

BIRD OBSERVER



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Manuscripts should be typed double-spaced on one side only of 8.5 x 11 inch paper with 1.5 inch margins all around. There is no limit on the length of manuscripts, but most do not exceed 10 double-spaced typewritten pages (about 3000 words). Use the 1983 A.O.U. Check-List for bird names and sequence. Type tables on separate pages. Black-and-white photographs and graphics are best. Include author's or artist's name, address, and telephone number and information from which a brief biography can be prepared if needed. Views expressed in *BIRD OBSERVER* are those of the authors and do not necessarily reflect an official position of Bird Observer of Eastern Massachusetts, Inc.

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CALL FOR VOLUNTEERS FOR EASTERN MASSACHUSETTS HAWK WATCH (EMHW)

**Weekend hawkwatches at numerous eastern Massachusetts sites:
September 10-11, 17-18, 24-25, and October 29-30.**

**Consecutive-day hawkwatch at Wachusett Mountain in Princeton:
September 1 through October 10.**

Volunteer observers are needed for all of these dates, especially for weekdays at the Wachusett Mountain consecutive-day hawkwatch. If you're a beginning hawkwatcher, we will team you with a more experienced observer. If you can devote a half-day or more to hawkwatching this fall, write Paul Roberts, 254 Arlington Street, Medford MA 02155, or call him after 8:00 P.M. at 617-483-4263 for more information.



Map by J.L.H.

BIRDING IN PERU, PART II: CUSCO AND THE PUNA

by Bruce A. Sorrie

Having gotten the feet wet, so to speak, along the coast of Peru with its abundance of maritime birds and oasis species (read "Birding in Peru, Part I: The Southern Coast," *Bird Observer*, August 1985, 13: 176-182), one is naturally tempted to venture inland to sample less familiar genera. But where? The vast Andean chain stands as a barrier, a complex uplift that in Peru rises to 6768 meters (22,205 feet), supports an awesome diversity of habitats, and cannot be easily known. Few good roads ascend its flanks, and none of them is fast by U.S. standards.

Acclimatizing at Cusco. Fortunately, one can fly right to the heart of the Peruvian Andes, to Cusco (also spelled Cuzco but pronounced "koos'koh"). In a flight that lasts only an hour, one's surroundings are magically transformed from the barren landscape of the desert coast to the fertile Apurimac Valley, for centuries the center of Inca civilization. At 3475 meters (11,400 feet), Cusco takes some getting used to. Don't worry about missing a day of birding: it's better to miss getting altitude sickness. So stroll around the plazas at a slow pace, see old Inca foundations with their marvelously fitted cut stone blocks, tour the Spanish colonial cathedrals, check out the museums, and barter for alpaca sweaters ("chompas"). Do nothing strenuous for twenty-four hours. Cusco is a major city in terms of Peru's economy, and you will quickly see why -- tourism. Besides the attractions in the city, there are major Inca ruins just uphill at Sacsayhuaman and Kenko, as well as nearby Pisac and Ollantaytambo. And Cusco is the starting point for most visitors to Machu Picchu, an absolute "must" visit. So there is plenty to see and do, plus dining that is not bad by birders' standards.

Birds of the Cusco area. Once having gotten your mountain lungs, the urge to bird grows strong. By then, however, you will have already added substantially to your Peru list. Andean Lapwings and Andean Gulls usually frequent the airport grass and adjacent stony river bars. Greenish Yellow-Finches and the ever-present Rufous-collared Sparrows may be seen in plazas and gardens and on roofs. Andean Swifts and Brown-bellied Swallows course the rarified air. Walking around the ruins above the city will yield several other species, especially in shrubby thickets: Spot-winged Pigeon, Eared Dove, Sparkling Violetear, Bar-winged Cinclodes, Rusty-fronted Canastero, Rufous-naped Ground-Tyrant, House Wren, Chiguanco Thrush, Blue-and-yellow Tanager, Band-tailed Sierra-Finch, and Cinereous Conebill. The more you get away from roads and into farmyards, brushy draws, and gardens, the more you will see. However, the Eucalyptus groves of tall trees are dull for birding.

Due to its position and elevation, Cusco supports a mix of west slope, east slope, and true puna-zone species. Persistence (and proper seasonal timing, in some cases) will produce Andean Tinamou, Andean Hillstar, Giant Hummingbird, Green-tailed Trainbearer, Andean Flicker, Black-billed Shrike-Tyrant, Pied-crested Tit-Tyrant, White-browed Chat-Tyrant, Black-throated Flower Piercer (*Diglossa brunneiventris*, now distinct from Carbonated), Bright-rumped Yellow-Finch, Gray-hooded Sierra-Finch, Hooded Siskin, and Chestnut-breasted Mountain-Finch. Unfortunately, due to the expanding human population and subsequent loss of woody vegetation, birding in the vicinity of Cusco is not very exciting, and most people tire of it after a couple of days.

Urpicancha ponds. Before leaving Cusco, be sure to bird the Urpicancha Ponds in Huacarpay for a taste of puna wetland species. Only half an hour from Cusco on the main road to Urcos, this small complex of marshes and ponds offers easy viewing from a dirt road that encircles most of the wetland. A couple of stops at farm fields and woodland patches along the way will yield Puna Hawk, American Kestrel, Bare-faced Ground-Dove, Giant Hummingbird, Shining Sunbeam, Mourning Sierra-Finch, Golden-billed Saltator, and other species of general occurrence in the Cusco area. The wetlands and adjacent streamside meadows offer a fair diversity of habitats for White-tufted Grebe, Puna Ibis, Speckled, Puna, and Cinnamon teal, Yellow-billed Pintail, Andean Ruddy Duck, Plumbeous Rail, Common Moorhen, Slate-colored Coot, Andean Lapwing, Baird's Sandpiper (and other North American migrants), Andean Gull, Wren-like Rushbird, the diminutive but spectacular Many-colored Rush-Tyrant, and the locally distributed Yellow-winged Blackbird. Adjacent rocky, bushy slopes support an assortment of ovenbirds (canasteros, thistle-tails, etc.), chat-tyrants, sierra-finches, and others. Drive down the dirt road that skirts the east side of the large open pond. At the southeast corner are many tobacco bushes that attract the Bearded Mountaineer, a hummingbird known to occur in only two departments (states) of Peru.

To Puno and Lake Titicaca by road or rail. The Urpicancha Ponds are split by the two land routes to Puno and Lake Titicaca: the auto road and the railroad. The former is a grueling, bumpy, ten-hour drive. The latter (an eight-hour ride scheduled every other day) is one of the great train rides of the Andes. The pastoral landscapes coupled with views of snow-capped peaks (especially at and just south of Abra La Raya, 4300 meters or 14,150 feet) make the journey a real delight. Go first class, catch up on your reading, and have your binoculars and camera ready. The many pools and streams along the route have most of the same species as the Urpicancha Ponds plus Silvery Grebe, Neotropical Cormorant, Black-crowned Night-Heron, Mountain Caracara, Aplomado Falcon, Spot-winged Pigeon, Burrowing Owl, and Andean Flicker. Also watch

for herds of domestic llamas and alpacas. Warning: thieves may work the train, especially by boarding at stations south of the pass (Abra La Raya).

Lago Umayo for better birding. Once in Puno, a scruffy but economically important border town, rent a car or driver and drive about to gain a view of magnificent Lake Titicaca, an enormous body of water straddling the Bolivian border and home to many endemic fish, frogs, and other aquatics. However, the lake offers little for the birder, whose time is best spent at Lago Umayo located right beside an excellent road that leaves the main highway several kilometers north of Puno. Here one can expect to see at close range pairs of Short-winged Grebes, endemic to the Titicaca-Poopó basin (Poopó is a lake in Bolivia). The Urpicancha waterbirds will all be here plus Andean Swallow, Puna Yellow-Finch, Andean Parakeet -- a wonderful sight to see in a new dusting of snow at 4000 meters (13,100 feet) -- Black Siskin, Black-winged Ground-Dove, Wilson's Phalarope, Plain-breasted Earthcreeper, and other puna-zone species. In June of 1986, my tour group had an extraordinary sight -- Chilean Flamingos in a roadside pond created by the overflowing Lake Titicaca. Nice as this experience is, however, to see the true puna zone and its special avifauna, you must travel westward.

Puno-Mazo Cruz-Moquegua. I've taken two routes, one from Puno to Moquegua via Mazo Cruz, the other from Puno to Arequipa via Juliaca. The former is very rugged, with many kilometers between settlements and *only one gas station* -- actually just a few fifty-five-gallon drums in a shop in Mazo Cruz. Fortunately, the proprietor will dispense gasoline at practically any hour. And the route passes through some lovely snow-capped scenery, beside jewel-like lakes full of three species of flamingos and puna waterfowl, through puna "bogs" where Diademed Plovers (sometimes called Diademed Sandpiper-Plover) and Rufous-bellied Seedsnipe pass days at a time without seeing humans, and through sandy, stony wastes where Puna Rheas eke out a living.

The Puno-Juliaca-Arequipa road, on the other hand, is a main thoroughfare, populated particularly by Bolivian truckers, so it is best to take this one in case of breakdown or other problems. Before leaving Juliaca, spend some time shopping for alpaca goods in the central square, for the prices are low. The drive from Juliaca to Arequipa takes about eight hours without birding. There are no gas stations beyond Santa Lucia and there are no hotels on the way, but one may camp almost anywhere off the road. Be prepared for cold. We spent two nights tenting in June, when temperatures dropped as low as ten to twenty degrees F. The appearance of the sun above the hills in the morning signals a rapid rise in temperature so that by 9:00 A.M. a sweater and light jacket are comfortable.

Westward into puna scrub. Driving westward, the road slowly climbs. Cinereous Harriers ply the rangeland and Aplomado Falcons survey the



Vicuñas

Photo by Bruce A. Sorrie

bunchgrass slopes from telephone poles. The landscape looks like parts of Wyoming or the Great Basin of the western United States but at an elevation 2450 meters (8000 feet) higher. Just past Santa Lucia, look for D'Orbigny's Chat-Tyrant on the big rock slope. Ahead lie the deep blue waters of Laguna Saracocha. All around its margin Giant Coots busily add fresh greenery to their ponderous nests while Slate-colored Coots, only half the bulk, tip for pondweeds. Silvery Grebes raft farther out with Puna Teal. Andean Geese, relatives of the Kelp Goose of Patagonia, keep wary watch here and at adjacent Laguna Lagunillas. Crested Duck, a large high-altitude species with a dark ocular patch and a low, short crest, occurs here as well. The dry grassy slopes are dotted with yellow-flowering shrubs with scalelike leaves. These "tola" bushes give this widespread plant community its name, "tola scrub" or simply, "tola." This habitat harbors more puna specialists: Ornate Tinamou, Common and Puna miners, Bar-winged and White-winged cinclodes, Plain-breasted Earthcreeper, Streak-backed and Cordilleran canasteros. All of these species except the tinamou belong to the ovenbird family (Furnariidae), members of which are prevalent in the puna along with flycatchers and finches. Check cultivated plots for Rufous-naped and Cinereous Ground-tyrants (now separated from Plain-capped), Bare-faced and Golden-spotted Ground-Doves. Puna Tinamou, big, wary, and good eating, calls early in the morning but is hard to see.

Flora and fauna of the puna desert. It is difficult to describe the beauty of the puna's broad expanses of rolling, hilly terrain, vegetated primarily by clumped bunchgrasses called "ichu" and punctuated by distant "nevados" (snow peaks). Some see it as a dry wasteland, and indeed it is a high elevation desert that gets dryer as one progresses westward.

There is much to be seen by the alert observer. Vicuñas, wild relatives of domestic llamas and alpacas, may be seen anywhere in small bands grazing on the ichu's softer green shoots. They are smaller and more delicate than the other camelids, are a soft *café au lait* color, and are supremely graceful. Thanks to rigorous protection by the Peruvian government, one can now view these lovely animals over much of the puna. (The only other wild camelid in South America, the Guanaco, found at lower grassland elevations, is extremely rare and local in Peru.) Viscachas are larger relatives of chinchillas and inhabit stony canyons and boulder slopes. They like to sun themselves atop boulders (often accompanied by Andean Flickers), looking like short-eared rabbits with squirrellike tails. Gray-breasted Seedsnipe also use rocks to call from. These plump quaillike birds are actually highly modified shorebirds that feed on seeds and small fruit. Their flight, swift and twisting, affirms their relationship. White-throated Sierra-Finches and Golden-spotted Ground-Doves, rare north of this latitude, are characteristic species of the dry puna of the central Andes. Spot-billed Ground-Tyrant is one of several migratory species of these upright, ground-dwelling flycatchers that move north from the southern Andes and Patagonia and spend their nonbreeding season at middle latitudes.

Up to the heights: 15,500 feet. At Alto Toroya the road reaches its highest point, 4725 meters (15,500 feet). At a nearby puna bog we were amazed to find several butterflies, and there were frogs in the icy streamlets. It must be remembered that temperatures fall below freezing nearly every night of the year here, yet poikilothermic animals, including lizards, have successfully adapted to the rigors. Take a moment to listen -- to silence. Save for the occasional bird note, it is absolute. The puna is easily the most quiet and serene place that I have experienced.

Several kilometers westward the road flattens out and passes by a slope with bright green, rounded rocks -- or so they seem. Actually, they are yareta plants, members of the carrot family (Umbelliferae) that are so tough the dried plants are used as firewood. The bleaker the habitat the more yareta dot the ground in company with other highly adapted species of cushion plants. Even the cacti here look like inverted bowls.

The Diademed Plover. Farther on, the road descends abruptly to Pati. At the kilometer 166 marker above the village is a large puna bog. Puna bogs develop where seepage water emerges from several points along a slope and collects into loosely braided streamlets. The prominent vegetation is a very short, compact, supertough member of the rush family Juncaceae, genus *Distichia*. It is so firm that walking on it hardly leaves footprints. Here, in this unlikely and rather forbidding habitat, lives one of the most highly prized members of the avian world, the Diademed Plover. Even today little is known of the distribution and life history of this unusually plumaged shorebird, but my

observations indicate that one pair occupies and defends one large bog or perhaps a few smaller ones. The birds are wary, yet reluctant to fly, only moving just out of camera range. Trying to get close photos is a good way to find out how acclimated to the altitude you have become. The call is a weak "fee-eu," the quality reminiscent of a distant oystercatcher. Most bogs don't have Diademed Plovers, despite seemingly ideal conditions.

Other denizens of these unique wetlands are Crested Duck, Speckled Teal, Puna Snipe, Andean Lapwing, Bright-rumped Yellow-Finch, and White-winged Diuca-Finch, which looks similar to White-throated Sierra-Finch and which some claim is the world's highest nesting bird.

Also found here are Rufous-bellied Seedsnipe, slow moving, beautifully camouflaged, football-sized birds that resemble ptarmigan in shape and that explode like grouse, rocketing away with such controlled power as to make snipe and other shorebirds look like lumbering buteos.

Laguna Salinas and three flamingo species. Now, finally, you are ready for Salinas. Most birders "do" Laguna Salinas backwards. That is, after a frantic and dusty drive along the tortuous road from Arequipa, trying to bird on the way but really wishing they were at the lake instead, they arrive at noon or later when the birds are quietly snoozing and the birders are suffering excruciating, death-wish headaches from too much activity at high altitude. My alternative? Take a leisurely pace and camp out beside the lake. Then you can awaken from a rest or a night's sleep to a silvery mirror turned pink by the reflected bodies of thousands of flamingos. "Salinas" means salt lake, and this shallow basin normally has broad expanses of drying salt flats. During cycles of higher



Yareta

Photo by Oliver Komar

precipitation, the basin fills up, apparently leading to a dramatically increased production of zooplankton and this in turn attracts more flamingos. Chilean Flamingos are by far the most numerous, followed distantly by the James' or Puna species and then the Andean Flamingo. Over seventy-five thousand birds paraded in front of us in June 1986, truly a spectacle!

And flamingos are not the whole birding story. There is much more: Andean Avocet, Andean Goose, Yellow-billed Pintail, Wilson's Phalarope, Baird's Sandpiper, Puna Plover, Andean Gull, and Rufous-backed Negrito (a neat little flycatcher). Foraging in nearby barren slopes and ichu grassland are Ornate Tinamou, Gray-breasted Seedsnipe, Cordilleran Canastero, Slender-billed and Common miners, and other standard puna fare.

The ride down to Arequipa is unpleasant at best. However, magnificent views of El Misti and other volcanos help ease the strain, as does the somewhat sparse but interesting avifauna of the arid Andean west slope. Around the kilometer 88 and 89 markers, look for White-throated Earthcreeper, Andean Tit-Spinetail, Andean Hillstar, Yellow-billed Tit-Tyrant, Black-hooded Sierra-Finch, and Tamarugo Conebill in and around the *Polylepis* thickets. Farther below, cactus slopes and canyons yield Black Metaltail (a hummingbird), Canyon Canastero, Thick-billed Miner, Streaked Tit-Spinetail, Blue-and-white Swallow, Cinereous Conebill, and Blue-and-yellow Tanager.

Arequipa and leavetaking. Peru's second city, is a delightful experience and a great place to unwind. Be sure to visit the Santa Catalina Monastery, recently opened to the public for the first time in over four hundred years. If you have time, you can drive from Arequipa down to the coast at Camaná and bird your way north along the coast to Lima, but it is a long trip (described in "Birding in Peru, Part I"). If your stay in Peru does not permit this, you can fly from the major airport directly to Lima for departure from Peru. Or fly back to Cusco if you haven't yet visited Machu Picchu on the wetter eastern slope of the Andes. A few days exploring this remarkable area will acquaint you with numerous species of the humid subtropical zone (altitude: six to eight thousand feet).

BRUCE A. SORRIE is best known for his work as program botanist for the Natural Heritage Program in Massachusetts. A field botanist of national reputation, Bruce has rediscovered nearly 80 percent of the rare plant species of the state. He has also done research at the bird observatories at Point Reyes and Manomet, has led birding tours throughout the neotropics, and since 1978-79, after he spent five months in Amazonian Peru and in the high Andes, has been interested in that country's natural history. He has returned to Peru several times, primarily to study bird distribution in the puna zone. He has promised *Bird Observer* a third article on Peru to introduce our readers to Amazonia.

PROTECTION OF MASSACHUSETTS' NESTING TERNS

by Scott Hecker and Ann Prince Hecker

In 1896, when the Massachusetts Audubon Society (MAS) was created to stop the killing of terns and other birds for their plumage, a tradition of avian species protection began that has remained an integral part of the conservation program. Through its Coastal Breeding Bird Program, the society continues to protect terns, plovers, and a variety of water birds that nest on the Massachusetts shoreline and to increase the total number of fledglings that live to depart with their parents in late summer and early fall for warmer climes.

There are several obstacles that the state's coastline birds face in their attempts to breed successfully. The most serious are predation, lack of appropriate habitat, and displacement by gulls. An ideal site for a colony is one that is free of foxes, skunks, weasels, rats, and other mammalian predators and above the reach of tides so that nests and young will not be washed away. And the site should be in close proximity to an abundant food source such as an offshore migratory-fish route, a salt-marsh creek, a coastal shallow, or an intertidal mudflat. It is the goal of Massachusetts Audubon to make certain that the locations available for tern colonies are as close as possible to being optimal sites for nesting. Most of the sites that the MAS Coastal Breeding Bird Program oversees occur on town and private lands on the South Shore and Cape Cod. A full-time coordinator, research assistants, and seasonal interns are employed by the society to monitor these areas.

Each year approximately thirty tern nesting areas are posted with signs, patrolled regularly, monitored for predation, and censused for nesting success. At the three largest colonies in the state, New Island, Bird Island, and Plymouth Beach, the young of Common and Roseate terns are banded. Common, Roseate, and Arctic terns require similar nesting conditions and often occur together in mixed colonies, sometimes containing over four thousand pairs. It is possible to distinguish the three species from each other by bill colors and by subtle differences in plumage. The Least Tern, which is half the size of the others, cannot be mistaken for any other tern.

Typically, the nesting habitat for Common, Roseate, and Arctic terns is an area on an island or on the tip of a barrier spit that is well above the high tide line and is lightly vegetated with beach grass or herbaceous forbs. Within the varying boundaries of the colony, the three species form subcolonies. The Common Tern, usually the most abundant species, generally nests on bare sand or stone and on flat areas or slopes with no vegetation or light, herbaceous cover. It is the only local tern species that makes a nest, which it assembles with beach grass. The Common Tern usually lays three coffee-colored eggs with dark

Identification of Terns Nesting in Massachusetts

	<u>Common Tern</u>	<u>Roseate Tern</u>	<u>Arctic Tern</u>	<u>Least Tern</u>
<u>Length</u>	13-16 inches	14-16 inches	14-17 inches	8.5-9.5 inches
<u>Bill</u>	red orange, blackish tip medium length	mostly black longer	blood red shorter	yellow smallest
<u>Body plumage</u>	medium-gray back white breast	light-gray back white breast	medium-gray back light-gray breast white cheek stripe	light gray back white breast
<u>Feet</u>	red orange	orange red	orange red, small	yellow
<u>Call</u>	"kee-ar-r-r"	"aa-a-ak" or "che-bek"	"tr-tee-ar"	"zree-e-p" or "kip, kip kip"
<u>Tail length (at rest)</u>	shorter than wing tips	longer than wing tips	same length as wing tips	shorter than wing tips
<u>Abundance in the state</u>	common entire coastline	uncommon se coastline	uncommon	common entire coastline

brown speckles. The Roseate Tern nests on the highest ground in the colony, usually on a slope with dense vegetation. There are two cream-colored, darkly speckled eggs laid in a well-concealed nest. The Arctic Tern finds a place to nest at the edge of the colony on relatively open bare ground, which is often close to the tidal wrack line. The nest is lined with a small amount of grass or debris, and it contains two or three olive-brown, spotted eggs.

Since the 1950s the most serious threat to Common, Roseate, and Arctic terns has been the loss of productive nesting habitat to Herring and Great Black-backed gulls. In the past fifty to sixty years the combined breeding populations of the gulls in Massachusetts have exploded from essentially none to over fifty thousand breeding pairs. The gulls, which nest in April, have displaced the terns, which nest in May, from the better nesting sites such as small offshore islands. The terns have been forced to nest on less-protected beaches where they are vulnerable to predation by mammals and to disturbance by humans.

State censuses of the gulls and the terns in the past few years indicate another reversal in the population trends. Gull numbers may be declining as a result of the covering and closing of municipal landfills. In contrast, since 1984 the Common Tern population in the state has increased by 27 percent, from seven thousand pairs in 1984 to ninety-five hundred pairs in 1988. Roseate and Arctic terns, however, have not increased in numbers during that period. Other than the large Roseate colony on Bird Island in Marion, the population of this tern has declined by over nine thousand and ninety pairs in New England. The steady loss of Roseate Tern colonies in the Northeast is the reason this bird was declared a federally endangered species by the U.S. Fish and Wildlife Service in December 1987.

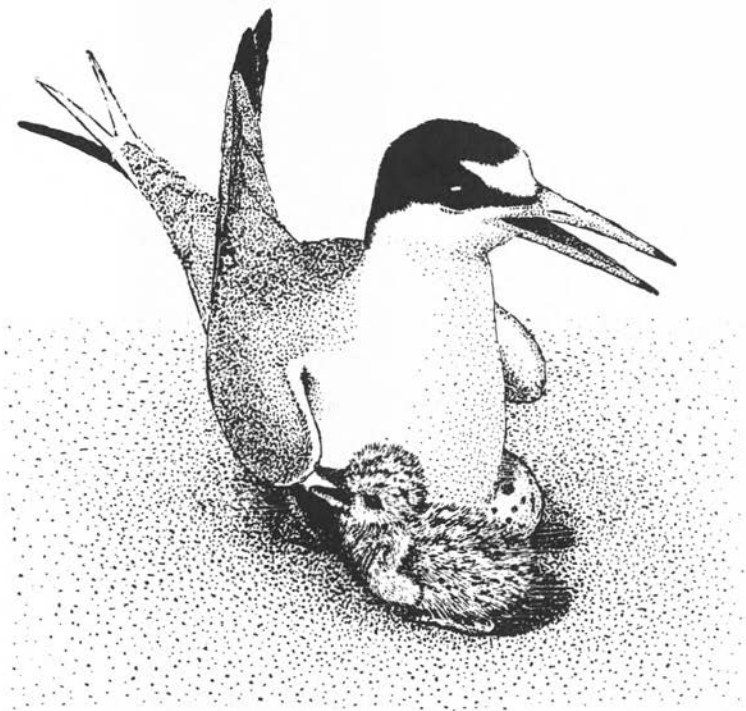
In 1988 there were approximately thirty sites where Common, Roseate, and Arctic terns nested. Of the more than eleven thousand nests censused in the 1988 breeding season, 82 percent occurred at only three colonies: New Island in Orleans, Bird Island in Marion, Plymouth Beach at Plymouth. As at nearly all the remaining smaller colonies, consumption of eggs and young by mammalian and avian predators was substantial at three of these large colonies. The colony at Plymouth Beach was heavily impacted by skunks and significantly disturbed by recreational use. At New Island nearly one hundred adult terns were killed by a Great Horned Owl in a one-month period. Only Bird Island, which is monitored by the Massachusetts Audubon staff on a daily basis, was virtually unaffected by predation. This year, however, Great Black-backed Gulls were seen killing and swallowing whole fledgling terns at most major colonies.

The Least Tern does not associate with the other tern species that nest in Massachusetts, but it is often found sharing the beach with Piping Plovers. Least Tern colonies are widespread on beaches in the portion of the state south of the North River area. The colony size ranges from a few pairs to over five hundred pairs. Typically, Least Terns nest on bare sandy or pebbly ground on the open beach at the tip of a barrier spit or island. The average-sized colony of thirty to sixty nests is usually located between the edge of the dune vegetation and the high tide line. Individual nests in which two sand-colored, finely speckled eggs are laid are nothing more than depressions, which are occasionally decorated with bits of white shell.

Piping Plovers often nest near or within the perimeter of a Least Tern colony. They usually choose to nest just within the edge of the beach grass or other vegetation but occasionally nest out in the open among debris on the tidal wrack line. The nest of this species is also only a small depression decorated with bits of shell. It typically holds a full clutch of four sand-colored eggs with fine, pepperlike speckling.

According to the 1988 Massachusetts census of Least Terns, there were over twenty-six hundred pairs at approximately fifty colony areas. The total is slightly higher than those of the past few years. Colonies with over one hundred pairs were recorded at six locations: Kalmas Park in Hyannis, North Monomoy Island off Chatham, Great Point on Nantucket, Popponessett Spit in Mashpee, and Nauset Heights Spit in Orleans.

The most serious threats to Least Terns and Piping Plovers are coastal development and the ever-increasing use of beaches for recreation. These disturbances have the same effect on Least Terns and Piping Plovers that colonizing gulls have on the larger terns. Development and beach use force the smaller nesters to move to poor sites where predation may be great and flooding tides are possible. If regular disturbances occur at a Least Tern colony in the early part of the summer, the colony will abandon the site to search for another. In Massachusetts foxes and skunks are the major predators on eggs and young. One fox regularly visiting a Least Tern nesting area can reduce fledgling productivity to zero.



Least Tern and Chick

Illustration by Scott Hecker

In 1988 the aim of the MAS Coastal Breeding Bird Program was to increase fledgling productivity of all four tern species at the larger colonies. An attempt to decrease the impact of predation by foxes, raccoons, and skunks included the use of two experimental techniques: solar-powered electric fences and conditioned taste aversion. The latter method is a technique of baiting tern nesting areas with chicken eggs injected with bad-tasting substances so that predators are conditioned not to eat any eggs found near the baited areas. This technique has been applied in the Great Lakes Region with high success.

How to help terns and other coastal waterbirds.

It is hoped that a combination of good management practices, testing new deterrents for predators, and enlisting the support and goodwill of the public will continue to help the nesting terns in Massachusetts. The following list indicates some of the ways individuals can become involved in this important conservation effort:

1. Write or call to ask where your local tern colony is and what you can do to help in its protection and management.
2. Help to plan a neighborhood slide lecture and guided tour, for the appropriate season, to a local tern colony.
3. Volunteer to spend an hour or more per week observing coastal species of birds during the nesting season.
4. Make a contribution to the MAS Tern Fund.
5. For further information about the MAS Tern Management Program, call or write to Scott Hecker, Massachusetts Audubon Society, Lincoln MA 01773 (telephone 617-259-9500).

SCOTT HECKER is coordinator of the Coastal Breeding Bird Program for the Massachusetts Audubon Society (MAS). His interest in birds stems from childhood in Olmsted Falls, Ohio. He combined interests in wildlife ecology and art at college in Arizona and continued in the field of natural resource management in graduate school in New Hampshire. An accomplished photographer and professional wildlife artist, he has taught biological illustration and produced drawings for the National Park Service. Scott's *Great Horned Owl* appeared on the February 1987 issue of *Bird Observer*. An exhibition and sale of his artwork was held in the summer of 1988 at the Green Briar Nature Center gallery in East Sandwich. Scott leads MAS natural history tours to Belize, where he pursued his doctoral study of the Aplomado Falcon.

ANN PRINCE HECKER is assistant editor of *Sanctuary*, the publication of the Massachusetts Audubon Society and loves to write. Her interest in birds was sparked when she met Scott, and now her favorites are warblers, plovers, and terns. Ann and Scott have lived in Belize where they worked on national park development. They now reside in Marshfield on the North River.

DISTRESS CALLS IN BIRDS: AN AVIAN ENIGMA

by William E. Davis, Jr.

In a previous *Bird Observer* article (1987), I presented the hypothesis that birds respond to "psh-psh-psh" human calls because these noises resemble avian distress calls. In this article, I focus on the avian distress calls. A future article will discuss the evolution of these calls.

The high-intensity alarm calls emitted by birds when they are removed from mist nets, captured, or attacked by predators have been variously referred to as "distress calls," "squeals," "squalls," "screeches," or "screams" (Norris and Stamm 1965). Every birdbander has heard a catbird's shrieks when it is removed from the mist net or trap, and these same cries have been emitted by birds when in the grasp of predators. Boudreau (1968) has even demonstrated that emotional as well as physical stress can evoke this kind of response. In separate experiments he released a well-fed Sharp-shinned Hawk into cages with European Starlings, Northern Flickers, Acorn Woodpeckers, Western Meadowlarks, and Western Bluebirds, and they responded by emitting typical distress calls, even though the hawk did not attack them.

Distress calls are typically harsh (covering a wide range of frequency or pitch), loud (high amplitude), and repetitive (at half-second to one-second intervals). They may be uttered for several minutes without interruption. These characteristics make the location of the caller easy to detect (Marler 1955). All these calls are remarkably similar in sonic structure, even among birds with very different evolutionary histories (Figures 1-7). Birds that emit distress calls are found among a wide variety of orders including the Galliformes (e.g., quail), Charadriiformes (shorebirds), Columbiformes (doves), Psittaciformes (parrots), Apodiformes (hummingbirds), Coraciiformes (kingfishers), Piciformes (woodpeckers), and Passeriformes (perching birds).

Distress calls have been largely ignored by researchers until relatively recently, despite the interesting questions they pose. Why do birds emit these calls? Are they adaptive -- that is, do they give the caller some advantage that enhances the probability of its survival? Or are they merely an artifact of some other behavior with no evolutionary significance? For example, the screams emitted by a person falling from a twenty-story building do not confer any survival advantages over a person falling from the same height who does not scream. Nonetheless, screaming may, in our evolutionary history, have had a survival advantage, such as the scream of a child to signal its parents that it is in trouble.

Figures 1 through 7 are sonagrams (wide band) of distress calls emitted by a variety of birds while they were being removed from mist nets. The horizontal axis measures time in seconds, and the vertical axis measures kilohertz or thousands of cycles per second. The latter is a measure of frequency or pitch. The darkness of the tracings gives an indication of amplitude or magnitude of the sound produced. All the distress calls have the following in common: they are harsh (they cover a wide range of frequencies), repetitive, easy to locate, and signal, "Here I am!" The calls are structurally quite similar considering that the species represent a variety of families, geographical areas, and evolutionary histories.

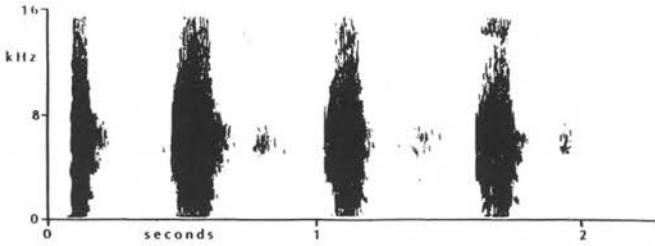


Figure 1. White-cheeked Honeyeater, *Phylidonyris nigra*, banded near Sydney, Australia

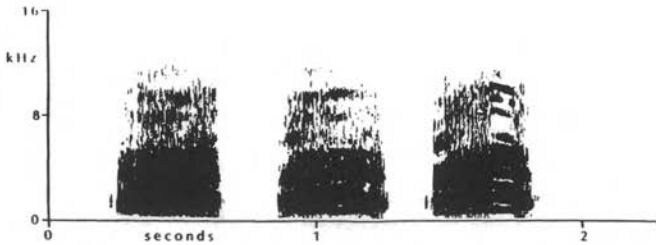


Figure 2. Laughing Kookaburra, *Dacelo novaeguineae*, banded near Sydney, Australia

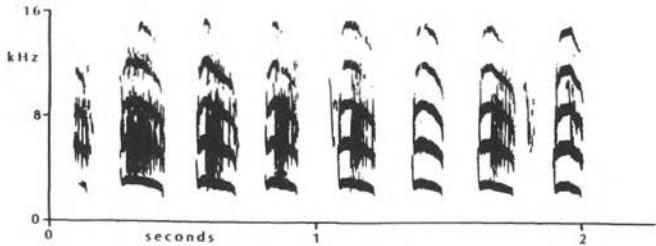


Figure 3. Variegated Wren, *Malurus lamberti*, banded near Sydney, Australia

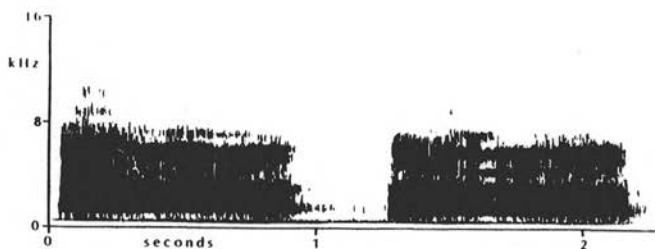


Figure 4. Great Crested Flycatcher, *Myiarchus crinitus*, banded at Manomet Bird Observatory, Manomet, Massachusetts

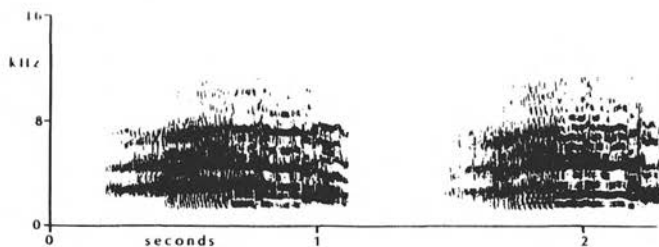


Figure 5. European Starling, *Sturnus vulgaris*, banded in Foxboro, Massachusetts

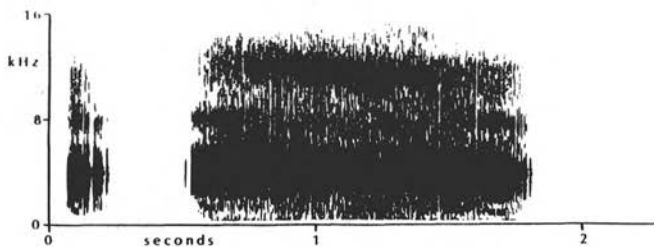


Figure 6. Bare-crowned Antbird, *Gymnocichla nudiceps*, banded in Belize, Central America

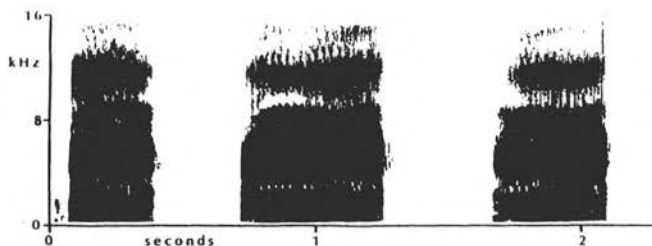


Figure 7. Great Antshrike, *Taraba major*, banded in Belize, Central America

In some species the percentage of individual birds emitting distress calls is high; in other species, low. Are there patterns of high or low responses within families, or patterns of such variation from season to season, between sexes, or by species "temperament"? Most of these questions have been addressed, but the results are often conflicting. Many patterns that emerge are riddled with flagrant exceptions, and some questions simply remain unanswered. Following are some of my own data that relate to these perplexing questions.

I have, for several years, made tallies of birds that emitted distress calls when removed from mist nets or traps and of those that did not. I have received help in this effort from interns at Manomet Bird Observatory; Earthwatch volunteers in Belize, Central America; and "ringers" in Australia. In a preliminary search for patterns of response, both within and among species, I have found more contradictions than consistencies, and many results conflict with published data. I looked at questions relating to how the percentage of birds that emit distress calls varies by season, by sex, within families, and by "temperament." The selected results presented below illustrate particular points with regard to these questions and are taken from a larger data set not yet analyzed statistically. In most cases I chose species with the largest sample sizes. The number of individuals in each sample is represented by *n*.

1. Does the percentage of birds emitting distress calls vary with the season? In some species, such as the Black-capped Chickadee, the percentage was fairly constant, with 7 percent calling in the fall ($n = 468$) and 6 percent in the winter ($n = 52$), or in Ovenbirds with 39 percent in the winter ($n = 38$) and 38 percent in the spring ($n = 8$). Other birds, however, showed enormous variations. Ten percent of Blue Jays called in the spring ($n = 22$), 35 percent in the fall ($n = 31$), and 6 percent in the winter ($n = 31$)! It may be that the high fall figure reflects the number of juvenile birds present. Forty percent of Black-and-white Warblers called in the spring ($n = 15$), however, and none called in the fall ($n = 6$), and no Northern Waterthrushes called in the fall ($n = 15$), but 15 percent called in the winter ($n = 26$).

2. Does the percentage of callers vary by sex? The reports in the literature on this question are conflicting. Balph (1977) reported a notable difference between sexes in Evening Grosbeaks, with females calling more frequently than males. This supported an observation by John Ogden (Norris and Stamm 1965) that in one instance five females gave distress calls and five males gave none. Balph suggested that the difference was related to the plumage dimorphism in this species. In a study of ten English species (Inglis et al. 1982), however, the only one to show significant sex differences was the European Starling, which is not obviously dimorphic! I once captured twenty-four Evening Grosbeaks at one time in my potter traps, with eleven males and thirteen females *all* emitting distress calls. In Belize 62 percent of male

Kentucky Warblers ($n = 12$) and only 21 percent of females ($n = 14$) gave distress calls.

3. Is there variation among species in the same family? My data suggest that there is great variability. In the Paridae family, Black-capped Chickadees called 7 percent of the time ($n = 520$), and Tufted Titmice called 93 percent ($n = 55$). In the Fringillidae, Evening Grosbeaks called 100 percent ($n = 24$), American Goldfinches 40 percent ($n = 10$), House Finches 6 percent ($n = 16$), and Dark-eyed Juncos 2 percent ($n = 80$). In the Vireonidae, White-eyed Vireos called 93 percent of the time ($n = 21$) and Red-eyed Vireos 29 percent ($n = 21$). In the Trochilidae, Long-tailed Hermits called 86 percent ($n = 84$), Rufous-tailed Hummingbirds called 35 percent ($n = 17$), and White-necked Jacobins 18 percent ($n = 17$). In the Pipridae, Thrushlike Manakins called 88 percent of the time ($n = 8$), and White-collared Manakins only 14 percent ($n = 43$).

4. Does the percentage of callers vary by species "temperament"? Some species are characteristically docile, and others are aggressive; some bite when handled, and others do not. Is there any correlation between distress-call response and temperament characters? Norris and Stamm (1965) suggested a correlation between "recalcitrant" birds showing "fright, anxiety, and hostility" and high incidence of distress calls when removed from mist nets (using woodpeckers, titmice, and cardinals as examples). My own data on cardinals and titmice agree with theirs. But what about the Black-capped Chickadee, certainly as feisty a critter as you ever have to remove from a mist net, which called only 7 percent of the time ($n = 520$) or the Blue Jay, a great struggler, with only 18 percent ($n = 84$)? Conversely, the tiny, docile Sulphur-rumped Flycatcher called 80 percent ($n = 16$) of the time, and the passive Long-tailed Hermit 86 percent ($n = 84$).

To add another variable, the handler apparently affects the percentage of distress calls emitted by a species. Perrone and Paulson (1979) found significant differences in the percentages of birds emitting distress calls for several species when removed from mist nets by different workers. Presumably, birds handled roughly are more apt to scream. Both Balph (1977) and Norris and Stamm (1965) related instances when an individual bird gave a distress call the first time it was captured but not when it was captured a second time.

Both the handling differences and the lack of distress-call emission on second captures suggest that a distress-call threshold of response exists in birds. I tested this idea this past winter (1988). Using a tip from Trevor Lloyd-Evans that European Starlings could be enticed into giving distress calls by holding them upside down by the feet and gently shaking them. I caught seven starlings this winter, none of which gave distress calls when I removed them from potter traps, bagged them, and removed them for banding. But all seven emitted

raucous distress calls when Trevor's procedure was followed. The high incidence of distress-call emission by juvenile House Sparrows contrasted with the low incidence among adults suggests that there may be an age difference in the response threshold. The threshold is low in juveniles, when they are at greatest risk, and becomes higher in adult birds.

Certainly, attempting to sort out all the variables that affect why distress calls are emitted will require much more data and sophisticated statistical analysis. In the end, distress calls may still remain an avian enigma.

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WILLIAM E. DAVIS, JR. is professor and chairman of the Division of Science at the College of Basic Studies, Boston University. Ted is a staff member of this publication and regularly contributes essays and artwork. He is author of *History of the Nuttall Ornithological Club, 1873-1986* and has published many articles on bird behavior. Ted wishes to thank John C. Kricher, Janet Lee Heywood, Wayne R. Petersen, and Martha Vaughan for reviewing an earlier draft of the manuscript; Jean D. Allaway for proofreading; and Andrea Priori at the Cornell University Laboratory of Ornithology, and Leonard Zaichkowsky and Frederick Wasserman of Boston University for assistance in preparing the sonagrams.

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OPEN YEAR ROUND

300 SPECIES IN MASSACHUSETTS IN ONE YEAR: FALL TO WINTER

by Herman D'Entremont and Dorothy R. Arvidson

The fall season is wonderful for birding. Birds are not in such a hurry as they were in the spring and will linger to fatten up. The pace is leisurely: fall migration lasts for several months. Immature birds, numerous in the fall flights, often go astray and wander outside their species' usual range, thus providing the happy birder with regional rarities. There are great northeast storms in this season that blow flights of seldom-seen pelagic birds in close to shore. And when the warm southwesterly winds of Indian Summer occur, they often result in reverse migration, bringing back migrants that have already gone by. Finally, the drab and confusing fall plumage of many birds, a feature often bemoaned by birders, provides a challenge that can only result in sharper identification skills.

September is for hawkwatching. The first clear days and cool winds from a westerly quarter mark the beginning of hawk movement southward and the fall "migration" of birders toward higher ground, where more of the sky can be seen. No longer is the birder's attention focused solely on the thickets or the shoreline.

The simplest way for the beginner as well as for the lister to insure that no raptors will be missing from the year's list is to volunteer in September and October for the weekend hawkwatches arranged by the Eastern Massachusetts Hawk Watch Association. The best locations for viewing hawks are Goat's Peak Tower atop Mt. Tom in Easthampton (the tower is small and can get pretty crowded on weekends) and the summit parking lot at Wachusett Mountain in Princeton, which accommodates more people and is only an hour's drive west of Boston. According to Leif Robinson (*Bird Observer*, June 1987, page 125), "In any year there should be two days between September 9 and 19 yielding 2000 or more Broad-winged Hawks....At least one superb flight day can be virtually guaranteed annually to anyone who sits atop that hill for a few days in mid-September."

Any hawkwatcher who likes a good steep mountain hike should choose Mt. Watatic (1832 ft) in Ashburnham. The only way to get to the hawkwatch site at the top is on foot. Another good spot is Plum Island, where a short comfortable jaunt from parking lot #4 toward the ocean (via boardwalk with minimal climbing) leads to an observation deck atop a dune. Round Top Conservation Area at Athol, Quabbin Tower atop Quabbin Hill, Blueberry Hill in West Granville, Fobes Hill in Windsor, Mt. Greylock and Mt. Williams (near Adams), and Mt. Everett State Reservation near Egremont are all fine observation posts where, if you're lucky, you will see lots of hawks. On September 13, 1983, a

total of 19,912 Broad-winged Hawks were counted over Massachusetts. Great sport!

In early September, when great kettles of Broadwings and Sharp-shins circle upward on a good rising draft or thermal, the numbers are impressive. Later in the fall, the numbers decline but there is greater variety, and the larger and less common hawks can be seen: Cooper's Hawks and Northern Goshawks, Red-tailed and Red-shouldered hawks, Golden and Bald eagles, Peregrine Falcons and Merlins, Rough-legged Hawks, Northern Harriers, and even, albeit rarely, perhaps a Gyrfalcon.

Departure of the shorebirds. September and even October offer a good variety of shorebirds but fewer numbers at staging areas, with an occasional spectacular visitor. In September of 1987, it was the Cox's. Most eagerly watched for in the fall are Golden Plovers, Baird's, Buff-breasted, and Western sandpipers, and a Marbled Godwit. (Fall of 1988 brought in a Bar-tailed!)

Landbird migration. When birders' eyes grow tired of watching distant specks moving in the sky or on the shore, their attention and binoculars are trained once again upon the low bushes. In September and October, the coastal thickets will provide the best landbirding. Fall migrants also occur inland in low shrubbery, but the birds are not as concentrated as they are along the coast and are harder to find. Unusual species to watch for are Philadelphia Vireo, Connecticut and Orange-crowned warblers, Yellow-breasted Chat, and a western stray -- the Black-throated Gray Warbler. (Three of this species appeared in New England in the fall of 1987.) Unusual flycatcher species that can be found in the fall include the Yellow-bellied and Olive-sided flycatchers. Western vagrants such as Western Kingbird, Fork-tailed, Scissor-tailed, and Ash-throated flycatchers, Say's Phoebe, Dickcissel, Blue Grosbeak, and Yellow-headed Blackbird may put in an appearance. Reliable birding areas to visit in the fall include Plum Island, Eastern Point in Gloucester, Marblehead Neck, Nahant Thicket, the Glades in North Scituate, Chatham, Monomoy, and Provincetown on Cape Cod, and the islands of Nantucket and Martha's Vineyard.

October is the month for sparrows, which fortunately for birdwatchers can be found on the coast or inland, anywhere in the proper habitat. Weedy fields, field edges, and community gardens are the places to look. Most of the common sparrows are easily found, but coastal locations seem to be the best for unusual species like Vesper, White-crowned, and Lincoln's sparrow and for vagrants like Blue Grosbeaks, Lark Buntings, Lark Sparrows, LeConte's Sparrows, and Dickcissels.

November is waterbird month. Inland ponds and lakes after storms with heavy rains provide a variety of species -- Common Loon, Ring-necked Duck, scaup, Goldeneye, Bufflehead, Ruddy Duck, and Hooded and Common

mergansers. The best duck ponds in eastern Massachusetts are the Lakeville ponds but others to watch are Great Pond in Braintree, Horn Pond in Woburn, Fresh Pond in Cambridge, Cambridge Reservoir on the Lincoln/Waltham boundary, Billington Sea in Plymouth, and Lake Nagog in Littleton. Worcester County has Wachusett Reservoir and Quabaug Lake in Brookfield. And birders that live in the Connecticut River Valley frequent Congamond Lake in Southwick and Hampton Ponds in Westfield.

Fall coastal storms sweep pelagic birds in close to shore. Leach's Storm-Petrels, shearwaters, Northern Fulmar, jaegers, kittiwakes, phalaropes, and alcids, especially Dovekies and Razorbills, as well as the usual scoters, loons, gannets, goldeneyes, common eiders, oldsquaws, mergansers, gulls, and kittiwakes are brought within viewing distance of birders on land. The best vantage points for experiencing these storms are at Plum Island and Rockport (Andrews Point and Halibut Point) on the north shore, Manomet Point and Plymouth Beach on the south shore, and on Cape Cod, Sandy Neck in Barnstable, First Encounter Beach at Eastham, and Race Point at Provincetown. If northeast storms are diminishing in frequency (as many oldtimers insist), the number of pelagic boat trips has increased, thanks to efforts to monitor endangered whale species. If you don't see the birds from land, you will have to sign up for one of these many fall sea trips.

Birds of winter. In November, landbird watching is scanty. Tree Sparrows arrive for the winter, and flocks of Snow Buntings show up on coastal beaches. Fox Sparrows continue to migrate through the first half of November. If it is to be a good winter for irruptive finches, the first individuals arrive in November. But the appearance of Evening and Pine grosbeaks, redpolls, siskins, and crossbills is even less predictable than the uncertain pattern of occurrence of the Snowy Owl, Rough-legged Hawk, and Northern Shrike.

Birders do not give up their avocation during the winter. There are feeder birds to watch with the possibility of a Pine Warbler at the suet (unusual but increasing in frequency), or a Varied Thrush, a regular vagrant, or occasionally, a real rarity like a Golden-crowned Sparrow. Short-eared Owls may be found huddled quietly in the lea of a grass clump or a low pine at Salisbury, and other owls are present in the Grass Rides at Hamilton. There are great rafts of scaup and Common Eider in the outer reaches of Boston Harbor and King Eider, Harlequins, and Barrow's Goldeneye to search for. A few Bald eagles disport along the Merrimack River and feed on deer carcass at Quabbin. There are white-winged gulls and Black Guillemots at Cape Ann. Prayers for Gyrfalcon, Ivory Gull, Northern Hawk-Owl, Boreal Owl, and Bohemian Waxwing are routinely offered. And finally, the challenge and excitement of the Christmas Count, which always turns up a rarity or two, carries birders along over the hump into a new birdwatching year.

Hawkwatching Information

To obtain an information packet on hawkwatching that includes a six-page silhouette guide to the hawks of the northeast, a copy of *The Beginner's Guide to Hawkwatching*, information on where and when to watch hawks in Massachusetts, and a complete report on the Fall 1987 hawk migration in eastern Massachusetts, send a check for \$4 (made out to EMHW) to Eastern Massachusetts Hawk Watch (EMHW), 254 Arlington Street, Medford, MA 02155.

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This chaffinch was seen and photographed in Windsor, Massachusetts on March 26-27, 1988.

Photo by Jim Rockoch.

A PAIR OF CLAY-COLORED SPARROWS IN JUNE

On June 10, 1988, at 6:30 A.M., a pair of Clay-colored Sparrows, *Spizella pallida*, was observed for about half an hour at the edge of an open grassland at Fort Devens military base in Ayer. Approximately 250 acres in size, the grassland doubles as a drop zone for military exercises and as a home for a number of grassland bird species under investigation by the Natural Heritage and Endangered Species Program of the Massachusetts Division of Fisheries and Wildlife. These grassland species include Grasshopper Sparrow, Savannah Sparrow, Vesper Sparrow, Bobolink, Eastern Meadowlark, American Goldfinch, Killdeer, and Upland Sandpiper.

I found the birds at the edge of grassland habitat, where one adult, presumably the male, was singing steadily three or four times a minute from a line of low shrubs less than a meter tall, mostly Sweet Fern and Staghorn Sumac with a few Quaking Aspen and oak saplings no more than five meters in height. Bordering the shrub line and contiguous with the grassland was an open sandy area (about three hundred square meters), forty percent of which was covered with clumps of bunch grasses. Ground cover of Poison Ivy and Virginia Creeper with some shrubs extended behind the shrub line and graded into a forest edge of dense maple and aspen saplings.

The male continued singing, never once stopping to forage or leave the shrub cover while I observed him from various points along the shrub line. At times I was no more than fifteen meters away. A second bird that I assumed was his mate chipped at me constantly from a single oak sapling, where she remained, somewhat concealed by the foliage.

For two or three days thereafter, a forest technician who was assisting with the grassland bird work thought he observed the bird, but the sighting was not otherwise confirmed. During subsequent weekly visits, I failed to see the birds. The only evidence that suggested the pair was nesting was the aggressive chipping of the female. Nevertheless, the sighting is significant. According to *Bird Observer* records from 1983 to the present, Clay-colored Sparrows have been seen regularly in the fall and in May but have not been observed during June, which marks the height of the breeding season for most of our resident grassland nesting species.

Robert M. Marshall, Westport

SIGHTSEEING BIRDS

Returning to Gloucester from Stellwagen Bank on July 29, 1987, out of sight of land, we overtook and passed three warblers, all within ten feet of the boat, one so close that children tried to catch it. They may have been about fifteen minutes apart, but my eyes are getting too weak to identify accurately a warbler in flight. The marine biologist, who saw only the last one, identified it as a Tennessee Warbler. With three warblers flying that close to the boat, it seems reasonable to conclude that there may have been many more scattered over Massachusetts Bay.

What are they doing there at the end of July? Migrating?

Trescott T. Abele, Pepperell

HOW DO YOU COUNT?

Reading the 1987 Christmas Bird Count results in the June issue of *Bird Observer* prompted me to write to ask a question I've thought about many times but never had an opportunity to ask.

How are very large flocks of birds counted or estimated? I've read reports of roosts of thousands of crows or rafts of over ten thousand Common Eider, and since some research conclusions may be based on these numbers, I've assumed that there is some methodical way to count them without actually pointing and saying, "One, two, three...." I hope someday to see a raft of ten thousand eider, but until then if anyone has the time to write a quick response to satisfy my curiosity, I would appreciate it.

I'd like to share a success story. I moved to Jefferson, a rural part of Holden, in March and immediately set up four bluebird houses, not really thinking I'd have success. "My" pair of bluebirds fledged two young from a clutch of five eggs on June 15, and their second brood just hatched yesterday (July 5) -- four eggs, number of nestlings unknown so far. I'm very glad I went to the effort to start my bluebird trail!

Jodi Adams, Jefferson

A PARTICULAR GREEN-WINGED TEAL

From March 21 to March 25, 1988, I watched a drake Eurasian Green-winged Teal (*Anas crecca crecca*) on Pochet Inlet in East Orleans, Massachusetts. This bird was with several American Green-winged Teal (*Anas c. carolinensis*), and I studied it frequently at different distances and in different lights over several days. This is an individual that I recognize. This particular teal has a long horizontal white stripe on each side, as a drake Eurasian greenwing should. But this drake also has a faint smudge of white on each shoulder -- the top of what would be a vertical white stripe to the waterline were he an American greenwing. I am convinced that the yellow patches by this drake's tail are a lighter shade of yellow than are the patches on the American drakes present.

The Eurasian *Anas c. nimia* (NGS Field Guide 1987) and the American *Anas c. carolinensis* show intergradation in the Aleutian Islands, where both breed (AOU Check-list 1983). I wonder if my particular teal is a hybrid between Eurasian *Anas c. crecca*, the Eurasian form most often seen in eastern North America (NGS Guide 1987), and the American *Anas c. carolinensis*. This seems quite possible to me.

I first encountered this teal a year earlier on the same sheet of water. That was March 25, 1987. And I encountered this bird again on Plum Island on May 19, 1987. Now, here he is back on Pochet Inlet again. On each occasion I've seen him with American greenwings.

Andrew H. Williams, Haydenville

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FIELD RECORDS

MARCH 1988



by George W. Gove and Robert H. Stymeist

This first month of spring was very sunny, and on the dry and mild side. The temperature averaged 39.2 degrees, 0.8 degrees above normal; the maximum was 69 degrees on March 24, and the low was 10 degrees on March 21. Strong winds on March 21 produced a subzero windchill, and the high for the day was a chilling 25 degrees. Precipitation totaled 3.52 inches, 0.61 inch less than normal. An unseasonably heavy rain came on March 26-27 with 2.25 inches in fifteen hours, quite rare in March. Snowfall totaled 5.0 inches, 2.6 inches less than average; the seasonal total was 52.6 inches, 12.1 inches more than normal. R.H.S.

LOONS THROUGH GALLIFORMES

Migrant Pied-billed Grebes appeared, and Red-necked Grebe numbers built up along the coast, as they usually do in the spring. Double-crested Cormorants were seen migrating near the end of the month. Great Blue Herons returned to nests in the SUASCO area of Westboro, with 23 birds counted there on March 31. The birds were seen refurbishing old nests. Great and Snowy egrets also made their appearances at month's end.

A "Blue" Goose was noted in Dighton; Eurasian Teal were seen in three locations. Eurasian Wigeons were noted at two locations, presumably all drakes. A male King Eider and a male Harlequin Duck were seen at Winthrop, and Harlequin Ducks were also at Scituate and at Rockport.

Numbers of Turkey Vultures arrived in the state throughout the month, and Ospreys were also seen after midmonth. Bald Eagles were noted at six locations. Red-shouldered Hawks were also in evidence throughout the month, including probable breeding birds at the usual locations. An adult Golden Eagle was reported from Gate 43 at Quabbin Reservoir. Migrating Merlins were noted from March 6 through the month, and Peregrine Falcons were evident during the week of March 12 to 19. Wild Turkeys were reported from Middleboro, in addition to the usual reports from central Massachusetts. G.W.G.

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Red-throated Loon				
6, 13; 20	Winthrop	10, 6; 6	J. Cumming; B. Hallett	
6, 19	Salisbury, P.I.	1, 1	D. Chickering, D. F. Oliver	
Common Loon				
5	Salisbury, P.I.	8, 9	M. Lynch#	
6, 13	Cape Ann, Barnstable	5, 14	BBC (R. Vernon), BBC (J. Barton)	
19	Newburyport	8	BBC (S. Whittum)	
Pied-billed Grebe				
9, 13	Sandwich, Plymouth	4, 3	P. Trimble, G. d'Entremont	
19, 27	Arlington	2, 5	L. Taylor	
Horned Grebe				
5; 12	Salisbury, P.I.; Marblehead	4, 5; 2	M. Lynch#; J. Barton	
18, 31	Beverly, Rockport	5, 2	J. Brown, D. F. Oliver	
19	Newburyport	10	BBC (S. Whittum)	
Red-necked Grebe				
6, 20	Gloucester	46, 43	R. Heil, J. Berry	
6, 13, 20	Winthrop	25-29	J. Cumming	
6-12, 27	Hull	175, 60	P. Thayer	
Northern Gannet				
thr	Rockport	40 max 3/6	v. o.	
19	Newburyport	6	BBC (S. Whittum)	
Great Cormorant				
5, 9	Newburyport, Boston	90, 200	T. Aversa, P. Thayer	
13	Lakeville	2 imm	W. Petersen	
Double-crested Cormorant				
5, 19	S. Boston, Falmouth	7, 15	R. Stymeist#, BBC (J. Bryant)	
29, 30	Beverly, Peabody	16, 22	J. Brown, R. Heil	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Great Blue Heron				
thr	S. Dart. (Allens Pd)	7 max	LCES (J. Lyons)	
13-31	Westboro (SUASCO)	23 max 3/31	E. Taylor + v. o.	
13, 24	IRWS, Westport	13, 6	J. Brown, D. F. Oliver	
Great Egret				
24, 27	Westport, Ipswich	1, 3	D. F. Oliver	
28	Cambridge	1	J. Heywood	
27, 29	Nantucket	1, 1	S. Tifney, D. Beattie#	
Snowy Egret				
30	Needham	1	R. Hildreth	
Black-crowned Night-Heron				
3	Nantucket	6 ad + 3 imm	E. Andrews	
Mute Swan				
6, 20	Cape Ann, Gloucester	2, 8	BBC (R. Vernon), J. Berry	
13, 24	Scituate, Westport	28, 14	G. d'Entremont, D. F. Oliver	
Snow Goose				
12	Dighton	1 "Blue"	S. Bolton	
19-27	Newburyport-P.I.	10 max 3/27	v. o.	
26, 27	Quabbin (G40), W. Bridgewater	10, 20	D. Donovan#, W. Petersen	
Brant				
12, 13	Marblehead, P.I.	10, 78	J. Berry#, D. Chickering	
20, 25	Winthrop, Barnstable	280, 380	BBC (J. Cumming), G. Martin	
Wood Duck				
7, 9-29	GMNWR, IRWS	6, 34 max 3/29	D. F. Oliver, R. Heil	
13, 26	Bolton, New Braintree	16, 18	M. Lynch#	
26	S. Natick, Quabbin (G40)	21, 15	T. Aversa, D. Donovan#	
Green-winged Teal				
5-31	Newburyport-P.I.	288 max 3/27	v. o.	
26	DWWS	16	D. Clapp	
27	Middleboro, W. Bridgewater	150, 25	W. Petersen	
"Eurasian" Teal				
20-27	P.I.	1 or 2	W. Petersen + v. o.	
21-25	E. Orleans	1 m	A. + E. Williams	
26	DWWS	1	D. Clapp	
American Black Duck				
thr	P.I.	130 max	v. o.	
thr	S. Dart. (Allens Pd)	268 max	LCES (D. Christiansen)	
Northern Pintail				
3-31	Newburyport-P.I.	41 max 3/28	v. o.	
13, 24	W. Bridgewater, Westport	20, 13	W. Petersen, D. F. Oliver	
Blue-winged Teal				
24	IRWS, Westport	1, 3	R. Heil, D. F. Oliver	
28, 31	Middleboro, DWWS	2 m + 1 f, 3	G. d'Entremont, D. Clapp	
Northern Shoveler				
27, 29	P.I., Hingham	2, 1 m	D. Chickering, D. Clapp	
Gadwall				
3-31	Newburyport-P.I.	33 max 3/8	v. o.	
12	Plymouth, Ipswich	30, 20	T. Aversa, J. Berry	
American Wigeon				
5-24	Newburyport-P.I.	8 max 3/5	v. o.	
8, 12	E. Falmouth, Plymouth	24, 75	P. Trimble, T. Aversa	
13, 27	Arlington	19, 25	L. Taylor	
Eurasian Wigeon				
12, 19	Plymouth, Chatham	1 m, 1	T. Aversa, J. Aylward#	
Canvasback				
8, 19	Falmouth	40, 7	P. Trimble, BBC (J. Bryant)	
13, 24	Lakeville, Westport	9, 32	W. Petersen, D. F. Oliver	
Redhead				
8-13, 12-19	Falmouth, Plymouth	2 or 3, 2-9	v. o.	
Ring-necked Duck				
9, 13	Sandwich, S. Hanson	15, 50	P. Trimble, W. Petersen	
24	W. Newbury, IRWS	85, 44	J. Brown, R. Heil	
26, 27	Easton, W. Newbury	60, 52	K. Ryan, D. F. Oliver	
Greater Scaup				
5-24, 13	Newburyport, Lakeville	40 max, 150	v.o., W. Petersen	
15, 19	Hull, Falmouth	175, 960	P. Thayer, BBC (J. Bryant)	
24	Westport	108	D. F. Oliver	
Lesser Scaup				
6, 12	Amesbury, Plymouth	6, 12	J. MacDougall, T. Aversa	
14, 27	Lakeville	25, 6	K. Holmes, W. Petersen	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Common Eider 6-31 6, 19	Hull Salisbury, Falmouth	1000 max 3/23 350, 300	P. Thayer J. Berry, BBC (J. Bryant)	
King Eider 14-28	Winthrop	1 m	v. o.	
Harlequin Duck thr 18, 20	Winthrop Scituate, Rockport	1 m 1, 2 pr	J. Cumming + v. o. B. Hallett, J. Berry	
Oldsquaw thr	Newburyport	230 max 3/5	v. o.	
Black Scoter 5	Rockport	6	D. F. Oliver	
Surf Scoter 12, 28	Marblehead, P.I.	23, 2	J. MacDougall#, D. F. Oliver	
White-winged Scoter 12, 20 28	Marblehead, Rockport P.I.	6, 22 55	J. MacDougall#, J. Berry# D. F. Oliver	
Common Goldeneye 6, 7 19, 26	Newburyport, Mashpee Falmouth, Quabbin (G40)	600, 220 150, 7	BBC (J. Center), P. Trimble BBC (J. Bryant), D. Donovan#	
Barrow's Goldeneye 5-27	Newburyport	1-3	v. o.	
Bufflehead thr 19, 27	S. Dart. (Allens Pd) Falmouth, Clinton	59 max 3/29 200, 2	LCES (D. Christiansen) BBC (J. Bryant), D. Donovan#	
Hooded Merganser 8, 12 13 17, 19 28	Lawrence, Plymouth Bolton, Middleboro IRWS, Falmouth Stoneham	1, 8 3, 4 26, 18 6	V. Yurkunas, T. Aversa M. Lynch#, W. Petersen R. Heil, BBC (J. Bryant) T. Aversa	
Common Merganser 7, 8 13-27 13, 20 20, 27	Falmouth, Lawrence Arlington Plymouth, Norton W. Newbury	60, 38 33 max 3/13 85, 135 60, 29	P. Trimble, V. Yurkunas L. Taylor G. d'Entremont, G. Gove W. Petersen, D. F. Oliver	
Red-breasted Merganser 5, 6 19	Salisbury, Newburyport Falmouth	130, 250 260	M. Lynch#, BBC (J. Center) BBC (J. Bryant)	
Ruddy Duck 13, 15 27	Plymouth, Belmont Arlington	2 f, 4 m + 3 f 7	G. d'Entremont, J. Wissman L. Taylor	
Turkey Vulture 1 12, 23 24 3-28	S. Dartmouth, W. Bridgewater Barre, Sturbridge IRWS Reports of 1-2 birds from 11 locations.	7, 1 33, 5-6 6	D. Christiansen, D. Cabral M. Lynch#, J. Berry R. Heil	
Osprey 18, 22 24, 31	DWWS, S. Dartmouth Westport, W. Yarmouth	1, 2 1, 1	B. Hallett, LCES (D. Christiansen) D. F. Oliver, P. Trimble	
Bald Eagle 5, 6; 7 11, 18 19, 27	Newburyport; Sandwich Quabbin, DWWS Lakeville, Middleboro	2 imm; 1 imm 7, 1 imm 1, 1 imm	W. Petersen#, P. Trimble T. Aversa, B. Hallett K. Holmes	
Northern Harrier thr 24 24 27, 28	S. Dartmouth P.I., Halifax E. Orleans IRWS, P.I.	4 max 3/1 1, 1 2 1, 1 m + 1 f	LCES (D. Christiansen) J. Brown, K. Anderson A. + E. Williams J. Cumming, D. F. Oliver	
Sharp-shinned Hawk 5, 8 12-24	Newburyport, Mashpee Reports of single individuals from 9 locations.	2, 1	W. Petersen#, P. Trimble	
Cooper's Hawk 5, 7 17, 20 24, 31	Newburyport, Hyannis Beverly, Ipswich P.I., E. Middleboro	1, 1 1, 1 ad 1, 1	W. Petersen#, P. Trimble J. MacDougall, J. Berry J. Brown, K. Anderson	
Northern Goshawk thr 13-31 5-30	IRWS Boxford (C.P.) Reports of single individuals from 6 locations.	1 or 2 ad 1 or 2	R. Heil v. o.	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Red-shouldered Hawk				
thr, 2	E. Middleboro, Easton	pr, 1	K. Anderson, K. Ryan	
19; 17, 24	Mt. A.; IRWS	1; 1	R. Stymeist; R. Heil	
23	Boxford (C.P.)	1	J. Brown	
27	Lakeville, Middleboro	3, 4	W. Petersen	
Rough-tailed Hawk				
5, 12	Salisbury	5, 6	M. Lynch#, I. Giriunas	
14, 28	E. Middleboro, Middleboro	5, 5	K. Anderson, G. d'Entremont	
Rough-legged Hawk				
5	Nantucket, Salisbury	1, 4	E. Andrews#, M. Lynch#	
13-27, 14-31	Middleboro, E. Middleboro	2, 1 lt	W. Petersen, K. Anderson	
18, 24	Marshfield, Avon	3, 1	B. Hallett, D. F. Oliver	
Golden Eagle				
6	Quabbin (G43)	1 ad	M. Lynch#	
American Kestrel				
5, 7	P.I.-Salisbury, Otis AFB	3, 3	T. Aversa, P. Trimble	
28, 29	IRWS	4, 5	G. d'Entremont, R. Heil	
Merlin				
6, 19	Nantucket, Yarmouthport	1, 1	E. Andrews#, J. Aylward#	
31	Wareham	1	B. Sorrie	
22-30	Reports of individuals from 3 locations.			
Peregrine Falcon				
12, 15	Eastham, Chatham	1 ad, 1 ad	T. Aversa, W. Bailey	
19	Oakham	1	J. Gordon#	
Ruffed Grouse				
20, 28	Hardwick, Middleboro	5, 4	G. d'Entremont	
Wild Turkey				
12, 19; 19	Barre; Middleboro	17, 16; 7	M. Lynch#; K. Holmes	
20-21, 26	Petersham, Quabbin (G40)	26, 8	G. d'Entremont, M. Lynch#	

RAILS THROUGH ALCIDS

Piping Plovers were first seen on March 16, and an American Oystercatcher was seen in Chatham on March 13. Early Lesser Yellowlegs were noted at inland locations, and early Pectoral Sandpipers were seen the third week of the month, as was a dowitcher. Migrant snipe and woodcocks are generally much in evidence in March, and this March was no exception. Woodcocks were heard and seen in courtship flight on March 3 and 6.

An early Laughing Gull was noted in Chatham on March 19, and a Little Gull was seen in Newburyport Harbor on March 24. Common Black-headed Gulls continued in Winthrop, with a maximum of 13 there, including 8 adults in breeding plumage, on March 24. Up to 19 Black Guillemots were counted on Cape Ann, and one in breeding plumage was seen in Rockport on March 20. G.W.G.

Sora				
14	Lakeville	1	K. Holmes	
Common Moorhen				
thr	Nantucket	1	E. Andrews	
American Coot				
12, 13	Plymouth	175-230	v. o.	
Black-bellied Plover				
12, 20	Salisbury	1, 1	BBC (I. Giriunas), B. Hallett	
Piping Plover				
16	Chatham	2	L. MacIvor	
19, 29	S. Dart. (Allens Pd)	1, 3	LCES (D. Christiansen)	
Killdeer				
3, 6	IRWS, E. Boston	2, 2	R. Heil, J. Cumming	
13	Concord, W. Bridgewater	8, 10	G. Gove, W. Petersen	
13, 24	Arlington, Westport	3, 18	L. Taylor, D. F. Oliver	
28	New Braintree, Nantucket	19, 30	M. Lynch#, D. Beattie	
American Oystercatcher				
13	Chatham	1	W. Bailey	
Greater Yellowlegs				
29, 31	Newbury, S. Dartmouth	1, 6	D. Chickering, D. Christiansen	
Lesser Yellowlegs				
27, 28	Middleboro, Byfield	2, 1	W. Petersen, D. Chickering	
Sanderling				
6, 20	Salisbury, P.I.	15, 40	BBC (J. Center), W. Petersen#	
22	Hull	30	P. Thayer	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Pectoral Sandpiper				
20, 26	P.I.	1, 3	W. Petersen#, J. Cumming	
27	Ipswich, Middleboro	1, 2	D. F. Oliver, W. Petersen	
Purple Sandpiper				
12	Marblehead	40-60	v. o.	
Dunlin				
5, 24	Newburyport, Westport	4, 10	J. Brown, D. F. Oliver	
dowitcher species				
20, 26	P.I.	1, 1	W. Petersen, J. Cumming	
Common Snipe				
5, 13	Newburyport, Concord	1, 2	T. Aversa, G. Gove	
19, 26	Middleboro, Topsfield	8, 5	K. Holmes, J. Brown	
27	Ipswich, Newbury	14, 12	D. F. Oliver	
28, 30	W. Bridgewater, Newton	40, 12	G. d'Entremont, O. Komar	
American Woodcock				
3, 6	Ipswich, W. Dudley	1, 2	J. Berry, L. Layton	
9-31	IRWS	8 max 3/24	R. Heil	
13, 24	Bolton, N. Middleboro	10, 8	M. Lynch#, K. Holmes	
13	Belmont	6	R. Stymeist#	
21, 24	Somerville, Boston	1, 1	H. Hoffman, C. Jackson	
Laughing Gull				
19	Chatham	1	B. Nikula	
Little Gull				
24	Newburyport	1	J. Brown	
Common Black-headed Gull				
6-24	Winthrop	13 max 3/24	T. Aversa + v. o.	
20	Newburyport	1 ad	W. Petersen#	
Bonaparte's Gull				
5, 23	Newburyport	20, 5	M. Lynch#, D. F. Oliver	
Ring-billed Gull				
8, 13	Falmouth, Arlington	60, 41	P. Trimble, L. Taylor	
15, 24	Stoncham, Winthrop	150, 400	T. Aversa	
Iceland Gull				
5-30	Newburyport area	35 max 3/5	v. o.	
20	Gloucester	2 imm	J. Berry	
Lesser Black-backed Gull				
27	Cambridge	1	R. Stymeist	
Glaucous Gull				
6, 24	Newburyport	1 imm, 1	BBC (J. Center), J. Brown	
20	Salisbury	1 imm	W. Petersen	
Thick-billed Murre				
7	Chatham	1	R. Prescott	
Black Guillemot				
6, 19	Cape Ann, Salisbury	19, 1	R. Heil, BBC (S. Whittum)	
20	Rockport	1 br pl	J. Berry	

OWLS THROUGH SHRIKES

In Topsfield, a gray-phase and a red-phase Eastern Screech-Owl were found together in the same hole of a tree. "Phase," an ornithological term synonymous with "morph," means simply a genetic variation, usually in plumage coloration, within a population of a species. Both red- and grey-phase owls may occur within the same family of nestlings. Not only screech-owls, but several species of herons, the Blue/Snow Goose, several buteo hawks and falcons, Northern Fulmars, jaegers, Common Murres, and others exhibit this phenomenon.

Great Horned Owls were found in seven locations, and in Ipswich a pair hooted all night into broad daylight, as frequently as every ten seconds despite being mobbed by crows. Snowy Owls continued to be seen most of the month in the Plum Island-Salisbury area, and one or two Short-eared Owls were present in Salisbury through March 19.

The first southwest wind on March 6 and 7 brought the arrival of Northern Flickers at many locations. A Red-bellied Woodpecker was found at World's End in Hingham. At the Ipswich River Wildlife Sanctuary in Topsfield, as many as 4 Pileated Woodpeckers were found.

Eastern Phoebe, Tree Swallows, and a very early Purple Martin arrived on March 12-13; a general arrival in larger numbers started on March 23. A second Purple Martin was picked up alive on Nantucket on March 29, very weak from hunger; it died later that day. The usual arrival date for Purple Martins is the second week in April.

Spring courtship fever hit the crow roost in Framingham where the maximum of over 3000 birds dwindled to 510 American Crows by the last day of the month. Over 200 Fish Crows were found at or near Heards

Pond in Wayland (Sudbury Dump), and others were again back in areas where they had been absent all winter. Two Common Ravens were found in Barre, and others were located in the Quabbin area.

Brown Creepers were singing on territory in Topsfield and Boxford. Another hit the window of the Christian Science Reading Room in downtown Boston. This stunned bird was picked up, nursed, and then released a few days later in North Middleboro. A House Wren was carefully described from Sandwich on March 9.

A very early Ruby-crowned Kinglet, or more likely a survivor of the winter, was found in Lawrence on March 8. The first Eastern Bluebirds were back at Quabbin on or about March 12. At about the same time, reports of the first American Robins began to appear. Hermit Thrushes were also on the move throughout the month with 6 reports. Two **Bohemian Waxwings** were noted and photographed at Hardwick on March 12. These birds were seen off and on at this location all winter. A **Loggerhead Shrike** was well described from Wareham on March 31. On the same day, an unidentified shrike, thought to be this species, was also seen in Marlboro. One or two Northern Shrikes continued all month at Plum Island; others were found in Topsfield and at Otis Air Force Base (AFB) on Cape Cod.

R.H.S.

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Eastern Screech-Owl				
thr	Topsfield	1 gray, 1 red (same tree)	v. o.	
15	West Roxbury	1	T. Aversa	
Great Horned Owl				
thr	Ipswich	pr (3 or 4 birds on 3/3)	J. Berry	
6	P.I., Beverly	1, 1	K. Griffis, J. Brown	
12	Marblehead, Newbypt	1, 1	J. Berry#, BBC (I. Giriunas)	
19, 20	Waltham, Topsfield	1, 1	L. Taylor, J. Brown	
Snowy Owl				
1-19	P.I.-Salisbury	1+	v. o.	
6	Rowley	1	J. MacDougall	
7-22	S. Dartmouth	1 or 2	LCES (D. Christiansen)	
Barred Owl				
9, 15	IRWS, E. Middleboro	3, 2	R. Heil, K. Anderson	
Short-eared Owl				
1-19	Salisbury	1 or 2	v. o.	
13	E. Boston	1	J. Cumming	
15-29	S. Dart. (Allens Pd)	1 or 2	LCES (D. Christiansen)	
Belted Kingfisher				
Reports of 8 individuals from 6 locations.				
Red-bellied Woodpecker				
29	Hingham (World's End)	1	D. F. Oliver#	
Downy Woodpecker				
27	Clinton (Wachusett Reservoir)	9	D. Donovan	
Northern Flicker				
Reports of migrants from 3/8 on from many locations.				
Pileated Woodpecker				
6, 21	Quabbin (G43), (G40)	1, 1	M. Lynch#, D. Donovan#	
13, 29	IRWS	1, 4	J. Brown, R. Heil	
Eastern Phoebe				
13, 14	Wayland, Nantucket	2, 1	S. Perkins, J. Van Vorst	
16, 17	E. Middleboro, IRWS	1, 1	K. Anderson, D. F. Oliver	
27, 29	Clinton, IRWS	8, 9	D. Donovan, R. Heil	
31	P.I.	8	D. F. Oliver	
General arrival in a wide area from 3/23 on.				
Horned Lark				
thr	Salisbury, P.I.	20 max, 16 max	v. o.	
7	Otis AFB	4	P. Trimble	
8	S. Dart. (Allens Pd)	18	LCES (D. Christiansen)	
27	Ipswich, Middleboro	100, 100	D. F. Oliver, W. Petersen	
Purple Martin				
12, 29	Chatham, Nantucket	1, 1	P. Trull, F. Reed	
Tree Swallow				
13, 24	Wayland, P.I.	3, 2	S. Perkins, J. Brown	
27, 31	GMNWR, P.I.	22, 47	T. Aversa, D. F. Oliver	
General arrival in small numbers over a wide area from 3/26 on.				
Blue Jay				
12, 16	Quabbin (G40), Hudson	16, 28	M. Lynch#, D. Donovan	
American Crow				
thr	Framingham	3000+ max, 510	on 3/31 E. Taylor#	
12, 23	Uxbridge, Halifax	106, 200+	R. Hildreth, K. Anderson	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Fish Crow				
1-23	Framingham	50+	E. Taylor#	
4, 7, 17	Watertown	1, 4, 6	J. Heywood#	
6, 12	Quabbin (G37), Mansfield	1, 1	M. Lynch#, B. Sorrie	
11, 12	Hanson	1, 8	W. Petersen	
13	Wayland (Heards Pd)	200+	S. Perkins#	
26, 27	S. Natick, E. Middleboro	2, 3	T. Aversa, K. Anderson	
Common Raven				
6, 12	Quabbin (G43), (G40)	1, 1	M. Lynch#	
20, 21	Barre	2	G. d'Entremont	
Black-capped Chickadee				
3, 17, 29	IRWS	128, 102, 68	R. Heil	
Red-breasted Nuthatch				
3, 17, 29	IRWS	16, 15, 7	R. Heil	
6, 12	Quabbin (G43), (G40)	16, 21	M. Lynch#	
Other reports of 1-3 individuals from 4 locations.				
White-breasted Nuthatch				
6, 12	Quabbin (G43), (G40)	11, 10	M. Lynch#	
Brown Creeper				
8; 9, 17	Boxford; IRWS	4; 10, 11	D. F. Oliver; R. Heil	
31	Boston	1 rescued	K. Holmes	
Carolina Wren				
6, 13	Rockport, Eastham	1, 1	R. Heil, B. Nikula	
19, 23	Falmouth, E. Orleans	6, 1	BBC (J. Bryant), A. Williams	
28, 29	Yarmouthport, Easton	1, 1	J. Aylward, K. Ryan	
House Wren (details submitted)				
9	Sandwich	1	P. Trimble	
Winter Wren				
12, 23	Marblehead, Boxford	1, 1	J. Berry#, D. F. Oliver	
27	Clinton (Wachusett Reservoir)	1	D. Donovan	
Golden-crowned Kinglet				
thr	IRWS	51 max 3/9	R. Heil + v. o.	
6, 8	Quabbin (G43), Boxford	9, 18	M. Lynch#, D. F. Oliver	
Reports of 1-10 birds from many locations.				
Ruby-crowned Kinglet				
8	Lawrence	1	V. Yurkunas	
Eastern Bluebird				
12-31	Quabbin (G40)	2 f + 1 m	G. Gove# + v. o.	
15	S. Dart. (Allens Pd)	1	LCES (D. Christiansen)	
24-31	E. Middleboro	1-3	K. Anderson	
27, 29	ONWR, Nantucket	1, 1	M. Lynch#, E. + C. Andrews	
Hermit Thrush				
1-2, 4	Newton, Brookline	1, 1	O. Komar#, H. Wiggin#	
8, 23	E. Orleans	1 (window kill), 1	E. Williams, A. Williams	
28, 30	E. Middleboro, Wenham	1, 1	K. Anderson, J. Brown	
American Robin				
11, 13	Winthrop, Halifax	1+, 50	J. Cumming, W. Petersen	
15, 19	W. Roxbury, Mt. A.	38, 50-60	T. Aversa, R. Stymeist#	
24, 25	Westport, Topsfield	87, 60	D. F. Oliver, J. Brown	
28	New Braintree	207	M. Lynch#	
Gray Catbird				
12	Marblehead	1	J. Berry#	
Water Pipit				
27	Bolton	10	M. Lynch#	
Bohemian Waxwing				
12	Hardwick	2 ph	M. Lynch#	
Cedar Waxwing				
6, 12	Hardwick	13, 16	M. Lynch#	
30	Ashland	40	G. Gove	
Northern Shrike				
thr	P.I.	1 or 2+	v. o.	
1-7, 11	Otis AFB, Topsfield	1, 1	P. Trimble, J. Brown	
Loggerhead Shrike				
31	Wareham	1 ad	B. Sorrie	
shrike species				
31	Marlboro	1	R. Graefe	

WARBLERS THROUGH FINCHES

Yellow-rumped Warblers were noted at five locations, but these were probably birds that had survived the winter here rather than the first migrants. Pine Warblers were singing on territory in Middleboro and in Wareham by the end of the month.

Fox Sparrows were on the move by midmonth, and reports were received from eleven locations. Song Sparrows were singing on territory, and Dark-eyed Juncos began to sing as they prepared to leave eastern Massachusetts. The "Oregon" Junco that was present all winter on Nantucket was last seen on March 1.

Blackbirds always get into the field records in March. Everyone is getting ready for spring, and hearing the first Red-winged Blackbird gives us some hope. Large flocks of Red-winged Blackbirds, grackles, and cowbirds were noted, as were Rusty Blackbirds. Fifty Lapland Longspurs were counted in Middleboro, an exceptionally high count for spring at an inland location. In Barre, 80 Snow Buntings were tallied.

Winter finch reports included as many as 59 Red Crossbills and 11 White-winged Crossbills from Quabbin most of the month. Common Redpolls were noted from three locations, and Pine Siskins were reported from many areas and were thought to be nesting. In Topsfield at Ipswich River Wildlife Sanctuary, one Pine Siskin was seen gathering moss on March 29; and at Boxford State Forest, a siskin was seen pulling hair from an old oriole nest on March 13. Evening Grosbeaks were still being seen in Worcester County in good numbers throughout March.

R.H.S.

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Yellow-rumped Warbler				
thr	S. Dart. (Allens Pd)	33 max 3/15	LCES (D. Christiansen)	
5, 12	Salisbury, Eastham	2, 6	M. Lynch#, T. Aversa	
14, 19	Lakeville, Falmouth	2, 25	K. Holmes, BBC (J. Bryant)	
Pine Warbler				
25	E. Middleboro	1 singing	K. Anderson	
31	Wareham	2 singing	B. Sorrie	
Rufous-sided Towhee				
13, 19	Marshfield, Falmouth	1, 1	G. d'Entremont, BBC (J. Bryant)	
American Tree Sparrow				
6, 14	Salisbury, Lakeville	2, 50+	J. MacDougall, K. Holmes	
18, 23, 28	P.I.	14, 3, 1	D. F. Oliver	
18, 27	Holliston	3, 1	R. Hildreth	
28	New Braintree	5	M. Lynch#	
Field Sparrow				
13, 19	Halifax, Milford	2, 9	W. Petersen, R. Hildreth	
Savannah Sparrow				
28	New Braintree	1	M. Lynch#	
29	S. Dart. (Allens Pd)	8	LCES (D. Christiansen)	
"Ipswich" Sparrow				
6	Salisbury	2	J. Berry	
15	S. Dart. (Allens Pd)	1	LCES (D. Christiansen)	
Fox Sparrow				
13	Boxford, W. Bridgewater	2, 2	J. Berry#, W. Petersen	
17	WBWS, Eastham	3, 3	D. Reynolds, A. Thomas	
17, 29	IRWS	4, 7	R. Heil	
21, 23	S. Carver, Stoneham	1, 2	J. Shaw, T. Aversa	
23, 25	Boxford, Brookline	1, 1	D. F. Oliver, B. Hallett	
26, 30	Quabbin (G40), Brookline	2, 1	M. Lynch#, H. Wiggin#	
Song Sparrow				
thr	IRWS	49 max 3/31	R. Heil	
18, 28, 31	P.I.	23, 31, 97	D. F. Oliver	
Swamp Sparrow				
29	IRWS	1	R. Heil	
White-throated Sparrow				
thr	Hopkinton, Ipswich	1 or 2, 4	J. Gordon#, J. Berry	
Dark-eyed Junco				
thr, 26	Ipswich, Quabbin (G40)	20 max, 40+	J. Berry, D. Donovan	
27	Clinton (Wachusett Reservoir)	50+	D. Donovan	
"Oregon" Junco				
1	Nantucket	1	E. Ray	
Lapland Longspur				
5, 12	Salisbury, Barre	3, 2	J. Brown, M. Lynch#	
29	Ipswich, Middleboro	2, 50	I. Giriunas, W. Petersen	
Snow Bunting				
6, 12	Quabbin (G43), Barre	23, 80	M. Lynch#	

DATE	LOCATION	NUMBER	OBSERVERS	MARCH 1988
Red-winged Blackbird				
1-31, 3	Topsfield, Natick	2-39, 25	J. Brown, E. Taylor	
6	Newbury, Salisbury	8, 1	D. Chickering, J. MacDougall	
7, 10	Falmouth, Hyannis	20, 150	P. Trimble#	
13, 20	Bolton, Newbury	498, 50	M. Lynch#, D. Chickering	
Eastern Meadowlark				
15	S. Dart. (Allens Pd)	4	LCES (D. Christiansen)	
15-31	Marlboro	1 or 2	R. Graefe	
19	Chatham, Newbury	2, 5	J. Aylward#, T. Aversa	
Rusty Blackbird				
8, 12	W. Roxbury, Hardwick	6, 2	T. Aversa, M. Lynch#	
13	IRWS, S. Hanson	8, 1	J. Brown, W. Petersen	
23, 27	Stoneham, GMNWR	10, 12	T. Aversa	
28	W. Newbury, W. Bridgewater	5, 30+	D. F. Oliver, G. d'Entremont#	
Common Grackle				
8	Newbury, Sherborn	1, 2	D. Chickering, E. Taylor	
8	Winthrop	1	J. Cumming	
9, 10	Wilmington, Hyannis	100+, 400	J. Berry, P. Trimble	
Brown-headed Cowbird				
9, 12	Wilmington, Ipswich	2, 2	J. Berry	
12, 13	Topsfield, Boxford	2 or 3, 1	J. Brown, J. MacDougall	
27, 29	Ipswich, New Braintree	10, 90	D. F. Oliver, M. Lynch#	
Purple Finch				
6, 19, 28; 27	Hardwick; P.I.	3, 3, 2; 5	M. Lynch#; D. Chickering	
Red Crossbill				
5	Salisbury	1	M. Lynch#	
12-31, 26	Quabbin (G40), (G41)	59 max, 10	v. o., M. Lynch#	
White-winged Crossbill				
3, 9; 18	IRWS; Cambridge	1, 7; 10	R. Heil; M. Noland	
6-31, 22	Quabbin (G40), Bedford	11 max, 3	v. o., F. Bouchard	
Common Redpoll				
12, 19	Eastham, Newbury	2, 1	T. Aversa, D. Chickering	
21	Quabbin (G40)	15	D. Donovan#	
Pine Siskin				
thr	E. Middleboro, IRWS	8+, 18 max	K. Anderson, R. Heil	
thr	Wenham, Hopkinton	16 max, 2-6	J. Brown, J. Gordon	
Reports of 1-10 birds from many locations.				
American Goldfinch				
21, 29	Quabbin (G40), IRWS	50+, 22	D. Donovan, R. Heil	
Evening Grosbeak				
12, 19, 26	Barre	50, 130, 60	M. Lynch#	
12, 19, 28	Hardwick	15, 40, 80	M. Lynch#	

CORRIGENDUM TO JAN-FEB. 1988 FIELD RECORDS (VOL. 16, NO. 3)

Ovenbird (page 170)			
1/1-9	Dennis	1 at feeder ph	R. + E. Fisher
should read			
thr (Jan.-Feb.)	Dennis	1 at feeder ph	R. + E. Fisher

DANIEL WEBSTER FARM DAY AND EIGHT-MILE WALK

FOR WILDLIFE:

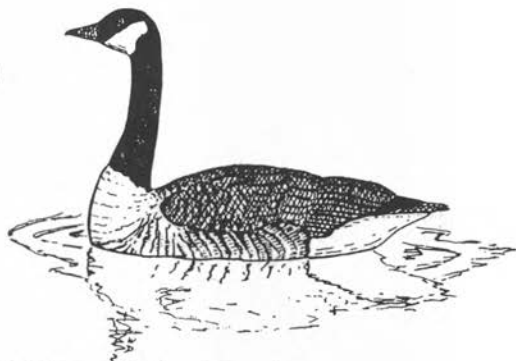
SATURDAY, SEPTEMBER 24, 11:00 A.M. - 4:00 P.M.

For the past three years, Daniel Webster Wildlife Sanctuary in Marshfield has celebrated the good fortune of acquiring and preserving over 400 acres of valuable open space in southeastern Massachusetts by holding Farm Day festivities. Activities include hayrides, crafts demonstrations, nature and local history walks, pony rides, farm animals, Dixieland music, Morris dancers, Janet's Country Kitchen, a white elephant sale, farmers' market, fresh pressed cider, lots of food, and games, contests, and activities for all ages.

A special feature this year will be an Eight-Mile Walk for Wildlife that begins at 9:00 A.M. The route is from the North River Sanctuary office of the Massachusetts Audubon Society to the Daniel Webster Farm in time to join the festivities there. Refreshments and prizes will await all walkers. Participants must preregister for this event. For more information and to obtain sponsor forms, call 617-837-9400.

FIELD RECORDS

APRIL 1988



by Glenn d'Entremont, George W. Gove, and Robert H. Stymeist

April 1988 was very cloudy, with frequent light rain and temperatures on the cool side. There were also prolonged northwest winds, making April not a good migration month. The temperature averaged 46.8 degrees, 1.9 degrees below normal. The high was but 67 degrees on April 5, the lowest April maximum since 66 degrees in April 1946. The lowest temperature for Boston was 33 degrees on April 14. Rainfall totaled 1.47 inches, 2.26 inches less than normal; but it was frequent, being recorded on twenty days during the month. In fact, sunshine was only 42 percent of possible, making this April the fourth least sunny in 96 years of official records. Fog was frequent, especially during the first part of the month; thunder was heard on April 29. Southwest winds were recorded on five days: April 4, 18, 23, 26, and 29. R.H.S.

LOONS THROUGH WATERFOWL

Pied-billed Grebe reports totaled 15 birds, compared with just 3 last April. Horned and Red-necked grebes were reported in fair numbers, and most observers noted breeding-plumaged birds. Winter Great Cormorants were generally replaced by returning Double-crested Cormorants by April 9.

Great Blue Herons were on nests in Quabbin and at the SUASCO Dam area in Westboro, where 19 nests were occupied. As many as 4 adult Little Blue Herons were in the Essex area, and the only report of a Tricolored Heron came from Nantucket. Green-backed Herons were first noted on April 21, with the vanguard back by month's end.

Seventy Snow Geese were found in Newburyport on April 9. Brant remained in the harbor there all month with a maximum of 350 reported. A "Eurasian" Teal was found at Plum Island, where a maximum of 172 Green-winged Teal was tallied. A drake King Eider and a drake Harlequin Duck remained in Winthrop all month, and 8 mallard ducklings were counted on Nantucket by the third week of April. R.H.S.

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Red-throated Loon				
1-24	Winthrop	10 max 4/10	J. Cumming + v. o.	
Common Loon				
25, 30	Clinton, Lakeville	7, 4	D. Donovan, W. Petersen	
Pied-billed Grebe				
1, 1-9	Lakeville, W. Newbury	1, 1	D. Donovan#, D. Davis# + v. o.	
2	Waltham, GMNWR, Concord	1, 1, 1	J. Cumming	
2, 4-24	Easton, Stoneham	3, 1	K. Ryan, T. Aversa	
2, 5-30	Ipswich, IRWS	1, 3 max	R. Heil + v. o.	
23	Peabody, S. Monomoy	1, 1	T. Aversa, B. Nikula#	
Horned Grebe				
1	Westport, Quabbin (G37)	30, 1	D. Donovan#, M. Lynch#	
1, 24	Winthrop	6, 6	J. Cumming	
2, 10	Lakeville	2, 1	K. Holmes, W. Petersen#	
17, 26	P.I., Hull	4, 2	BBC (S. Moore), P. Thayer	
Red-necked Grebe				
1, 9, 25	Hull	75, 50, 15	P. Thayer	
1, 20	Winthrop	40, 3	J. Cumming, T. Aversa	
3, 5	Dennis, Marblehead Neck	5, 52	J. Aylward, R. Heil	
15	Quabbin (G40)	2	T. Aversa	
Northern Gannet				
1, 13	P'town, Cape Ann	79, 5	T. Aversa, J. Brown	
Great Cormorant				
2, 9	N. Scituate	110, 48	T. Aversa	
10	Lakeville, Rockport	2, 16	W. Petersen#, BBC (J. Nove)	
30	P.I.	1	M. Lynch#	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Double-crested Cormorant				
1	Westport, E. Middleboro	15, 5	D. Donovan#, K. Anderson	
9-30	Newbypt area	400+ max 4/30	BBC (C. Schubarth) + v. o.	
13, 19	Attleboro, Easton	85, 40	K. Ryan	
American Bittern				
15, 19	IRWS, Bolton Flats	1, 1	J. MacDougall, M. Lynch#	
Great Blue Heron				
1	Quabbin (G37)	4 (2 on nests)	M. Lynch#	
18, 19	P.I., Westboro (SUASCO)	35, 27 (19 on nests)	D. Donovan#, M. Lynch#	
21, 29	Gloucester, Mt. A.	4, 3	J. MacDougall, E. Taylor	
Great Egret				
thr	Essex-Ipswich area	4 max	v. o.	
thr	S. Dart. (Allens Pd)	8 max 4/5	LCES (D. Christiansen)	
18, 25	Rowley, Hingham	3, 1	D. Donovan#, P. Thayer	
Snowy Egret				
1, 11	Hingham, Essex	4, 11	P. Thayer, G. Gove#	
18, 21	P.I., Gloucester	7, 6	D. Donovan#, J. MacDougall	
Little Blue Heron				
21	Gloucester	3 ad, 1 pied	J. MacDougall	
23-24	Essex	4 ad	M. Argue# + v. o.	
Tricolored Heron				
24	Nantucket (Coskata)	1	M. Litchfield	
Cattle Egret				
18-30	Essex	1 or 2	D. Donovan# + v. o.	
Green-backed Heron				
21-30	Yarmouthport	1	J. Aylward	
27	Mt. A., Topsfield	1, 1	S. Zende, J. Brown	
28	Brookline	1	R. Stymeist#	
30	P.I., IRWS	1, 1	M. Lynch#, R. Heil	
Black-crowned Night-Heron				
5, 28	Brookline	1, 6	J. Heywood, R. Stymeist#	
17-30	P.I.	5 max	v. o.	
22	Nantucket	12	fide M. Litchfield	
Glossy Ibis				
9-30	Essex-Ipswich	55 max 4/25	J. MacDougall + v. o.	
18	P.I., Rowley	6, 5	D. Donovan#, E. Salmela#	
26	Squantum, N. Andover	9, 6	K. Ryan, V. Yurkunas	
27	Middleboro	9	D. Briggs	
Mute Swan				
13	Gloucester	6	J. Brown	
Snow Goose				
9, 17	Newbypt, Marshfield	70, 1	J. Cumming, R. Stymeist#	
Brant				
thr	Newburyport	350+ max 4/14	R. Heil + v. o.	
1, 16	Winthrop, Ipswich	300, 27+	J. Cumming, J. Berry	
Canada Goose				
3, 29	Bolton Flats	1000+, 10+	D. Donovan#, M. Lynch#	
Wood Duck				
thr	GMNWR, IRWS	60 max 4/24, 20	max 4/23 v. o.	
1, 9, 23	Quabbin (G37)	2, 11, 9	M. Lynch#	
Green-winged Teal				
thr	P.I.	172 max 4/2	v. o.	
1, 23	New Braintree	31, 9	M. Lynch#	
2, 23	S. Monomoy	35, 30	B. Nikula	
3, 17	Bolton Flats	49, 40+	M. Lynch#	
9, 16	Ipswich, Newton	52, 22+	J. Berry, O. Komar	
10, 22	Halifax, W. Bridgewater	65, 17	W. Petersen, G. d'Entremont	
"Eurasian" Teal				
8	P.I.	1	T. Aversa	
Mallard				
22	Nantucket	8 ducklings	fide M. Litchfield	
Northern Pintail				
2, 23	S. Monomoy	12, 12	B. Nikula#	
16, 25	Ipswich, Newburyport	3, 1	M. Lynch#, G. d'Entremont	
Blue-winged Teal				
1	New Braintree, Halifax	4, 1	M. Lynch#, K. Anderson	
2	Ipswich, GMNWR	1, 1	R. Heil, J. Cumming	
Northern Shoveler				
thr; 2, 25	P.I.; Hingham	2 max; 1, 1	v. o.; T. Aversa, P. Thayer	
2, 23	S. Monomoy	20, 10	B. Nikula#	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Gadwall thr 2, 23 19-26	P.I. S. Monomoy Stoneham	14 max 4/23 40, 50 2	v. o. B. Nikula# T. Aversa	
Eurasian Wigeon ?	Chatham	1	D. Houghton	
American Wigeon 23, 24	Belmont, Ipswich	4, 8	P. Thayer, D. F. Oliver	
Ring-necked Duck thr, 1-26 1, 23; 1 15, 16	W. Newbury, IRWS Quabbin (G37); Andover Petersham, Braintree	7 max, 30 max 33, 9; 32 12, 28	v. o. M. Lynch#; V. Yurkunas T. Aversa, G. d'Entremont#	
Greater Scaup thr 1-18	Lakeville Newburyport	100+ max 4/10 200 max 4/9	W. Petersen# v. o.	
Lesser Scaup 2 10, 15	S. Monomoy, Lakeville Stoneham, Danvers	10, 2 2, 3	B. Nikula#, G. d'Entremont# T. Aversa, J. Brown	
scaup species 23	S. Monomoy	12	B. Nikula#	
Common Eider 1, 29 13	Hull Cape Ann	1500, 80 65	P. Thayer J. Brown	
King Eider thr	Winthrop	1 m	v. o.	
Harlequin Duck thr 2, 9; 9	Winthrop N. Scituate; Rockport	1 m 1 m; 1	v. o. T. Aversa; D. Chickering	
Oldsquaw thr 2	Newbypt Harbor S. Monomoy	1000 max 4/18 200	v. o. B. Nikula#	
Black Scoter 10, 13	Rockport, Cape Ann	16, 18	BBC (J. Nove), J. Brown	
Surf Scoter 1, 13	Winthrop, Cape Ann	5, 33	J. Cumming, J. Brown	
Common Goldeneye 2, 9 13, 20	Newburyport Cape Ann, Winthrop	200+, 50 10, 6	M. Lynch#, G. d'Entremont# J. Brown, T. Aversa	
Barrow's Goldeneye 9	Newburyport	1 m	BBC (G. Gove)	
Bufflehead 24, 25 26, 30	Newburyport Lakeville, P.I.	15, 2 5, 7	M. Emmons#, G. d'Entremont K. Anderson, M. Lynch#	
Hooded Merganser thr 2, 9	Quabbin (G37) Waltham, Boston	7 max 4/9 1 f, 2 f	M. Lynch# J. Cumming, R. Stymeist	
Common Merganser 1, 2 27, 30	Andover, Stoneham Stoneham, W. Newbury	11, 45 12, 1	V. Yurkunas, J. Cumming T. Aversa, J. Brown	
Red-breasted Merganser 1; 3, 30 5, 12, 19, 26 13, 23	Hull; N. Monomoy S. Dart. (Allens Pd) Cape Ann, S. Monomoy	50; 1000+, 400+ 43, 96, 51, 92 75, 400+	P. Thayer; B. Nikula# LCES (D. Christiansen) J. Brown, B. Nikula#	
Ruddy Duck 1-3, 23 2 2 9, 17 18	Belmont (Claypit Pd) S. Monomoy, Waltham Lakeville W. Newbury P.I.	7, 2 m 1, 5 f 1 1, 1 1	R. Stymeist, P. Thayer B. Nikula#, J. Cumming K. Holmes BBC (G. Gove), BBC (S. Moore) D. Donovan#	

RAPTORS THROUGH CRANES

The Eastern Massachusetts Hawk Watch (EMHW) reported from sixteen locations for a total of about eighty-eight hours of observation time. The American Kestrel reports from Plum Island were most impressive. There were at least 4 immature Bald Eagles found at Quabbin, and another 1 or 2 adults were seen over Mt. Watic in Ashburnham. Other encouraging reports included Northern Goshawks from eleven locations, and Red-shouldered Hawks from over nineteen locations. The first Broadwings were seen early at Brewster, with most others noted after April 19. A Red-tailed Hawk was being mobbed by crows at Mt.

Auburn, and later it was seen eating a crow. Enough is enough. A Swainson's Hawk was well studied at a distance of about one hundred feet at Plum Island on April 15.

Wild Turkeys were heard at Boxford State Forest, and in Carver 2 birds were seen. The Fisheries and Wildlife folks released birds in these areas in January 1988. A Sandhill Crane was heard calling and seen flying over North Quincy on April 4. R.H.S.

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Turkey Vulture				
2, 5	Ipswich, Topsfield	5, 6	R. Heil, J. Berry	
10, 13, 26	Mt. Watatic	16, 6, 6	EMHW	
10	Quabbin (G43)	32	M. Lynch#	
17	W. Newbury, Wellfleet	6, 7	BBC (S. Moore), C. Smith	
Many other reports of 1-4 individuals from a wide area.				
Osprey				
1	Westport, P.I.	25, 1	D. Donovan#, D. Davis#	
10, 17, 23	Mt. Watatic	16, 29, 13	EMHW	
17; 23, 26	Wachusett Mt.	11; 17, 13	G. Gove#; EMHW	
Many other reports of 1 or 2 individuals from a wide area.				
Bald Eagle				
1, 9, 23	Quabbin (G37)	1 imm, 1 imm, 2 imm	M. Lynch#	
2, 10	Kingston, Quabbin (G37)	1 imm, 4 imm	T. Aversa, M. Lynch#	
19, 23	Mt. Watatic	1 ad, 1 ad	EMHW	
Northern Harrier				
thr	P.I.	30 max 4/16 + 17	EMHW (E. Mair) + v. o.	
1, 2	New Braintree, Middleboro	1, 3	M. Lynch#, G. d'Entremont#	
17	Hull, Outer Cape Cod	3, 16	P. Thayer, P. Roberts#	
24	Bolton Flats	1	M. Lynch#	
26	S. Dart. (Allens Pd)	3	LCES (D. Christiansen)	
Sharp-shinned Hawk				
10	Rockport, Quabbin (G37)	1, 1	G. Gove#, M. Lynch#	
17	P.I. area, Hull	6, 11	J. Brown, P. Thayer	
17	Outer Cape Cod, Wachusett Mt.	13, 2	P. Roberts#, J. Gordon#	
18, 19	Hull, P.I.	8, 9	P. Thayer, J. MacDougall	
23	N. Andover, Nantasket	7, 41	V. Yurkunas, J. Samdahl	
23	Wachusett Mt.	27	EMHW	
23, 26	Mt. Watatic	15, 23	EMHW	
26	IRWS, E. Boston	21, 49	R. Heil, EMHW	
Cooper's Hawk				
2, 16	Wayland, Middleboro	1, 1	J. Gordon#, K. Holmes	
15, 16	Milton, Worcester	1 ad, 1 ad	G. d'Entremont, M. Lynch#	
17	W. Newbury, IRWS	1, 1 imm f	BBC (S. Moore), R. Heil	
23	Bolton	1	G. Gove#	
26	N. Andover, P.I.	1, 1	V. Yurkunas, E. Mair	
23, 26	Wachusett Mt., Mt. Watatic	2, 1	EMHW	
Northern Goshawk				
1-9, 1	Boxford, E. Middleboro	pair, 1	v. o., K. Anderson	
3; 17, 23	Bolton Flats; IRWS	1; 2 ad, 1 ad	M. Lynch#, R. Heil	
17	Wellfleet, Truro	1 imm, 1 imm	B. Nikula, P. Roberts#	
18, 22	Petersham, Holliston	2 ad, 1	M. Lynch#, T. Aversa	
23	Mt. Watatic, Wachusett Mt.	2 ad, 1	EMHW	
23	N. Andover	1	V. Yurkunas	
Red-shouldered Hawk				
thr	E. Middleboro, Boxford	pr at nest, pr	K. Anderson, R. Stymeist# + v. o.	
17, 30	Outer Cape Cod, Lakeville	6, 3	P. Roberts, W. Petersen	
Reports of single individuals from 15 locations.				
Broad-winged Hawk				
9	Brewster	3	J. Aylward	
10, 19, 23, 26	Mt. Watatic	9, 53, 201, 293	EMHW	
17	Wachusett Mt., Harvard	5, 4	G. Gove#, M. Lynch#	
17, 19	Westboro, Norton	7, 1	EMHW, K. Ryan	
23, 26	N. Andover	9, 17	V. Yurkunas	
23	Wachusett Mt., Little Wachusett	299, 48	EMHW	
26	E. Boston	46	EMHW	
Swainson's Hawk (details submitted)				
15	P.I.	1	G. Soucy, L. Jodrey	
Red-tailed Hawk				
2, 9	Middleboro, W. Newbury	5, 4	G. d'Entremont#, J. Cumming	
10, 19	Bridgewater, Westboro	pr at n, pr at n	W. Petersen, M. Lynch#	
19, 23	Mt. Watatic, S. Monomoy	9, 1 imm	EMHW, B. Nikula#	
Many reports of 1-3 individuals.				

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Rough-legged Hawk				
1	E. Middleboro, Milford	1, 1	K. Anderson, D. Donovan#	
2, 23	S. Monomoy, N. Truro	1, 1	B. Nikula#, EMHW	
American Kestrel				
thr	P.I.	273 total (94 max 4/17)	EMHW + v. o.	
thr	Sherborn	pr at nest with 5 eggs	E. Taylor	
17; 23	Truro; Wachusett Mt., N. Scituate	12; 12, 14	EMHW	
30	Middleboro	35+	W. Petersen#	
Merlin				
10-30	P.I.	15+ total	EMHW + v. o.	
23, 25	Somerville, Plymouth	1, 1	D. F. Oliver, M. Kasprzyk	
28, 29	Foxboro, ONWR	1, 1	M. Kasprzyk, M. Lynch#	
Peregrine Falcon				
10, 17-30	Boxford, P.I.	1, 7+ total	G. d'Entremont#, v. o.	
23, 26	S. Monomoy, E. Boston	1 ad, 1	B. Nikula#, EMHW	
Ruffed Grouse				
Reports (many drumming) from 9 locations.				
Wild Turkey				
1, 23; 24	Quabbin (G37); Carver	8, 4; 2	M. Lynch#; T. Lloyd-Evans	
3, 17	Boxford, Bolton Flats	1 or 2, 1	J. Berry#, M. Lynch#	
Northern Bobwhite				
27, 30	Belmont	1, 1	L. Taylor	
Virginia Rail				
1, 5-30	Westport, IRWS	1, 4 max 4/26	D. Donovan#, R. Heil	
17, 18	Melrose (Pine Banks)	1, 1	C. Jackson	
19, 24; 30	Bolton Flats; Newburyport area	1, 4; 3	M. Lynch#; BBC (C. Schubarth)	
Sora				
24	Bolton Flats	1	M. Lynch#	
Common Moorhen				
9	Nantucket	1	fide M. Litchfield	
American Coot				
1-20, 2	Walpole, Plymouth	1 (from Jan.), 235	O. Komar, T. Aversa	
24, 26	Arlington, IRWS	3, 1	L. Taylor, R. Heil	
Sandhill Crane				
4	N. Quincy	1	D. Brown	

SHOREBIRDS THROUGH TERNS

One or two Ruffs were seen in Newburyport Harbor; descriptions varied as to sex and plumage so that it was difficult to determine the exact number.

A California Gull was sighted in Newburyport during the afternoon on April 24, 1988. The bird was first seen feeding with approximately 250 Ring-billed Gulls in the Common Pastures. Seen at point-blank range, the bird stood out as being slightly larger than the surrounding Ring-bills with a black tip to its bill and a vague red spot adjacent to the black on the bill. The iris was dark brown, not black; the leg color, greenish yellow; the mantle color, darker than the Ring-bills; the bill, generally horn or pale yellow color with the tip black. The observer reported some flecking on the head and neck; the bird was smaller than a nearby first summer Herring Gull. The gulls were flushed by a car. In flight, a few tail spots and light brown edges to some of the secondary coverts were noticed. The flock was relocated on another factory lawn. The California Gull, determined to be a second summer bird, stood out due to its larger size and distinctive bill pattern. This report represents the first sighting of California Gull in Massachusetts.

Next morning at 7 A.M., a Franklin's Gull was found on Scotland Road in Newburyport. The gull was in a flock of Ring-billed Gulls on a roof top. According to the observers, the Franklin's Gull was noticeably smaller than the other gulls. The bill was thinner and shorter than that of the Ring-billed Gulls and was rather delicate with virtually no gonys. The bill was dark red from the head to the nostrils and black beyond that. The bird's mantle and wings were slate gray (a shade darker than those of the Ring-billed Gulls). The gray of the wing was interrupted by a broad white band across the black primaries, which had white apical spots. The head had a smoky gray hood extending from the crown to just below the eye and back from the bill to a sharply delineated line on the mid nape. The hood darkened from pale forward to nearly black along the nape. Conspicuous white crescents were formed above and below the eye. The rest of the head, including chin, throat, neck, and lower nape, was white as were the breast, belly, tail and tail coverts, and lower back. The legs and feet could not be observed.

An early Least Tern was noted at North Monomoy, and Caspian Terns were seen in Plymouth. G.W.G.

Black-bellied Plover			
2, 19	N. Monomoy	5, 175	B. Nikula
2, 10	Quincy, Nantucket	1, 25	T. Aversa, M. Litchfield

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Piping Plover				
1, 1-18	Westport, P.I.	5, 2	D. Donovan#, v. o.	
3, 14, 19	N. Monomoy	12, 23, 8	B. Nikula#	
12, 26	S. Dart. (Allens Pd)	3, 4	LCES (D. Christiansen)	
24	Nantucket	4, 3	fide M. Litchfield	
Killdeer				
1, 3	Westport, Bolton	10, 10	D. Donovan#	
3	P.I., Essex	7, 2	BBC (S. Bolton), J. MacDougall	
9	Ipswich, W. Newbury	25, 21	J. Berry, BBC (G. Gove)	
10	Essex	14	D. F. Oliver	
American Oystercatcher				
3, 23	N. Monomoy, S. Monomoy	14, 6	B. Nikula#	
3, 16	Nantucket	4, 10	M. Litchfield	
Greater Yellowlegs				
thr	Newburyport-P.I.	200 max	v. o.	
2, 21	Quincy, Duxbury	2, 6	T. Aversa, P. Thayer	
30	Middleboro, Squantum	24, 50	W. Petersen, K. Ryan	
Lesser Yellowlegs				
3, 6	Easton, W. Bridgewater	1, 2	K. Ryan	
9, 17	Ipswich, Newburyport	2, 20	J. Berry, BBC (S. Moore)	
29, 30	Newburyport, Middleboro	3, 3	J. Berry, W. Petersen	
Willet				
26	S. Dart. (Allens Pd)	2	LCES (D. Christiansen)	
30	P.I.	3	BBC (C. Schubarth) + v. o.	
Spotted Sandpiper				
29	ONWR	1	M. Lynch#	
Upland Sandpiper				
29, 30	Middleboro, Newburyport	3, 2	D. Briggs, BBC (C. Schubarth)	
Whimbrel				
23	Nantucket	1	M. Litchfield	
Ruddy Turnstone				
2, 9	N. Scituate	50, 50	T. Aversa	
Red Knot				
2, 30	N. Scituate, Newburyport	8, 1	T. Aversa, BBC (C. Schubarth)	
Sanderling				
19, 24	N. Monomoy, Nahant	200, 100	B. Nikula, J. Cumming	
24	Nantucket	140	M. Litchfield	
Semipalmated Sandpiper				
30	N. Monomoy	3	B. Nikula	
Least Sandpiper				
30	Quincy	4	K. Ryan	
Pectoral Sandpiper				
8-23, 10	P.I., W. Bridgewater	3-10, 2	v. o., W. Petersen	
Purple Sandpiper				
1, 2	Westport, N. Scituate	3, 340	D. Donovan#, T. Aversa	
20	Winthrop	85	T. Aversa	
Dunlin				
1, 2	Westport, N. Scituate	180, 70	D. Donovan#, T. Aversa	
3, 19	N. Monomoy	60, 450	B. Nikula	
24	Nahant	10	J. Cumming	
26	S. Dart. (Allens Pd)	96	LCES (D. Christiansen)	
Ruff				
14-24	Newburyport	1 or 2	R. Heil + v. o.	
Common Snipe				
thr	Bolton	49 max 4/3	M. Lynch#	
9, 10	W. Newbury, W. Bridgewater	21, 50	BBC (G. Gove), W. Petersen	
15, 24	Concord, W. Newbury	17, 5	T. Aversa, BBC (M. Emmons)	
22	Bridgewater	34	G. d'Entremont	
American Woodcock				
thr	IRWS	3 or 4	R. Heil	
10, 19	Lexington, Bolton	2, 6	BBC (S. Sanders), M. Lynch#	
30	S. Wellfleet	9	A. + E. Williams	
Laughing Gull				
1, 24	Eastham, Nantucket	1 ad, 2 ad	T. Aversa, M. Litchfield	
Franklin's Gull (details submitted)				
25	Newburyport	1 ad	S. Perkins#	
Little Gull				
2-18	Newburyport	1-2	v. o.	
Common Black-headed Gull				
2-3, 18	Newburyport area, Stoneham	1-3, 1 (1W, details)	v. o., T. Aversa	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Bonaparte's Gull 18-30	Newburyport	1-3	v. o.	
Ring-billed Gull 18, 25	Stoneham, Newbury	140, 200	T. Aversa, G. d'Entremont#	
California Gull (details submitted) 24	Newburyport	1 (2S)	R. Forster#	
Iceland Gull thr	Newburyport area	1-6	v. o.	
Glaucous Gull 9	Newburyport	1 (2W)	G. d'Entremont#	
Black-legged Kittiwake 13	Cape Ann	1	J. Brown	
Caspian Tern 25, 26	MBO, Plymouth Beach	1, 1	fide M. Kasprzyk, B. Howell	
Least Tern 30	N. Monomoy	1	B. Nikula	

OWLS THROUGH SHRIKES

Whip-poor-wills were heard calling in South Dartmouth, and Chimney Swifts appeared on schedule at several locations. Male Red-bellied Woodpeckers were found at two locations, and Yellow-bellied Sapsucker reports included one group of five birds at Wachusett Mountain. All the swallow species arrived during the month. The crow roost in Framingham continued through April, and Fish Crows were present at scattered locations. An early Veery was noted at Plum Island, where a Northern Shrike was also seen. Another Northern Shrike was seen in Essex. A Loggerhead Shrike was seen in Harvard on April 17. When this species is seen in the state in the spring, it is generally found from mid-March through April, and two were noted in this period this year.

G.W.G.

Eastern Screech-Owl 2, 5	Topsfield, W. Roxbury	1, 1	J. Brown, T. Aversa	
19, 21	Bolton, Belmont	2, 1	M. Lynch#, L. Taylor#	
Great Horned Owl thr, 8-30	IRWS, Waltham	3 pr, pr at nest + 2 yg	R. Heil, L. Taylor#	
10; 11, 26	Middleboro; Ipswich	3; 2 pr, 1 pr	W. Petersen; J. Berry	
19, 23	Westboro (SUASCO), Mt A.	1 nest, 1	M. Lynch#, BBC (J. Clancy)	
23	Boxford	1 dead	T. Aversa	
Snowy Owl 2-14	Newburyport area	1	v. o.	
Barred Owl thr	E. Middleboro, Plympton	pr, 1	K. Anderson, T. Lloyd-Evans	
3, 30	Boxford	1, 4 calling	J. MacDougall	
14, 27	IRWS, Ashland	1, 1-2	R. Heil, G. Gove	
Short-eared Owl 2, 23; 14	S. Monomoy; Essex	1, 4; 1	B. Nikula; R. Heil	
Northern Saw-whet Owl 25	Topsfield	1	J. MacDougall	
Whip-poor-will 26, 28	S. Dartmouth	calling	LCES (D. Christiansen)	
Chimney Swift 23, 24	Quabbin (G37), Peabody	1, 1	D. Donovan#, R. Heil	
27	Ipswich, Topsfield	1, 2	J. MacDougall, J. Brown	
30	Belmont, S. Natick	1, 25	L. Taylor, E. Taylor	
Belted Kingfisher 1, 3	Eastham, Bolton	pr, 3	T. Aversa, M. Lynch#	
13, 18	Cape Ann, Newburyport	2, 2	J. Brown, D. Donovan#	
Reports of individuals from 9 locations.				
Red-headed Woodpecker 2	Nantucket	2	M. Litchfield	
Red-bellied Woodpecker 2, 4-30	Hingham, MNWS	1 m, 1 m	T. Aversa, R. Heil	
Yellow-bellied Sapsucker 3, 10	Topsfield, Rockport	1, 1	J. MacDougall, BBC (J. Nove)	
23; 27	Wachusett Mt., Arlington; MNWS	5, 1; 1 f	G. Gove#, J. Heywood; R. Heil	
Northern Flicker 1, 23; 1-30	Westport, Quabbin (G37); Topsfield	20, 12; 1-4	D. Donovan#; J. Brown	
15, 21	IRWS, Mt A.	7, 30	J. MacDougall, BBC (A. Bennett)	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Pileated Woodpecker				
1, 10	Quabbin (G37), (G43)	1, 1	M. Lynch#	
3, 16	Bolton, Petersham	1, 1	M. Lynch#	
Eastern Phoebe				
1	Hull, Quabbin (G37)	1, 6	P. Thayer, M. Lynch#	
3, 10	Boxford, Hamilton	6, 5	J. Berry	
5	IRWS, MNWS	8, 13	R. Heil	
9	Quabbin (G37), (G40), (G41)	8, 5, 2	M. Lynch#	
21	Mt A.	6	BBC (A. Bennett)	
Eastern Kingbird				
29	Bolton, Middleboro	1, 2	M. Lynch#, D. Briggs	
30	Provincetown	3	B. Nikula	
Horned Lark				
9-10	Ipswich	40-50	v. o.	
Purple Martin				
30	Lakeville, Middleboro	8, 2	W. Petersen	
30	Hanson, P.I.	3, 20	W. Petersen, BBC (C. Schubarth)	
Tree Swallow				
thr	Quabbin (G37)	64 max 4/23	M. Lynch#	
3, 8	Bolton, GMNWR	20, 300	D. Donovan#, T. Aversa	
16	Wayland	150	E. Taylor	
Northern Rough-winged Swallow				
9	Wayland	3	R. Forster	
19, 23	Stoneham, Hardwick	1, 6	T. Aversa, M. Lynch#	
24, 30	Ipswich, W. Peabody	1, 2	D. F. Oliver, H. Wiggin#	
Bank Swallow				
27	Middleboro, Bolton	1, 3	K. Holmes, M. Lynch#	
30	W. Peabody	1	M. Argue#	
Cliff Swallow				
25, 26	Newburyport, IRWS	1, 1	G. d'Entremont#, R. Heil	
30	Norfolk	6	G. Gove#	
Barn Swallow				
8, 20	GMNWR, Danvers	1, 4	T. Aversa, J. Brown	
27, 30	Middleboro, P.I.	2, 20	K. Holmes, M. Lynch#	
American Crow				
thr	Framingham	325 max 4/24	E. Taylor	
Fish Crow				
thr	Mt A.	2 pr	R. Stymeist# + v. o.	
2, 27	Woburn, Waltham	2, 1	BBC (R. Clayton), L. Taylor	
Reports of 1 or 2 from 4 locations.				
Common Raven				
10	Quabbin (G43)	5	M. Lynch#	
Red-breasted Nuthatch				
thr	IRWS	7 max 4/5	R. Heil	
1-23, 10	Quabbin (G37), (G43)	15 max, 9	M. Lynch#	
9, 17	Boxford (C.P.), Westford	4, 4	BBC (G. Gove), S. Selesky	
Brown Creeper				
thr	Quabbin (G37)	6-8	M. Lynch#	
2	Boxford, Topsfield	2, 2	J. Brown, J. MacDougall	
Carolina Wren				
9, 10	Acoaxet, Rockport	6, 1	W. Petersen, BBC (J. Nove)	
16	Braintree	1	BBC (G. d'Entremont)	
House Wren				
23, 26	Topsfield, E. Middleboro	1, 1	J. Brown, K. Anderson	
27, 29	Mt A., ONWR	1, 2	R. Stymeist#, M. Lynch#	
Winter Wren				
1-23	Quabbin (G37)	1-7	M. Lynch#	
3, 9	Boxford (C.P.)	2, 4	J. Berry#, BBC (G. Gove)	
6, 27; 26	MNWS; IRWS	3, 4; 1	R. Heil	
Marsh Wren				
30	P.I.	2	M. Lynch#	
Golden-crowned Kinglet				
2-25; 5	Topsfield; IRWS, MNWS	2; 11, 30	J. Brown; R. Heil	
2, 9	P.I., Boxford (C.P.)	7, 10	M. Lynch#, BBC (G. Gove)	
16	Milton	10	BBC (G. d'Entremont)	
21	Mt. A.	25	BBC (A. Bennett)	
Ruby-crowned Kinglet				
5, 17; 23	MNWS; IRWS	3, 50; 41	R. Heil	
18, 20-30	P.I., Mt A.	50, 25 max 4/23	D. Donovan#, v. o.	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Blue-gray Gnatcatcher				
27, 29	Mt A., IRWS	2, 1	H. Hoffman#, J. Brown	
30	IRWS, Melrose	4, 1	R. Heil, C. Jackson	
Eastern Bluebird				
thr	E. Middleboro	2 pr at boxes	K. Anderson	
2	Nantucket	2	M. Litchfield	
1; 9	Hardwick; Quabbin (G37), (G40)	2; 1, 1	M. Lynch#	
10	Hamilton, Topsfield	2 m, pr	J. Berry, J. Brown	
10, 23	Westminster	9, pr	R. Stymeist#, L. Taylor	
Hermit Thrush				
1, 14	Westport, Boxford	1, 1	D. Donovan#, J. MacDougall	
16, 18	Clinton, P.I.	2, 2	D. Donovan#	
23, 27	Mt A., MNWS	2, 18	P. Thayer, R. Heil	
Gray Catbird				
1, 9	Westport, Acoaxet	1, 1	D. Donovan#, W. Petersen	
22, 30	S. Natick, Canton	1, 1	T. Aversa, E. Taylor	
Brown Thrasher				
1, 9	Westport, Acoaxet	1, 1	D. Donovan#, W. Petersen	
24-30, 30	Belmont, P.I.	1-4, 6	L. Taylor, J. Brown	
Cedar Waxwing				
2, 26	Middleboro, Topsfield	8, 13	K. Holmes, J. MacDougall	
Northern Shrike				
2	P.I., Essex	1, 1	M. Lynch#, R. Heil	
Loggerhead Shrike				
17	Harvard	1	M. Lynch#	

VIREOS THROUGH WARBLERS

A total of 13 species of warblers was reported this April, a much better number than 7 recorded during April of 1987. But this total of 13 species is still below the average of 18 species from past Aprils. April 27 was the best "wave" day; the previous night of southwest winds and a temperature of 66 degrees brought a good movement into the area. The only southern warbler found was a single Hooded Warbler in Chatham on April 30.

R.H.S.

White-eyed Vireo				
24-27	MNWS	1	R. Heil	
Solitary Vireo				
17-30, 19	Boxford, Middleboro	1+, 1	H. Wiggin + v. o., D. Briggs	
21-30	Mt. A.	7 max 4/29	v. o.	
23	Quabbin (G37)	7	M. Lynch#	
27	Newton, Arlington	5, 17	O. Komar, J. Heywood	
28, 30	Topsfield, P.I.	1, 2	J. MacDougall, M. Lynch#	
Warbling Vireo				
29	Middleboro	1	D. Briggs	
Nashville Warbler				
28	Middleboro	1	D. Briggs	
30	IRWS, Melrose	1, 1	R. Heil, C. Jackson	
Northern Parula				
27	Mt. A.	1	I. Giriunas	
Yellow Warbler				
27, 29	Mt. A., Halifax	1, 1	S. Zende, D. Briggs	
30	Topsfield	1	J. Brown	
30	Easton, Middleboro	1, 1	K. Anderson, D. Briggs	
Yellow-rumped Warbler				
1, 8	Westport, Wayland	5, 10	D. Donovan#, R. Forster	
10	Middleboro	3	W. Petersen	
16, 17	Braintree, Westford	15, 1	BBC (G. d'Entremont), S. Selesky	
17, 19; 24	Auburn; P'town	4, 23; 150	M. Lynch#; B. Nikula	
23, 24	Quabbin (G37), GMNWR	26, 38	M. Lynch#	
27	Waltham, Mt. A.	35, 10	L. Taylor, D. F. Oliver	
27	Arlington	21	J. Heywood	
Black-throated Green Warbler				
30	IRWS, Boxford	4, 7	R. Heil, R. Stymeist#	
Pine Warbler				
1, 2	E. Middleboro, N. Middleboro	2 m, 1	K. Anderson, K. Holmes	
3, 17, 29	ONWR	1, 2, 2	M. Lynch#	
5; 9, 23	Boxford; Quabbin (G37)	1+; 5, 10	J. Brown; M. Lynch#	
14-30	IRWS	10 max 4/23	R. Heil	
Reports of a total of 18+ birds from 4 locations on 4/10.				

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Palm Warbler				
10, 17	Westminster, Westford	1, 3	R. Stymeist#, S. Selesky	
17, 23, 24, 27	Waltham (Met. State)	2, 8, 10, 8	L. Taylor	
18-30, 18	Melrose, P.I.	7 max 4/18, 50+	C. Jackson, D. Donovan#	
18, 19	IRWS, Stoneham	5, 10	J. Brown, T. Aversa	
22, 23	S. Natick, IRWS	8, 16	T. Aversa, R. Heil	
23, 24	Mt. A., GMNWR	12, 28	v. o., M. Lynch#	
27	Arlington	22	J. Heywood	
Black-and-white Warbler				
23, 30	IRWS	2, 5	R. Heil	
27	Mt. A., Newton	4, 1	R. Stymeist#, O. Komar	
27	Arlington	14	J. Heywood	
29, 30	ONWR, S. Natick	1, 2	M. Lynch#, E. Taylor	
30	Halifax, Raynham	1, 8	D. Briggs, K. Anderson	
Ovenbird				
29, 30	Hanson, Boxford	1, 5	W. Petersen, R. Stymeist#	
Northern Waterthrush				
28, 29	Brookline, E. Middleboro	2, 1	R. Stymeist, K. Anderson	
30	Mt. A., Raynham	1, 5	v. o., W. Petersen	
30	Lakeville	6	K. Anderson	
Louisiana Waterthrush				
3-30	Boxford	6 max	J. Berry + v. o.	
10, 16	Chatham, Petersham	1, 1	W. Bailey, M. Lynch#	
17, 23	Lincoln, Quabbin (G37)	1, 1	BBC (J. Nove), M. Lynch#	
30	Halifax	1	D. Briggs	
Common Yellowthroat				
30	P.I.	1	J. Brown	
Hooded Warbler				
30	Chatham	1	R. Clem	

TANAGERS THROUGH FINCHES

Two Summer Tanagers, one at a bird bath in Brookline, were seen this April; these are the first April reports since 1984. Only one male Blue Grosbeak was noted. Tree Sparrows lingered, overlapping the arrival of Chipping Sparrows. Four Vesper Sparrows were observed in three locations, while Savannah Sparrows were widespread. One White-crowned Sparrow was observed as it crossed a road in Topsfield. Longspurs and Snow Buntings stayed until the middle of the month. Rusty Blackbirds were seen throughout the month from many locations.

Northern and Orchard orioles, one of each species, were observed on April 30. Red Crossbills were reported from locations scattered throughout eastern Massachusetts. Pine Siskins were entrenched throughout the month, with one observer noting nesting activity at Ipswich River Wildlife Sanctuary. Evening Grosbeaks continued in central areas of the state. G. d'E.

Summer Tanager				
22, 30	Brookline, Melrose	1 ad m, 1 imm	H. Wiggin, C. Jackson	
Rose-breasted Grosbeak				
24, 30	Nantucket	2, 4	E. Andrews	
Blue Grosbeak				
24	Lakeville	1 m	A. Delano	
Indigo Bunting				
19, 29	S. Dartmouth (2 locations)	1 m, pr	LCES (D. Christiansen)	
22	Nantucket	1	fide M. Litchfield	
Rufous-sided Towhee				
1, 10	Westport, Rockport	6, 1	D. Donovan#, J. Nove	
21, 24	Topsfield, Newton	1, 1	J. Brown, O. Komar	
29, 30	ONWR, P.I.	2, 5	M. Lynch#	
American Tree Sparrow				
1	Westport, IRWS	2, 3	D. Donovan, J. Brown	
3, 9	Bolton, IRWS	20, 3	D. Donovan, D. F. Oliver	
16, 17	Bolton, ONWR	1, 1	D. Donovan, M. Lynch#	
Chipping Sparrow				
5	Dover	1	R. Forster	
9, 10	E. Middleboro, Westminster	1, 2	K. Anderson, R. Stymeist#	
24; 29, 30	Hanson; ONWR, P.I.	2; 4, 14	W. Petersen; M. Lynch	
Field Sparrow				
1, 2	Westport, P.I.	1, 2	D. Donovan#, M. Lynch#	
17, 27	Lincoln, Beverly	6, 1	BBC (J. Nove), J. Brown	
29, 30	Harvard, Lynnfield	2, 1	M. Lynch#, M. Argue#	

DATE	LOCATION	NUMBER	OBSERVERS	APRIL 1988
Vesper Sparrow				
24	Rowley	1 or 2	M. Barnett	
30	Middleboro, P.I.	1, 1	W. Petersen, M. Lynch#	
Savannah Sparrow				
1, 9	Westport, Ipswich	2, 10	D. Donovan, BBC (G. Gove)	
9, 16	Bridgewater, Bolton	8, 4	G. d'Entremont, D. Donovan	
20, 24	E. Boston, Newton	16, 19	T. Aversa, O. Komar	
24, 27	Rowley, Newton	25, 36	D. F. Oliver, O. Komar	
"Ipswich" Sparrow				
3, 14	N. Monomoy	1, 1	B. Nikula	
Fox Sparrow				
10, 26	Westminster, Stoneham	4+, 1	R. Stymeist#, T. Aversa	
Song Sparrow				
2, 3	P.I., Bolton	59, 45	M. Lynch#, D. Donovan	
Swamp Sparrow				
5, 8	IRWS, Lynnfield	5, 5	R. Heil, T. Aversa	
24, 26	GMNWR, IRWS	30+, 42	M. Lynch#, R. Heil	
White-throated Sparrow				
5-30	Topsfield	1-3	J. Brown	
27	Waltham, MNWS	9, 65	L. Taylor, R. Heil	
27, 30	Mt. A., P.I.	35, 19	D. F. Oliver, M. Lynch#	
White-crowned Sparrow				
24	Topsfield	1	J. MacDougall	
Dark-eyed Junco				
1-20	Topsfield	4-6	J. Brown	
10, 23	Ipswich	6, 6-8	J. Berry, BBC (J. Berry)	
Lapland Longspur				
2, 10	Ipswich, Middleboro	11, 25	R. Heil, W. Petersen	
Snow Bunting				
8, 14	P.I., N. Monomoy	1, 3	T. Aversa, B. Nikula	
Red-winged Blackbird				
3, 24	Bolton, GMNWR	300+, 800+	D. Donovan, M. Lynch#	
Eastern Meadowlark				
1, 17	Westport, Newbyrt	1, 2	D. Donovan#, J. Brown	
23	Ipswich	2	BBC (J. Berry)	
29	Bolton, ONWR	3, 2	M. Lynch#	
Rusty Blackbird				
6, 8	Essex, GMNWR	11, 8	J. MacDougall, T. Aversa	
3, 17; 17	Hamilton; Melrose	25, 34; 1	J. Berry; C. Jackson	
23	E. Middleboro, Boxford	5, 2	K. Anderson, T. Aversa	
Common Grackle				
16	Framingham	2800	E. Taylor	
Brown-headed Cowbird				
1, 17	Quabbin (G37), Lincoln	42, 65	M. Lynch#, BBC (J. Nove)	
Orchard Oriole				
30	P'town	1	B. Nikula	
Northern Oriole				
30	Halifax	1	D. Briggs	
Purple Finch				
3, 9	Boxford, Milton	3 or 4, 15	J. Berry#, T. Aversa	
23	IRWS, Quabbin (G37)	10, 6	R. Heil, M. Lynch#	
26, 28	Marlboro, Brookline	3, 1	B. Parker, H. Wiggin	
Red Crossbill				
1-10, 27	Quabbin, Mt. A.	6 max 4/9, 1	M. Lynch#, I. Giriunas#	
3 + 4, 27	Dorchester, Rehoboth	38, 15	K. Ryan, K. Anderson	
Pine Siskin				
thr	IRWS, Quabbin	28 max 4/14, 24 max 4/9	R. Heil, M. Lynch#	
thr	E. Middleboro, Westford	10 max, 10+	K. Anderson, S. Selesky	
3, 30	Boxford, Marlboro	8-10, 6	J. Berry, B. Parker	
Evening Grosbeak				
thr	Middleboro	1-3 daily	D. Briggs	
1, 3	Hardwick, Bolton	20, 17	M. Lynch#, D. Donovan	
18	Petersham, Barre	30, 40	M. Lynch#	
15, 23	Quabbin (G37), IRWS	45, 7	T. Aversa, R. Heil	

BIRD OBSERVER FIELD RECORDS

Bird Observer monthly field records represent observations from the ten counties of eastern Massachusetts (Essex, Middlesex, Worcester, Suffolk, Norfolk, Plymouth, Bristol, Barnstable, Duke, and Nantucket). Although space does not permit the inclusion of all sightings submitted, the compilers attempt to present sufficient data to document early and late dates for migratory species, maximum counts for migrants, and high or low numbers for the more common species and to note species outside of their normal ranges.

Please send eastern Massachusetts field records of any given month, no later than the 8th of the subsequent month, to Robert H. Stymeist, 98 Boylston Street, Watertown, MA 02172. The basic information that should be submitted is species name, date and place of observation, an accurate count or careful estimate, sex (if determinable), immature or adult plumage, vocalizations (if any), and observers. Species should be arranged in the current A.O.U. (American Ornithologists' Union) checklist order. Reports of species that can be difficult to identify should include details of the diagnostic characteristics observed or heard that led to the identification.

All field records received by *Bird Observer* are archived at the Massachusetts Audubon Society.

LIST OF ABBREVIATIONS

ad	adult	F.P.	Fresh Pond, Cambridge
b	banded	G37 or 40	Gate 37 or 40, Quabbin
br	breeding	H.	Harbor
dk	dark (phase)	H.P.	Halibut Point, Rockport
f	female	I.	Island
imm	immature	M.V.	Martha's Vineyard
ind	individuals	Mt.A.	Mount Auburn Cemetery, Cambridge
juv	juvenile	Nant.	Nantucket
loc	location	Newbypt	Newburyport
lt	light (phase)	Noanet WR	Noanet Woodland Reservation
m	male	P.I.	Plum Island
max	maximum	Pd	Pond
mi	mile	P'town	Provincetown
migr	migrating	Quab.	Quabbin
n	nesting	Res.	Reservation
ph	photographed	R.P.	Race Point, Provincetown
pl	plumage	S. Dart.	South Dartmouth
pr	pair	S.N.	Sandy Neck, Barnstable
S	summer (1S = first summer)	Stellw.	Stellwagen (Bank)
thr	throughout	BBC	Brookline Bird Club
v.o.	various observers	BOEM	Bird Observer of Eastern Massachusetts
W	winter (2W = second winter)	CBC	Christmas Bird Count
w/	with	CCBC	Cape Cod Bird Club
yg	young	DFWS	Drumlin Farm Wildlife Sanctuary
#	additional observers	DWWS	Daniel Webster Wildlife Sanctuary
A.A.	Arnold Arboretum	EMHW	Eastern Massachusetts Hawk Watch
A.P.	Andrews Point, Rockport	FCBC	Felix Cutler Bird Club
B.	Beach	GMNWR	Great Meadows National Wildlife Refuge
B.I.	Belle Isle, E. Boston	IRWS	Ipswich River Wildlife Sanctuary
B.R.	Bass Rocks, Gloucester	LCES	Lloyd Center for Environmental Studies
Buzz.	Buzzards Bay	MAS	Massachusetts Audubon Society
C.	cape as in Cape Cod	MBO	Manomet Bird Observatory
Cambr.	Cambridge	MNWS	Marblehead Neck Wildlife Sanctuary
Corp. B.	Corporation Beach, Dennis	NEHW	New England Hawk Watch
C.P.	Crooked Pond, Boxford	ONWR	Oxbow National Wildlife Refuge
E.P.	Eastern Point, Gloucester	PRNWR	Parker River National Wildlife Refuge
F.E.	First Encounter Beach, Eastham	SRV	Sudbury River Valley
F.H.	Fort Hill, Eastham	SSBC	South Shore Bird Club
F.M.	Fowl Meadow	WBWS	Wellfleet Bay Wildlife Sanctuary

ABOUT THE COVER: Great Blue Heron

This month's cover depicts the distinctive flight silhouette of a Great Blue Heron, *Ardea herodias*. This is the largest of New England's herons, standing about four feet high with a six-foot wingspan. Great Blues begin arriving in New England in late March and April. Some continue northwards, but some stay to set up localized nesting colonies. The young are fully fledged by late July or August and scatter over the region. Juveniles can be distinguished from adults by their somewhat darker color, entirely dark crown, and the presence of more ventral striping. The bill is slaty with a yellowish lower mandible. From late August until mid-November, the birds are migrating southward. Some stragglers may remain through the winter wherever there is open water, usually along the coast.

The principal food of Great Blues is whatever fish is available from shiners to horned pouts. They fish by night as well as day and still-fish more often than stalk. Standing in shallow water like a post, they wait until a fish swims within reach. Then faster than a birder's blink, they grab a wriggling fish sideways, flip it in the air, and swallow it head first. Larger fish are speared and then pounded before going down the gullet. This heron is also quite at home on dry land where it pursues such prey as field mice, shrews, grasshoppers, and other insects.

Great Blue Herons have long nested in Massachusetts. Although apparently unknown to Forbush, a colony of up to twenty nests existed in Harvard Forest in Petersham and was well documented from 1925 until it was destroyed in the hurricane of 1938. According to unpublished data (Blodget and Cardozo of the Massachusetts Division of Fisheries and Wildlife) the state's nesting population of Great Blues has steadily increased and expanded with the center of abundance in Worcester County. In 1984, 229 nests were counted in twenty-three active heronries, which varied in size from one to 48 nests.

The nests are built near the tops of tall trees, usually in dead or dying trees that have been drowned by man-made or beaver impoundments. Although new nests of the year may be so sparse that the eggs can be seen from below, older nests are larger and thicker, having been added to each year. The accumulated excrement of each season often damages the foliage of the nesting tree but helps to cement the nesting sticks and debris together until massive platforms are created.

Seasoned birders, with eyes alert chiefly for the rarer or more exotic herons, may pay scant attention to Great Blues. But, leave it to the words of Arthur Cleveland Bent, printed in 1926, to remind us how stately a bird this great heron is.

In its native solitudes, far from the haunts of man, it may be seen standing motionless, in lonely dignity, on some far distant point that breaks the shore line of a wilderness lake, its artistic outline giving the only touch of life to the broad expanse of water and its background of somber forest. Or on some wide, flat coastal marsh its stately figure looms up in the distance, as with graceful, stealthy tread it wades along in search of its prey. Perhaps you have seen it from afar and think you can gain a closer intimacy, but its eyes and ears are keener than yours; and it is a wise and a wary bird. But even as it takes its departure, you will still stand and admire the slow and dignified strokes of its great, black-tipped wings, until this interesting feature of the landscape fades away into the distance. A bird so grand, so majestic, and so picturesque is surely a fitting subject for the artist's brush.

J. B. Hallett, Jr.

MEET OUR COVER ARTIST

WILLIAM E. DAVIS, JR. (Ted) is professor and chairman of the Division of Science at the College of Basic Studies, Boston University. He is a member of the board of directors of *Bird Observer* and a frequent contributor of drawings and articles. Specializing in pen-and-ink, Ted has published artwork in *Naturalist Magazine*, *American Birds*, and *Colonial Waterbirds* and has done more than sixty illustrations for the forthcoming breeding bird atlas of New Hampshire. He is very active in ornithological circles and is currently editor of the *Colonial Waterbird Society Newsletter*, vice president of the Nuttall Ornithological Club, and president of the Association of Field Ornithologists.

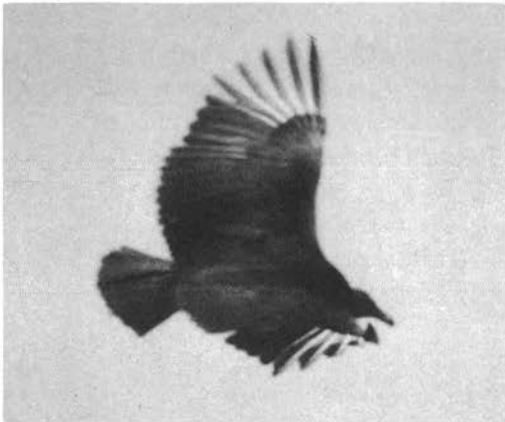
Ted wishes to thank David C. Twichell for the use of his magnificent slides of herons, egrets, and ibises. They have served as models for numerous drawings, including this month's cover illustration.

Inquiries concerning artwork available for purchase should be addressed to his home: 127 East Street, Foxboro, MA 02035.

Raptors often provide a challenge to birders either because they are usually viewed from a great distance or because their plumage is variable due to differences in age, sex, molt, or as a result of polymorphism. Some diurnal raptors, however, are relatively easy to identify even at a distance and are straightforward in plumage. June's **At a Glance** photo depicts a raptor that should provide little difficulty in identification as long as several characteristic features are borne in mind.

First and most noticeably, the pictured bird has a well-defined white patch on the primaries at the end of the wing. Although not apparent in the photograph, this terminal wing patch is visible from beneath as well as above. Also noteworthy is the uniform black appearance of the entire upper-wing surface and tail. The photograph further suggests that the bird's dark head is small, the neck short, and the bill is rather long and slender, almost tubular. When these features are combined with the bird's distinctive shape (thick broad wings and short stubby tail) the identification points immediately to Black Vulture, *Coragyps atratus*.

Although always a rarity in Massachusetts, the Black Vulture occurs with enough frequency that observers should be on the lookout for it not only in spring and fall but at other seasons as well, since the species has a history of appearing at almost any time of year. Separating Black Vulture from the more common Turkey Vulture is not difficult when the birds are well observed. In addition to showing a shorter tail and a more horizontal gliding posture than the Turkey Vulture, Black Vultures typically exhibit a labored flight, usually punctuating their soaring with three to five intermittent flaps. The vulture in the picture was photographed by the author in south Florida.



Black Vulture

Photo by Wayne R. Petersen

AT A GLANCE

Photo by Oliver Komar



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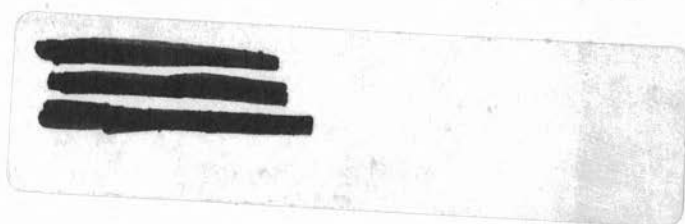
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Cover Illustration: *Great Blue Heron* by William E. Davis, Jr.
