed
E.	McKay Docks, E. Boston	D	1997-present	140	

¹ see Fig. 1 for locations

² I = natural island + dredge-spoil; D = derelict dock; P = purpose-built platform

³ years of major occupation; first nesting may have been earlier, but unreported, except at Spinnaker Island (see text)

in Brazil (at the same site as the two retraps, see above); the others had been banded as hatching-year young birds at five sites, four of them in Massachusetts: Snake Island, Winthrop (5); Bird Island, Marion (1); Monomoy, Chatham (2); Long Beach, Plymouth (2); and one in New York, at Great Gull Island (1).

Least Tern

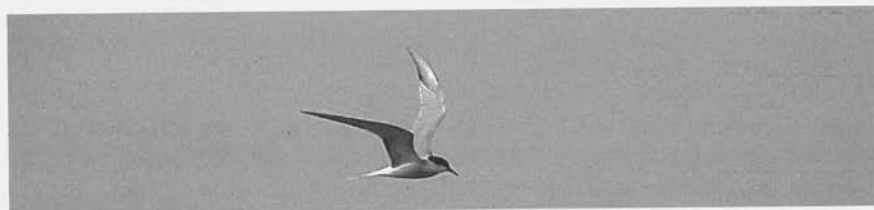
This species was first recorded nesting in Boston Harbor in 1974, on Snake Island, and it has been present in at least thirteen years from 1980 to 1997. All recorded nesting has been on the ground, at semi-natural sites at Logan Airport (f), Rainsford Island (g) and Lovell's Island (h). Numbers reached a high of 63 pairs in 1996. There have been no attempts to measure productivity, but a few fledged young have been seen.


Discussion

The fluctuating numbers of nesting terns, and the observations of diverse origins and wide dispersal of individuals indicate that the terns of Boston Harbor are part of a much larger, relatively fluid, population. The extent of this dynamic interchange is not well known.

The terns' brief presence on Snake Island and continued success on the dilapidated docks indicate that the lack of safe nesting sites may indeed explain their long absence from Boston Harbor. The old docks, however, are unsatisfactory long-term sites, not only for the tern-related reasons mentioned earlier, but also because the structures are short-lived. The docks are perceived as eyesores, and they are subject to removal in the course of redevelopment. In some cases they are determined to be sources of potentially hazardous floatable debris in the harbor. It is notable that the terns have moved from one dilapidated dock to another as they have been successively cleared away, and it is likely that this population of terns has developed a tradition for sites of this kind. The history of the old docks is not well documented; the dates at which each became an island, safe from ground predators, might shed light on this tradition.

Nesting on diverse artificial sites has been reported from other areas where safe, natural sites are not available. These sites include not only dredge-spoil islands and derelict docks or barges, but also breakwaters, navigation cells, and gravel roofs of buildings. Structures designed for nesting terns also include floating rafts. Thus, there are chances for mitigation where natural sites have been preempted by human development or made unsafe by predators, especially those such as rats and gulls that benefit from human actions. However, since no site can be perfectly safe every year,



and terns have evolved a propensity to shift nesting sites (especially in response to predators), modern managers must provide several alternative sites for nesting terns. The readiness with which Common Terns occupy man-made sites means that this appealing species can be encouraged to nest within easy viewing-range of multitudes of people. Such structures would provide a valuable additional dimension to the avian diversity within the Boston Harbor Islands Park Area and would be an important accompaniment to the eradication of rats from the islands. 

References

- Blodget, B.G. and J.E. Livingston. 1996. Coastal colony-nesting waterbirds. *Massachusetts Wildlife* 46: 10-20.
- Doughty, R. 1975. *Feather Fashions and Bird Preservation: A Study in Nature Conservation*. Berkeley, University of California Press.
- Nisbet, I.C.T., 1973. Terns in Massachusetts: Present Numbers and Historical Changes. *Bird-Banding* 44: 27-55.
- Nisbet, I.C.T. and W.H. Drury. 1972. Measuring Breeding Success in Common and Roseate Terns. *Bird-Banding* 43: 97-106.
- Nisbet, I.C.T. In press. Common Tern (*Sterna hirundo*). In *The Birds of North America*. (A.Poole and F.Gill, Eds.) Washington, D.C.: The Academy of Natural Sciences and the American Ornithologists Union.

Jeremy J. Hatch is Associate Professor of Biology, University of Massachusetts. He thanks the University of Massachusetts, which provided a boat and other support, the Massachusetts Audubon Society, and the Boston Globe for financial assistance, and numerous UMass students for helping with nest checks as well as the rude carpentry and hauling of gravel involved in the improvements to the Long Island dock. The following made major contributions to the work: Beth Lardizabal, Debra Swanson, Diane Drinkwater, Lawry Sager, and Terry Ladwig. In addition he would like to acknowledge Soheil Zende, who has been reporting from several sites in recent years, and also thanks Brad Blodget for data from his files, and Sandcastle Associates for constructing the nesting platform in Hull.



Three Times a Lady

Rob Gough

In communities near a salt marsh, seasons are not the same as they are in the rest of the world. In fact, in Essex County we even have our own names for these seasons. In May, Gnat Season begins. It is followed very shortly by Greenhead and Mosquito Season, after which, in late August, Gnat Season Part II begins.

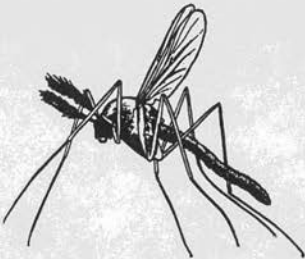
Anyone who has visited the marsh between May and late August has undoubtedly met gnats, mosquitoes, and greenhead flies. On a windless day these three small creatures, alone or in concert, can make a walk near the wetlands a trying experience to say the least. All three belong to the order of insects called *Diptera*, which means "two-wings." Worldwide there are approximately 75,000 species of flies. In midsummer, I would swear that they all live in the marshes of northern Essex County, and they're on their way to my backyard.

Perhaps the most notorious of the three is the mosquito. In Essex County, many people feed birds, but *everybody* feeds mosquitoes. However, not all mosquitoes feed on blood. Of those mosquitoes that do feed on blood, not all bite humans (yes, even you!). Some feed only on birds; others take blood only from reptiles.

The saltmarsh mosquito, *Aedes sollicitans*, is the bloodsucker that torments visitors to the marsh. In the spring, larvae hatch from eggs that have lain dormant all winter. The tiny larvae live in salt-marsh ponds. Their rear ends are equipped with tiny air tubes that they use to breathe air from the surface of the water. At this stage, the larvae are called wrigglers because of the way that they move about. The larvae feed on plankton and suspended organic matter. About a week after hatching, the larvae undergo the change to pupae. In butterflies, the cocoon is the pupal stage. In mosquitoes the pupae are very active and are called tumblers. This stage is brief and terminates when the exoskeleton ruptures and the adult emerges.

Newly emerged mosquitoes have enough energy reserves to get them through the first days of adulthood. Then they must seek their first meal. Surprisingly, it is usually nectar. The needle-like proboscis is well adapted for sucking the sugary liquid from flowers. Only female mosquitoes feed on blood. Female saltmarsh mosquitoes aren't

picky. They suck blood from birds and mammals, including the mammals that get dressed from your closet. Blood provides protein that is needed for egg development. When her eggs are ready to be laid, the female mates. Males (and human hands) are attracted to females by the pitch of their buzzing. Fertilized eggs are laid on wet mud in marsh pannes. When the pannes are flooded, the eggs hatch, and a new generation of mosquitoes is born.



(not actual size)

Greenhead flies and gnats live different lives. These insects spend their larval stages squirming about in the marsh mud and sod in search of food. Greenhead larvae prey on other insects, insect larvae, and other small invertebrates. They overwinter in the sod, and in late June the first adults emerge. Like mosquitoes, only females take blood meals. However, their larval diet provides them with an initial store of protein with which they can lay their first batch of 100 to 200 eggs without needing blood. Thereafter, the female must take a blood meal from humans or other mammals. The females live for three to four weeks, repeatedly biting victims and laying eggs. Gnat larvae also spend the winter in the marsh sod. They emerge as adults in late May, and like the others, females seek out a blood meal.

While each of these insects feeds on blood, they differ in the way they get the stuff. (Warning: This gets ugly!) Mosquitoes have mouthparts fashioned into tiny hypodermic needles. They alight on a victim and insert their proboscis into the skin and pump blood into their stomachs. Greenheads have two separate mouthparts. One is like a small blade for slashing or sawing open the skin. As the blood begins to flow, a spongelike mouthpart soaks up the blood. Gnats have tiny, toothed mandibles that are used to gnaw into the skin. The blood is then lapped up. All three of these insects use an anticoagulant to prevent the blood from clotting. The welt that accompanies a bite is due to our body's reaction to the tiny amount of insect saliva that enters the wound during the bite.

The marsh would be a great place without these insects. Or would it? All three are important links in the marsh food web. The larvae and adults of greenheads and gnats are at the top of the menu of many species of resident and migratory birds. Mosquito larvae and pupae are food for a host of small fish, which in turn are eaten by bigger fish. In addition to humans' role as unwitting blood donors in this food web, we appear again as top-level carnivores. So, next time you take a walk near the marsh, use insect repellent if you must. I, for one, don't mind donating a little blood to pay for the striped bass and flounder I plan to eat this summer. Now, I did say a *little* though. 🦋

Rob Gough works as a freelance illustrator and graphic designer in Newbury, Massachusetts. His drawing of a Piping Plover (*Charadrius melodus*) appeared on the cover of the June 2000 issue of *Bird Observer*. Rob also works full-time for the Massachusetts Audubon Society as the Education Program Coordinator for the Joppa Flats Education Center in Newburyport. He leads natural history field trips along Massachusetts' North Shore, as well as out-of-state and international trips. *Three Times a Lady* was first published as part of the series, *Nature In Our Backyard*, in the *Daily News*, Newburyport, Massachusetts, July 7, 2000.



James Lee Peters and the *Check-list of Birds of the World*

William E. Davis, Jr.

James Lee Peters was born in Boston on August 13, 1889, during the period when Richard Bowdler Sharpe was directing the compilation of *Catalogue of the Birds of the British Museum* (27 volumes, 1874-1898), and about a decade before Sharpe began publishing his *Hand-list of the Genera and Species of Birds* (5 volumes, 1899-1909) (Bock 1990). Peters' great professional accomplishment was to initiate the series *Check-list of Birds of the World* that was to culminate in 1986, 34 years after Peters' death, replacing Sharpe's *Hand-list*, and providing the most comprehensive taxonomic treatment of any class of organisms.

Peters' father, Austin Peters, was a veterinary surgeon, and young "Jimmy" was provided with a first-class education at Miss Segar's Private School, followed by Roxbury Latin. He enrolled at Harvard University in 1908 and graduated with an A.B. in 1912 (Wetmore 1957). He did not continue on to an advanced degree in zoology, a decision that undoubtedly constrained his professional ambitions and directions. At a young age he developed a fascination with birds and natural history, a predilection that was apparently supported and encouraged by his parents. In 1904, through his father's influence, he was invited to accompany Arthur Cleveland Bent and several other notable ornithologists on an excursion to the Magdalene Islands, where he reportedly showed signs of taxonomic prodigy by arranging the corpses of birds killed in collisions with the lighthouse by genus and species (Wetmore 1957). He was further influenced by other local ornithologists (the greater Boston area has historically been a vat of ornithological fermentation), including C. J. Maynard, whose bird walks Peters joined. At Harvard he came under the influence of Outram Bangs at the Museum of Comparative Zoology (MCZ), the man who provided Peters with training and mentorship, and whom he would replace as Curator of Birds at Bangs' death in 1932.

In the first decade of the twentieth century, field guides for the identification of birds were somewhere between nonexistent and embryonic (Peterson's famous guide was two decades away), and binoculars little thought of and seldom used. Ornithology was still most definitely of the shotgun school — if you wanted to identify a bird you shot it and keyed it out from one of the standard texts (Barrow 1998). Preparation and collection of stuffed study-skin birds, as well as of nests and eggs, was a widespread hobby among sportsmen and ornithologists. In this collecting-mode context, it is not surprising that young Peters, following graduation from Harvard, embarked on a series of collecting trips that took him to Mexico (1912); the southern United States as a temporary employee of the Biological Survey, forerunner of the Fish and Wildlife Service; and to the Dominican Republic for the MCZ (1916).

After a hiatus of several years, during which he served in World War I in Europe, Peters collected for the MCZ in Argentina, under the sponsorship of John C. Phillips.

There he met Alexander Wetmore of the Smithsonian Institution, perhaps the most prominent North American ornithologist of the first half of the twentieth century, who was to become a close friend and colleague for the remainder of his life. He affectionately called Wetmore "Doc" and was in turn given the nickname "Patagonia Pete" by Wetmore. The extent of their correspondence is attested to by the 67 letters from Wetmore to Peters from May 4, 1920 to December 9, 1923 that are in the special collections at the Mayr Library at the MCZ. Most concern getting together for collecting forays, new birds they had collected, and nomenclatural problems. A typical warm invitation by Wetmore to Peters to do some collecting together concludes a May 4, 1920, letter: "My dear James: ... My address will be c/o American Consul, Buenos Aires. Drop me a line when you have time. Can't we arrange to see each other somewhere for a week or two? It would look pretty good to see your phiz say on Christmas Day 1920. I don't believe that we would quarrel over a few specimens. Drop me a note when you reach B.A. [Buenos Aires] (after you have had your first drink) Sincerely, Doc." After their adventures together, Peters returned to Cambridge and became an Associate (unpaid — apparently earning a living wasn't something he needed to worry about at this time) and continued his informal apprenticeship with Outram Bangs. Peters had been working up and publishing the results of his collecting trips since 1912, and he continued to do so, publishing some of the results of the Argentine expedition jointly with Wetmore. He eventually published more than 100 scientific papers, mostly taxonomic in nature, clearing up nomenclature problems and describing new species and subspecies of birds. By 1928 he was apparently on the MCZ payroll and was appointed Assistant Curator of Ornithology. By then he had completed several more collecting trips to the Caribbean and Honduras. After that, he became engrossed in working with the collections rather than personally adding to them (Barrow 1995).



Peters had been elected a Resident Member of the Cambridge-based Nuttall Ornithological Club (NOC) in 1908, while a freshman at Harvard, and he thus came under the influence of William Brewster and other local notables. He served on the Club's Council continuously from 1922 until the end of his life, first as the Club's Secretary for a decade, then as Councilor until 1939 when he became Vice President, and then President from 1942 until his death. He was rather old school in his attitude toward accepting sight records of birds — he wanted the bird in hand as verification. When he joined the NOC it was most definitely a Victorian men's club, and after his death the Club went through a

wrenching upheaval, with Ludlow Griscom succeeding him as president after a hotly contested election. Griscom had become the champion of field birding and sight identification of birds, and he sent the Club into a tizzy by suggesting that it might be desirable for the Club to admit a female to resident membership (Davis 1987). Peters never liked Griscom, who was from a personality standpoint his virtual antithesis, which made for difficult relations at the MCZ, since Griscom worked there as Research Curator of Zoology from 1927 through the early 1950s (Davis 1994). Griscom was a great showman and tended to dominate gatherings such as the annual meetings of the Massachusetts Audubon Society, which tended to be gala affairs, while Peters would remain quiet and inconspicuous in the background. Hence Peters presided over difficult periods in NOC history, weathering the winds of change, and the restrictive and difficult years of World War II.

Peters was also influential in the then regional North-eastern Bird-Banding Society (now Association of Field Ornithologists). He served as a Vice President from 1938 until his death, and as editor of their journal *Bird-Banding* from 1939 to 1950 (Davis 2000). Although a museum man with a predilection for, and history of, collecting birds, he was genuinely interested in live birds and even enjoyed bird watching on a casual basis (he referred to bird listing as "ornithological golf"). While at Harvard, he corresponded with William Brewster, and his letters provide some insight into his level of care in the observation of live birds: December 12, 1910, "My dear Mr. Brewster: As I understand that you have never seen the Evening Grosbeak and thinking that you might have time to look for the bird I am happy to say that yesterday I saw, while with two other observers, three females of this species in the willows opposite the museum in the Arnold Arboretum. The birds were quite tame and allowed us to observe them for several minutes in good light and at close range. They had three distinct notes; the first like the call of the English Sparrow, but with something of the quality of a Flicker; the second, given in a subdued voice, like the chatter of White-winged Crossbills, and the third, also subdued, resembling the note of the Great-crested Flycatcher." He kept sight records as well: April 9, 1913, "After I arrived home today I looked up my notes covering the Fox Sparrow this spring and found that I have seen just eighteen individuals of this species since March 20 as follows. March 20, 1, Harvard [;] March 23, 2, Grafton [etc.]." Clearly, Peters was more than just interested in shooting birds.


He became an important contributor to the American Ornithologists' Union (AOU), the premier professional ornithological organization of North America. He was elected to Associate membership in 1908 and became a Fellow in 1928, after which he served as Councilor from 1929 until becoming Vice President in 1938, and continued in that capacity until his election as President in 1942. Since AOU presidents become permanent council members, he continued on council after his three years as president until his death.

Peters was heavily involved in the International Commission on Zoological Nomenclature, serving eventually as president of that august body. His ornithologically conservative, cautious, precise, and meticulous nature apparently made him ideally suited for the vicissitudes of nomenclatural priority and dispute.

Undoubtedly, the greatest of Peters' professional accomplishments was the monumental (14 volumes) *Check-list of Birds of the World*. The *Check-list* had a rather inauspicious beginning as a card catalogue of the birds of the MCZ collection. The card catalogue was probably the brain child of the new Director of the Harvard Museums, Thomas Barbour (Bock 1990). Barbour had previously prepared a card catalogue of Cuban birds in the MCZ, and may have extended this idea to the birds of the world (Barbour 1923). Barbour, a compulsive collector of things zoological, had taken over as Director in 1927, and as a zoologist with strong interests in natural history, promoted major changes in the MCZ after his arrival. Peters had become an Associate of the MCZ in 1921, and became a full-time volunteer in 1923. His first task was to make a card catalogue of the MCZ bird holdings, a job about which he was anything but enthusiastic. Peters had been primarily a field collector of birds up to that point — which he very much enjoyed — and was not pleased to become slave to a museum card catalogue. In a February 1923 letter to Alexander Wetmore (quoted in Bock 1990), Peters wrote: "Possibly my days in the field are over, a most dismal prospect to contemplate." In fact, they were, for all intents and purposes, over, as the card catalogue became the inspiration and basis for the *Check-list* which consumed a large share of his remaining professional life. The *Check-list* was to replace the very outdated Sharpe's *Hand-list*. Sharpe never embraced the subspecies concept — hence there was no complete catalogue of the world's birds at the subspecies level; Peters was to change this. The *Check-list* was apparently Peters' brainchild, and he kept it very much his own. He didn't enlist the help of another resident ornithologist at the MCZ, James Greenway, or seek assistance outside of the MCZ from the ornithological community. He was primarily interested in taxonomy at the species level, and for his *Check-list* adopted Alexander Wetmore's order- and family-level taxonomy without substantial change (Bock 1990).

Peters probably became a paid member of the MCZ staff in 1925 or 1926, was appointed Assistant Curator of Ornithology in 1928, began work on the *Check-list* in late 1928 or early 1929, and became Curator in 1932 (Bock 1990), by which time Volume I of the *Check-list* had appeared. Subsequent volumes appeared at about three-year intervals. In 1940, after four volumes had appeared, he was awarded the Brewster Medal by the AOU, the highest award given by that organization. Volume VII was the last published in Peters' lifetime. Peters curiously had made no provision for a successor to complete this monumental task, and only in 1950 had asked another ornithologist, John Zimmer, to actively assist him by writing up the difficult Tyrannidae and related families (Bock 1990). Hence when Peters died in 1952, the task of finishing the project fell to James Greenway, who succeeded Peters as Curator. The following year Ernst Mayr came to Harvard and became the dominant force in bringing the *Check-list* to completion. Peters' great dream did not reach fulfillment until the final volume (XV) appeared in 1986, and the index, compiled by Raymond A. Paynter, Jr., in 1987. Begun in 1928 or early 1929, the project had taken nearly 60 years, and serves as a monument to one of Massachusetts' most respected ornithologists.

In his professional life Peters was a quiet and reserved person, but many who knew him remarked about his fine sense of humor. At home on his farm in Harvard, Massachusetts, he raised apples, was a long-time member of the local volunteer fire department, and participated as a member of the local theatrical group in about twenty plays.

Many of Peters' systematic papers will eventually fade in significance, but his *Check-list* will remain a standard reference into the indefinite future. James Lee Peters' professional life was fittingly summarized by Ernst Mayr (1953): "There is hardly another ornithologist left who has as balanced a knowledge of birds, both of the Old and the New World, as Peters had. His death leaves a gap which cannot be filled." 

References

- Bock, W. J. 1990. A special review: "Check-list of Birds of the World" and a history of avian checklists. *Auk* 107: 629-648.
- Barbour, T. 1923. *The Birds of Cuba*. Memoirs of the Nuttall Ornithological Club, No. 6. Cambridge, Massachusetts: Nuttall Ornithological Club.
- Barrow, M. V., Jr. 1995. Gentlemanly specialists in the age of professionalism: the first century of ornithology at Harvard's Museum of Comparative Zoology. In *Contributions to the History of North American Ornithology*. Memoirs of the Nuttall Ornithological Club, No. 12. W. E. Davis, Jr. and J. A. Jackson, editors. Cambridge, Massachusetts: Nuttall Ornithological Club.
- Barrow, M. V., Jr. 1998. *A Passion for Birds: American Ornithology after Audubon*. Princeton, New Jersey: Princeton University Press.
- Davis, W. E., Jr. 1987. *History of the Nuttall Ornithological Club 1873-1986*. Memoirs of the Nuttall Ornithological Club, No. 11. Cambridge, Massachusetts: Nuttall Ornithological Club.
- Davis, W. E., Jr. 1994. *Dean of the Birdwatchers: A Biography of Ludlow Griscom*. Washington, D.C.: Smithsonian Institution Press.
- Davis, W. E., Jr. 2000. *History of the Association of Field Ornithologists* (formerly New England Bird-Banding Association). In *Contributions to the History of North American Ornithology*, Volume II. Memoirs of the Nuttall Ornithological Club, No. 13. Cambridge, Massachusetts: Nuttall Ornithological Club.
- Mayr, E. 1953. Obituaries: Dr. J. L. Peters. *Emu* 53: 95.
- Wetmore, A. 1957. In memoriam: James Lee Peters. *Auk* 74: 167-173.

The photograph of James Lee Peters (© President and Fellows of Harvard College) and the excerpts from the letters of Alexander Wetmore are reproduced by permission of the Ernst Mayr Library of the Museum of Comparative Zoology, Harvard University.

William E. Davis, Jr., is a member of the Bird Observer editorial board and a professor at Boston University. He wishes to thank Mark V. Barrow, Jr. and Marta Hersek for their critical comments on the original manuscript.

Acadian Flycatchers Nesting on Martha's Vineyard, Dukes County

Matthew L. Pelikan

The history of the Acadian Flycatcher on Martha's Vineyard is a short one, at least as far as human observers know. Griscom and Emerson (1959) don't mention this species at all. Whiting and Pesche (1983) consider Acadian Flycatcher to be a "rare transient" on New England's largest island, citing only three records: June 23, 1962 (an intriguingly late date even for this generally late migrant); September 8, 1976; and June 4, 1978. More recently, Laux (1999) lists the species as a breeding bird on the Vineyard, although the publication referenced is better viewed as a popular (not ornithological) bird book, and Laux's assessment (while no doubt accurate) was based on circumstantial evidence of breeding by this species (V. Laux, pers. comm.).

In recent years, after decades of gradual expansion into the Northeast, Acadian Flycatchers have been summer residents on the Vineyard in small numbers, with a regularity suggestive of breeding. Most recently, one or two pairs have been present for each summer at least since 1997 at Waskosim's Rock Reservation, a property straddling the West Tisbury/Chilmark town line and owned by the Martha's Vineyard Land Bank, in wet deciduous woodland along the upper reaches of the Mill Brook. The deciduous forest in this area consists largely of oak and beech, with a dense and fairly diverse shrub understory. Acadian Flycatchers have also been noted during the summer in recent years in Aquinnah (formerly Gay Head, V. Laux, pers. comm.). Beyond the circumstantial evidence of summering birds, however, irrefutable proof of breeding by this species on the Vineyard has so far eluded birders. So the discovery of two active nests of this species in June 2000 represents a significant development in the history of the Acadian Flycatcher in Dukes County, even as it fills in the pattern of expansion displayed by this species in the region.

In 2000, Acadian Flycatchers were first noted at Waskosim's Rock Reservation by Tom Rivers, in early June. On June 11, I visited Waskosim's and found two pairs of flycatchers, with at least one bird singing in each pair and two birds visible simultaneously in each case. One pair was close to the brook, in a beech grove; the other was in a somewhat more densely and variously vegetated area along a muddy slough, about 200 meters west of the first pair and about 50 meters south of the brook. No nest or other direct evidence of nesting was observed on this occasion.

On June 20, accompanied by Greg Levandoski, I visited Waskosim's Rock. We found only the male, singing fairly actively, at the site of the second pair near the slough; no second bird was seen or heard in about twenty minutes of observation. At the site of the first pair in the beech grove, two birds were apparent, at least one foraging and singing intermittently, and both birds calling. Levandoski reached overhead to pull down for a closer look a twig with what appeared to be an old nest on it. But seen more closely, the nest proved to be a fresh one containing three eggs.

The nest was small (not much over three inches in outside diameter) and shallow, with the main structure apparently made entirely of tendrils, as from grape vines or greenbrier (the nest was collected during a visit to the location in December 2000; see Figure 1). There was no lining, and construction of the nest was loose, so that the outline of the eggs could be dimly seen from underneath. However, the stiff material seemed to give the nest quite a bit of rigidity. A few strands of softer material were hung from the outside of the nest. The nest was built in the fork of an oak twig that



Figure 1: Acadian Flycatcher nest, collected in West Tisbury, MA, by the author in December 2000

had fallen and become caught in a horizontal fork of a low-hanging beech branch. A clump of dried oak leaves containing a few dried catkins was attached to the oak twig right next to the nest, so that the entire assembly could easily be overlooked as just a clump of dried leaves that had been caught on their way to the ground. The nest was placed about seven feet off the ground when the branch was at rest, directly over the trail and about five meters from the edge of the stream. The eggs, about three-quarters of an inch long and ovoid, were a creamy

white with a few large, irregular, dark brown spots.

On July 3, Levandoski returned to the beech grove nest site and observed the nest through a spotting scope from about 25 meters away. Three young, showing partially grown feathers (including wing bars) were visible in the nest, and adult birds were observed making about ten trips (averaging about one per minute) to the nest, delivering insects. It appeared that additional material — apparently dried catkins of some kind — had been added to the nest, increasing its bulk somewhat.

On July 5, we visited the area again, stopping first near the territory of the flycatchers for which we had not yet found conclusive evidence of breeding. Observing both adult flycatchers, we searched carefully in the area that appeared to be near the center of their movements. Within a few minutes, Levandoski spotted a nest, generally similar in construction and positioning to the nest previously observed. It was situated in a horizontal fork near the end of a beech branch, five or six meters off the ground and about seven meters from the edge of the standing water in the slough. The nest was vacant at the time, and although its construction was quite loose, we were unable to tell for certain from underneath whether it contained any eggs or nestlings. We noted the location, and while on the way back to the car (about a half-hour later), observed it through a spotting scope from about forty meters away. The nest was occupied by an adult Acadian Flycatcher, which we assumed to be the female because a second bird could be heard singing nearby. It is interesting that we also noted a Ruby-throated Hummingbird nest and an Ovenbird nest within a just a few meters of the flycatcher nest site, and observed a female American Redstart

ransacking what appeared to be an old Red-eyed Vireo nest for fibers. On June 20, Levandoski had observed a White-breasted Nuthatch feeding a fledgling here. A busy corner of the woods!

A few days later, Levandoski visited the first nest again, finding it empty but apparently undisturbed; there was no indication of predation, and it appeared likely that the young had fledged.

Expansion into the Bay State

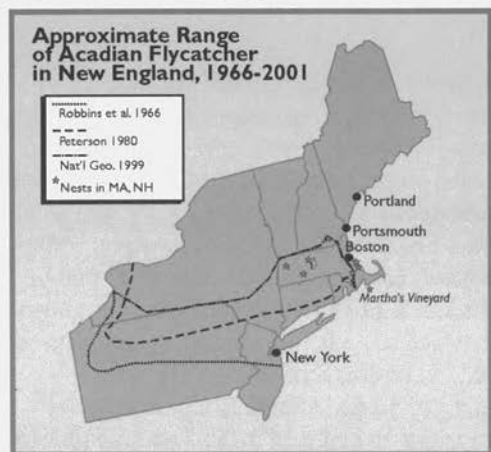
Confirmation of nesting by this species on the Vineyard was surely overdue, but it fits neatly into the pattern of expansion of this species in southern New England. Whether an 1888 nest in Hyde Park reflected a vestige of a pre-agrarian past, a bold attempt at colonization, or just an aberration cannot be determined, but in any case it marked the last known evidence of Acadians in the Bay State until 1961, when a rapidly accelerating pattern of singing, banded, or collected birds in the eastern part of the state (especially along the coast) commenced (Veit and Petersen 1993). In 1977, an Acadian Flycatcher nest was observed in a tupelo tree in Middleboro (Petersen 1977) for the first Massachusetts nesting record in nearly a century. By 1980, the species was apparently breeding in modest numbers in the Connecticut River Valley and around the Quabbin Reservoir. Isolated instances of nesting have subsequently been confirmed in Plymouth and Scituate, and in Savoy, in Berkshire County (Veit and Petersen 1993).

The northward expansion of the species continued. On May 31, 1998, three days after a returning bird was noted on Martha's Vineyard, an Acadian Flycatcher was found in Pawtuckaway State Park, in Nottingham, in southeastern New Hampshire (Perkins 1998). Later in the summer, New Hampshire's first nest was discovered here (Petersen 1998), and Acadians nested again at this location in 1999 and 2000. Meanwhile, a few individuals were noted in Maine, e.g., three banded on Appledore Island in York, Maine, in May 1998 (Perkins 1998), and one "seen and heard" on May 12, 2000, in Portland, according to the BIRDEAST Internet transcription of the Maine Rare Bird Alert.

This pattern of expansion seems consistent with the hypothesis put forth in Petersen (1977), that the Massachusetts breeders likely originated with "the coastal plain population existing south of New York . . . which [] gradually colonized Long Island, Connecticut, and Rhode Island" during the late 1960s and 1970s. The species appears to have progressed by establishing outposts along the coastal plain and along a corridor of presumably suitable habitat roughly along the Connecticut River Valley. The Acadian Flycatchers on Martha's Vineyard represent the easternmost of the southern New England nesting records. While it is possible that Acadian Flycatchers have extended to the northernmost limit they can successfully inhabit in the East, further expansion also seems very possible, and birders remain alert for nesting locations that augment the existing corridors, for breeding birds filling in the indentations in the northern margin of the species' range, and for increasing numbers of territories in areas already colonized.

The Acadian Flycatcher prefers wet woodland for nesting, but while it uses a huge range of such woodlands across its breeding range, this bird often displays specific preferences within a particular region. The most striking illustration of this comes from the habits of the Acadian Flycatchers nesting around the Quabbin Reservoir, in central Massachusetts. Repudiating the general preference of the species for deciduous woodland, the Quabbin birds appear to be closely associated with hemlock trees. In a study conducted for the Silvio O. Conte National Wildlife Refuge (Lyons and Livingston 1997), researchers checked twenty-two drainages containing hemlock cover for Acadian Flycatchers, finding an estimated total of fourteen territories in eight drainages. Nests, invariably in a hemlock tree and near or over open water, were found in eleven territories. "Recent observations of [Acadian Flycatchers] on Quabbin have suggested that the species is using hemlock stream valleys almost exclusively" during the breeding season, Lyons and Livingston remark. The 1997 nest in Middleboro was found in another kind of habitat, similar to the Quabbin hemlock ravines in general topography but differing in vegetation: "The habitat was a wooded glen, watered with a small brook and overgrown with maples, ash, tupelo, American holly, locust, and a variety of smaller shrubs" (Petersen 1977). The nest itself was built in a horizontal fork in a lower limb of a tupelo tree, by all accounts a typical placement for this species.


The Vineyard Acadian Flycatchers picked nest sites once again involving steep banks and running water, but the oak/beech woodland represents yet another floral mix frequented by this bird in Massachusetts. The common topographical elements in all three cases may provide useful hints on where to look for nesting Acadian Flycatchers in southern New England. It is worth noting, however, that in other parts of its range this species happily occupies habitats with still rather than running water (e.g., cypress bays, rhododendron thickets, black ash swamps, or tamarack swamps), and the species may occur in areas with dense or with very little understory (Christy 1942). So any wet habitats occurring in extensive tracts, such as red maple swamps, might be worth keeping in mind as possible nesting habitat for Acadian Flycatchers in



Massachusetts. Locations like Oxbow National Wildlife Refuge in Harvard, Estabrook Woods in Concord (see *Bird Observer* 27: 124-132 for Ron Lockwood's excellent article on this under-birded location), and Great Brook State Park in Carlisle have impressed me as possible locations for this flycatcher, given its habitat preferences and current distribution; any wooded stream bed in Essex County could also furnish the next Bay State nesting location for Acadian Flycatcher.

Whether the Acadian Flycatcher is expanding into New England for the

Figure 2: Distribution of Acadian Flycatchers — map by the author

first time, or whether this species inhabited the region prior to European colonization and was then extirpated as a result of agricultural land-clearing, may never be determined. And of course it is equally hard to predict the eventual outcome of the species' current push into the Northeast. But over the last half-century or so, this modest bird has staged one of the most striking examples I can recall of range expansion by a native bird species (Figure 2 illustrates this process by showing the breeding range attributed to this species in three field guides published over the last thirty-five years). I hope this range expansion is permanent: with its distinctive vocalizations and secretive, rather vireo-like habits, the Acadian Flycatcher is a fascinating addition to the region's woodland avifauna. 

References

- Christy, B.H. 1942. Acadian Flycatcher. In *Life Histories of North American Flycatchers, Larks, Swallows, and Their Allies*, by A.C. Bent. Washington, D.C.: United States National Museum Bulletin 179. (Repr. Dover, 1963).
- Griscom, L., and G. Emerson. 1959. *Birds of Martha's Vineyard*. Martha's Vineyard: privately printed.
- Laux, E.V. 1999. *Bird News: Vagrants and Visitors on a Peculiar Island*. New York: Four Walls, Eight Windows.
- Lyons, P.J., and J.E. Livingston. 1997. *Identification and Characterization of Acadian Flycatcher Breeding Habitat on Quabbin Reservation*. Unpublished report prepared for the Silvio O. Conte National Fish and Wildlife Refuge.
- National Geographic Society. 1999. *Field Guide to the Birds of North America (Third Edition)*. Washington, D.C.: National Geographic Society.
- Perkins, S. 1998. New England Region. *Field Notes* 52: 303-307.
- Petersen, W.R. 1977. A Breeding Record for the Acadian Flycatcher in Massachusetts. *Bird Observer* 5: 162-164.
- Petersen, W.R. 1998. New England Region. *Field Notes* 52: 434-437.
- Peterson, R.T. 1980. *A Field Guide to the Birds East of the Rockies*. Boston: Houghton Mifflin.
- Robbins, C.S., B. Bruun, and H.S. Zim. 1966. *Birds of North America*. New York: Golden Press.
- Whiting, S.B., and B.B. Pesch. 1983. *Vineyard Birds*. Lincoln, Massachusetts: Massachusetts Audubon Society.
- Veit, R.R., and W. R. Petersen. 1993. *Birds of Massachusetts*. Lincoln, Massachusetts: Massachusetts Audubon Society.

Matthew L. Pelikan has lived in Oak Bluffs, on Martha's Vineyard, since August 1997. He works as an editor for the American Birding Association and as a freelance writer, and has served as editor and subscription manager for Bird Observer.

THE WIRED BIRDER

Bird Imaging for Art and Documentation

Shawn Carey, Donald Crockett, Stephen Mirick, and David Larson

For this issue, The Wired Birder dives into photography, videography, and digital imaging of birds. In February 2001 the authors conducted a workshop for the Brookline Bird Club on bird imaging. Each of us uses different equipment to image birds, and for different reasons. In brief, Shawn uses high-end photographic equipment to produce visually stunning photographic images of birds on 35mm slide film. Don uses sophisticated digital video equipment to produce amazing video sequences, and great stills. Steve and Dave both use less expensive handheld digital cameras, often coupled with telescopes, with the goal of documenting rarities. Steve uses a digital video camera to capture still images, as well as extended behavioral observations in video mode. Dave uses a digital still camera to capture images ranging from birds to bugs for display on his websites. What follows are commentaries by each of us, focused on equipment and technical issues. The mention of brand names does not constitute an endorsement by *Bird Observer*.

Shawn Carey: Photographing Birds using 35mm SLR

I have been photographing birds (using 35mm) for about eight years. I will give you my views on the equipment I use and the cost for each piece of equipment.

If you wish to photograph birds using 35mm SLR, there are several pieces of equipment you will need to have to be successful. I recommend that you always buy the best piece you can afford; if there is a lens that costs \$800 and another that costs \$200, wait until you can afford the \$800 lens. Photography is like many things in life: you get what you pay for, and with photographing birds, the better your equipment the better the quality of your photos. For most professional photographers there are only two brands to look at, Canon and Nikon. I have used both of them with excellent results. At present I am using Canon, and I try to purchase the top of the line

equipment with them and all other equipment I use. The quality of the images I get back are first rate; when I used lesser quality equipment (when I first started), the final results were less than satisfactory.

The first thing you will need is a camera body; I use Canon and own the EOS-3 (body only \$1000) with the Power Booster (\$400). This gives me rechargeable batteries (\$140 each), and I can shoot up to seven frames per



Eastern Bluebird by Shawn Carey

second. Like most new camera bodies it has a motor drive, so loading film and nonstop shooting as well as rewind is a snap. With Canon lenses you also get autofocus; more on that below.

Second and more important is your selection of a lens. You need at least a 400mm lens, but would do much better with a 500mm or 600mm for most bird photography. Keep in mind that the bigger the lens the more it is going to cost. I use two different lenses. The Canon 400mm f5.6 (~ \$1200) is good for flight shots and everyday use. This is the lens I would recommend for someone just starting out: it's small enough to hand hold (with a fast shutter speed) and big enough in the right conditions to get good photographs. Also, this is an autofocus lens, so you will be able to get flight shots that six years ago would have been nearly impossible. With the Canon autofocus system, you need only place the focus sensor on the subject and shoot. If the object is moving, just keep the sensor on the subject, and the camera and lens work together to track the focus for you. The first time I used it, I could not believe how well it worked. With manual-focus cameras and lenses, it was a total crapshoot if the subject was moving. The second lens is the BIG LENS (or Godzilla), a Canon 600mm f4.0 (let's just say it's a lot of money). This is the lens I use for most of the bird photography I do, and in many cases it is still not enough. You would be very surprised at how small a 600mm lens really is in the field; you always wish for more focal length.

One of the things you can do to help is add a teleconverter or extender, 1.4x or 2x. With the 1.4x your 400mm f5.6 lens will become a 560mm f8 lens. A 600mm f4 lens becomes a 840mm f5.6 lens. As you can see, it's a quick solution to adding more length to your lens, but the downside is you lose one stop of light (meaning the light intensity is halved) with the 1.4x. However, I use the 1.4x converter (cost \$370) and have excellent results. If you go with the 2x extender (Canon 2x extender, \$310), you will double the focal length of your lens (400mm f5.6 becomes 800mm f.11), but you lose two stops of light. Having said that, there are still times when I will use the 2x with my 600mm f4.0 lens, giving me an autofocus 1200mm f8 lens.

You have your camera and your lens — now what? You need a good tripod with a ball head or Wimberley head for the bigger lens. The tripod brand of choice for most outdoor photographers is Gitzo. I use the Gitzo 1548 carbon fiber tripod (\$900) with a Wimberley head (\$600 with clamp and plate) or an Arca Swiss B1 ball head (\$400). Gitzo makes many other tripods, most of which cost less than the 1548. Bogen is another choice, and the cost will be about half, but overall they are not as nice and offer fewer options built into the tripod that are useful in the field. My everyday tripod three years ago was a heavy duty Bogen, but since I changed over to the Gitzo, I am much happier. I cannot stress enough how important a good tripod is. Many people who get into photographing birds and wildlife spend much time and money on every other piece of equipment, but think they can cut corners with their tripod. DON'T DO IT! This is no place to go cheap, get a good tripod! Wait let me say this again, GET A GOOD TRIPOD! Now I feel much better, since I have done my public service; you can't blame me if you get a cheap tripod and your hard-earned

photos turn out soft because the camera was shaking. If you really must save some money, skip the newer autofocus and go with used manual focus equipment (this means no flight shots).

A few more closing thoughts. There are many additional items that you will find useful as you get into photographing birds: things like a camera bag, flash, film, extension tubes, filters, additional lenses, maybe even a photo blind. These are all things that I use on a regular basis when the time calls for it. However, do yourself a favor and research any item before you purchase it. Talk to people who already use it, go to your local camera store and talk to a knowledgeable sales person, check on the web, read one of the many books on the subject, or pick up *Outdoor Photographer* magazine. Contact one of the many camera clubs, and see what you might learn from them. Find a photo workshop; I teach bird photo workshops for the Massachusetts Audubon Society, but there are many other people who give classes as well. These are all things that in the long run will help you to become a better photographer. I am always learning new things and looking for someone to show me something I didn't know, so keep at it, and each photograph you take will be a learning experience.

Remember you can't get the photograph if you're sitting in your living room, so get out there and start shooting!

Don Crockett: Digital Video Recording

Here's a quick summary of some things to consider to achieve better quality video of birds (or other wild animals).

Focal Length of Lens: One of the most important factors in getting interesting video of birds is how large they appear in the frame. There are two ways to increase the size: by physically getting closer, and by increasing the focal length of your lens. Think about the difference in the quality of the image of birds you get between your binoculars and a spotting scope. With the right optics, you can get the desired size of the bird in the frame without the bird feeling threatened. This will allow you to record longer footage and capture natural behavior. Some camcorders (like the Canon XL-1 that I use) take interchangeable lenses, so you can attach a super-telephoto lens.



Copyright © 2000 Don Crockett

King Eider by Don Crockett

Camcorders with fixed optics can often be fitted with optical "doublers" that multiply the focal length. Camcorders can also be used to videotape the view through a spotting scope (see Steve Mirick's section). Don't be fooled into thinking that the digital zoom factors will give you the magnification that you need. Most camcorders don't have imaging sensors with much higher resolution than what's presented on screen (around 640x480 pixels depending on the recording format), so digital zoom is accomplished by

interpolating between pixels. This rarely provides a better image. The other thing to be aware of is that a camcorder lens zoom factor of 15x is not the same as a 15x scope. 15x only refers to the ratio of the maximum focal length to the minimum focal length, not the amount of magnification. The minimum focal length on most camcorders is a wide-angle view, which means the maximum focal length will provide considerably less magnification than a 15x scope. Try the optics out in the store (but try to get the opportunity to take it outdoors to test it) and find some objects that are roughly the size of different types of birds. Think of the closest you have been to the bird without flushing it. Then look at the object through the camcorder at maximum zoom at that distance, and imagine how the bird would look at that distance or greater.

Tripods and Video Heads: Another important factor in the quality of your video is how steady the camcorder is on stationary subjects, how smoothly it follows moving subjects, and how easy it is to compose the bird in the frame. To get the best results you really need to use a tripod with a video head. The best video heads have compensation so that you can tilt the head with the lightest of touches, but when you let go of the handle throughout the tilt angle range, the camcorder won't move from the position you left it at. They also have adjustable damping that will smooth out starts, stops, and pans so that your audience doesn't get seasick from jarring visual fields. You can spend thousands of dollars to get a professional tripod and head, and the difference is noticeable. It's a lot of money, but if you want to achieve professional results recording moving subjects, the better your equipment the better the results and the more footage that will be usable in quality productions.

Desirable Camcorder Features:

3-Chip Image Sensors — 1 chip each to record red, green, and blue. This produces more accurate and rich colors especially for images with high contrast.

Digital Recording — Image and sound are recorded as ones and zeroes rather than as analog signals. This permits copying without a loss in quality after each successive copy.

Firewire/IEEE-1394 port — allows high-speed digital data transfer to and from your computer, so that you can edit your videos into something that will entertain your audiences rather than put them to sleep.

Editing software has come down in price as the processing power of computers has increased in the last few years, making video production a much less daunting and expensive process.

Manual Focus — Autofocus works great if your subject is the most detailed object in the center of the frame. But put a bird in a tree or a bush, and the camcorder is much more likely to focus on branches than on the bird. It's good to be able to quickly switch to manual focus in these situations and adjust the focus for the bird.

High Shutter Speeds — The standard shutter speed for a camcorder is 1/60th of a second. If you want to be able to freeze the action of a moving bird, you need shutter speeds in the 1/250th - 1/1000th of a second range depending on the speed of the movement. This is especially important if you want to capture individual stills, but is also useful for playing back in slow motion. Some camcorders will

have a "Sports" setting which will use a high shutter speed. Having flexible manual control over the shutter speed is a better option, though.

Progressive Scan/Frame/Movie Mode — Normally camcorders record a half frame every $1/60^{\text{th}}$ of a second. Each frame only records alternating lines (i.e., frame 1 records lines 1, 3, 5, 7, . . . while frame 2 records lines 2, 4, 6, 8, When you try to extract a full frame of a moving bird the second frame will record the bird $1/60^{\text{th}}$ of a second later than the first frame. Interlacing these frames causes nasty artifacts, so typically one frame or the other is thrown away (de-interlacing), or they are averaged together to arrive at a still without these artifacts. Some better camcorders will allow you to record both interlaced frames at the same time. This produces highly detailed stills, but it also creates choppy motion at regular playback speeds (see the following section by Steve).

Microphone Windscreen — There are good-quality windscreens for some camcorder microphones that filter out much of the noise that can be created by the wind ripping past the microphone.

Lan-C Remote Connector — Better camcorders will have a Lan-C connector that will allow you to connect a wired controller to your camcorder. These controllers will allow you to start/stop/zoom your camcorder with the hand you use for the video head pan handle. Quicker stops and starts mean that you'll waste less tape and capture birds more often.

Steve Mirick: Digital Video for Bird Documentation

Two years ago I purchased the Sony DCR TRV-900 video camera with the intention of trying to shoot some video of birds for personal enjoyment. I soon realized, however, that capturing still images from the video and sharing them on the Internet was relatively simple and the quality was great. When I learned how to use the camera in combination with my Kowa spotting scope, I was amazed at the magnification and acceptable quality for documentation. I now believe that this camera, along with a good spotting scope, is the best combination available to birders for the documentation of rare birds.

Video cameras, by definition, have an advantage over still cameras in that they are able to record motion. This can help to show flight style and behavior of birds. During playback, the motion can be frozen or advanced frame by frame, and specific features of the bird, such as wing detail, can be captured during motion. The desired frames can then be stored on a personal computer or e-mailed to friends, other birders, or rare bird committees, for identification analysis or verification. After the images are saved on a personal computer, the digital tape can be recorded over with no loss in quality, creating a nearly infinite supply of film. Digital video also records CD-quality sound, and excellent bird vocalizations can be captured. These can then be played back onto a computer and stored in digital audio formats such as wav or mp3, where they can again be shared with others over the internet.

The optical magnification of the Sony DCR TRV-900 is listed as 12x (digital magnification claims should largely be ignored when considering the purchase of digital video cameras). For additional magnification, I have purchased a separate 2x

teleconverter which I use for higher magnification. For super magnification, I hold the video camera in front of my Kowa scope, a technique sometimes called digi-scoping. Capturing good video this way is close to impossible, and even capturing a few frames in sharp focus can be difficult; however, the increased magnification is far superior to anything available with commonly encountered optical equipment. Even with the loss in quality, through-the-scope images are more than adequate for documentation. The accompanying Northern Hawk Owl image was captured from video taken through the scope.



Northern Hawk Owl by Steve Mirick

There are a couple of disadvantages of using video, however, over still image cameras. Video cameras can cost twice as much as still image cameras, and with most digital video cameras, it takes a powerful computer and software to capture the still images and perform video editing. Newer digital still cameras also have greatly improved image resolution, superior to the 640x480 still-image resolution most commonly captured from video cameras.

Advantages of the Sony DCR TRV-900 (over other consumer video cameras):

Digital Video (using MiniDV format) gives highest video resolution at 500 lines.

Progressive Scan Mode option for improved resolution on still images.

External floppy disk drive for simplifying the capture of still images, a unique feature for this camera.

3 CCD chips for improved color resolution and still image quality.

Very nice 3.5-inch LCD for playback in the field.

David Larson: Digital Still Photography for Documentation

Over a year ago I bought a digital still camera, and my various film cameras have been gathering dust ever since. For nature study and bird documentation, having a digital camera with a long zoom lens and image stabilization means that I have a lightweight field tool that is nearly always with me, doesn't require a tripod, and produces acceptable images in the macro, wide angle, and telephoto ranges.

There are plenty of digital cameras on the market today, but only a few deserve mention as birding cameras. If a camera only delivers a bird dot at distances that are comfortable for the bird, then you might as well leave it at home. The minimal optical magnification that would be useful without accessories approximates that of a pair of binoculars. I currently use a Sony Mavica MVC-FD91, which has a zoom range of 14x. The actual maximum magnification is 10x (roughly equivalent to a 500mm lens for a 35mm camera). Both 1.4x and 2x converters are available. This camera has

image stabilization (meaning it dampens vibration), auto- or manual focus, aperture or shutter priority auto exposure, and a built-in flash. Images are stored in jpg (compressed) or bmp (uncompressed) formats on 3.5-inch floppy disks (cheap, handy, and reusable). Each disk holds just one bmp, or 6-12 jpg images, so carry a pocketful. Shooting jpg images results in file size compression and some loss of image information.

The FD91 shoots a 1024 x 768 pixel still image. That means that there are 1024 pixels (picture elements) on the horizontal side of the rectangular CCD chip, and 768 pixels on the vertical side. Therefore, the chip has $1024 \times 768 = 786,512$ sensors, and the resulting image is made up of (maximally) that number of dots. Digital video cameras like those used by Don Crockett and Steve Mirick have maximal resolutions of 640 x 480, and thus lower resolution than my Mavica. Of course, other still cameras have higher resolution: 2, 3, and 4 megapixel arrays are becoming popular (a megapixel is a million pixels; my Mavica is approximately a $\frac{3}{4}$ megapixel camera), and there is a 16 megapixel camera in development.

The FD91 is no longer in production. It has been replaced by the FD95, FD97, and CD1000. These three cameras use a 2.1 megapixel chip and have a 10X zoom range (equivalent to a 380mm lens for a 35mm SLR camera). The FD95 and FD97 can write images to a floppy disk or a solid-state storage device. The CD1000 writes images to a mini-CD. Other digital cameras that would be useful for birding are the Olympus C2100 UltraZoom (2.11 megapixel), Olympus Camedia E-100 RS (1.5 megapixel) and the Canon PowerShot Pro90 IS (2.6 megapixel). The Olympus and Canon cameras use reusable solid-state storage devices. All of these cameras have a 10X zoom range, which would lead you to believe that they would not be as useful as the FD91, but the extra pixels more than make up for a little less optical magnification.

Whatever camera you use, the advantages of good magnification, autofocus, and exposure, light weight, image stabilization so you do not have to use a tripod, and simplicity in use mean that you will have a handy field camera for documenting birds, bugs, or whatever turns you on. Bear in mind, however, that ruggedness and

weatherproofing are not notable features of these cameras. My Mavica is mostly plastic, and it is not even remotely waterproof (ugly details of personal experience omitted).

Digi-scoping: If your aim is to document rarities, you will find that they usually are not particularly cooperative. What looks nice and clear and obvious through a pair of binoculars may be small and obscure in a photograph. So when you really have to reach out and fill the frame, you can




Eclipse male Garganey by David Larson

try using a combination of optics. I have been shooting through my Kowa TSN-4 spotting scope for over a year now, and I can get useable photographs most of the time. I just recently tried shooting through my binoculars, and that works too. In both cases you can expect ridiculous magnification (with the scope-camera combination, you might have to back up!), restricted light levels, and some softness of focus. Of course, when it really matters, you use what you have to get the shot. I have posted some suggestions for digi-scoping with my combination of optics on my website <<http://larsonweb.org/birds/mavicaplus.html>>. If you have a digital camera and a scope, or even binoculars, try it and experiment. The key is to practice, practice a lot. You don't want to try it for the first time when you see your next first state record bird!

Shooting for the web: My primary venue for displaying my images is the web. That means that I have some flexibility with a 1024x768 image, since a reasonable maximum size for a web image is 600x450 or less (you can post larger images, but not many viewers will wait for them to appear on their monitors). Therefore, I can crop my image to that size to get a larger relative bird size. Of course, with higher resolution chips (2, 3, or 4 megapixels or more), one can crop even more tightly without loss. Conversely, if I have a full-frame bird image, I can shrink it to size without loss. Image manipulation software is also handy if you need to brighten the image a bit, or even remove a twig (or change a Black-throated Green into a Northern Gannet).

Shooting in field conditions with a handheld camera allows you to document birds as you bird — not in a stakeout blind or with a cumbersome panoply of equipment. That means that you are much more likely to have the camera with you when you really, REALLY, need it — say for that first state record, or when your birding buddy falls into the manure pit at Cumberland Farms.

Summary

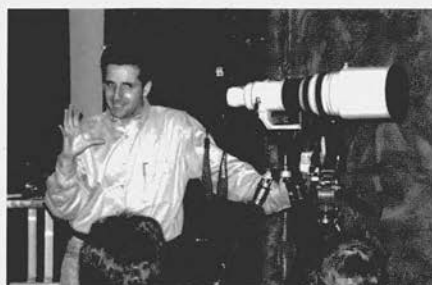
Ultimately, the equipment you purchase and use will depend on what you hope to accomplish and what you can afford. We have presented a gamut of choices from very expensive systems of the highest optical resolution and color fidelity, using huge glass lenses and requiring rock-solid tripods, to less expensive systems that are more portable and easier to use in field situations. Videography provides the additional dimension of capturing behavior, at the price of lower image resolution. Digital imagery, even for the very high-end photographers, is the wave of the future. 

Links to relevant web sites:

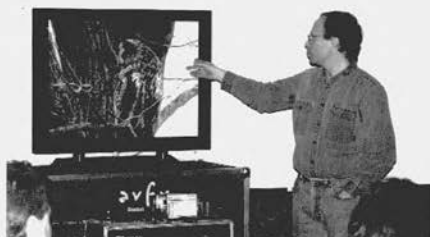
Migration Productions	http://www.migrationproductions.com
Used photographic equipment	http://www.keh.com
Canon EOS3	http://www.usa.canon.com/camcambin/cameras/35mm/slr/eos3.html
<i>Outdoor Photographer</i> magazine	http://www.outdoorphotographer.com
Gitzo tripods	http://www.bogenphoto.com/1.htm
Bogen/Manfrotto tripods	http://www.bogenphoto.com
<i>The Virtual Birder</i>	http://www.virtualbirder.com

Canon XL1 <http://www.canondv.com/xl1/index.html>
 Sony DCR TRV-900 <http://www.bealecorner.com/trv900/>
 Sony digital cameras http://64.14.40.97/explore_products/productindex.jsp
 Steve's Digital Camera Reviews <http://www.steves-digicams.com>
 Olympus C2100 Ultrazoom <http://www.olympusamerica.com/>
 Olympus Camedia E-100 RS <http://www.olympusamerica.com/>
 Canon PowerShot Pro90 IS <http://www.powershot.com/powershot2/pro90/index.html>
 Foveon (16 megapixel camera) http://www.foveon.net/tech_f16.html
 Dr. Chan Kai Soon of Ipoh, Malaysia digi-scoping
<http://albums.photopoint.com/AlbumList?u=25214>
 Digi-scoping sites <http://www.md.ucl.ac.be/peca/test/a.html>
<http://www.birdingamerica.com/digiscoping.htm>
<http://www.surfbirds.com/Features/digiscoping.html>
http://www.angelfire.com/pe2/digiscoping/Page_6.htm

Photographs from the workshop (by Eddie Giles)



Above: Shawn Carey and Godzilla. Below: Dave Larson and his toys.



Above: Don Crockett explains how to expose for backlighting. Below: Steve Mirick and some of his equipment.




Shawn Carey is an accomplished photographer and one of the founders of Migration Productions <<http://www.migrationproductions.com>>. **Don Crockett** is perhaps best known as the editor, composer, and programmer of The Virtual Birder, the e-zine and birding resource <<http://www.virtualbirder.com>>, and proprietor of the A2Z4 Birders online birding store <<http://store.yahoo.com/a2z4birders/index.html>>. **Steve Mirick** is a stalwart of the New Hampshire birding scene and a bird trip leader. An index of some of his images can be found at <<http://www.nh.ultranet.com/~mirick/Photos/>>. **Dave Larson** is the Bird Observer Production Editor, a freelance writer and editor, and the webmaster of <<http://larsonweb.org/>>.

try using a combination of optics. I have been shooting through my Kowa TSN-4 spotting scope for over a year now, and I can get useable photographs most of the time. I just recently tried shooting through my binoculars, and that works too. In both cases you can expect ridiculous magnification (with the scope-camera combination, you might have to back up!), restricted light levels, and some softness of focus. Of course, when it really matters, you use what you have to get the shot. I have posted some suggestions for digi-scoping with my combination of optics on my website <<http://larsonweb.org/birds/mavicaplus.html>>. If you have a digital camera and a scope, or even binoculars, try it and experiment. The key is to practice, practice a lot. You don't want to try it for the first time when you see your next first state record bird!

Shooting for the web: My primary venue for displaying my images is the web. That means that I have some flexibility with a 1024x768 image, since a reasonable maximum size for a web image is 600x450 or less (you can post larger images, but not many viewers will wait for them to appear on their monitors). Therefore, I can crop my image to that size to get a larger relative bird size. Of course, with higher resolution chips (2, 3, or 4 megapixels or more), one can crop even more tightly without loss. Conversely, if I have a full-frame bird image, I can shrink it to size without loss. Image manipulation software is also handy if you need to brighten the image a bit, or even remove a twig (or change a Black-throated Green into a Northern Gannet).

Shooting in field conditions with a handheld camera allows you to document birds as you bird — not in a stakeout blind or with a cumbersome panoply of equipment. That means that you are much more likely to have the camera with you when you really, REALLY, need it — say for that first state record, or when your birding buddy falls into the manure pit at Cumberland Farms.

Summary

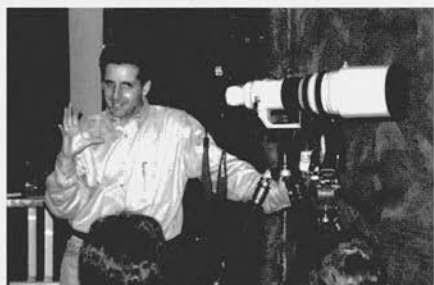
Ultimately, the equipment you purchase and use will depend on what you hope to accomplish and what you can afford. We have presented a gamut of choices from very expensive systems of the highest optical resolution and color fidelity, using huge glass lenses and requiring rock-solid tripods, to less expensive systems that are more portable and easier to use in field situations. Videography provides the additional dimension of capturing behavior, at the price of lower image resolution. Digital imagery, even for the very high-end photographers, is the wave of the future. 

Links to relevant web sites:

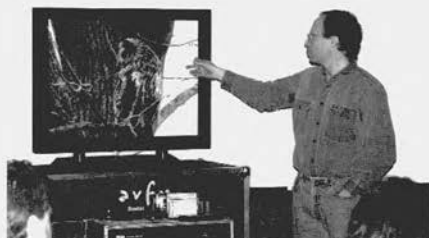
Migration Productions	http://www.migrationproductions.com
Used photographic equipment	http://www.keh.com
Canon EOS3	http://www.usa.canon.com/camcambin/cameras/35mm/slr/eos3.html
<i>Outdoor Photographer</i> magazine	http://www.outdoorphotographer.com
Gitzo tripods	http://www.bogenphoto.com/1.htm
Bogen/Manfrotto tripods	http://www.bogenphoto.com
<i>The Virtual Birder</i>	http://www.virtualbirder.com

Canon XL1 <http://www.canondv.com/xl1/index.html>
 Sony DCR TRV-900 <http://www.bealecorner.com/trv900/>
 Sony digital cameras http://64.14.40.97/explore_products/productindex.jsp
 Steve's Digital Camera Reviews <http://www.steves-digicams.com>
 Olympus C2100 Ultrazoom <http://www.olympusamerica.com/>
 Olympus Camedia E-100 RS <http://www.olympusamerica.com/>
 Canon PowerShot Pro90 IS <http://www.powershot.com/powershot2/pro90/index.html>
 Foveon (16 megapixel camera) http://www.foveon.net/tech_f16.html
 Dr. Chan Kai Soon of Ipoh, Malaysia digi-scoping
<http://albums.photopoint.com/AlbumList?u=25214>
 Digi-scoping sites <http://www.md.ucl.ac.be/peca/test/a.html>
<http://www.birdingamerica.com/digiscoping.htm>
<http://www.surfbirds.com/Features/digiscoping.html>
http://www.angelfire.com/pe2/digiscoping/Page_6.htm

Photographs from the workshop (by Eddie Giles)



Above: Shawn Carey and Godzilla. Below: Dave Larson and his toys.



Above: Don Crockett explains how to expose for backlighting. Below: Steve Mirick and some of his equipment.



Shawn Carey is an accomplished photographer and one of the founders of Migration Productions <<http://www.migrationproductions.com>>. **Don Crockett** is perhaps best known as the editor, composer, and programmer of The Virtual Birder, the e-zine and birding resource <<http://www.virtualbirder.com>>, and proprietor of the A2Z4 Birders online birding store <<http://store.yahoo.com/a2z4birders/index.html>>. **Steve Mirick** is a stalwart of the New Hampshire birding scene and a bird trip leader. An index of some of his images can be found at <<http://www.nh.ultranet.com/~mirick/Photos/>>. **Dave Larson** is the Bird Observer Production Editor, a freelance writer and editor, and the webmaster of <<http://larsonweb.org/>>.

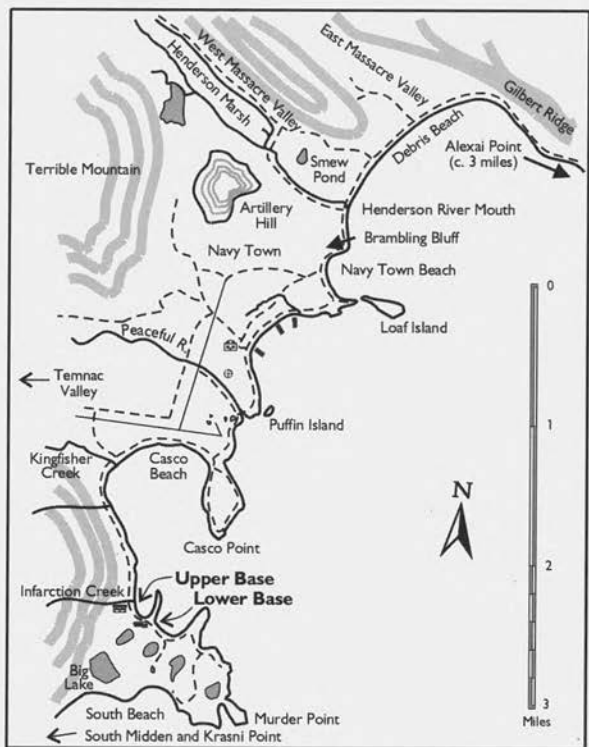
The Murrelets

Brooke Stevens

Postcard from Attu: "Arrived. Infested with rats, vandalized, snowing. Having a wonderful time."

A little more than a year ago, in April of 2000, three New Englanders — Carol Ralph, Linda Ferraresso, and I — were sorting through our accumulated stash of Gortex, fleece, Japanese fisherman's gloves, "extra tuffs" and pacboots, waterproof optics, and the like in preparation for one of the last spring trips to Attu. We traveled to this "island at the end of time" in search of Asian vagrants that were countable on our North American life lists. Organized by Attour's Larry and Donna Balch, Trip A from May 12 (unintentionally extended) to June 1, 2000, was one of the last birding trips to this remote outpost in the Near Islands of the Aleutian chain, 1500 miles west of Anchorage.

Attu is many things. About forty miles long and twelve miles wide, it is part of the Aleutian Islands Unit of the Alaska Maritime National Wildlife Refuge. The island, which is located in the eastern hemisphere, its longitude about that of New Zealand, is the back door to two continents, and one can find Asian lilies and thistles pushing up through the rusted wartime Marsden matting and brown rye grass. Paralleling the period of our adventure, the island was the bleak site of the Battle of Attu (May 11-31, 1943), the only WWII land battle fought on North American soil and "in proportion to the numbers of opposing troops, the second most costly battle of the war in the Pacific" (Garfield, p. 272). Today, the sole military presence is the U.S. Coast Guard who tends the Loran Navigation Station. Because of the island's location, 300 miles from the Russian Komandorskie Islands and 700



Casco Cove, Attu — map by Bob Berman

miles from Siberia's Kamchatka Peninsula, we were hoping for storms with strong west winds that would bring migrating Asian birds, blown off course, to the island.

The southeastern corner, where we hiked over tundra and rode bikes in pursuit of birds, is a national battlefield park and provided the infrastructure for our tour: an airstrip, dirt roads, and concrete bunkers set amid the detritus of war in a landscape of astonishing beauty. We explored the same sites regularly, often seeing the same birds but sometimes finding one that was different, which was when the radios sizzled and we chased. On our daily excursions, groups led by Paul Baicich, Steve Heinel, Mike Toochin, James Huntington, or Paul Sykes set out by foot or by bicycle to various destinations: Murder Point and South Beach; Kingfisher Creek, Casco Beach and Puffin Island; Coast Guard and Navytown Beaches; Henderson Marsh (East and West Massacre Valley); or Gilbert Ridge and Alexai Point. Covering as many as twenty miles a day in all kinds of weather, carrying bikes over snow bridges and through rushing streams, tromping over tussocks and tundra, we became lean and fit, and had no problem sleeping at night!

Local nesters were everywhere: the super-sized Aleutian races of Winter Wren belted out a harsh, raspy song from the top of the ridgeline, and dark Song Sparrows darted through the rye grass by the water's edge where they somehow survive the harshest of winters; Rock Sandpipers trilled, so tame you could walk right up to them; Rock Ptarmigan exploded from under our feet with *grok*-like rattles; young Common Ravens fledged just as the Glaucous-winged Gulls and the Western Arctic orange-billed Common Eiders were laying their eggs (an arrangement most favorable to the ravens). Tufted and Horned puffins, Pelagic and Red-faced cormorants, Mallards (imagine wild and wary puddleducks flying against snowcapped mountains!), Harlequins, Lapland Longspurs skylarking everywhere from dawn to dusk, and Snow Buntings.

Of my companions, Carol was the instigator who saw a Brookline Bird Club presentation on Attu, and it became her life's dream to go there. In 1998, a strong la Nina year, she did. Two years later, after a tour of mainland Alaska, I mustered the courage to join her before Attour's time ran out. Linda planned her own trip, and here's what I love about Linda: A group of us out on Alexai Point picked up a beautiful female Mongolian Plover in breeding plumage, and called it in. Linda was seven miles away by bike and by foot, and it would be another ten miles back to camp by the same difficult route. But when the call came over the radio while she was standing in Henderson Marsh, Paul Baicich said "that's your bird!" (see *Bird Observer*, February 2000, pp. 18-21). And she was on her way. On another occasion, after we had been chasing all day, Linda and I were hiking over steep tundra, trying to remember where she left her bike; birds flushed ahead of us, and someone called "redpolls!" I was so tired I saw only fleeting shapes. "There were four of them," said Linda who turned, waved a cheery goodbye, and headed off to see a Common Sandpiper that had just been relocated. When an Olive-backed Pipit was found on South Beach, I rode like mad for six miles and hiked another two miles to find that Linda had been working the bird for several hours. She knew where it was as we arrived and what it would do when flushed. It was terribly skittish, but we got it for

tour-member Mike Austin's 800th life bird. He raised both arms, then sat down abruptly on a log and smiled.



The Murrelets ready to leap into action (l-r: Brooke Stevens, Carol Ralph, and Linda Ferraresso)

Chasing birds anywhere brings out both the best and the worst in people. It showcases the inner child in some, and obsessive-compulsive tendencies in others, while the truly blessed are able to strike a zenlike balance that is enviable. For me it is pure love-hate. What I admired on Attu was the professionalism of the leaders in handling our different chase styles and in keeping order in the field. Of course, there were instances with so many people (there were over seventy of us in camp) when someone flushed a bird or got ahead of the group, but that was the exception, not the rule. There was also a downside to the toss of the dice each day we were on Attu. The birds that are blown off course are often exhausted and never reach their breeding grounds; some are collected for the record. Also, following early Russian rule of the area and the subsequent enslavement and slaughter of the Aleuts, the places where we find birds (Murder Point, Alexai Point, Krasni Point, Massacre Valley) have borne witness to much human suffering and death. While I don't dwell on these thoughts, they are an important layer of the Attu experience.

During the time we were on Attu, people at home were keeping track of our trip. An e-mail correspondence between Joan Weinmayr and Michael Tarachow, who was part of the second spring group, revealed that our unbirdy weather resulted from the fact the main jet stream was parked far south of Attu, and that a split was developing over China and Siberia that created two different flows. The northern one over Kamchatka and Attu fueled storms that brought a bird bonanza to Group B.

Below are excerpts from my daily record of our trip:

May 13 Carol, who is a blue-badge veteran of spring 1998 (41 life birds!) joins the volunteers going to set up camp, about a mile away. With sleet and snow blowing sideways, the rest of us white-badge first-timers head off on foot, lunches in our backpacks, to bird with Paul Baicich and Steve Heintl. The island is covered in snow. We are out for six hours.

Back at camp the buildings have been broken into and trashed. Rats have eaten stored food and destroyed mattresses on the leader's bunks in the Fish and Wildlife building (upper base) where we take our meals. The room is walled off. Dinner is served in the former Loran station (lower base) where we sleep, shower, and hang out. We pick up our plates and eat our first Attu supper of chili, three-bean salad, and chocolate pudding while sitting on our bunk beds.

Our room is a semidetached concrete unit next to the workshop and away from the main building. It is spacious for the eight of us: myself, Carol, and Linda from Cambridge, Waltham, and Watertown, respectively; Anna Scarbrough and Elizabeth (Betty) Hardesty from Findlay, OH; Lena Galitano from Raleigh, NC, Lynn Barber from Forth Worth, TX, and Sandra Escala, from Bridgewater, NJ. Lena has tacked plastic sheeting to the inside top of the door to keep out the draft and fashioned a pull (there is no knob) of green nylon rope wrapped with duct tape. It is excellent. We decide to call our room Murrelet Manor, and refer to ourselves as the Murrelets. (It is a tradition at Attu to write your lifelist total on the wall at the end of the tour, and I notice that ours is the only group of women "listers" in the Manor.)



The author and a bunkie

May 15 "Rat, the other white meat," says Joe Swertinski our bike man. Our cook, Walter Chuck (his real name!) and staff are killing dozens of rats, sleeping with rats. Arctic Foxes were eliminated from the island last year, which is a boon for the ptarmigan, and the rats.

The laundry is set up, and chore list posted. I do breakfast prep. Carol is a pot scrubber, and Linda does laundry. Our walls in the Manor have been dried by Al "Attu Power & Light" Driscoll, using an industrial strength kerosene heater. Generators hum, bikes are new and easy to ride on the rough roads, food is hot and plentiful. After dinner, we have fabulous views of a Yellow-billed Loon just outside of Casco Cove.

Lena to Al: "This is just like home." Al to Lena: "Then I'll fix it."

May 16 A glorious day, clearing, calm, sun, the snow-covered mountains shining. Not what I expected on Attu! We admire five Pacific Golden Plovers along the road and a flock of pintail flying against the peaks. Harlequins are murmuring in the bay. We go on to Gilbert Ridge, 6.5 miles from camp, along Massacre Bay which is calm, with a black gravel beach. Gray-crowned Rosy Finches on the cliffs, Snow Buntings chasing and scolding. Male Tufted Duck with tuft flying. As we are admiring the small Aleutian Canada Geese on the slopes, a male Rustic Bunting flies up the cliff face. Perfect views in clear light.

May 17 The bay is flat, and the pipes have frozen. Sandra has lost her toothbrush. Betty has a sore knee from falling off her bike several times. Anna is working on a crossword puzzle, and Carol is reading a romance novel.

May 18 While we are having lunch at Puffin Island, Steve reports a Smew at Alexai. Linda, Jane Kostenko, Tyler Bell, and I take off. Forty minutes of hard riding. Paul Baicich is coordinating arrivals and waves us on. He knows, via radio, who is coming and from where. He makes sure that we are all collected, far from the birds. Steve Heinel then forms a scope line, still far from the pond, where we get our first looks at two of these dressy little mergansers: a female and a first-year male. Steve then moves us quietly closer, calling a few at a time for scope looks. He repeats this maneuver until we have excellent views of the two birds. He and Paul have managed to get thirty birders across a field and in full view of the birds without spooking them. Everyone gets good looks.

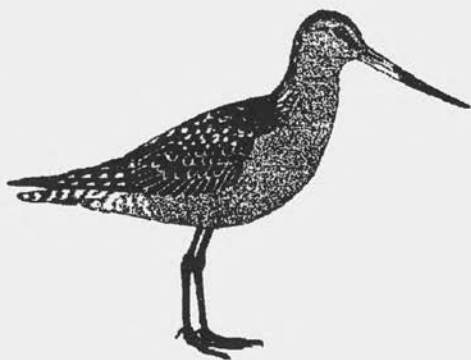
May 19 Sandra: "If I'm alive at the Bunting, I'm going for the Smew."

Botanizing the Aleut middens with Paul Baicich: kakalia (leaves like plates), angelica, cow parsnip, Kamchatka thistle, Kamchatka lily, lupine, rye grass, blooming willow, false hellebore. The island is becoming greener each day.

May 20 While we are at Casco Bay, we hear that Mike Toochin's group on Gilbert Ridge has a Dusky Thrush, and he is calling for several field guides (Japan, Taiwan) to be brought from base because the bird may be the Japanese race, which has only been seen once before, on Adak in 1982. Carol and I leave for the ridge. Everyone is gathered around the foxholes and trenches. No bird. Agonizing. (This is the part of chasing that makes me crazy.) Lunch discussion of the bird's race. Mike takes those of us who haven't seen it to sweep along the road. No bird. Then we get a wave from the group up on the ridge, and back we trudge, up the snowfield, and get wonderful looks at the thrush feeding along the willows at the edge of a snowbank.

May 21 Birds at last. A strong west wind during the night (which chilled us in our concrete bunkroom and which was measured at up to 80 knots at the Coast Guard Station). At Navytown Beach an excited radio message comes in from Brad Carlson: "curlew, curlew, flying your way!" And indeed it was — a Far-eastern Curlew calling *curleeee, curleee*. Right past our heads, landing on the beach in front of a *vega* Herring Gull. Brown bird on black sand, with an impossibly long decurved bill, foraging.

While we are sweeping Henderson marsh, things start to pick up. We get calls: Yellow Wagtails are flying all around Brad in the Coast Guard area; Mike is looking at a Bar-tailed Godwit



at Casco; James is on a Common Greenshank in a pond near Murder Point; others have spotted a Common Sandpiper on South Beach where an Eye-browed Thrush has just flown in off the ocean. I ride from Henderson at full throttle to base, by Pratincole Cove, and up the hill to see the greenshank, bypassing a breeding-plumaged Godwit (hard to believe!). Walked over to South Beach to see the tired and spooked thrush, a male.

In the evening a Snowy Owl lands on the slope above upper base, harassed by Glaucous-winged Gulls which are nesting on the mountain. Ravens are carrying gull eggs over camp (and carrying rats away from camp).

May 23 Northeast wind, 38 degrees. Dolly Varden (Aleutian trout, a char) for breakfast. Bill Grossi has caught 26 pounds of fish at the mouth of the Peaceful River. Sweet and firm, the fish is great with pancakes and bacon.

Ride to Gilbert Ridge. Started out in sleet and snow. Dry by the time we reach the end of the runway. Just six of us. At the pyramids we turn up a gorgeous male Siberian Rubythroat in the willows. He pops up and sings. Whimbrel are reported from Navytown Beach; a Wandering Tattler at Casco. We go on to Alexai after Paul takes over the incoming crowd at the Rubythroat. Out on the east tip of Alexai three plovers fly by calling. Two are Pacific Goldeneyes, but the other is a Mongolian Plover which Mike picks out instantly by its call. A Common Greenshank flies over. The ride home is tiring. Carol falls in the mud. I am on breakfast prep after dinner: crack 120 eggs and make 2 gallons of orange juice.

May 24 Rode to Pratincole Cove after breakfast and was surprised to see two Orcas fill my scope as they slid by. An adult and a calf. A long, slow day, but nice looks at the five *variagatus* Whimbrel whose rumps are paler and browner than our *hudsonicus* race.

May 25 Six hours of walking, no new birds.

May 26 Weather from the west. Colder, windier, wetter. Dramatic red and pink sunrise mixed with gray and white tumbled low clouds. We ride to Gilbert Ridge in blowing rain. No new birds. I have long ago adjusted my expectations, taking out all the tabs I had put in my *National Geo*. My revised goal is now ten new birds, which seems reasonable for a second Alaskan trip. Species notably absent and always seen are Wood Sandpiper and Long-toed Stint. A Whooper Swan was found dead on the beach. Mike radios that he is seeing Laysan Albatrosses near shore, and I head back, riding in first gear most of the way against a formidable wind. I am almost blown to a standstill on the runway, where Aleutian Terns have been flying around, seen occasionally. They nest near the runway and land when the ceiling is low and weather wet. At Murder Point I have excellent looks at the albatross, plus Pomerine Jaegers in a large flock. Cold and wet, we ride back to camp for a hot shower and tea. After dinner, The Murrelets surprise the camp with a musical performance, orchestrated by Linda, with lyrics to the tune of Camp Granada.:

*Every day we go biking
Otherwise it's tundra hiking*

*Every night we yearn to turn in
After all day sloggin' birdin.'*

*We have Wagtails, we have Pipits
Should we chase or should we skip it?*

.....

*And the weather, it's been sunny
Each bird's costing lots of money
But they tell us "Stop complaining"
And they say we'll have more birds when it starts raining!*

May 27 Departure day. We had champagne last night and toasted Larry. Today the weather has closed in. Rain, fog, cold. Our bags are taken to the runway, and we are walking after them when we are called back. The ceiling is too low for Reeve to land. The plane returns to Anchorage with most of the second group aboard. To keep everyone's spirits up, there is an encore performance by the Murrelets:

*Our leader Larry, is faring well
His well-laid plans are shot to hell
He's been through this many times before
But now we know why he says "I'll do this no more!"*


May 29 Memorial Day. Three people hike to the Japanese monument above east Massacre Valley. Clouds come down, and it starts raining, from the east. We are working Casco Point and the runway ponds. Nothing turns up. But Aleutian Terns have been fishing in the bay, and one flies over with its catch, shivering its wings and calling. Several more terns materialize out of the fog. For more than an hour small groups of terns fly in and out of the fog, up and down the taxiways and over the bay. The terns start landing on the taxiway. There are at least thirty birds. They court — a little dance, raising both wings akimbo, bowing heads, and moving in little stiff steps clockwise. Then a pair copulates. On some you can see a hint of deep lavender gray on the breast.

Along a creek Steve points out a Wandering Tattler. I want a closer look. A small white eyeline and all dark bill are among the features that distinguish it from Gray-tailed Tattler. The ride home is very wet. The day room is full, including the new arrivals, one of whom collects seaweeds — there are 300 species here (and indeed, I have never seen such colors and variety); this is his third trip, and he brings his own plant press. Activities include rousing games of Scrabble, quieter chess, and intricate jigsaw puzzles.

May 30 Had lunch with Carol and Linda at Puffin Island when two shorebirds dropped out of the fog, calling. Wood Sandpiper and Long-toed Stint! We rushed over to where they landed. Had good looks at the Wood, but the Stint (a life bird) flew almost immediately high and out of sight. A frustrating miss.

May 31 Storm from the southwest. Winds too strong for bike riding. Walk to Murder Point. We are blowing all over the place, hanging on to each other's scope legs. The seas are wild. Sea Otter holding her young on her stomach, eiders, murrelets, murre, cormorants. Fish and wildlife boat anchored in Casco Bay waiting to go out tomorrow to Buldir Island. Wind blows drying tent down. Al puts heavier weights on the front door. Murrelets perform for the third time.

June 1 We are now delayed five days, but a plane is due. We are about to ride our bikes to Casco Bay with Steve when a group at upper base spots five Hawfinches. They fly between bicycles. One lands by a small willow, and we have marvelous close scope looks. Then a second Hawfinch flies in. They call. Lovely pewtery-blue bill; a female and a first-year male. On to the runway ponds. Steve's group is looking at something on the beach. Carol's arms go up in the BBC "we are looking at the bird" salute. I know she has a life bird, which is her first for this trip. A Gray-tailed Tattler. We have superb views: light belly and fine breast streaking; overall dun-colored versus blue-grey of Wandering Tattler; white eyebrow line meets in front and flares behind; part of lower mandible appears yellow. The runway lights go on, and we ride to the gathering spot. Two great new bonus birds.

Postscript: Back home at dinner one evening, Linda remarks, without rancor: "You know, I was on the second spring trip, but moved to the first when a place opened up. If I hadn't changed places I would have had ten more life birds." Meanwhile, Carol traveled a third time to Attu, joining the last fall tour and getting four new birds, including Baillon's Crake and a Fork-tailed Storm-Petrel that landed in the grass next to the hot tub (but that is another story). Since then, Reeve Aleutian Airways has declared bankruptcy, and their three workhorse Lockheed Electras may be found in Canada (for use in fire-fighting), South America (for charter and cargo service), and South Africa (for sightseeing tours in the Cape area). A good summary of the Attu era can be found in the December 2000 issue of *Birding* magazine (Baicich 2000a,b). 

References

- Baicich, P.J. 2000a. Attu Reflections. *Birding*. 32 (6): 488-489.
- Baicich, P.J. 2000b. An Attu Showcase. *Birding*. 32 (6): 545-552.
- Garfield, B. 1995. *The Thousand-Mile War: World War II in Alaska and the Aleutians*. Anchorage: University of Alaska Press Classic reprint series.
- Ode to Camp Attu, Sung to the tune of Camp Granada, by Allan Sherman. Excerpts by permission of A.L.C.I.D. (Alliance of Lady Carolers for Intermittent Disasters).

Brooke Stevens lives in Cambridge with her forbearing husband, Tom McCorkle. As Editor of Bird Observer, she would like to thank her colleagues for encouraging these notes from so far afield.

YOUNG BIRDERS

A Winter Outing

David Allen

On Sunday March 4, my friend, Ed Morrier, invited me to come birding with him. He planned to go to Winthrop, Nahant, Lynn, and Gloucester. In Winthrop we searched for Snowy Owls at Logan Airport with no luck. In Nahant we looked fruitlessly for another Snowy Owl that had been on buoys 15 and 11. In Lynn the funniest incident of the trip occurred. While driving calmly, Ed exclaimed excitedly, "Building 19!" and took a sharp right into a Building 19 parking lot. At this point, I was wondering how Ed's mental health was and why he wanted to go to Building 19 while birding. It turned out I had not been reading my MassBird carefully. Recently, Short Eared Owls had been seen there. After spending a long enough time behind Building 19 — three and a half minutes — we had not seen any owls so we headed for Flax Pond in Lynn. There were supposed to be good ducks at Flax Pond. The people who saw the birds reported them from a playground, so Ed and I found a playground on a map (the wrong playground we found out later) and went there. The problem was all we saw was ice. We thought the people seeing ducks here must have been crazy until we drove around to the other side of Flax Pond. There we found another playground (the right one) near open water. In the open water there were many ducks and gulls. The highlights were three American Coot, five Ruddy Ducks, and more than twenty Lesser Scaup. It was 2:30 p.m. by then so we hightailed it to Cape Ann.




Part of a page from David's notebook

When we reached Cape Ann, Ed and I headed straight for Atlantic Road, East Gloucester. Nothing was going to stop us from trying to see the Atlantic Puffin reported on MassBird the previous day, except that Ed desperately needed gas. After stopping for gas, we continued on to Atlantic Road looking for any alcids or birders. Nearing the end of Atlantic Road, we started to get worried because we weren't seeing any birders either with the puffin or without it. Ed and I decided to try Dog Bar Breakwater. As

he was pulling into Eastern point, I spotted a birder at Niles Beach taking out her scope. We turned around and went to see what she was seeing. She hadn't seen anything there, but she had had the puffin a few hours earlier at the breakwater. After thanking, her we traveled down to Dog Bar Breakwater as fast as the many speed bumps would let us. On the way we ran into two birders who had just been at the breakwater and hadn't seen the puffin. Not a good sign, I thought. When we got there, two people had the bird!

It was right there! I first saw the puffin through another birder's scope. It was so close, though, that a scope wasn't even necessary. With binos you could easily see its massive, comical, orange bill. The puffin was very cooperative. It was staying within fifty feet of the shore most of the time, and just hanging out on the surface for up to five minutes at a time. Although watching the puffin was most interesting when it was entirely above the water, observing it dive was also very interesting. First, the puffin would spread its wings. Then it would tip its head down like a dabbling duck and just slide its body into the water. And it happened so fast, if you blinked, you missed it. The fact that Atlantic Puffins are so rare also made everything about this one more exciting.

Near the breakwater there were many other birds. Three Black Guillemots in breeding plumage and a drake Barrow's Goldeneye were found with a raft of Common Goldeneyes. Most of the other common sea ducks were seen also. Any other day many people would have watched these birds, but today the guillemots were practically ignored, and the Barrow's Goldeneye was only watched for the few minutes when the puffin was underwater.

I had a really memorable day getting killer looks at a life bird rarely seen in Massachusetts, and it wasn't even in a roaring nor'easter. Although we didn't accomplish our goal for the trip, to find Red-throated Loon and Red-necked Grebe for Ed's year list, I think the puffin made up for that. 

David Allen, eleven, is a fifth grader at Wilson Middle School in Natick, Massachusetts. David has been birding since he was seven years old when his interest in hawks extended to birds of all kinds. He has been birding in Vermont, New Hampshire, Maine, Massachusetts, Rhode Island, New York, Florida, and the Bahamas. David also plays sweeper for his soccer team, the Natick Warriors. His other hobbies include painting and drawing (birds, what else?), reading, and skiing.



FIELD NOTES

Drakes are From Mars; Hens are from Venus

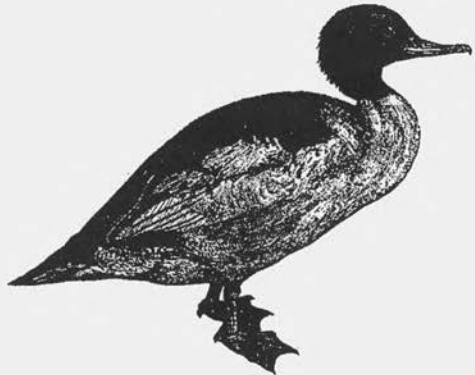
Paul Roberts

On March 20, I had one of my more memorable birding experiences on the Mystic Lakes in Medford, not including the Bald Eagle seen a few days before. I went to the lakes early to look for the eagle, but did not see it. The crows may have, because around 7:15 a.m. there was raucous crow cawing from over the ridge to the west of the lake, but the eagle never made an appearance.

I walked to the Upper Lake to look at the ducks in the gorgeous morning light, and found fifty or so Common Mergansers swimming around in small groups, along with a few Ring-necked Ducks and one drake Wood Duck. The birds were close and spectacular in the brilliant early light. What particularly struck me was a female Common Merganser, who was swimming with a male. She was prone, swimming with her body flat against the water surface. Her tail was splayed on the water, reminding me of female Common Goldeneyes I've seen mating in the spring. Her neck was stretched forward, extremely low, just above the surface of the water, so she looked like a red-billed laser pointer doing her imitation of an Anhinga rather than a duck. I don't recall ever seeing a female Common Merganser behaving like this, or seeing any hen duck pursue a drake aggressively.


What was most amazing was that she was swimming around and around this gorgeous drake Common Merganser. I've often seen coveys of drakes swimming around a hen, each strutting their bodies around typically bored females. On Sunday Renee LaFontaine, David Godine, and I had watched a half dozen drake Commons swirling around a blasé female for at least ten minutes, until they each gave up after eliciting not the slightest hint of interest on her part.

This morning, however, this hen swam alongside an apparently oblivious drake. With her body flattened, she swam circles around him, while he blithely ignored her. I wondered how long she would keep this up. The longer he avoided her, the more intent she appeared, imitating a Wahabbi Anhinga, i.e., a whirling dervish, spinning in place. She would swim alongside and behind him and then cut across his path. She gave him ample indication that she was willing, but he was clearly not. This went on for over fifteen minutes. I was getting ready to call it quits when, suddenly, the drake swirled around behind the hen, grabbed her crest in his bill, and mounted her. Copulation lasted no more



than five seconds, after which the drake continued on a forward course unperturbed, acting as though he had merely done what he had been required to do.

After this conjugal act the hen dunked herself and then reared up on her hind legs and flapped her wings several times, smoking a metaphorical cigarette. She appeared revitalized, energized. He appeared bored and continued his apparent aimless swimming to and fro. They totally ignored each other.

I began to wonder about what I could learn from this experience. I won't go farther here, but I was wondering about that drake. Was he successful because he had been playing so hard to get? What made him so special? Why hadn't other drakes tried to take advantage of the obviously aroused female when the drake she was pursuing ignored her? All those questions remain unanswered, but I enjoyed the drama I had seen on Upper Mystic that morning. 

“Three’s Company”

Joey Mason

For several years I have monitored numerous bluebird nest boxes around various cranberry bogs in Southern Plymouth County, Massachusetts. However, one nest box in particular will always stand out in my mind. During the spring of 2000, three adult bluebirds tended to nine eggs and reared seven young in Carver. This has never happened before with bluebirds during the eleven years that the Cranberry Country Banding Project has been in operation. According to Patricia Adair Gowaty's and Jonathan H. Plissner's account of Eastern bluebirds in *The Birds of North America*, No. 381, 1998, this phenomenon, called polygyny, has happened only five times out “of 4,299 nesting attempts in field seasons 1977-1991” in South Carolina.

I monitored over 130 bluebird nest boxes every week to ten days last year. This nest box monitoring enables me to schedule when I can band the young with U. S. Fish and Wildlife bands. There is a narrow window of a couple of days in which banding can be done with bluebirds, so I have to age them by their visual appearance during these nest checks and come back on the scheduled day to band them.

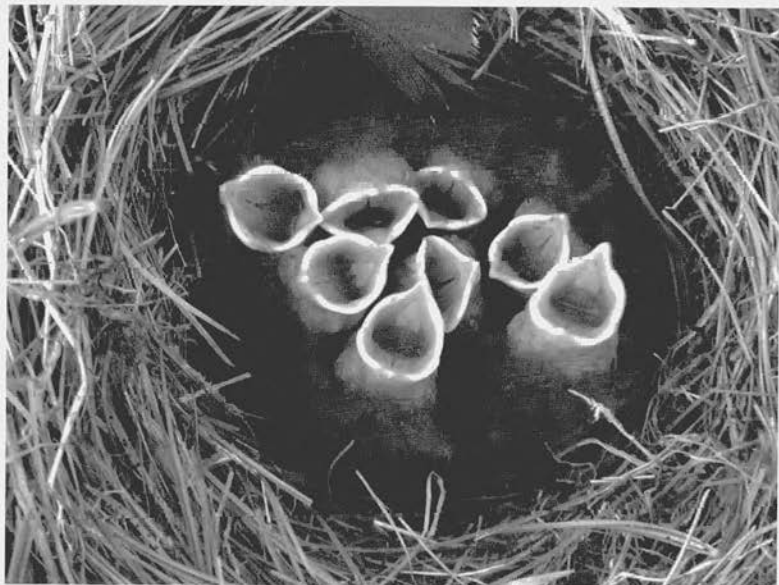
I feel privileged to have permission to access large privately-owned parcels of land and not feel like I am intruding. Most of my visits to the cranberry bogs are after work or on weekends when the bog owners and their help have all gone home. With the problems in the cranberry industry lately, I appreciate it even more for fear that the birds and I will lose this open space to developers. Some growers are forced to sell their land because the price of producing cranberries costs more than what they are getting paid for them.

On May 12, I was doing my routine box checks and thought nothing of four bluebird eggs cupped in a neat nest of pine needles and fine grasses. There were a

couple of pine needle strands on top of the eggs, so I removed the few strands before I closed the box. When I returned on May 20, I was startled to see two bluebirds fly out of the box as I approached. They both appeared dull blue, but it didn't seem possible to have two females in the same box. I opened the box and there were nine blue eggs spread out neatly in a widened nest cup. I could only stay and watch a few minutes to see if the adults were banded. I had more boxes scheduled to check, so I couldn't watch for long. Ten minutes time enabled me to determine there were two unbanded females and one banded male in the immediate area.


On May 27 I was eager to find out what was going on, and the two females flew out of the box again as I approached. I opened the box and saw the nine eggs were still there. I wondered if they'd all hatch. I touched them gently to see if they were all equally warm and they were. I decided that I wouldn't wait a week to recheck the box, so I came back to check it four days later, on May 31.

Bluebird eggs take about fourteen days of incubation. I looked at the date I had first checked the box of four eggs, May 12, and added five days to that. It is said that bluebirds usually lay one egg a day and start incubation when the last egg is laid. Bluebirds can start incubating earlier or later than the last egg laid, but this is a good basis for estimating when the eggs will hatch. Therefore the estimated date that incubation may have started for all nine eggs would be May 17. This would make the estimated hatch date May 31. One female could have started to incubate on May 12, but luck had it that on May 31 there were eight young, ranging from just hatched to one day of age, and one egg. I came back briefly to take pictures two days later, and all eight mouths opened wide for the picture-taking when I did my imitation bluebird call. Another visit on June 8 had me worried because the young seemed hungrier than they should have been, but with all the rainy weather, I wasn't surprised. Also, there

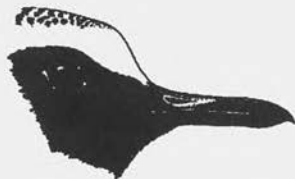
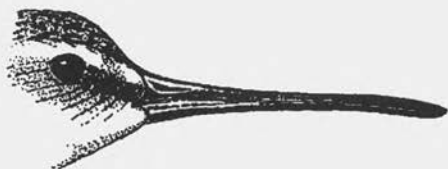


Photograph by the author

were three adults bringing food instead of the usual four adults for this number of young, so that may have added to the stress the young were undergoing. The ninth egg and one chick had disappeared, but there are only guesses as to what happened to them.

I banded the seven young on June 10. On June 17, I could make out that there were five young left. I was very careful not to disturb them. The others must have fledged, and disturbance of the remaining five at this time of development could pre-fledge them. When I came back on June 23 the pine needle cup, now flat, was empty of all its inhabitants, so I cleaned it out for the next nesting. Although I did not witness the young fledge, there was no reason to think that they hadn't made it out safely. In July, four more eggs were laid in this same box, and I couldn't help but wish there would be another five eggs laid in addition. However, that didn't happen, but at least there is the memory. 

Alternate Image Quiz:



Can you name these birds, and where you might find them together?
Answers will appear in the next issue.

Drawing by George West

ABOUT BOOKS

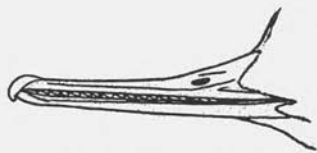
A Bird Guide of a Different Kind

Karsten E. Hartel

Mark Lynch's history of field guides in *Bird Observer* (February 2001) made me remember a two-volume paperbound set that my father found in a used book store and gave to me. This was three years after I received my first Peterson for Christmas in 1955. After a short search in the basement, I found the books: a second edition of Charles B. Cory's *The Birds of Eastern North America* published in 1900 in Boston by Bay State Publishers.

Volume one is devoted to water birds and the second volume to land birds. Together the two volumes total 380 pages.

These volumes represent the antithesis of a Peterson field guide, and maybe that was why I remember using them often and for different reasons than the Peterson. Cory's illustrations of heads and whole birds, not even comparable to Peterson's, were stilted composites of worked-over photographs or gray-tone washes of mounted



Merganser serrator.

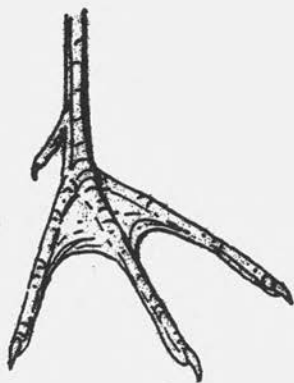
specimens. However, what I found most fascinating were the detailed pen and ink line-drawings of body parts! Wow, I could see the tube nose on tube-noses, the comb-like edges on the inner side of the middle toe of herons, the serrations on a merganser's bill, and details of the toe webbing or lack thereof in *Calidris* species that Cory placed in five genera. Because the

volumes are loaded with nomenclature, both anatomical and systematic, something about them appealed to my sense of detail.

Cory's 9 1/4 x 7 1/4 format was essentially filled with keys, as we know them today. These were informational couplets that separated different taxa at various levels, to be used when one had the bird in hand. Similar species could be separated based on one or two characters. For example the "Esquimaux" Curlew could be told from the Hudsonian Curlew by the lack of barring on the axillars, and the Long-billed or Sickle-billed Curlew from the Hudsonian by the color of the axillars and the fact that the bill was usually over four inches in length. Using facts like these, Cory covers most of the bird species from east of the ninetieth meridian. That meridian is close to the hundredth meridian that Peterson used for his Eastern Guide. Maybe it was really Cory's idea to split the country's birds into east and west!


Charles Barney Cory (1857-1921), a native Bostonian, entered Harvard in 1876, but left in 1877 to travel and collect. While at Harvard, he came under the influence of J.A. Allen and William Brewster. He published several major works on the birds of the Caribbean and then on the birds of Illinois and Wisconsin. After his death, the





Ereunetes pusillus.
(Foot.)

final volumes of his massive work, *Catalogue of Birds of the Americas*, were completed by Hellmayer and Conover. Cory was curator at the Field Museum of Natural History and Vice President of AOU. He was a member of the Nuttall Ornithological Club from 1876 to 1909. Edward Gruson (1972) calls him a "blithe spirit" of American ornithology because he was a wit, raconteur, ballroom dancer, sportsman, songwriter, and outstanding field and museum naturalist. In addition to a number of other species, Cory described *Calonectes diomedea* in the Bulletin of the Nuttall Club in 1880, and the species is now called Cory's Shearwater.

Cory's guides were published well before Griscom and Peterson's time, but I have a feeling that both authors used Cory's popular works in formulating their ideas and skills in field identification. Certainly, Cory's popular works grew out of many museum-based technical works that also form the backbone of today's field guides and bird-banding manuals. 

References:

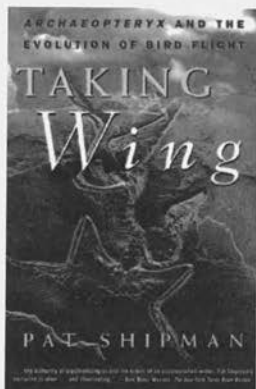
- Cory, C. B. 1900. *The Birds of Eastern North America Known to Occur East of the Ninetieth Meridian. Part 1. Water Birds. Key to families and species.* 2nd Ed. Boston: Bay State Publishers.
- Cory, C. B. 1900. *The Birds of Eastern North America Known to Occur East of the Ninetieth Meridian. Part 2. Land Birds. Key to families and species.* 2nd Ed. Boston: Bay State Publishers.
- Field Museum of Natural History. 1918-1949. *Catalogue of Birds of the Americas and the Adjacent Islands in Field Museum of Natural History* by Charles E. Hellmayer and Boardman Conover. Field Museum of Natural History, Chicago. Part 1 by Charles E. Hellmayer and Boardman Conover; parts 2-3 by Charles B. Cory (Part 3, revised and continued by C.E. Hellmayer); pts. 4-5 initiated by Charles B. Cory, continued by Charles E. Hellmayer; Parts 6-11 by Charles E. Hellmayer.
- Gruson, S.E. 1972. *Words for birds. A Lexicon of North American Birds with Biographical Notes.* Quadrangle Books, New York.
- Lynch, M.L. 2001. A task of no small difficulty: A critical history of the North American Field Guide. *Bird Observer* 29 (1): 47-56.

Karsten E. Hartel is a Curatorial Associate in Ichthyology at the Harvard Museum of Comparative Zoology and has collected fishes (and done some birding) all over the world. He is the lead author of an upcoming book Inland Fishes of Massachusetts (in press) to be published by the Massachusetts Audubon Society. When not at sea, he resides in Arlington, MA.

Taking Wing: Archaeopteryx and the Evolution of Bird Flight

William E. Davis, Jr.

Taking Wing: Archaeopteryx and the Evolution of Bird Flight by Pat Shipman. 1998. New York: Simon & Schuster. 336 pages with 77 black-and-white photographs and drawings. \$25 (hardcover), \$15.00 (Touchstone paperback, 1999).



In recent years a deluge of new fossil bird and dinosaur discoveries, particularly in China, has rekindled the debate over the origin and evolution of birds and flight that dates back to the 1860s. This has been highlighted by a flaring of contentiousness among advocates of one theory or another (a pattern that also dates to the nineteenth century), a series of books on the subject, and most recently (February 1999), an international symposium at Yale University titled *New Perspectives on the Origin and Evolution of Birds*.

Pat Shipman has written a book for a general audience that summarizes these recent events (except for some that have occurred since the book went to press). Shipman puts them into a historical perspective built around the "urvogel," or "original bird," *Archaeopteryx*. The first chapter relates the *Archaeopteryx* discoveries, beginning with the first fossil feather impression in 1860, the first skeleton discovered a year later, to, most recently, the seventh skeleton unearthed in 1992. This is a wonderful historical account that documents the impact these discoveries had on the furor over Darwin's then new theory of evolution through natural selection, and the excitement and human drama surrounding John Ostrom's 1970 discovery that a fossil found in 1855, and incorrectly identified, was in fact a specimen of *Archaeopteryx*.


The next two easy-to-understand chapters, "What's the Flap?" and "Flight Plan," deal with the physics of flight, the bone and muscle adaptations for flight in birds, and a brief history of human attempts to fly. Also discussed is the shift of modern paleontology from the study of "lumps of petrified bone" to paleobiology, new classification approaches (e.g., cladistics), and biomechanics.

In chapter four, "Nesting Sites," Shipman begins with a discussion of the definition of "bird." This leads into a maze of bird and birdlike fossils, and nests with young dinosaurs that suggest a more complex level of social behavior for dinosaurs than was formerly thought. Shipman also describes theories of the evolution of birds from reptilian ancestors and the paleontologists who defend one theory or another. The next two chapters explore some of the issues that divide the proponents of the two major theories of the evolution of birds. One theory, that birds evolved from theropod dinosaurs, is supported by most dinosaur paleontologists. The other, which suggests that birds evolved from more generalized, much earlier reptilian stock, is

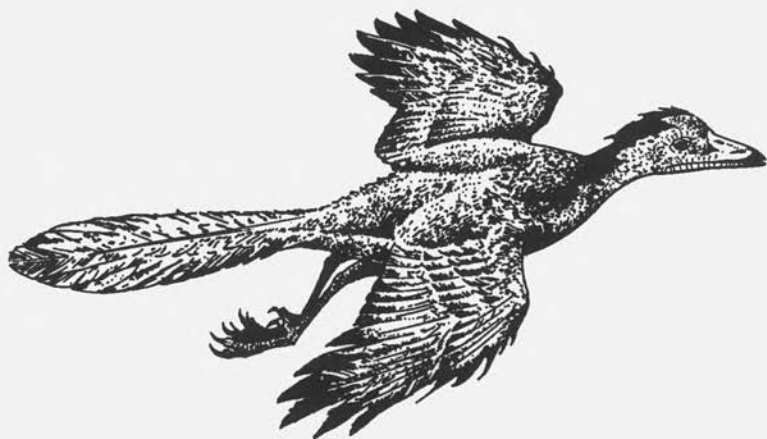
supported by most avian paleontologists and ornithologists. The debate centers on whether similarities in anatomy are the result of close relationship, indicating a common descent, or a similarity in function, i.e., structures that have evolved to perform similar functions in animals that are not closely related. An example of the latter is the bill of a duck and the analogous structure of a duck-billed platypus. The chapters "A Bird in the Hand" and "On the Wing" explore the debate over the evolution of the bones of the wrist, hand, ankle, and foot of *Archaeopteryx*, and the whether feathers first evolved for flight or for controlling body temperature.

Then follow two chapters that detail the arguments about whether birds evolved from the "trees down" or from the "ground up." The former concept envisions an evolutionary sequence of arboreal creatures jumping, parachuting, gliding, and finally developing flapping (powered) flight. The latter theory postulates bipedal, cursorial (running) dinosaurs that evolved feathers for thermoregulation, and followed an evolutionary sequence from jumping from the ground to flapping flight.

The final chapters deal with comparisons of flight and its evolution in birds, bats, and pterosaurs. Included is an analysis of the flight capabilities of *Archaeopteryx* and the author's conclusions about *Archaeopteryx* and its evolution (I won't spoil it by revealing the ending). One thing is certain: all the answers aren't in, and new fossil finds, some since this book was published, give great promise for eventually settling some of the major debates.

This is a beautifully written book that masterfully reduces the scientific jargon and enormous complexities of paleontological argumentation to writing that is clear, concise, readable, and enjoyable. Anyone with interests in dinosaurs, fossils, evolution, history — or birds — should have a copy of this book. 

William E. Davis, Jr., a member of the Bird Observer staff, selects the cover art for each issue and describes the depicted bird in an essay (About the Cover Bird). He recently donated his massive library to the Cornell Laboratory of Ornithology.



BIRD SIGHTINGS

JANUARY/FEBRUARY 2001

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

January was on the mild side, with an average temperature in Boston of 29.9 degrees, 1.3 degrees above normal. The high was only 44 degrees in Boston on the thirty-first, a very cool January high, tied with 1956 as the second coldest in 131 years. The low was 12 degrees on January 10. New Year's Day was bright and sunny throughout the state and afforded a great start for the new year list. Rainfall totaled 1.67 inches, 1.92 inches under normal. This was the driest January since 1989 and the thirteenth driest in 131 years. Snowfall, on the other hand, totaled 12.4 inches in Boston, slightly under the average. Central Massachusetts to the Berkshires had considerably more snowfall. The state was mostly snow-covered all month. Black ice caused slippery and hazardous road and walkway conditions on several mornings, especially on January 5 and 25. February was also mild, with above-normal sunshine. The temperature averaged 31.8 degrees in Boston, 1.5 degrees above average. Precipitation totaled 1.39 inches, 2.23 inches less than normal rainfall for Boston. Snowfall continued to dominate west of Interstate 495, while Boston recorded 9.8 inches, 1.5 inches below normal. In many suburbs depths of over a foot were recorded by February 5 and remained nearly all month. The snowstorm on February 5-6 was heavy and wet, causing many downed limbs, particularly on white pines. R.H.S.

LOONS THROUGH ALCIDS

The usual triumvirate of rare loon and grebes was reported during the period. A well-described and sketched **Pacific Loon** was discovered along the Rowley Shore section of Gloucester on January 18. The resident **Eared Grebe** remained camped in Gloucester Harbor throughout January and February, while a **Western Grebe** was a one-day wonder off the beach at Salisbury January 14. The latter, somewhat distantly seen, first on the water and then in flight northbound, could not be differentiated from Clark's Grebe; however, Clark's would be much less likely in our area.

It seems to be a safe prediction that Black Vulture is on the verge of establishing itself as a regular, if not quite yet common, addition to the monthly records reports at all seasons, including winter. This winter singles were observed at Marion and Sheffield. Black Vulture was only recently found nesting in Massachusetts in the Blue Hills just south of Boston in 1998. More breeding records should be anticipated, particularly in the Sheffield area, in the extreme southwestern corner of the state, where the species has been most regular in spring and summer. At their Westport winter stronghold, thirty-one Turkey Vultures were counted flying into roost at the piggery January 28. Early migrant Turkey Vultures were noted northbound in many areas throughout the state by mid-February, despite the heavy snow cover in most inland areas.

Two long-staying adult **Greater White-fronted Geese** were present in Fairhaven during February, where a single bird had been seen back in November. Based on belly markings and bill color, both these birds gave indications of being the expected Greenland race *flavirostris*. The wintering flock of Snow Geese successfully negotiated the tough winter at Newburyport, and still numbered at least sixty-nine birds, including a first-winter blue morph, in late February. This is the first such flock ever to winter in the state. An additional thirty-one Snow Geese at fourteen other locations, nearly all during January and including a number in western

Massachusetts, was also remarkable. Nearly all of these disappeared during February, however. Apparently the expanding and increasing population of Snow Geese, throughout its range, has induced flocks to search for new potential wintering sites. On Cape Ann seven King Eiders were tallied on January 23, including a flock of five at Bass Rocks. A tour of Cape Ann produced ninety-one Harlequin Ducks, while fifty-five were counted at the traditional Squibnocket, Martha's Vineyard site. Forty-three Harlequins on February 2 may have been a new high for Nantucket. Observers on a ferry crossing from Hyannis to Nantucket on January 6, a little more than midway across Nantucket Sound, encountered a massive concentration of scoters, and made best effort estimates of 30,000 Surf and 9,000 Black, but only about 650 White-winged. February counts of 471 American Wigeon in Somerset and 230 Northern Pintails in Westport were noteworthy. Recently split from Green-winged Teal by the British Ornithologists' Union, a **Eurasian Teal** *Anas crecca (crecca)*, a rare but regular spring migrant in the state, was found in Scituate near the end of February.

Reports totaled forty-one Bald Eagles for the period, including ten found along the Merrimack on February 27. One of these, an immature with a numbered yellow band, was banded near Bondsville, south of the Quabbin, five months earlier. Cooper's Hawks are now as common, if not more common, than Sharp-shinned Hawks in winter in Massachusetts, with thirty-three individuals reported and many more not reported. It was another excellent winter for Rough-legged Hawks, the second year in a row. Birds were found throughout the state, but the majority, as usual, were concentrated around coastal salt marshes, particularly in Essex County. None were located on Cape Cod, where reports of this raptor seem to have diminished in recent years.

An itinerant **Purple Gallinule**, a redundancy when mentioning this species given its proclivity to wander, was picked up and brought to the Felix Neck Wildlife Sanctuary on Martha's Vineyard for recuperation on January 1. Following a very poor fall flight, forty-eight American Coot nevertheless ended up residing at Spy Pond in Arlington, a traditional wintering site for this species. A **Sandhill Crane** appeared in Fairhaven at the end of January and remained throughout the period. Very likely this was a returning individual, since three cranes were present in this same vicinity last winter. This species has steadily increased in the state in recent years, having gone from slightly less than annual, to several records and even multiple individuals per season.

A few returning Killdeer and American Woodcock were already being noted in several areas by the end of February. One-hundred and thirty Ruddy Turnstones at the southern tip of West Island in Fairhaven February 3 was an exceptional count, perhaps the largest winter flock ever noted in the state. More than 800 Sanderlings and 1800 Dunlins still lingered at South Beach in Chatham in late January. A **Western Sandpiper** was a good find among these masses of shorebirds at South Beach on January 27, establishing a late date for this species in Massachusetts. Although the details were scant, this is certainly the most expected of the small *Calidris* "peep" sandpipers to be here in midwinter. The rocky shoreline and offshore ledges of North Scituate have always been a favored locality for Purple Sandpiper in Massachusetts. Five-hundred and twenty counted on January 26 was only slightly below the highest tallies made there over the past several decades.

In the vicinity of the previously described mass of scoters in Nantucket Sound on January 6, a second-winter to adult **Pomarine Jaeger** was also discovered. Apparently this constitutes the latest record for Massachusetts waters, although it is certainly the most likely jaeger species here in winter, since at least small numbers are regularly known to winter as far north as the waters off North Carolina. Parasitic Jaeger, by contrast, migrates much farther south, and on an earlier timetable, and normally winters in the southern hemisphere.

The impressive concentration of gulls at Low Beach on the southeast corner of Nantucket continued from late December throughout much of the period. Among the several thousand Herring Gulls and at least fifteen Lesser Black-backed Gulls present came a report of one, to perhaps as many as three, **Yellow-legged Gulls** *Larus michahellis*. First reported and described by the observers in late December, this species breeds in southern Europe along the coast of Iberia and in the Mediterranean (subspecies *michahellis*), and on Atlantic islands at the Azores, Madeira, and Canary Islands (*atlantis*). Sight records of birds believed to be Yellow-legged Gulls have occurred up and down the east coast from North Carolina to Newfoundland, including several photographed, and a specimen, probably pertaining to *atlantis*, was obtained from Magdalen Island, Quebec, in 1983. Confusing the Nantucket situation considerably, or at least making it more interesting, a second party of observers who journeyed to Low Beach on January 4, in search of the Yellow-legged Gull, studied and photographed a putative hybrid Herring x Lesser Black-backed Gull, a form that shares many features with Yellow-legged Gull. Indeed these darkish-mantled, yellow-legged Herring-type gulls are a major identification challenge, even for gull experts. The record is currently under review by the Massachusetts Avian Records Committee.

Other gulls present in the Nantucket spectacle were up to six Little Gulls, 7000 Bonaparte's, and forty-five Iceland Gulls. On the North Shore, Iceland Gulls have steadily declined since the late 1970s and 1980s, particularly at Cape Ann, where they were often common in late winter. During that period, counts of 25-100 birds per day were not unexpected. By comparison, in the last five winter seasons there have been no counts from Cape Ann exceeding five individuals. It seems likely that the decline of the local fisheries and/or the closing of adjacent landfills since that time has led to these local declines as it has for other big gulls as well. Although regular as far north as Boston Harbor in early winter, a Laughing Gull at Rockport was a late surprise January 5. An adult **Mew Gull** of the expected European race *canus* performed well for more than a week in mid-February at Flax Pond in Lynn, where at times it fed on handouts with the numerous Ring-billed Gulls at thirty feet. Another Mew Gull, sans details, was reported from South Boston in early January.

Normally very scarce after December, but following a moderate flight back in the fall, small numbers of Dovekies were still being reported throughout the period at Cape Ann, and a single bird was a good find at Edgartown on February 16. Very large concentrations of Razorbills were observed at the east end of Nantucket in early January, and around the tip of Cape Cod in the waters off Provincetown and Truro in February. Common Murres, while not quite yet common, certainly seem to be increasing, with a total of sixteen birds being reported from seven locations, including a record six for Andrew's Point in Rockport during a nor'easter February 5. Observations of Thick-billed Murres increased during the month of February. Peak counts of this species along the Massachusetts coast, particularly at Cape Ann, almost always occur during the late winter. Four **Atlantic Puffins** were discovered, all at Cape Ann, including a very cooperative, and much enjoyed bird photographed at Eastern Point on January 3. R.S.H.

Red-throated Loon			1/17	Salem-Lynn	41	R. Heil	
1/7, 2/4	Boston H.	5, 20	TASL (M. Hall)	2/11	Sandwich	21	M. Lynch#
1/7	Nantucket	30+	R. Heil	2/13	P.I.	27	R. Heil
1/17	Plymouth H.	5	M. Faherty	2/25	P'town (R.P.)	25	J. Young
2/4	Chatham (S.B.)	5	P. Flood	Pied-billed Grebe			
2/13	P.I.	17	R. Heil	1/4	Nantucket	1	W. Petersen#
2/25	P'town (R.P.)	25	J. Young	1/11	Watertown	1	E. Nelson-Melby
Pacific Loon (details submitted)*				2/22	Chicopee	1	H. Allen
1/18	Gloucester	1	J. Smith#	2/27	Lakeville	1	K. Anderson
Common Loon				Horned Grebe			
1/4	Cape Ann	9	J. Berry	1/7, 2/4	Boston H.	73, 231	TASL (M. Hall)
1/6	Nant. Sound	83	R. Heil	1/7	S. Quabbin	1	T. Gagnon
1/7, 2/4	Boston H.	14, 13	TASL (M. Hall)	1/17	Salem-Lynn	77	R. Heil
1/14	Quabbin (G43)	3	C. Buelow	1/17	Plymouth H.	14	M. Faherty
1/17	Plymouth H.	18	M. Faherty	1/18, 2/20	Quincy	15, 10	R. Titus

Horned Grebe (continued)								
2/3	Swansea	35			1/5	Chatham	1	J. Kenneally
2/8	Winthrop	38	M. Lynch#		1/13	Cape Ann	1 imm	J. Hoye#
2/13	P.I.	62	R. Heil		1/13	Nantucket	1	BBC (J. Barton)
2/24	Fairhaven	10	R. Heil		1/17	Ellisville H.	1	M. Faherty
2/27	Hull	19	R. Stymeist#		1/18, 2/13	Newbypt.	77, 69 (inc. 1 blue)	R. Heil
			R. Titus		1/28	Westport	1	M. Lynch#
Red-necked Grebe					1/28	Falmouth	3	D. Furbish#
1/7, 2/4	Boston H.	21, 27	TASL (M. Hall)		2/17	Lakeville	1	R. Turner
1/13	Eastham	22	W. Petersen#		1/thr	Chilmark	1	A. Keith
1/17	Salem-Lynn	52	R. Heil		Brant			
1/23	Cape Ann	18	R. Heil		1/7, 2/4	Boston H.	1404, 1437	TASL (M. Hall)
2/8	Winthrop	32	R. Heil		2/2	Plymouth	250	R. Titus#
2/17	Nantucket	44	F. Gallo#		2/3	Swansea	561	M. Lynch#
2/22	N. Scituate	18	R. Titus#		2/3	Barnstable (S.N.)	16	J. Liller
2/24	P'town (R.P.)	60+	C. Ekroth#		2/19	W. Dennis B.	12	CCBC (D. Silverstein)
					2/24	W. Gloucester	30	D. Furbish#
Eared Grebe *								
thr	Gloucester	1	v.o.					
Western Grebe *								
1/14	Salisbury	1	T. Leverich#		1/1	S. Carver	20	K. Anderson#
Northern Gannet					1/7-17	Holyoke	4	B. Bieda#
1/4	Nantucket	12	S. Perkins#		1/20	Marlboro	23	E. Taylor
1/7	Winthrop B.	2	P. + F. Vale		1/28	Westport	53	M. Lynch#
1/21	Eastham (F.E.)	300	T. Raymond		1/31	Medford	10	D. + I. Jewell
1/27, 2/25	N. Truro	35, 79	B. Nikula		2/3	Somerset	42	M. Lynch#
2/5	Rockport (A.P.)	16	R. Heil		2/3	Swansea	45	M. Lynch#
2/17	Nantucket	76	F. Gallo#		2/4	Boston H.	17	TASL (M. Hall)
2/25	P'town	150+	B. Nikula		2/11	Plymouth	19	M. Lynch#
					2/24	Fairhaven	18	R. Stymeist#
Great Cormorant								
1/2	Newbypt.	33	J. Berry		1/4	Waltham	2	J. Forbes
1/7, 2/4	Boston H.	5, 111	TASL (M. Hall)		1/6	Falmouth	1	S. Kellogg#
1/17	Salem-Lynn	170	R. Heil		1/17-2/28	Lynn	2	R. Heil
1/23	Cape Ann	415	R. Heil		2/thr	S. Peabody	2 f	R. Heil
1/27	Chatham (S.B.)	60	R. Donovan#		2/10	Plymouth	1 f	K. Anderson#
1/28	Westport	14	M. Lynch#		2/19	Westfield	1	S. Kellogg
2/2	N. Scituate	248	R. Titus#		2/23	Springfield	4	S. Kellogg
2/2	Haverhill	18	J. Hogan#		2/27	Medford	1 m	M. Rines
2/18	N. Truro	22	B. Nikula		2/27	Haverhill	3	R. Heil
Double-crested Cormorant								
1/1	Worcester	1 imm	M. Lynch#		1/1	Worcester	1 f	M. Lynch#
1/6	Nantucket	1 W	R. Heil		1/4	Gloucester	54	J. Berry
2/1	Westport	1	R. Titus#		1/4	Belmont	2	M. Rines
American Bittern					1/6	Marstons Mills	20	S. Kellogg#
1/17	Fairhaven	1	D. Zimmerlin		1/7	Millbury-Blackstone	2	M. Lynch#
1/21	Eastham (F.H.)	1	T. Raymond		1/18, 2/13	Newbypt.	20, 36	R. Heil
Great Blue Heron					1/20	Woburn	2	M. Rines
1/4	Waltham	2	J. Forbes		1/27	Somerset	50	D. Zimmerlin
1/25	Springfield	1	A. + L. Richardson		2/8	Medford	3	M. Rines
2/3	Plymouth	12	D. + S. Larson		2/14	Salisbury	58	B. Stevens#
2/6	Southwick	1	S. Kellogg		2/22	Plymouth	22	R. Titus#
2/9	Arlington	6	M. Rines		Eurasian Wigeon			
2/23	Longmeadow	1	A. + L. Richardson		1/1-12	E. Harwich	1	B. Nikula
Black-crowned Night-Heron					1/30	Fairhaven	1 m	M. Boucher
1/7	Nantucket	1	R. Heil		2/3	Somerset	1 m	M. Lynch#
1/13	Eastham (F.H.)	1	W. Petersen#		American Wigeon			
Black Vulture					1/1	S. Carver	8	K. Anderson#
1/3	Marion	1	M. LaBossiere		1/2	Newbypt.	2 m	J. Berry
1/6	Bourne	1	Allen Club		1/5	Nantucket	14	S. Wheelock
2/11	Sheffield	1	D. Reid		1/23	Ipswich	2	J. Berry
Turkey Vulture					2/3	Mattapoisit	2	M. Lynch#
1/23	Dartmouth	15	W. Petersen#		2/3	Somerset	471	M. Lynch#
1/28	Westport	31	M. Lynch#		2/8	Medford	2	M. Rines
2/2	Edgartown	4	J. Verner		2/10	Plymouth	3	K. Anderson
2/6	Westfield	3	J. Hutchison		2/17	Nantucket	38	E. Ray
2/11	Sheffield	15	D. Reid		American Black Duck			
2/14	Braintree	2	M. Faherty		1/7, 2/4	Boston H.	966, 1630	TASL (M. Hall)
2/17	Palmer	8	J. Berry		1/17	Plymouth H.	1450	M. Faherty
2/18	Winchester	2	M. Rines		1/18	Newbypt.	1100	R. Heil
2/20	Fairhaven	2	T. Cyder		1/18	Quincy	614	R. Titus
thr	Reports of indiv. from 16 locations				1/28	Acoaxet	599	M. Lynch#
Greater White-fronted Goose					1/28	Westport	762	M. Lynch#
2/1-28	Fairhaven	2 ad	R. Titus + v.o.		2/13	Newbypt.	1200	R. Heil
Snow Goose					2/19	P.I.	994	M. Lynch#
1/1	Northampton	4	T. Gagnon		Mallard			
1/1	Sheffield	8	via R. Laubach		1/1	Worcester	247	M. Lynch#
1/1	Plymouth	3	K. Anderson#		1/7, 2/4	Boston H.	271, 383	TASL (M. Hall)
1/1-11	Hadley	4	S. Sumner		1/7	Millbury-Blackstone	805	M. Lynch#
1/1-15	Marstons Mills	1	v.o.		1/17	Salem-Lynn	610	R. Heil
1/4	DWWS	1	D. Furbish		1/27	Amesbury	375	SSBC (M. Emmons)

Blue-winged Teal				1/31	Gay Head	1 m	A. Keith
2/26	Marshfield	1 f	D. Furbish	2/8	Bourne	1 m 1W	M. LaBossiere
Northern Shoveler				Common Eider			
thr	Boston	5 max	v.o.	1/2	Westport	2500	M. Boucher
1/28	Plymouth	3 m	D. Furbish#	1/7, 2/4	Boston H.	7760, 8903	TASL (M. Hall)
Northern Pintail				1/7	Ipswich	820	BBC (J. Nove)
1/2	Newbypt.	2	J. Berry	1/17	Plymouth H.	2400+	M. Faherty
1/6	Marstons Mills	3	S. Kellogg#	1/17	Salem-Lynn	2570	R. Heil
1/10	Marlboro	11	S. Hennin	2/11	Sandwich	570	M. Lynch#
1/23	Gloucester	4	R. Heil	2/11	Manomet	460	M. Lynch#
1/28	Amherst	3	T. Gagnon	2/12	P'town (R.P.)	700+	P. Flood
2/4	Cumb. Farms	3	M. Faherty	2/13	Fairhaven	1500+	M. Boucher
2/7	Sudbury	5	S. Arena	Harlequin Duck			
2/11	Plymouth	12	M. Lynch#	1/7	Westport	2	T. Raymond
2/13	P.I.	28	R. Heil	1/13	E. Orleans	12	W. Petersen#
2/19	Cummaquid	5	CCBC (D. Silverstein)	1/23	Cape Ann	91	R. Heil
2/19	Westport	230	R. Heil	1/26, 2/22	N. Scituate	2, 5	R. Titus
2/26	Longmeadow	2	A. + L. Richardson	2/2	Squibnocket (M.V.)	55	A. Keith
Green-winged Teal				2/2	Nantucket	43	E. Ray
1/1	Plymouth	1	K. Anderson#	2/4	Weymouth	1	TASL (M. Hall)
1/1	Cambridge	7	M. Rines	2/9	Bourne	2 m	M. LaBossiere
1/1	Worcester	1 m	M. Lynch#	2/11	Manomet	2	M. Lynch#
1/6	Marstons Mills	4	S. Kellogg#	2/26	Minot	9	W. Petersen#
1/7	Nantucket	8	R. Heil	Surf Scoter			
1/28	Tyringham	1	S. Gabel	1/2	Westport	350	M. Boucher
2/15	Revere	3	J. Berry	1/6	Nant. Sound	30,000	R. Heil
2/19	Eastham	7	D. + S. Larson	1/7, 2/4	Boston H.	275, 161	TASL (M. Hall)
2/23	Springfield	3	S. Kellogg	1/13	Rockport	30	J. Berry#
"Eurasian" Green-winged Teal				1/17	Salem-Lynn	200	R. Heil
2/28	Scituate	1	D. Furbish	2/11	Sandwich	30	M. Lynch#
Canvasback				2/11	Manomet	60	M. Lynch#
1/1	Worcester	1	J. Zumpfe#	2/13	Fairhaven	400+	M. Boucher
1/7	Acoaxet	50	D. Zimmerlin	White-winged Scoter			
1/8	Dighton	5 m	R. Titus	1/2	Westport	225	M. Boucher
1/14	Freetown	71	D. Larson	1/6	Nant. Sound	650	R. Heil
2/19	Dennis	40+	CCBC (D. Silverstein)	1/7, 2/4	Boston H.	617, 879	TASL (M. Hall)
2/19	Westport	180	R. Heil	1/17	Salem-Lynn	390	R. Heil
2/19	Falmouth	126	G. d'Entremont	1/23	Cape Ann	245	R. Heil
2/22	Nantucket	47	fide E. Ray	1/27	Ipswich	527	D. Chickering#
2/25	Lakeville	8	Mo. Taylor#	2/3	Fairhaven	606	M. Lynch#
2/27	Amesbury	1 m	R. Shore	2/5	P'town (R.P.)	800	P. Flood
Redhead				2/11	Manomet	80	M. Lynch#
1/1-2/11	Plymouth	1	R. Finch#, v.o.	2/13	P.I.	430	R. Heil
1/17	Whitman	1	M. Faherty	Black Scoter			
2/17	Nantucket	18	F. Gallo#	1/6	Nant. Sound	9000	R. Heil
2/26-28	Medford	3 m	R. LaFontaine#	1/13	E. Orleans	45	W. Petersen#
Ring-necked Duck				1/14	Rockport (A.P.)	8	P. + F. Vale
1/1	Worcester	2	M. Lynch#	1/30	Gloucester	5	J. Soucy
1/1	Sheffield	3	via R. Laubach	2/2	Plymouth	14	D. Furbish#
1/4	Waltham	9	J. Forbes	2/3	Fairhaven	40	BBC (R. Stymeist)
1/6	Gloucester	4	J. Nelson	2/4	Boston H.	1	TASL (M. Hall)
1/6	Halifax	9	W. Petersen#	2/27	Hull	8	R. Titus
1/10	Marlboro	3	S. Hennin	Long-tailed Duck			
1/13-15	Nantucket	20	BBC (J. Barton)	1/4	Nantucket	1000	S. Perkins#
1/20	Framingham	16	K. Hamilton	1/7, 2/4	Boston H.	25, 43	TASL (M. Hall)
2/5	Wayland	12	G. Long	2/2	Plymouth	300+	D. Furbish#
2/14	Hadley	1	M. Taylor	2/3	Fairhaven	60	BBC (R. Stymeist)
2/26	Arlington	10	R. LaFontaine	2/4	Chatham (S.B.)	40	P. Flood
Greater Scaup				2/19	P.I.	58	M. Lynch#
1/5	Worcester	1 m	J. Zumpfe	2/27	Hull	103	R. Titus
1/7, 2/4	Boston H.	961, 1304	TASL (M. Hall)	Bufflehead			
1/7	Gloucester	14	G. d'Entremont	1/1	Brookline	12	E. Taylor
2/1	Fairhaven	400	R. Titus#	1/1	Sheffield	1	via R. Laubach
2/3	Swansea	1230	M. Lynch#	1/4	Waltham	1	J. Forbes
2/19	Falmouth	38	G. d'Entremont	1/7, 2/4	Boston H.	1372, 1619	TASL (M. Hall)
2/20	Quincy	120	R. Titus	1/7	Nantucket	350	R. Heil
Lesser Scaup				1/17	Salem-Lynn	485	R. Heil
1/1	Gloucester	10	R. Heil	1/18	Newbypt.	330	R. Heil
1/7	Westport	50	D. Zimmerlin	1/28	Acoaxet	332	M. Lynch#
1/20	Framingham	1 f	K. Hamilton	2/4	Chatham (S.B.)	275	P. Flood
1/28	Nahant	80+	W. Petersen#	Common Goldeneye			
2/8	Winthrop	10	R. Heil	1/4	Nantucket	250	S. Perkins#
2/18	Lakeville	2	S. Hedman#	1/4	S. Hadley	84	H. Allen
2/21	Lynn	25	R. Heil	1/7, 2/4	Boston H.	864, 1095	TASL (M. Hall)
King Eider				1/8	Dighton	163	R. Titus
1/4	Nahant	1 m	T. Martin#	1/14	Freetown	36	D. Larson
1/7, 17	Hull	1	P. Fitzgerald	1/18, 2/13	Newbypt.	350, 360	R. Heil
1/23	Cape Ann	7	R. Heil	1/20	Framingham	18	K. Hamilton

Common Goldeneye (continued)							
1/26	Turners Falls	33	W. Lafley	1/17	Montague	2 ad	M. Taylor
1/27	Cape Ann	116	BBC (L. Ferraroso)	1/21	Arlington	1 ad	M. Rines
1/28	Westport	269	M. Lynch#	1/29	Sunderland	2 ad	R. Ranney
2/1	Fairhaven	498	R. Titus#	2/1-18	M.V.	1 ad	S. Murphy
2/3	Swansea	234	M. Lynch#	2/3	Fairhaven	1 imm	M. Lynch#
Barrow's Goldeneye				2/11	S. Quabbin	7	T. Gagnon
thr	Newbypt.	1-2	v.o.	2/14	Lowell	2 ad, 1 imm	M. Dumas
1/1	Gloucester	1 m	P. Vale#	2/15	Lakeville	1 ad	D. Larson
1/6	Falmouth	2	S. Kellogg#	2/18	Concord (NAC)	1 1W	M. Lynch#
1/7	Winthrop B.	2 m	TASL (P. + F. Vale)	2/21	Shrewsbury	1	L. Sherman
1/7	Quincy	1 m	TASL (D. Larson)	2/24	Hadley	1 ad	I. Dukovski
1/7-24	Holyoke	1	B. Bieda#	2/26	Melrose	1 ad	D. + I. Jewell
1/11	Orleans	1 m	E. Labato#	2/27	Haverhill-Newbypt.	10	R. Heil
1/11-14	S. Orleans	1	E. Labato#	Northern Harrier			
1/26	Swansea	2	R. Farrell	thr	DWWS	13 max	D. Furbish
2/3	Fairhaven	1 m	M. Lynch#	1/2	Westport	2	M. Boucher
2/3	Ipswich	1 m	D. Chickering#	1/10	Quincy	1 ad m	R. Titus
2/4	West Chop (M.V.)	1	V. Laux#	1/13	P.I.	7	S. + L. Hennin
2/4	Boston H.	2	TASL (M. Hall)	1/14	Rowley	3	J. Berry
2/17	Nantucket	5	F. Gallo#	1/17	Salisbury	4	M. Daley
2/24	Sunderland	1 m	I. Dukovski	1/20	Gloucester	1 BBC (W. Drummond)	
Hooded Merganser				1/21	Cumb. Farms	9	W. Petersen
1/1	S. Carver	5 m	K. Anderson#	1/22	Ipswich	2	J. Berry
1/1	Boston	13	G. d'Entremont	1/26	Scutuate H.	1	R. Titus
1/4	Waltham	10	J. Forbes	1/28	Salisbury	4 BBC (W. Drummond)	
1/7	Millbury-Blackstone	19	M. Lynch#	1/29	Essex-Salisbury	14	R. Heil
1/7	P.I.	7	J. Nelson	2/12	Fairhaven	2	M. Boucher
1/7	Nantucket	20	R. Heil	2/13	Newbypt.	7	R. Heil
1/13	Eastham (F.H.)	50	W. Petersen#	2/18	Revere	1	M. Lynch#
1/17	Holyoke	3	S. Kellogg	2/18	Winthrop	2	M. Lynch#
1/20	Framingham	18	K. Hamilton	2/27	W. Newbury	2	R. Heil
2/11	Plymouth	35	M. Lynch#	Sharp-shinned Hawk			
2/17	Wakefield	11	P. + F. Vale	1/7	Nahant	2	R. Stymeist#
2/18	Lakeville	11	K. Anderson	1/29	Essex	pr ad	R. Heil
2/19	Westfield	3	S. Kellogg	2/3	Plymouth	2	D. + S. Larson
2/24	Wareham	24	M. Boucher	2/24	Fairhaven	2	R. Stymeist#
2/27	Haverhill	8	R. Heil	thr	Reports of indiv. from 27 locations		
Red-breasted Merganser				Cooper's Hawk			
1/4	Cape Ann	158	J. Berry	2/18	Fairhaven	2	S. Hedman#
1/7, 2/4	Boston H.	677, 782	TASL (M. Hall)	thr	Reports of indiv. from 31 locations		
1/14, 2/25	N. Truro	800, 1200	B. Nikula	Northern Goshawk			
1/28	Westport	112	M. Lynch#	1/1	Gill	1	W. Lafley
2/3	Fairhaven	124	M. Lynch#	1/6	Windsor	1 ad	T. Gagnon
2/4	Chatham (S.B.)	330	P. Flood	1/17	Pepperell	1 ad	M. Resch
2/4	P'town (R.P.)	2000	B. Nikula	1/20	Ashfield	1	J. Hove#
2/9	Arlington	4	B. Krisler	1/24	Windsor	1	H. Allen
2/11	Sandwich	102	M. Lynch#	1/30	Fairhaven	1	M. Boucher
2/25	P'town	450	B. Nikula	2/2	E. Middleboro	1	R. Lee
Common Merganser				2/9	Halifax	1 ad	D. Furbish#
1/4	Waltham	30	J. Forbes	2/19	Ashfield	1 ad	V. Yurkunas#
1/6	Hadley	15+	M. Williams	2/21	DWWS	1	S. Noonan#
1/7	Millbury-Blackstone	19	M. Lynch#	Red-shouldered Hawk			
1/20	Framingham	42	K. Hamilton	thr	E. Middleboro	1-2	K. Anderson
1/28	Westport	50	M. Lynch#	1/1	Fairhaven	1	D. Zimmerlin
2/4	Fairhaven	40	D. Furbish#	1/11	Framingham	1 ad	L. Nachtrab
2/4	N. Truro	58	B. Nikula	1/14	Stoughton	1	D. Larson
2/11	Plymouth	52	M. Lynch#	1/28	Swansea	1	M. Lynch#
2/21	Cambridge (F.P.)	26	J. Damian	2/thr	DWWS	2	D. Furbish
2/26	Halifax	48	K. Anderson	2/14	Lincoln	1	M. Rines
2/27	Lawrence-Newbypt.	202	R. Heil	2/16	Easton	1 ad	R. Titus
2/28	Duxbury	23	N. Swirka	2/18	Lakeville	1	K. Anderson
2/28	Belmont	45	B. Miller	2/19	Westport	2 ad	R. Heil
Ruddy Duck				2/21	Avon	1	R. Titus
1/1	Gloucester	7	R. Heil	2/23	Hanover	1	W. Petersen
1/7	Boston H.	46	TASL (M. Hall)	2/25	Eastham (F.H.)	1 ad	G. Martin
1/7	Westport	2	D. Zimmerlin	2/26	Norwell	1	B. Litchfield
1/17	Nahant	228	R. Heil	Red-tailed Hawk			
2/4	Boston H.	56	TASL (M. Hall)	1/14	Boston	8	R. Stymeist#
2/24	Gloucester	12	D. Furbish#	1/28	Westport	8	M. Lynch#
Bald Eagle				1/29	Essex to Salisbury	39	R. Heil
1/3	Bradford	1 ad	C. Norris#	2/27	Lawrence to Newbypt.	19	R. Heil
1/6	Northampton	1 ad	J. Hove#	Rough-legged Hawk			
1/7	Westport	3 ad	D. Zimmerlin	thr	DWWS	7 max	D. Furbish
1/8	Assonet	1 ad	R. Titus	1/8, 23	GMNWR	2 lt, 1dk	M. Rines
1/12	Wachusett Res. (G23)	1 imm	J. Zumpfe#	1/16, 20	Dedham	1 dk, 1lt	A. Joslin
1/14	Dighton	1 2W	D. Larson	1/21	Cumb. Farms	2	K. Anderson#
1/15	Lawrence	1 imm	S. Hennin#	1/28	W. Bridgewater	1 dk, 1 lt	M. Faherty#
				1/29	Essex to Salisbury	14	R. Heil

Rough-legged Hawk (continued)				Sandhill Crane			
2/3	Fairhaven	2	M. Lynch#	1/27-2/31	Fairhaven	1 ad	D. Zimberlin + v.o.
2/13	Newbypt./P.I.	10 lt	R. Heil	Black-bellied Plover			
2/22	Beverly	1 lt	R. Heil	1/5	Nantucket	2	S. Wheelock
thr	Reports of indiv. from 14 loc. statewide			Killdeer			
Golden Eagle				1/1	Orleans	1	B. Nikula
1/20	Savoy	1	M. Lynch#	1/7	Nantucket	1	R. Heil
2/10	Pelham	1 ad	M. Lynch#	2/3	Plymouth	1	D. + S. Larson
American Kestrel				2/13	Fairhaven	2	M. Boucher
1/29	Newbury	2	R. Heil	2/20	Newbypt.	1	D. + I. Jewell
2/10	Salisbury	2	BBC (L. delaFlor)	2/20	Chilmark	1	A. Keith
thr	Reports of indiv. from 18 locations			2/24	Northbridge	1	S. Jordan
Merlin				Ruddy Turnstone			
1/7	Nantucket	3	R. Heil	1/5	Nantucket	30	S. Wheelock
thr	Reports of indiv. from 25 locations			1/6	Sandwich	1	S. Kellogg#
Peregrine Falcon				1/26	N. Scituate	4	R. Titus
1/1	Worcester	1 ad	M. Lynch#	1/27	Chatham (S.B.)	3	R. Donovan#
1/1	P.I.	1	D. + S. Larson	2/3	Fairhaven	130	BBC (R. Stymeist)
1/4	Shutesbury	1	W. Laflay	2/4	Boston H.	7	TASL (M. Hall)
1/9-16	Springfield	2	M. Williams#	2/7	Gloucester (B.R.)	1	D. Larson
1/11	Amherst	2	C. Holzapfel	Red Knot			
1/13	Eastham (F.H.)	1	W. Petersen#	1/27	Chatham (S.B.)	3	R. Donovan#
1/13-15	Nantucket	2	BBC (J. Barton)	2/1	P.I.	6	D. Chickering#
1/14	Newbypt.	1 imm	D. + I. Jewell	2/3	Fairhaven	1	M. Lynch#
1/23	Westport	2	D. Larson#	2/9	Cohasset	14	R. Titus#
1/24	Melrose	1 ad	D. + I. Jewell	2/thr	Katama	1	A. Keith# + v.o.
1/28	Salisbury	1 ad	P. Roberts	Sanderling			
1/28	Dorchester	1	R. Donovan#	1/4	Nantucket	300	S. Perkins#
2/4	Revere	1	R. Stymeist#	1/7, 2/4	Boston H.	142, 380	TASL (M. Hall)
2/15	Hadley	1	I. Dukovski	1/17	Plymouth H.	100+	M. Faherty
2/16	Lawrence	1 ad	J. Hogan	1/18	Quincy	44	R. Titus#
2/16	Boston (Logan)	2	N. Smith	1/27	P.I.	33	SSBC (M. Emmons)
2/17	Fairhaven	1	M. Barriger#	1/27	Chatham (S.B.)	800+	R. Donovan#
2/20	Lynn	1 ad	R. Heil	1/28	Acoaxet	1	M. Lynch#
2/21	Newbury	1	G. Leet#	2/3	Fairhaven	25	BBC (R. Stymeist)
Ring-necked Pheasant				2/3	Barnstable	6	J. Liller
1/17	Whitman	1	M. Faherty	2/4	Revere	380	R. Stymeist#
1/22	Ipswich	3 f	J. Berry	2/4	P'town (R.P.)	150+	B. Nikula
1/24	Dorchester	4	R. Donovan	2/6	Lynn B.	250+	D. Saffarewich
1/27	Nahant	2 m	J. Berry#	2/11	Sandwich	4	M. Lynch#
1/27	Bourne	2	J. Glydon	2/22	Plymouth	20	R. Titus#
Ruffed Grouse				2/22	Duxbury B.	2	K. Vespaziani#
1/6	Windsor	2	T. Gagnon	2/24	Salisbury	50	D. Tripp#
1/7	Gardner	1	T. Pirro	Western Sandpiper			
1/14	Quabbin (G43)	1	C. Buelow	1/27	Chatham (S.B.)	1	R. Donovan#
2/21	E. Middleboro	1	K. Anderson	Purple Sandpiper			
Wild Turkey				1/5	Nantucket	4	S. Wheelock
1/thr	Ipswich	9	J. Berry	1/7	Acoaxet	30	D. Zimberlin
1/7	Worcester	9	M. Lynch#	1/7	Boston H.	8	TASL (M. Hall)
1/16	Reading	9	D. Schromm	1/13	Sandwich	16+	B. Nikula
1/20	Barre	9	M. Lynch#	1/20	Gloucester (E.P.)	30	E. Morrier#
1/22	Marshfield	9	D. Furbish	1/26, 2/9	N. Scituate	520, 200	R. Titus
1/28	Templeton	8	T. Pirro#	1/28	Bourne	32	S. Hedman
1/31	Woburn	3	M. Rines	1/28	Westport	9	M. Lynch#
2/8	P.I.	9	D. + I. Jewell	2/3	Rockport (H.P.)	36	BBC (J. Noye)
2/10	S. Quabbin	12	M. Lynch#	2/3	Fairhaven	75	BBC (R. Stymeist)
2/12	Middleboro	37	D. Furbish	2/6	Nahant	20	E. Nelson-Melby
2/16	Erving	14	V. Yurkunas#	2/9	Cohasset	215	R. Titus#
2/20	Newbury	12	D. + I. Jewell	2/11	Manomet	8	M. Lynch#
Northern Bobwhite				2/14	Salisbury	1	B. Stevens#
1/8	Yarmouthport	8m,4f	K. Hamilton	Dunlin			
2/24	Truro	5	J. Young	1/2	Westport	118	M. Boucher
Virginia Rail				1/7, 2/4	Boston H.	8, 92	TASL (M. Hall)
1/1	Northbridge	1	M. Lynch#	1/7	Rockport	110	J. Berry
1/5	Nantucket	3	S. Wheelock	1/17	Plymouth H.	300+	M. Faherty
1/18	Newbypt.	1	R. Heil	1/27	Chatham (S.B.)	1800	R. Donovan#
Purple Gallinule				1/28	Acoaxet	178	M. Lynch#
1/1	Oak Bluffs	1	fide A. Keith	1/29	Essex	50	R. Heil
American Coot				2/24	Fairhaven	60	M. Rines#
1/1	Brookline	2	E. Taylor	Common Snipe			
1/6	Worcester	14	M. Lynch#	1/1	Fairhaven	1	R. Finch#
1/11	Watertown	1	E. Nelson-Melby	1/1	Northbridge	4	M. Lynch#
1/11	Boston	5	D. Larson	1/27	Newbypt.	4	H. Wiggin
1/thr	Lynn	6	R. Heil	American Woodcock			
2/11	Plymouth	16	M. Lynch#	1/28	Falmouth	1	D. Furbish#
2/12	Arlington	48	M. Rines	2/20	Fairhaven	1 display	M. Boucher
2/22	Gloucester	1	J. Soucy#	2/22	P.I.	1	C. Criscitiello#
2/thr	Lynn	5	R. Heil				

Pomarine Jaeger				1/3	Gloucester (B.R.)	1	C. Holzapfel	
1/6	Nant. Sound	1 2W	R. Heil, J. Trimble, B. Nikula	2/10	Rockport (A.P.)	4	BBC (L. de la Flor)	
Laughing Gull				2/16	Edgartown	1	V. Laux	
1/5		Rockport (H.P.)	1 ad	M. Taylor#	2/24	Rockport (H.P.)	3	D. Furbish#
Little Gull				2/24	Gloucester (E.P.)	2	D. Furbish#	
1/7	Nantucket	1 ad.	R. Heil	Common Murre				
2/10	Nantucket	6	E. Ray#	1/7	Rockport	1	J. Berry	
Black-headed Gull				1/13	off Noman's Land	2	V. Laux#	
1/4	S. Boston	1 1W	R. Donovan	1/23	Gloucester	1	R. Heil	
1/7	Nantucket	1 1W	R. Heil	2/4	P'town (R.P.)	3+	B. Nikula	
1/14	Plymouth	2	J. Hoye#	2/5	Rockport (A.P.)	6	R. Heil	
1/27	Winthrop	1	M. Daley	2/18	N. Truro	1	B. Nikula	
1/27	Gloucester	1	K. Mills	2/24	Gloucester (E.P.)	2	D. Furbish#	
2/2	Plymouth	2	R. Titus#	Thick-billed Murre				
2/3	E. Boston	1	J. Young	1/7	Rockport	2	J. Berry	
2/13	Rockport	1 1W	J. Berry	1/17	Nahant	2	R. Heil	
2/24	Gloucester	2	D. Furbish#	1/21	Eastham (F.E.)	1	T. Raymond	
Herring x Great Black-backed Gull				1/23	Cape Ann	3	R. Heil	
2/8	Lynn	1 ad	R. Heil	1/27	Nahant	3	J. Berry#	
Herring x Lesser Black-backed Gull (probable)				2/3	Plymouth B.	1	D. + S. Larson	
1/4	Nantucket	1 ad	S. Perkins, D. Sibley#	2/4	P'town (R.P.)	3+	B. Nikula	
Bonaparte's Gull				2/4	Boston H.	2	TASL (M. Hall)	
1/6	Plymouth	5	Allen Club	2/4	Chatham (S.B.)	1	P. Flood	
1/7	Gloucester	10	BBC (W. Drummond)	2/5	Rockport (A.P.)	13	R. Heil	
1/7	Newbypt.	5	E. Mornier	2/6	Nahant	2	E. Nelson-Melby	
1/7, 2/4	Boston H.	69, 1	TASL (M. Hall)	2/14	Cape Ann	9	BBC (B. Volkle)	
1/7	Nantucket	7000	R. Heil	2/16-17	Edgartown	1	V. Laux#	
Mew Gull *				2/19	P.I.	1	M. Lynch#	
1/8	S. Boston	1	R. Donovan	2/25	Wellfleet H.	1	B. Nikula	
2/8-15	Lynn	1 ad	R. Heil	2/25	P'town (R.P.)	4	J. Young	
Yellow-legged Gull (details submitted) *				Razorbill				
12/28-1/2	Nant. 1 ad		R. Veit, P. + F. Buckley	1/1	Cape Ann	120+	R. Heil	
Iceland Gull				1/4	Nantucket	7000	S. Perkins#	
1/1	Worcester	1	J. Zumpfe#	1/7	Rockport	180	J. Berry	
1/7	Nantucket	45	R. Heil	1/7, 2/18	N. Truro	60, 300	B. Nikula	
1/8, 2/13	Newbypt.	5, 10	R. Heil	1/7, 2/4	P'town	150, 8000	B. Nikula	
1/14, 2/4	N. Truro	13 ad, 8	B. Nikula	1/7, 2/4	Boston H.	1, 1	TASL (M. Hall)	
1/17	Holyoke	1	S. Kellogg	1/13	Eastham	150	W. Petersen#	
1/18	Rockport	1 2W, 1 3W	J. Smith#	1/13	off Noman's Land	40+	V. Laux#	
1/18	Quincy	1 ad	R. Titus	1/31	Gloucester	11	B. Lawless#	
1/27, 2/11	Wachusett Res.	1, 2	M. Lynch#	2/4	Nahant	2	J. Kricher#	
1/27	Chatham (S.B.)	1	R. Donovan#	2/5	Rockport (A.P.)	188	R. Heil	
2/14	Salisbury	3	B. Stevens#	2/13	P.I.	25+	R. Heil	
2/18	Hull	1	SSBC (N. Swirka)	2/14	Salisbury	5	B. Stevens#	
2/19	Gloucester	1	T. Pirro	2/16	off Edgartown	800+	V. Laux#	
2/25	P'town (R.P.)	10	J. Young	2/17	Nantucket	182	F. Gallo#	
Lesser Black-backed Gull				2/28	off Gay Head	20+	A. Keith	
1/7	Nantucket	15	R. Heil	Black Guillemot				
1/7, 2/4	Boston	1	TASL (R. Stymeist)	1/1	Marshfield	20+	G. d'Entremont	
1/21	Manomet	1 ad	T. Raymond	1/2	Gloucester (B.R.)	20+	P. Akers	
1/23	Westport	1 ad	D. Larson#	1/7	Rockport	3	P. Roberts#	
2/20	Quincy	1 ad	R. Titus	1/7, 2/4	Boston H.	3, 6	TASL (M. Hall)	
2/22	Plymouth	2	R. Titus#	1/17	Marblehead-Nahant	33	R. Heil	
Glaucous Gull				1/23	Cape Ann	56	R. Heil	
1/2	Newbypt.	1 ad	J. Berry#	1/26	Minot	1	W. Petersen#	
1/3	Rockport	1 imm	C. Holzapfel	1/27	P'town	1	B. Nikula	
1/13-15	Nantucket	1	BBC (J. Barton)	1/31	Rockport	6	BBC (J. Paluzzi)	
1/14	Wachusett Res.	1	F. McMenemy	2/2	Plymouth	5	D. Furbish#	
1/17	S. Hadley	1 1W	B. Lafley	2/7	Gloucester (B.R.)	20+	D. Larson	
Black-legged Kittiwake				2/17	Nantucket	1	F. Gallo#	
1/4	Nantucket	400	S. Perkins#	2/24	Rockport (H.P.)	4	D. Furbish#	
1/4	Rockport	14	J. Berry	2/25	P'town (R.P.)	2	J. Young	
1/7	N. Truro	190	B. Nikula	2/27	Hull	2	R. Titus	
1/7	P'town	50	B. Nikula	Atlantic Puffin				
1/21	Eastham (F.E.)	400	T. Raymond	1/3	Gloucester (E.P.)	1	C. Holzapfel	
1/27	Chatham (S.B.)	12	R. Donovan#	1/14, 2/3	Rockport (A.P.)	1, 2	P. + F. Vale	
1/27	N. Truro	200+	B. Nikula	large alcid species				
2/5	P'town (R.P.)	100+	P. Flood	1/7, 27	N. Truro	930, 1800	B. Nikula	
2/5	Rockport (A.P.)	240 ad	R. Heil	1/7, 27	P'town	500, 800	B. Nikula	
2/6	Eastham (F.E.)	700+	B. Nikula	2/4, 18	N. Truro	350, 7200	B. Nikula	
2/10	Gloucester (E.P.)	6	M. Barriger	2/6	Eastham (F.E.)	360	B. Nikula	
2/13	P.I.	5 ad	R. Heil	2/13	P.I.	55+	R. Heil	
Dovekie				2/19, 25	P'town	200, 1700	B. Nikula	
1/1	Rockport (A.P.)	2	S. Moore#					

OWLS THROUGH FINCHES

Early winter is a great time to hear owls calling, especially Great Horned and Barred, as they gear up for the nesting season. Hearing these owls call on a still winter night over a meadow or frozen marsh can send tingles up your spine. Jim Berry noted hearing both Great Horned and Barred owls calling at the same time, certainly not a common occurrence since Great Horned have been known to prey on Barred Owls! (Must have been new to the neighborhood). The owl show at Daniel Webster Sanctuary in Marshfield, although not as good as the winter of 1999-2000, provided a nice comparison for birders of Long-eared and Short-eared owls in flight. Logan Airport was busy with all sorts of flying machines, including as many as six different Short-eared and a consistent 4-6 Snowy owls throughout the period. These birds were easily seen from Castle Island in South Boston, especially late in the afternoon. A Snowy Owl in Pittsfield was the first western Massachusetts midwinter report since 1992, and a Short-eared Owl in Hadley was only the fifth February record for the western part of the state, and the first winter report since 1993.

Semihardy overwinterers showed up in good numbers, in particular one of my favorite birds, the Carolina Wren, which appears to be thriving and expanding its range. The increase in the number of feeders certainly has helped, but I do think this species has built up a New England tolerance for weather. Other semihardy species reported were: Yellow-bellied Sapsucker, Eastern Phoebe, Ruby-crowned Kinglet, Eastern Bluebird, Hermit Thrush, Gray Catbird, Eastern Towhee and Yellow-breasted Chat. Impressive numbers of American Robins were reported, but this species can be a quite common winter resident; we just have to convince the television weather forecasters that the first robin is not a sign of spring!

It was another off year for Brown Creepers and Red-breasted Nuthatches. Only about half as many Northern Shrikes as last year were reported, but their numbers were still above average. Sparrow numbers in western Massachusetts were noteworthy: White-throats were reported in excellent numbers, and reports of Savannah Sparrows exceeded any previous winter total. Fox Sparrows were reported in exceptional numbers statewide, with an amazing sixteen reported on a single day in Mattapoisett. There was a noticeable increase in the number of wintering Rusty Blackbirds and Eastern Meadowlarks, as was the case with Red-wings, grackles and cowbirds.

The period was not lacking in unusual birds: three House Wrens, a single Bohemian Waxwing in Monterey, a female Black-throated Blue Warbler throughout the period in Brewster, a Lark Sparrow in West Yarmouth, a Lincoln's Sparrow in the Cumberland Farm Fields, a female Painted Bunting in Wellfleet, a Yellow-headed Blackbird in Westport, and a Bullock's Oriole in South Dartmouth.

The winter finch show was confined almost exclusively to western Massachusetts, with very few Pine Siskins and Evening Grosbeaks, and not a single redpoll noted. The big news here was the invasion of White-winged Crossbills. In early January these birds were in full song, singing their brains out on the top spires of spruces and hemlocks; the forests were ringing with song! Over 140 were noted in Savoy. Some males were seen doing a "stall" flight, like male Red-winged Blackbirds, flying down to females. Geoff LeBaron of Williamsburg was able to confirm the first breeding in Massachusetts for this species in February near the junction of North Street and Route 9 in Windsor. He witnessed an adult male feeding three recently fledged birds repeatedly for about five minutes. It is interesting to point out that the adult male crossbill does most of the feeding of the young, as females immediately re-nest in areas where there is a good food source. There was a tremendous crop of conifer seeds last summer, and apparently the crossbills are taking full advantage of it. There were also many reports of these

birds "gritting," that is feeding along the roads picking through the sand, and this risky behavior resulted in a number of birds being hit by passing vehicles. R.H.S.

Monk Parakeet				2/16	Southwick	1	S. Kellogg
1/23, 2/24	Somerset	1, 4	D. Larson#	2/23	Longmeadow	1	A. + L. Richardson
Barn Owl				2/27	Haverhill	2	R. Heil
1/5	Nantucket	1	S. Wheelock	2/27	W. Newbury	2	R. Heil
Eastern Screech-Owl				thr	Reports of indiv. from 8 eastern MA loc.		
1/1	Deerfield	3	H. Allen	Red-bellied Woodpecker			
1/8	Rockport	4	P. Akers	1/thr	Maynard	3	L. Nachtrab
1/8	Stoneham	2	D. + I. Jewell	1/3-28	Erving	1 m	V. Yurkunas
1/thr	Mt.A	1-4	J. Heywood#	1/7	Hardwick	1 f	C. Buelow
thr	Reports of indiv. from 15 locations			1/12	S. Middleboro	2	K. Anderson
Great Horned Owl				1/17	Hadley	2	M. Taylor
1/8	Swampscott	1	R. Kipp	1/28	S. Dartmouth	2	M. Boucher
1/14	DWWS	3	G. Dolan#	2/3	Fairhaven	2	BBC (R. Stymeist)
1/20	Dedham	2	A. Joslin#	2/4	Whitman	1	M. Faherty
1/28	Cumb. Farms	2	M. Faherty#	2/16	Rockport	3	R. Heil
2/2	Ipswich	pr	J. + N. Berry	2/17	Swampscott	2	J. McLaughlin
2/5	Wayland	2	G. Long	2/23	Dennisport	2	D. Silverstein#
2/7	Hamilton	pr	J. Berry	2/28	Mattapoisett	3	F. Smith
2/22	S. Peabody	2	R. Heil	Yellow-bellied Sapsucker			
2/24	Westboro	1 n	M. Lynch#	thr	Gloucester	1 f	D. Sandee
2/27	E. Middleboro	1	K. Anderson	1/1	Longmeadow	1 f	L. Atkinson
Snowy Owl				1/1-31	Marstons Mills	1	D. & S. Jurkowski
1/2, 12	Pittsfield	1, 1	J. Waterman, T. Lester	1/7-18	Westfield	1	J. Hutchison
1/3, 2/4	Rockport	1	C. Holzapfel#	1/8	Nantucket	1	E. Andrews
1/8, 13	Westport	1, 1	M. Boucher#	1/9-31	S. Middleboro	1 f	C. Sylvia
1/14, 21	Boston (Logan)	4, 6	N. Smith	1/13	Mt.A.	1	R. Stymeist
1/14-19	Eastham	1	v.o.	1/14	Westboro	1	S. Arena
1/17	Salisbury	1	D. + I. Jewell	2/25	Truro	1	J. Young
1/17-2/24	Lynn H.	1 imm	R. Heil + v.o.	Hairy Woodpecker			
1/25, 2/22	Duxbury B.	1	J. Chisholm#	1/7	Gardner	2	T. Pirro
1/27	P'town	1	B. Nikula	1/12	Mattapoisett	2	F. Smith
2/20, 26	Boston (Logan)	4, 5	N. Smith	1/27	Savoy	2	T. Gagnon
2/24	P.I.	1	D. Tripp#	1/thr	Maynard	4	L. Nachtrab
Barred Owl				2/5	Mattapoisett	2	F. Smith
1/14	Hamilton	1	P. Brown	2/18	Boxford (C.P.)	2	P. + F. Vale
1/25	Windsor	1	B.Lafley	2/thr	Maynard	3	L. Nachtrab
2/3	Amherst	1	I. Dukovski	Northern Flicker			
2/14	Quabbin (G43)	2	C. Buelow	1/1	Rockport	6	R. Heil
2/19	Stoneham	1 dead	D. + I. Jewell	1/7	Gr Barrington	2	J. Johnson
2/24	Topsfield	2	BBC (E. Giles)	1/14	Boston	11	R. Stymeist#
2/thr	Ipswich	pr	J. Berry	1/27	Squantum	3	E. Morrier
Long-eared Owl				1/27	Essex	6	R. Stymeist
1/28	Essex	10	J. Berry#	1/31	Longmeadow	1	A.+ L. Richardson
2/16	Marshfield	2	D. Ludlow#	2/4	Fairhaven	3	K. Anderson#
2/thr	DWWS	2	D. Furbish	2/10	Hardwick	2	M. Lynch#
Short-eared Owl				2/18	Southwick	1	S. Kellogg
1/1	Acoaxet	1	R. Finch#	2/18	Belchertown	1	A. + L. Richardson
1/1, 12	Katama	1	V. Laux# + v.o.	Pileated Woodpecker			
1/4	Chappaquiddick	1	V. Laux	1/14	Quabbin (G43)	4	C. Buelow
1/6	Marshfield	3	S. Kellogg#	1/14	Worcester	1	S. Hennin
1/13, 2/27	P.I.	3, 4	S. Hennin	1/20	Ashfield	1	J. Hoye#
1/13	Salisbury	2	J. Soucy#	1/20	Monroe	1	M. Lynch#
1/14, 2/20	Boston (Logan)	6, 5	N. Smith	1/22	Wayland	2	G. Long
1/14	Cumb. Farms	2	W. + E. Lackey	1/26	Medford	1	D. + I. Jewell
1/18	Rockport	1	J. Smith#	2/1	Westford	1	D. Selesky
1/19	Newbury	1	C. Phipps	2/8	Petersham	2	D. + S. Larson
2/thr	DWWS	3	D. Furbish	2/16	Lincoln	1	M. Rines
2/4	Essex	1	I. Giriunas#	2/20	IRWS	1	J. Nelson
2/13	Hadley	1	C. Gentes#	2/23	Dennisport	1	D. Silverstein#
2/17-24	Lynn	2	R. Acher + v.o.	2/28	Gardner	1 pr	T. Pirro
2/19	Fairhaven	1	G. d'Entremont	Eastern Phoebe			
Northern Saw-whet Owl				1/21	Sudbury	1	E. Salmela
1/2	Wendell	2	W. Lafley	1/31	Nantucket	1	K. Blackshaw
1/4	New Salem	1	W. Lafley	2/20-28	Chilmark	1	A. Keith
1/5	Nantucket	1	S. Wheelock	Northern Shrike			
1/13	Brewster	1	W. Petersen#	1/17	P.I.	2	D. + A. Jewell
2/17	Nantucket	2	F. Gallo#	2/3	Windsor	2	T. Collins#
2/20	Cheshire	1	R. Rancatti	2/17	Nantucket	2	F. Gallo#
2/28	Northfield	3	M. Taylor	Reports of indiv. from 34 locations			
Belted Kingfisher				American Crow			
1/17	Ellisville H.	2	M. Faherty	thr	Framingham	10,000+	E. Taylor
2/11	Plymouth	2	M. Lynch#	thr	Lawrence	10,000+	J. Hogan#

American Crow (continued)				2/16-20	Westford	1	S. Wedge
1/7	Brookline	4000	A. Joslin#	2/19-20	Westwood	1	B. Wicks
1/8	Wakefield	500+	F. Vale	Winter Wren			
1/14	Boston	450	R. Stymeist#	1/5	New Braintree	5	C. Buelow
1/22	Melrose	850+	D. + I. Jewell	2/3	Fairhaven	2	BBC (R. Stymeist)
2/3	Springfield	2000	M. Taylor	2/8	Melrose	2	D. + I. Jewell
2/13	W. Cambridge	1326	B. Miller#	2/15	Boxford	2	D. + I. Jewell
2/20	Quincy	423	R. Titus	thr	Reports of indiv. from 19	localities	
Fish Crow				Marsh Wren			
1/14	Boston	59	R. Stymeist#	1/4	Nantucket	6	S. Perkins#
1/16	Dedham	3	A. Joslin	1/6	Somerset	1	R. Titus
1/21	Arlington	2	M. Rines	1/18	Newbypt.	2	R. Heil
1/24	Seekonk	2	R. Farrell	1/24	Dorchester	1	R. Donovan
1/24	Dorchester	22	R. Donovan	2/2	Essex	1	J. Berry#
2/23	Dennisport	1	D. Silverstein#	Golden-crowned Kinglet			
2/27	Haverhill	1	R. Heil	1/5	New Braintree	6	C. Buelow
Common Raven				1/6	Hawley	3	M. Williams
1/1	Greenfield	3	V. Yurkunas	1/7	Saugus	4	D. + I. Jewell
1/1	Gardner	3	T. Pirro	1/7	Northfield	3	V. Yurkunas
1/1	Gill	1	V. Yurkunas	1/7	Stoughton	8	R. Titus
1/3	Turners Falls	2	V. Yurkunas	1/8	GMNWR	10	G. Keresztes
1/5	New Braintree	2	C. Buelow	1/14	Quabbin (G43)	10	C. Buelow
1/6	Ashfield	1	M. Williams	1/20	Dedham	4	A. Joslin#
1/6	Cummington	1	T. Gagnon	1/20	Savoy	4	M. Lynch#
1/14	Quabbin (G43)	5	C. Buelow	1/29	Brockton	6	M. Faherty
1/20	Monroe	7	M. Lynch#	2/3	Fairhaven	4	M. Lynch#
1/27	Windsor	1	T. Gagnon	2/18	Boxford (C.P.)	4	P. + F. Vale
1/28	Templeton	1	T. Pirro#	2/24	Quabbin (G37)	6	SSBC (D. Ludlow)
2/9	Lunenburg	1	K. Reiner	Ruby-crowned Kinglet			
2/24	Ware	2	C. Buelow	1/7	Brookline	2	J. Young
Horned Lark				1/14	Boston	2	R. Stymeist#
1/1	S. Boston	35	G. d'Entremont	2/24	Fairhaven	2	R. Stymeist#
1/4	Hadley	250	C. Holzapfel	thr	Reports of indiv. from 29	locations	
1/10	Newbury	90	B. Stevens#	Eastern Bluebird			
1/14	Rowley	20	J. Berry	1/1	Stoughton	7	R. Titus
1/20	Northampton	90+	T. Gagnon	1/1	Northbridge	6	M. Lynch#
1/21	Cumb. Farms	200	K. Anderson#	1/13	Westport	10	D. Zimmerlin
1/27	Chatham (S.B.)	15	R. Donovan#	1/13	Cumb. Farms	16	K. Anderson
1/28	Westport	260	M. Lynch#	1/14	Dighton	6	D. Larson
1/29	Essex	30	R. Heil	1/21	Lincoln	6	H. Yelle#
1/29	P.I.	35	R. Heil	1/25	Ware	7	D. Norton
2/1	Fairhaven	110	R. Titus#	1/25	Walpole	6	G. Long
2/14	W. Gloucester	10	J. Nelson	1/28	Falmouth	7	D. Furbish#
2/19	Salisbury	30	M. Lynch#	1/28	Danvers	6	R. Stymeist
2/22	Duxbury B.	21	K. Vespaziani#	1/29	S. Carver	24	D. Betinson
2/27	Hingham	12	R. Titus	2/3	Southwick	25	J. Hutchison
Red-breasted Nuthatch				2/3	GMNWR	15	E. Nelson-Melby
1/14	Boston	2	R. Stymeist#	2/4	Concord	7	J. Damian
1/14	Ashfield	2	B. Kane	2/10	E. Middleboro	6	K. Anderson
1/22	Groton	2	T. Pirro	2/21	Groton	8	I. Staub
1/27	Savoy	4	T. Gagnon	Hermit Thrush			
1/28, 2/28	Gardner	2	T. Pirro#	1/1	Rockport	2	R. Heil
2/3	Amherst	2	I. Dukovski	1/1	Acoaxet	4	R. Finch#
2/15	Pepperell	2	M. Resch	1/4	Marblehead	2	K. Haley
2/24	Quabbin (G37)	2	SSBC (D. Ludlow)	1/28	Westport	3	M. Lynch#
2/28	Duxbury	3	N. Swirka	2/24	Fairhaven	7	R. Stymeist#
Brown Creeper				thr	Reports of indiv. from 16	locations	
1/1	N. Marshfield	2	G. d'Entremont	American Robin			
1/8	GMNWR	2	G. Keresztes	1/1	P'town-N. Truro	800+	B. Nikula
2/3	Amherst	2	I. Dukovski	1/5	New Braintree	120	C. Buelow
2/10	Boxford (C.P.)	2	P. + F. Vale	1/14	Boston	178	R. Stymeist#
2/24	Plainfield	3	G. d'Entremont#	1/20	Boylston	125	S. Hennin#
Carolina Wren				1/20	Barton's Cove	100	M. Lynch#
1/7	Medford	3	R. LaFontaine	2/4	Nantucket	2000	E. Ray
1/7-25	Westfield	2	J. Hutchison	2/14	Ipswich	100+	J. Berry
1/13	Mt. A	3	R. Stymeist	Gray Catbird			
1/14	Boston	4	R. Stymeist#	1/1	Rockport	1	R. Heil
1/14	Stoughton	8	G. d'Entremont	1/2	S. Dartmouth	2	M. Boucher
1/29	Brockton	5	M. Faherty	1/3	Lexington	1	M. Rines
1/31	Rehoboth	7	R. Farrell	1/28	Falmouth	1	D. Furbish#
2/1	Westport	18	R. Titus	1/28	Topsfield	1	R. Stymeist
2/10	Pittsfield	2	N. Mole	2/3	Medford	1	R. LaFontaine
2/13	Wilbraham	2	A. + L. Richardson	2/11	Plymouth	1	M. Lynch#
2/16	Rockport	14	R. Heil	2/19	Westport	2	R. Heil
2/24	Holyoke	2	S. Kellogg	2/24	Fairhaven	5	R. Stymeist#
2/24	Fairhaven	34	R. Stymeist#	2/3, 27	Stoneham	1	D. + I. Jewell
House Wren				Brown Thrasher			
1/1	Fairhaven	1	R. Finch#	2/18	Westport	1	K. Anderson#

American Pipit				2/26	DWWS	56	D. Furbish
1/8	Westport	2	M. Boucher	Chipping Sparrow			
1/27	Chatham (S.B.)	7	R. Donovan#	1/1	Concord	1	M. Rines#
1/27	Fairhaven	8	D. Zimmerman	1/15	N. Dartmouth	1	M. Boucher
2/7	P.I.	9	N. Soulette#	1/21	Easthampton	1	B. Bieda
2/22	Scituate	1	R. Titus#	1/28	Falmouth	1	D. Furbish#
Bohemian Waxwing				2/4	Edgartown	2+	M. Pelikan
2/20	Monterey	1	K. Ryan	2/5	Mattapoisett	1	F. Smith
Cedar Waxwing				2/22	Plymouth	4	R. Titus#
1/1	Deerfield	253	T. Gagnon	2/22	E. Middleboro	1	K. Anderson
1/5	Ipswich	50	J. Berry	Field Sparrow			
1/17	Sunderland	100	M. Williams	1/1	Mattapan	3	G. d'Entremont
1/20	Barton's Cove	150	M. Lynch#	1/14	Stoughton	1	G. d'Entremont
1/28	Gardner	150	T. Pirro#	1/17	Mansfield	1	S. Wagner
1/31	Concord	120+	D. + I. Jewell	1/17	Montague	1	M. Taylor
2/16	Turners Falls	200	W. Lafley	1/24	Dartmouth	2	R. Farrell
2/18	Stoughton	59	G. d'Entremont	1/thr	Chilmark	3	A. Keith
2/19	Pittsfield	140	R. Ferren	2/4	Bridgewater	2	M. Faherty
Orange-crowned Warbler				2/24	Fairhaven	1	R. Stymeist#
1/7	Nahant	1	R. Stymeist#	Vesper Sparrow			
Black-throated Blue Warbler				1/28	Cumb. Farms	1	B. Zuzevich
thr	Brewster	1 f ph	J. Robb	2/18	Fairhaven	3	D. + S. Larson
Yellow-rumped Warbler				Lark Sparrow			
1/1	N. Marshfield	3	G. d'Entremont	1/14-15	W. Yarmouth	1	B. Nikula#
1/13	W. Newbury	10+	R. Heil	Savannah Sparrow			
1/27	Essex	18	R. Stymeist	1/1	Deerfield	6	T. Gagnon
1/27	Squantum	27	E. Morrier	1/1	Northampton	2	S. Surner
1/28	Westport	22	M. Lynch#	1/1	N. Marshfield	5	G. d'Entremont
2/2	Scituate	25	R. Titus#	1/4	Hadley	2	C. Holzapfel
2/14	W. Gloucester	2	J. Nelson	1/6	Halifax	12	W. Petersen#
2/19	P.I.	14	M. Lynch#	1/8	Dighton	9	R. Titus
2/19	Wellfleet	100	D. + S. Larson	1/17	Whitman	2	M. Faherty
2/22	Duxbury B.	11	K. Vespaziani#	1/20	Newbury	6	P. + F. Vale
2/24	Fairhaven	18	R. Stymeist#	1/27	Chatham (S.B.)	2	R. Donovan#
Pine Warbler				1/28	W. Bridgewater	16	M. Faherty#
1/1	N. Marshfield	1	G. d'Entremont	1/29	Fairhaven	175+	M. Boucher
1/8	GMNWR	1	G. Keresztes	2/4	Westport	20	D. Furbish#
2/25	Kingston	3	D. Ludlow#	"Ipswich" Sparrow			
Palm Warbler				1/4	Nantucket	2	S. Perkins#
1/1	Gloucester	1 western	R. Heil	1/25	Salisbury	2	J. Soucy#
1/6	P.I.	1	A. Pennington#	1/27	Chatham (S.B.)	4	R. Donovan#
2/17	Nantucket	2	F. Gallo#	2/22	Katama	9	A. Keith
2/28	Edgartown	1	A. Keith	Saltmarsh Sharp-tailed Sparrow			
Common Yellowthroat				1/13	Eastham (F.H.)	2	W. Petersen#
2/3	Fairhaven	1	R. Stymeist#	Fox Sparrow			
Yellow-breasted Chat				1/8	Dighton	7	R. Titus
1/1	Westport	1	R. Finch#	1/11	Mattapoisett	16+	M. LaBossiere
1/1	Amesbury	1	P + F. Vale#	1/11	Hamilton	5	R. Wright
1/3	Mattapoisett	1	F. Smith	1/13	Melrose	3	D. + I. Jewell
1/14	Gay Head	1	J. Tobin	2/3	Weston	4	M. Rines
1/15	Edgartown	1	R. Steves	2/10	Malden	3	D. Jewell
1/23	Acoaxet	1	D. Larson#	thr	Reports of 1-2 indiv. from 30 locations		
1/23	Dartmouth	1	D. Larson#	Lincoln's Sparrow			
1/25	Nahant	1	O. Spalding	1/28	Cumb. Farms	1	B. Zuzevich
2/11	Fairhaven	1	M. Lynch#	Swamp Sparrow			
2/25	Falmouth	1	C. Ekroth#	1/2	Westport	3	M. Boucher
Eastern Towhee				1/3	DWWS	3	D. Furbish
thr	Sterling	1	E. Harlow	1/8	GMNWR	4	M. Rines
1/6	Marblehead	1 m	R. Kipp	1/17	Whitman	5	M. Faherty
1/9	Acton	2	G. Marley	1/18	Newbypt.	4	R. Heil
1/12	Mattapoisett	5	F. Smith	1/24	Westport	8	R. Farrell
1/13	Lee	1	L. Beltran	1/28	W. Bridgewater	9	M. Faherty#
1/15	Ashfield	1	L. Musante	2/16	Rockport	3	R. Heil
1/23	Dartmouth	1	W. Petersen#	2/24	Fairhaven	8	R. Stymeist#
1/24	Westport	1	R. Farrell	White-throated Sparrow			
1/29	Shutesbury	1 m	B. Lafley	1/1	Boston	45	G. d'Entremont
2/4	Gloucester	1 m	J. Soucy	1/12	Mattapoisett	32	F. Smith
2/15-28	Stoughton	1	P. Rudis	1/28	Westport	134	M. Lynch#
2/16	Rockport	1 m	R. Heil	2/thr	N. Dartmouth	38 max	M. Boucher
2/24	Fairhaven	6	R. Stymeist#	2/3	Fairhaven	30	M. Lynch#
American Tree Sparrow				2/15	Mattapoisett	35	F. Smith
1/1	N. Marshfield	25	G. d'Entremont	2/16	Rockport	42	R. Heil
1/4	Hadley	100	C. Holzapfel	White-crowned Sparrow			
1/20	Northampton	67	T. Gagnon	1/1	Deerfield	1	H. Allen
1/21	Cumb. Farms	150	W. Petersen	1/5	Nantucket	1	S. Wheelock
1/27	Newbypt.	25	P. Roberts#	1/13	Eastham (F.H.)	1	D. Wiehe
1/28	W. Bridgewater	22	M. Faherty#	1/28	Westport	9	M. Lynch#
1/28	Westport	30	M. Lynch#	1/29	Cumb. Farms	3	M. Boucher

Dark-eyed Junco							
1/1	Uxbridge	60			1/13	Wayland	6
1/7	Worcester	60	M. Lynch#		1/14	Rockport	10+
1/13	Mt. A.	52	M. Lynch#		1/21	Sudbury	2
1/14	Boston	73	R. Stymeist		1/25-2/1	Russell	1
2/10	Petersham	110	R. Stymeist#		1/27	Woburn	2
			M. Lynch#		1/27	New Salem	3
Lapland Longspur					2/3	GMNWR	10
1/6	Northampton	40	J. Hoye#		2/4	Westport	5
1/7	Dorchester	5	R. Donovan		2/17	Windsor	2
1/7	Cumb. Farms	3	R. Donovan		2/17	Mattapoisett	8
1/13	S. Egremont	2	J. Johnson		2/17	Nantucket	1
1/14	Rowley	2	J. Berry		2/17	DWWS	6
1/20	Salisbury	21	L. de la Flor		2/20	Newbury	3
1/22	Ipswich	2	J. Berry		2/24	Wakefield	1
1/27	Newbypt.	50	P. Roberts#		2/24	Fairhaven	6
2/1-22	Katama	18	A. Keith		Common Grackle		
2/4	Westport	2	D. Furbish#		1/1	Gloucester	120+
2/17	Fairhaven	3	M. Barriger#		1/7	Becket	50
2/26	Boston (Logan)	3	W. Petersen#		1/13	Chilmark	250
Snow Bunting					1/14	Rockport	400+
1/1	Deerfield	133	T. Gagnon		1/14	Dighton	35+
1/6	Marshfield	50+	S. Kellogg#		1/27	Woburn	35+
1/7	Cumb. Farms	50	R. Donovan		1/28	Westport	1440
1/10	Quincy	81	R. Titus		1/31	Bridgewater	100+
1/10	Newbury	70	B. Stevens#		2/1	Fairhaven	10
1/13	P.I.	75	P. + F. Vale		2/20	Quincy	45
1/13	Hawley	50	S. Kellogg et al		2/27	Newbypt.	20+
1/16	Fairhaven	57	F. Smith		Brown-headed Cowbird		
1/20	Northampton	350+	T. Gagnon		1/13	Windsor	12
1/22	Westport	175	M. Boucher		1/18	Worc. (BMB)	8
2/4	Boston H.	94	TASL (M. Hall)		1/31	Woburn	40
2/8	Sunderland	300	H. Allen		2/1	Fairhaven	137
2/8	Saugus	90+	R. Heil		2/1	Westport	425
2/9	Halifax	200	D. Furbish#		2/4	Whitman	4
2/19	Deerfield	40+	V. Yurkunas#		2/17	DWWS	5
2/20	Salisbury	180+	D. + I. Jewell		2/19	Fairhaven	250
2/24	Wellfleet	40	C. Ekroth#		2/20	Groton	7
Painted Bunting					Baltimore Oriole		
2/1-12	Wellfleet	1 f	Hammerquist		1/7	W. Tisbury	1
Dickcissel					1/22	Essex	1 imm
1/1-6	S. Boston	1	R. Donovan#		1/thr	Middleboro	1
1/26	Salisbury	1	B. Gette		Bullock's Oriole *		
Red-winged Blackbird					1/19-23	S. Dartmouth	1 imm. m ph
1/4	DWWS	500	D. Furbish		Purple Finch		
1/7	Kingston	85	D. Ludlow		1/1	Petersham	10
1/14	Rockport	20+	P. + F. Vale		1/6	Windsor	52
1/14	Berkley	350	D. Larson		1/7	Ashburnham	12
1/17	Ellisville H.	35	M. Faherty		1/11	Ashfield	83
1/21	Cumb. Farms	60	W. Petersen#		1/13	Hawley	15
1/21	Nantucket	140	E. Ray		1/16	Carlisle	7
1/22	Longmeadow	40	A. + L. Richardson		1/27	Plainfield	25
1/25	Canton	25	G. Long		1/27	Cummington	68
1/31	Woburn	1000	M. Rines		1/27	Savoy	36
1/31	Bridgewater	1000+	M. Faherty		1/28	HRWMA	4
2/1	Westport	4000+	R. Titus#		2/thr	Hardwick	16 max
2/20	Quincy	220	R. Titus		2/4	Becket	13
2/20	Salisbury	250+	D. + I. Jewell		2/4	Mattapoisett	1
2/21	Concord (NAC)	25	D. Diggins		2/4	Amherst	3
2/22	Bolton	50+	R. Beaubien		2/4	Dedham	4
2/27	Newbypt.	380	R. Heil		2/22	Blandford	10
Eastern Meadowlark					2/23	Erving	9
1/6	Halifax	25	W. Petersen#		Red Crossbill		
1/7	Gr Barrington	5	J. Johnson		1/8	Windsor	7
1/13	S. Dart. (A. Pd)	6	D. Zimberlin		1/11	Colrain	1
1/14	DWWS	68	D. Furbish		White-winged Crossbill		
1/23	Salisbury	14	D. + I. Jewell		1/3-2/24	Savoy	140 max
1/27	S. Egremont	2	T. Collins		1/6-29	Hawley	5 max
1/27	P.I.	4	M. Emmons#		1/7	Ashburnham	1 f
1/28	W. Bridgewater	3	M. Faherty#		1/8-2/18	Washington	5 max
1/29	Newbypt.	1	R. Heil		1/10-2/14	Ashfield	10 max
2/4	Westport	15	D. Furbish#		1/13	Windsor	17
2/4	Fairhaven	41	G. d'Entremont		1/20	Becket	1
2/4	Bridgewater	14	M. Faherty		1/27	Windsor	23
2/24	Fairhaven	22	R. Stymeist#		1/28-2/24	Gardner	8 max
Yellow-headed Blackbird					2/17	Windsor	3
1/23-2/1	Westport	1 imm m	R. Bowen + v.o.		2/18	Washington	5
Rusty Blackbird					Pine Siskin		
1/thr	Chappaquidick	12+	K. Baron + v.o.		1/6	Hawley	12
							A. McCarthy#
							P. + F. Vale
							E. Salmela
							W. Hardie
							P. + F. Vale
							D. Small
							E. Nelson-Melby
							D. Furbish#
							S. Moore#
							M. LaBossiere
							F. Gallo#
							D. Furbish
							D. + I. Jewell
							P. + F. Vale
							M. Rines#
							R. Heil
							R. Laubach
							A. Keith
							P. + F. Vale
							D. Larson
							P. + F. Vale
							M. Lynch#
							M. Faherty
							R. Titus#
							R. Titus
							R. Heil
							T. Collins
							J. Liller
							M. Rines
							R. Titus#
							R. Titus#
							M. Faherty
							D. Furbish
							G. d'Entremont
							T. Pirro
							J. Karalekas
							J. Berry
							J. Leary
							P. Bullard
							R. Coyle
							T. Gagnon
							T. Pirro
							S. Sauter
							S. Kellogg et al
							T. + D. Brownrigg
							T. Gagnon
							T. Gagnon
							T. Gagnon
							T. Pirro#
							C. Buelow
							R. Laubach
							F. Smith
							D. Norton
							K. Bittner
							M. + K. Conway
							V. Yurkunas
							A. + L. Richardson
							M. Lynch#
							M. Williams#
							T. Pirro
							R. Laubach#
							S. Sauter#
							T. Collins
							R. Laubach
							T. Gagnon
							T. Pirro#
							S. Moore#
							M. Wiley
							M. Williams

Pine Siskin (continued)

1/7-2/24	Gardner	15 max	T. Pirro
1/7	Ashburnham	1	T. Pirro
1/11-2/26	Ashfield	18 max	B. Lafley#
1/13	Windsor	3	T. Collins
1/27-2/24	Savoy	74 max	T. Gagnon#
Evening Grosbeak			
1/1	Northfield	1 m	M. Taylor
1/13	Hawley	4	S. Kellogg et al
1/20	Windsor	1	M. Lynch#
1/20	Savoy	6	M. Lynch#
2/11	Athol	1	R. Coyle

Corrigendum

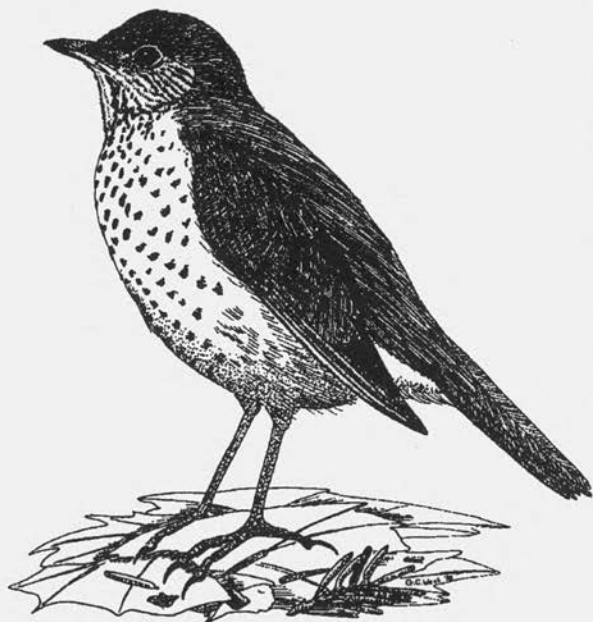
Northern Harrier			
11/19	Wellfleet H.	15	B. Nikula
should be:			
Laughing Gull			
11/19	Wellfleet H.	15	B. Nikula

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

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

Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or e-mail. Send written reports to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. Include name and phone number of observer, common name of species, date of sighting, location, number of birds, other observer(s), and information on age, sex, and morph (where relevant). For instructions on e-mail submission, visit: <<http://massbird.org/birdobserver/submitrec.html>>.

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



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

LIST OF ABBREVIATIONS

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

“Wet their whistles”™ with animal water products



Look over our environmentally sound selection of baths, founts, drinkers, tanks, drippers, misters, faucets, waterers, water nipples, canteens.

Free Puddles Water Shop catalog.

Free Puddles Water Newsletter.

Web site at <http://petsforum.com/happybird/>

SOLAR SIPPERS cover water; insulated for cool summer water, solar heated against winter ice.

HAPPY BIRD, P.O. 86, Weston, MA 02193 . 781-899-7804

Bird Watcher's General Store

Featuring: The Amazing AVIARIUM In-House Window
Birdfeeder. One-way mirrored plexiglass allows you to
watch the birds for hours but they can't see you!

Come see this exceptional birdfeeder in action.



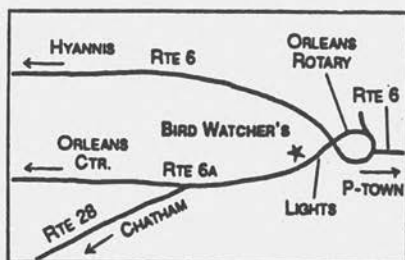
OTHER BIRD-LOVER ITEMS INCLUDE:

- Bird Mugs
- Bird Note Cards
- Bird Carvings
- Bird Field Guides
- Bird Books
- Bird Key Chains
- Bird Jewelry
- Bird Door Knockers
- Bird Telephone
- Bird Houses
- Bird Baths
- Bird Gift Wrap
- Bird T-Shirts
- Bird Photos
- Bird Prints
- Bird Calls
- Bird Recordings
- Bird Potholders
- Bird Towels
- Bird Carving Kits
- Bird Welcome Mats
- Bird Thermometers
- Bird Sun Catchers
- Bird Calendars
- Bird Pillows
- Bird Place Mats
- Bird Mobiles
- Bird Fountains
- Bird Bath Heaters
- Bird Switch Plates
- Bird Puzzles
- Bird Bookmarks

- A complete line of Binoculars, Spotting Scopes and Tripods
- A children's section with birdhouse kits, beginner books, and other fun and educational items

PLUS over 100 different types of bird feeders including Bluejay and Squirrel-proof
feeders that work, GUARANTEED, plus ten different types of Bird Seed

GIFT CERTIFICATES & U.P.S. SHIPPING • OPEN YEAR ROUND



Bird Watcher's General Store

36 Route 6A • Orleans, MA 02653

(508) 255-6974

OR

1-800-562-1512

www.BirdWatchersGeneralStore.com

News from MassWildlife

Eagle Cam Birds Fail — The nesting pair of bald eagles at Barton Cove on the Connecticut River, watched locally on cable TV and worldwide via the internet at <<http://www.nu.com>>, have lost the one chick that hatched from their 3-egg clutch. The chick survived less than 24 hours and may have died as a result of exposure to prolonged cold drizzle. This particular nesting territory was established in 1989, a direct result of MassWildlife's eagle releases at Quabbin Reservoir in the 1980s. Chicks have been produced annually beginning in 1990, with the exception of a blizzard-related failure in 1997 and a move to a new nest in 1999. A total of 16 chicks have fledged from this territory. Three Quabbin Reservoir eagle nests may have failed as a result of late winter storms. Only one Quabbin eagle pair is believed to have chicks. Other eagle nesting attempts on the southern stretch of the Connecticut River and in Berkshire and Plymouth counties have fared much better. New eagle territories are being formed in Longmeadow and Brookfield.

Peregrines Hatching — Peregrine falcons are hatching out successfully from Boston to Fall River to Springfield and hopes are high that the majority of chicks will fledge successfully in June. Established nesting pairs are believed to be feeding chicks at the Braga Bridge in Fall River, Christian Science Building and Custom House in Boston, and the Monarch Place building in Springfield. Evidence of eggs being laid at a peregrine nest box at UMass Amherst confirms the presence of a fifth Massachusetts pair. That nesting attempt was unsuccessful but it is likely that the pair will return to the campus nest site next year.

New Bird Conservation Directory

This is the first comprehensive listing of Partners in Flight, the North American Waterfowl Management Plan and Joint Ventures, the North American Wetlands Conservation Council, Flyway Councils, North American Waterbird and U.S. Shorebird Conservation Plans, the Western Hemisphere Shorebird Reserve Network, North American Bird Conservation Initiative, and American Bird Conservancy Policy Council. With more than 1,200 listings of conservationists and their contact information, this is an invaluable resource for facilitating communication in the world of bird conservation. Hard copies are available from American Bird Conservancy for \$5.00 each. You can send your order, with a check made payable to ABC to: Elizabeth Ennis c/o ABC, P.O. Box 249, The Plains, VA, 20198; Tel. (540) 253-5780, Fax (540) 253-5782, e-mail eennis@abcbirds.org. You can also order by fax, phone or e-mail with your credit card information. The Directory is also available on-line at <www.abcbirds.org> and at <www.partnersinflight.org>.

What is an IBA?

Under the joint leadership of Scott Hecker, Andrea Jones, and Wayne Petersen, the Massachusetts Audubon Society has recently begun implementing the Important Bird Areas (IBA) Program in Massachusetts. Established by BirdLife International in 1985, IBA programs identify critical areas that provide essential habitat for

breeding, wintering, and migratory birds. A thriving worldwide initiative, IBA programs have been established in 100 foreign countries; in the United States, 32 states have started to implement IBA programs. Massachusetts Audubon, in conjunction with National Audubon, is leading this effort in New England. "This is an especially exciting opportunity," observes Hecker, "because it will allow us to bring bird conservation to sites throughout the state and beyond our own sanctuaries." To learn more about the IBA Program, please contact Massachusetts Audubon Society, Bird Conservation Programs, P.O. Box 390, Marshfield Hills, MA 02051, e-mail iba@massaudubon.org, or phone 781-834-7545. For full details, visit the Mass Audubon web page at www.massaudubon.org/IBA/.

Ducks Unlimited Conservation Plan for North America

For over six decades, DU has maintained a singleness of purpose that has guided the organization to become the leading waterfowl and wetlands conservation entity in North America. DU believes that solutions to fundamental problems must be anchored in the most up-to-date scientific understanding of waterfowl and the habitat resources to which they are intimately tied. Thus, this plan has been guided by a thorough review of our current knowledge of the biological issues affecting the birds and their habitats. Paul Baicich, editor of *Birding*, notes that "this plan is interesting for a couple of good reasons. For one, most of the regional profiles include sections on 'Importance to Other Birds,' where the impact of the plan on other birds species is evaluated. This often deals with shorebirds and long-legged waders, but owls, grassland species, and neotropical woodland migrants can be covered. Another interesting thing about the report is that the DU regions are usually correlated with the new NABCI (North American Bird Conservation Initiative), regions being used by increasing numbers of researchers and bird conservationists in order to use a common geographical frame of reference." For the complete DU conservation plan go to:

<http://ducksunlimited.rs88.com/servlet/cc?KJrDVWEIHpJpJoFHIHDhknE0EUC>
The plan is in five parts, as separate PDF files. (You need the free program Adobe Acrobat Reader to access them.)

Horseshoe Crab Sanctuary

The Commerce Department has finalized plans to establish a horseshoe crab sanctuary in Delaware Bay that will ban fishing to protect the ancient crustaceans. Beginning March 7, the roughly rectangular 1,500-acre sanctuary will ban horseshoe crab fishing in federal waters south of Atlantic City, NJ, to just north of Ocean City, MD. Commerce proposed a 2,400-square-mile area last August for the sanctuary, and the Atlantic States Marine Fisheries Commission successfully adopted guidelines to reduce horseshoe crab bait catch by twenty-five percent. The Carl N. Schuster Jr. Horseshoe Crab Reserve, honoring a horseshoe crab biologist and researcher, "is critically important for the preservation of horseshoe crabs, the well-being of migratory birds and the commitment to preserve our ocean's resources," said Delaware Sen. Tom Carper (D). — Natalie M. Henry, *Greenwire* staff writer, Western Atlantic Shorebird Association

ABOUT THE COVER

American Redstart

The American Redstart (*Setophaga ruticilla*) is one of our most colorful and active wood warblers, flashing bright orange or yellow in its wings and tail as it pirouettes or sallies forth to catch insects on the wing. Redstarts are unmistakable, with the male's black head, breast, wings, back, and tail contrasting sharply with orange and white below and wing and basal tail patches of vivid orange. In females the black is replaced by gray and the orange by yellow. Immature males resemble females, probably an adaptation for avoiding confrontations with aggressive adult males. American Redstarts are a monotypic genus, more closely related to *Dendroica* warblers than to the Painted Redstarts of the southwest. No subspecies are currently recognized.

American Redstarts are widely distributed across North America, breeding from coastal southern Alaska across southern Canada to Newfoundland, and south on the East Coast to Virginia, and inland to near the Gulf Coast. They are patchily distributed across the northern United States to Washington. They winter from southern California south through Baja California, along both coasts of Mexico, and throughout Central America and the Caribbean to northern South America. On their wintering grounds the sexes often segregate, with males inhabiting the moist forest and females more open woodlands and thickets. They tend to be site-faithful on both breeding and wintering grounds. Redstarts are nocturnal migrants, making the trans-Gulf migration in March and April, and arriving in Massachusetts in mid-May. They begin their fall migration in July, but peak migration in Massachusetts is not until late August to mid-September.

American Redstarts are considered seasonally monogamous, although in one study up to thirty percent of males were polygynous, establishing up to three territories after the original female began incubation. Females, as well, are often seen in the company of neighboring males. DNA analysis suggests that up to forty percent of nestlings are sired by other than the resident male. Pairs produce a single brood. They prefer large tracts of open, second-growth woodland, often near water. The male's territorial song consists of a series of regularly spaced high-frequency notes or phrases, variously described as combinations of *see*, *tsit*, *tsee*, *tsee-bit*, *wee-see*, *tseet*, *weechy*, and *tzirr* with assorted *chips*, *zeeps* and *tsips*. Courtship displays include a fluffed display and bow displays. The male frequently sings while following or leading the female. Agonistic displays in this highly territorial species include ritualized circle flights on stiff wings at territorial boundaries, or gliding and chasing. Nonaerial displays include the head-forward display with bill open and tail spread or cocked.

The female selects the nest site, usually ten to twenty feet from the ground. The nest is an open cup of woven bark, grass, and other plant fibers, glued together with spiderweb. The nest is lined with fine plant fibers, feathers, or deer hair. Redstarts sometimes refurbish and use old nests of other species. The usual clutch is four creamy eggs variously spotted or blotched reddish brown. Only the female develops a

brood patch and incubates, although the male sometimes brings her food. Both parents perform elaborate distraction displays, with tail spread and wings fluttering, at the approach of a potential predator. Incubation lasts ten or eleven days. The female does the brooding, and after about nine days the young leave the nest. The brood is then divided between the parents, and the young may be accompanied by the adults for weeks. The young are fed a diet of insects.

American Redstarts are very active foragers from ground to canopy, pirouetting and flashing their wing and tail color patterns, presumably to startle prey into movement. They eat a broad spectrum of insect prey, including leafhoppers, flies, wasps, moths, and insect larvae. They also are prone to hawking — flycatcher-like sorties after flying insects. They are morphologically convergent with flycatchers, possessing flattened bills, prominent rictal bristles, and proportionally large tail and wing surface area, and they actively compete with Least Flycatchers on their breeding grounds.

American Redstarts prefer large tracts of open woodland, and hence have suffered from urbanization and forest fragmentation in North America and on their wintering grounds, particularly in the Caribbean. Ironically, their numbers have decreased in New England due to reforestation! As with most nocturnal migrants, many are killed annually in collisions with towers, and the problem has been exacerbated by the proliferation of cellular phones and their associated transmission towers. They are subject to the usual pressures of accipiter predation, cowbird nest parasitism, and loss of eggs and chicks to avian, mammalian, and reptilian nest predators. Yet they remain one of New England's most common and much-appreciated warblers.

William E. Davis, Jr.

About the Cover Artist

Julie Zickefoose is a widely published natural history writer and artist. Educated at Harvard University in biology and art, she worked for six years as a field biologist for The Nature Conservancy before turning to a freelance career. Her observations on the natural history and behavior of birds stem from more than three decades of experience in the field. With her husband Bill Thompson III, Editor of *Bird Watcher's Digest*, and their two children, Phoebe and Liam, Julie lives on an 80-acre nature sanctuary in the Appalachian foothills of southeast Ohio. A 42-foot tall bird-watching tower atop their home helps them enjoy and catalogue the wildlife of the sanctuary, which includes 174 bird species and 73 butterflies to date. Julie's art and writings may be seen at <http://www.juliezickefoose.com>.



AT A GLANCE

April 2001



Photograph by Wayne R. Petersen

The April mystery photograph depicts a rather slim, dark bird with a long tail, rather long legs (for a passerine), a prominently curved upper mandible, and a pale throat and underpart coloration in contrast with darker upperparts. The obviously long tail and thickness and length of the legs suggest that this is not a terribly small bird. The combination of dark coloration on the back, wings, and tail, combined with the overall impression of largish size, indicate that the mystery bird is probably a member of the blackbird family, *Icteridae*. Corvids, such as crows and ravens, can be ruled out as possibilities because of the pale coloration on the underparts of the featured species.

Assuming that the pictured bird is a blackbird, several species can at once be eliminated. The bill shape and long tail readily remove the chunky-billed, uniformly colored female Brown-headed Cowbird as a candidate, while the absence of ventral streaking also take the juvenile cowbird, as well as female and immature male Red-winged Blackbird, out of the picture. Similarly, a female Yellow-headed Blackbird would show a few dusky streaks at the sides of the upper breast, along with a sharp contrast between a light-colored upper breast and a completely dark lower breast and belly. The pale supercilium and lighter underparts of the pictured blackbird are most suggestive of an immature or female Rusty Blackbird in winter plumage; however, the bill size and shape, long tail, apparent lack of pale (brownish) coloration on the back, and absence of a broad and strongly contrasting supercilium do not point in this direction. Similarly, the rare (in Massachusetts) Brewer's Blackbird would possess an

even finer bill than a Rusty Blackbird and would never exhibit the strong dorsal/ventral color contrast shown by the mystery blackbird.

With the above species eliminated, the only remaining choices are between Common Grackle, Boat-tailed Grackle, and Great-tailed Grackle. Since grackles all have longer tails and heavier bills than any of the above-mentioned blackbirds, all three species need to be considered. Adult Common Grackles in virtually any plumage are more uniform in coloration than the pictured blackbird, and adults often appear to have a hooded effect produced by their highly iridescent head, nape, and chest feathers. Juvenile Common Grackles are uniformly dusky in color. With Common Grackle removed from the list of identification possibilities, the choice becomes one between Boat-tailed Grackle and Great-tailed Grackle – either of which would be a rarity in the Bay State.

Distinguishing between North America's two largest grackles in the genus *Quiscalus* can be challenging, even for experienced observers. It is safe to say that because the mystery grackle has a pale throat and breast it is clearly a female, since males are uniformly glossy black. With this in mind, it is important to note that the pale supercilium gradually fades into the back of the crown and nape and does not provide a sharp contrast with the crown, which is a feature characteristic of female Great-tailed Grackles. Additionally, the coloration on the underparts is notably pale and extensive, appearing to gradually darken only in the area of the lower chest, rather than showing a dark cast to the entire upper breast and belly in contrast with the light throat — another feature of female Great-tailed Grackles. Finally, an examination of the shape of the pictured bird's head reveals a rounded appearance, especially to the back of the crown, which is in marked contrast to the notably flat-headed appearance typical of a female Great-tailed Grackle. Clearly, all indications are that the mystery blackbird is a female Boat-tailed Grackle (*Quiscalus major*).

One additional observation is to note that the iris coloration appears to be dark. This feature, when able to be seen clearly, is a reliable method for distinguishing Boat-tailed from Great-tailed Grackles, which typically have bold white eyes. An important caveat to this feature, however, is the fact that Boat-tailed Grackle populations breeding on the Atlantic Coast north of Florida have bright pale eyes, even though most birds nesting along the Gulf Coast and in peninsular Florida have darkish eyes. This is an interesting case where eye color undoubtedly functions as an important isolating mechanism in areas where the ranges of Boat-tailed and Great-tailed Grackle overlap.

There is a single sight record of a large, *Quiscalus* grackle in Massachusetts; however, the specific identification of that individual as a Boat-tailed Grackle was rejected by the Massachusetts Avian Records Committee (MARC) because the possibility of the wide-ranging Great-tailed Grackle could not be eliminated. Although Boat-tailed Grackles nest as close to the Bay State as coastal Connecticut and Long Island, New York, their presence in Massachusetts has yet to be confirmed. Birders should remain on the lookout for this large, tidewater grackle in salt marsh areas, particularly in southern coastal areas during spring. The Boat-tailed Grackle in the photo was captured on film by the author in Florida. Wayne R. Petersen

AT A GLANCE

Photograph by Roger S. Everett



Can you identify this bird?

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

Bird Observer Flashback: September/October 1974

Birding at the Prudential Center by Henry T. Wiggin

Henry Wiggin describes an astonishing selection of birds discovered surrounding the Prudential Center in downtown Boston, including this anecdote:

October 1, 1970: One of the maintenance men rescued a Common Nighthawk that was drowning in the moat. He didn't know what to do with the soggy goatsucker — Ah, that crazy little birdwatcher would know what to do with it. The trouble was that he thought that I was on the 43rd floor (I'm on the 45th). So up he came on the elevator with the reviving nighthawk starting to flap its wings and spreading water in all directions. The maintenance man, who could speak maybe 15 words of English, strode steadily ahead, in through an office door, and proudly presented the bedraggled bird to the President of a multi-million dollar corporation. After five minutes of pandemonium, the maintenance man took back his unwanted gift, went back down the elevator, out the door, and let the bird fly off.

BIRD OBSERVER (USPS 369-850)
P.O. BOX 236
ARLINGTON, MA 02476-0003

SECOND CLASS
POSTAGE PAID
AT
BOSTON, MA

Dec 01

CONTENTS

3

BIRDING THE BOSTON HARBOR ISLANDS	<i>John Nove</i>	173
TERNs NESTING IN BOSTON HARBOR: THE IMPORTANCE OF ARTIFICIAL SITES	<i>Jeremy J. Hatch</i>	187
THREE TIMES A LADY	<i>Rob Gough</i>	194
JAMES LEE PETERS AND THE <i>CHECK-LIST OF BIRDS OF THE WORLD</i>	<i>William E. Davis, Jr.</i>	196
ACADIAN FLYCATCHERS NESTING ON MARTHA'S VINEYARD, DUKES COUNTY	<i>Matthew L. Pelikan</i>	201
THE WIRED BIRDER Bird Imaging for Art and Documentation	<i>Shawn Carey, Donald Crockett, Stephen Mirick, and David Larson</i>	206
THE MURRELETS	<i>Brooke Stevens</i>	215
YOUNG BIRDERS A Winter Outing	<i>David Allen</i>	223
FIELD NOTES Drakes are From Mars: Hens are from Venus "Three's Company"	<i>Paul Roberts</i> <i>Joey Mason</i>	225 226
ABOUT BOOKS A Bird Guide of a Different Kind <i>Taking Wing: Archaeopteryx and the Evolution of Bird Flight</i>	<i>Karsten E. Hartel</i> <i>William E. Davis, Jr.</i>	229 231
BIRD SIGHTINGS: January/February 2001 Summary		233
ABOUT THE COVER: American Redstart	<i>William E. Davis, Jr.</i>	251
ABOUT THE COVER ARTIST: Julie Zickefoose		252
AT A GLANCE	<i>Wayne R. Petersen</i>	253