BIRD OBSERVER

OF EASTERN MASSACHUSETTS

AUGUST 1983

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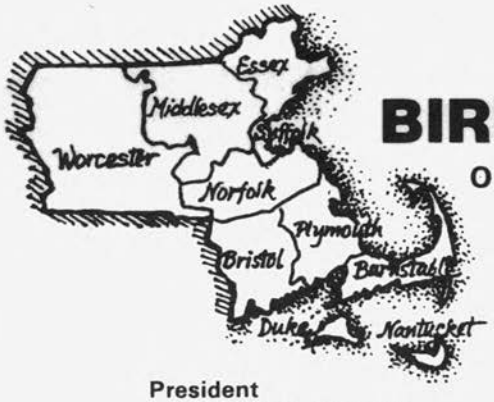

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TABLE OF CONTENTS

SPECIAL ISSUE ON AVIAN MIGRATION

Migration enriches our experience of birds. Its predictable functioning in the annual cycles of so many bird species gives us the seasonal variety of our local avifauna. Its aberrations bring us the unexpected species that add to the zest of our birding. Yet these are just the superficial effects of migration. The pageant itself enriches our experience with vivid images: great flocks of waterfowl streaming past against the high clouds or along the horizon of the sea, kettles of hawks soaring up and lifting away over a mountain top, a coastal night fog alive with the calls of warblers striking out to the ocean and leaving behind their last source of sustenance for thousands of miles. Such experiences fill us with wonder and incite our curiosity to questions that even today pose difficult challenges for science. We hope that the articles in this issue will add to your awareness and understanding of this remarkable aspect of bird behavior. H.C.F.

WHERE AND WHEN TO SEND FIELD RECORDS

In order to be processed, all field records for any given month must be submitted PROMPTLY and NOT LATER THAN the eighth of the following month to:
RUTH EMERY, 225 Belmont Street, Wollaston, MA 02170.

Autumn Migration and Cape Cod Ecology:

A Natural History Workshop

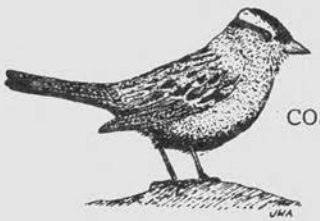
Leader: Wayne R. Petersen

Cape Cod, with its unique ecology and its strategic location for the observation of migrating birds, is an ideal area for the study of Massachusetts natural history at its finest. In the fall, birds of many species arrive on the outer Cape from virtually all points of the compass, and under proper conditions, the concentrations and variety can be spectacular. Overlay this phenomenon on the background of a fascinating geological history that has helped shape today's existing plant communities, and the result is what has made Cape Cod a mecca for ornithologists and naturalists for generations.

In this unique natural history workshop, BIRD OBSERVER introduces a new concept in its developing workshop series. An evening session will consider the factors that have made the Cape's natural areas what they are today as well as describe the dynamics of Cape Cod bird migration. Several major outer Cape plant communities will be outlined as well as the main groups of midfall bird migrants. A follow-up all day field trip will explore several important outer Cape habitat types where fall migrants will be sought in the context described in the indoor session. For the "hardcore," the day will end with an optional hike to the Race Point - Hatches Harbor area that should allow for some interesting outer coast seabird observation.

LEADER: Wayne R. Petersen

DATES: Evening Session: Wednesday, October 12
8-9:30 P.M. at First Church in Belmont Unitarian Universalist
404 Concord Avenue, Belmont, MA
Field Trip: Saturday, October 15;
(rain date, October 16)



COST: $25. Mail check to Bird Observer,
462 Trapelo Road, Belmont, MA 02178.
Mark envelope Cape Cod Workshop.
Workshop limited to 20.

FALL MIGRANT TRAPS OF COASTAL MASSACHUSETTS

by Soheil Zendeh, Somerville

"Since Essex County is on the Atlantic Flyway, its outlying points have always had a concentration of birds during migration. Plum Island, Marblehead Neck, and Nahant are natural stopovers for passerine birds in spring and fall, and are flooded with migrants in favorable weather." Thus writes Dorothy Snyder in her article on Marblehead Neck Sanctuary [BOEM 6(5): 157]. We can extend this statement to include many other peninsulas and points along the Massachusetts coast - places like Eastern Point in Gloucester, Squaw Rock Thicket in Quincy, the Glades in Scituate, and Morris and Stage islands in Chatham. The statement applies also to the outlying islands, particularly Nantucket, which hosts innumerable fall migrants including many western strays. Such places are called "migrant traps."

In response to the shortening days of late summer, many migratory birds fatten up in preparation for the flight south. By mid-August the warblers, thrushes, and other insectivorous birds that winter in the American tropics begin to migrate. The northwesterly winds of large high-pressure weather systems coming into eastern Canada and New England push the birds in a southeasterly direction and eventually up against our coast, which runs in a generally northeast-to-southwest direction. Some take off over the Atlantic in a direct flight to the Caribbean Islands or the northern coast of South America while others move southwestward along the coast in a building stream of migrants that backs up at seaward projections of the land. This in brief is the phenomenon that local birdwatchers exploit in observing the fall migration.

Hellcat Swamp and Kettle Hole (Plum Island). Plum Island is the most northerly of the many peninsulas, headlands, and barrier beaches on the Massachusetts coast which act as landbird traps. The tangles and fruit-bearing shrubs and trees in the Kettle Hole (Parking Lot 3) and Hellcat Swamp (Parking Lot 5) attract birds such as the Western Kingbird, Olive-sided Flycatcher, and Connecticut Warbler [H. D'Entremont and S. Zendeh, The Four Seasons at Plum Island (Part II - Summer-Fall), BOEM 7(3): 93-97, June 1979].

Eastern Point (Gloucester). Accessible via a circuitous route through East Gloucester and then south on East Main Street, Massachusetts Audubon Society's Eastern Point Wildlife Sanctuary and the wooded estates nearby have been known to attract Red-headed and Red-bellied woodpeckers and Orange-crowned Warblers in late fall [C. Leahy, Birding Cape Ann, BOEM 11(1): 5-26, February 1983].

Marblehead Neck Wildlife Sanctuary (Marblehead). Access is through Marblehead, east on Ocean Street across the causeway, right at the fork, and then left on Risley Road. The thick

underbrush here is attractive to many flycatchers. Philadelphia Vireo is a good possibility in the fall [D. Snyder, Marblehead Neck Sanctuary, BOEM 6(5): 157-165, October 1978].

Nahant Thicket Wildlife Sanctuary (Nahant). This four-acre patch of overgrown, shrubby woods is owned and operated by Massachusetts Audubon Society. It is accessible by driving nearly to the end on Nahant Road, taking a right on Wharf Street, the next left, and the next right (Forbush Street). A parking space on the right is reserved for birders. Birding here during fall "waves" produces much the same results as at Marblehead Neck [C. Leahy, Where to Watch Birds in Massachusetts No. 5, Two North Shore Migrant Traps: Marblehead Neck and Nahant, Massachusetts Audubon Society, 1973].

Squantum Thicket and Squaw Rock Thicket (Quincy). Squantum Thicket is an area of boggy and overgrown woods to the west of Victory Road, which joins East Squantum Street with the Boston Harbor Marina. Owls and flycatchers are to be looked for here in migration. An impressive roost of Black-crowned Night-Herons here in late summer and fall often contains a few Yellow-crowns as well.

Squaw Rock Thicket is reached by driving east on East Squantum Street, bearing left on Dorchester Street, and parking to the left at the top of the hill, just after the sharp right turn. In good migration "waves" a large variety of passerines stop here in the overgrown nook in the rocks facing Boston Harbor [E. Morrier, Birds of the Squantum and Wollaston Beach Area, BOEM 3(5): 156-159, October 1975].

The Glades (Scituate). This forested, rocky outcrop at the northeast corner of Scituate is a noteworthy migrant trap featuring flycatchers and a variety of other landbirds after the passage of cold fronts in the fall. It is privately owned; birders should stay on the roads and trails and act discretely. Parking for a car or two is available on Gannett Road in North Scituate near the iron gate blocking access to the property [W. R. Petersen, The Scituate Coast - A Birder's View, BOEM 8(6): 220-225, December 1980].

Morris Island and Stage Island (Chatham). These two wooded and privately owned hills at the southeastern corner of Chatham are mounds of glacial till surrounded by salt marshes and barrier beaches and accessible by a single road just south of Chatham Light Coast Guard Station. Parking is available on the sides of the causeway or at the parking lot for the U.S. Weather Station on the eastern bluff of Morris Island. Birders should visit this area only in the off-season, and then only very discretely. Walk the roads in this area to look for typical landbird migrants in the shrubbery and trees. In addition, a section of Monomoy National Wildlife Refuge lies along the eastern and southern shore of Morris Island. Access is from the aforementioned weather station. The tangles just back of the first line of low dunes can be productive migrant

traps [W. Bailey and P. Bailey, Where to Watch Birds in Massachusetts No. 18, Birding on Outer Cape Cod, Massachusetts Audubon Society, July 1981].

Mothball Pines (Nantucket). Warblers, vireos, thrushes, and flycatchers form the bulk of the birds seen here during the fall. This isolated patch of pines at the end of Hummock Pond Road has become known as the site of the Nantucket Banding Station established in 1955, where Edith Andrews conducts week-long banding workshops during the early fall [E. Andrews, Bird Banding on Nantucket: Highlights of 1981, BOEM 10(4): 187-188, August 1982].

SOHEIL ZENDEH, a member of BOEM's editorial board in charge of "where to go" articles, is a founder of TASL, a group concerned with censusing the birds of greater Boston Harbor, and also an organizer of the Friends of Belle Isle Marsh, an active conservation group committed to preserving the area for which it is named. For this latter effort, he was presented (with colleague Craig Jackson) the Audubon A award by the Massachusetts Audubon Society.

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THE STUDY OF MIGRATION:
DISCOVERING HOW BIRDS FIND THEIR WAY

by Kenneth P. Able,[1] State University of New York at Albany

The history of science is replete with cases in which the development of new technology (equipment or techniques) opened the door to rapid progress in some area of research. The invention of the microscope yielded access to a world which, though previously unseen, profoundly affected human existence. Techniques of electrophoresis were applied (in the 1950s) to questions of how much genetic variability exists in populations and gave rise to unforseen and revolutionary results. Likewise, in the study of bird migration, new methodology, some of it discovered quite by accident, has often led to explosive advances in our understanding of that subject.

In their broadest outlines, most of the basic descriptive facts about bird migration have been known for a long time. Some species (such as swallows, blackbirds, many finches, Blue Jays and soaring birds that take advantage of thermals) migrate by day, others (such as flycatchers, vireos, warblers, and sparrows) almost exclusively at night. The seasonal timing and routes taken have been determined for many populations through banding and recapture studies. The propensity for individuals of many species to return to precise breeding and wintering localities has been documented. In our attempts to understand the mechanisms responsible for these behaviors, however, we have often found ourselves limited, not by the ability to pose the right questions, but by the lack of efficient means to answer them.

Moonwatching. Most migratory birds perform their travels at night. This places obvious impediments in the path of a researcher who wishes to observe what they are doing. Over three decades ago, a window into this world was opened when George Lowery and Robert Newman of Louisiana State University elaborated on the old idea of watching birds pass in silhouette across the disc of the moon. Now, at least on clear nights around the full moon, one could estimate the flow of migration over an area and catalog the flight directions of the birds. If enough observers could be fielded simultaneously, a broad regional picture might be pieced together.

[1] When requested to contribute an article on migration for Bird Observer, Dr. Able suggested that we ask the Point Reyes Bird Observatory (PRBO) for permission to use this paper, published in the spring 1983 PRBO Newsletter under the title, "The Limits of Technology." PRBO, located at 4990 Shoreline Highway, Stinson Beach, CA 94970, is a non-profit, membership organization that conducts long-term research on birds and marine mammals, offers varied education programs, and works toward the solution of selected conservation problems. They have given BOEM permission to reprint this article.

Illustration by Denise Braunhardt

A rush of new information resulted. Direct empirical evidence was obtained that birds do indeed fly across the Gulf of Mexico. Observations made throughout the night showed that most birds destined to migrate on a given night take off shortly after dark. The number of birds aloft reaches a peak before midnight and gradually declines thereafter as individuals descend and land. By dawn virtually no birds remain in the sky.

Perhaps most illuminating were coordinated observations made over much of eastern North America. Regional similarities suggested that nocturnal migration did not concentrate along narrow flyways as previously thought, but rather occurred on a broad front. Without a means of directly observing nocturnal migration, this pattern would have been very difficult to discover. Moonwatching also added support to the conclusion emerging from field observation of migrants on the ground that the volume of migration on a given night is strongly related to weather conditions.

As revolutionary as the moonwatching data were, the technique had some significant limitations. The obvious constraints of cloud cover and moon phase limited the number of nights on which observations could be made. Enormous amounts of tiresome labor were required to collect the data and in those pre-computer days, analysis of the great mass of numbers was even more time-consuming. Some of these problems were overcome when Sidney Gauthreaux, then a student of Lowery and Newman, developed the portable ceilometer technique in which a beam of light is pointed vertically into the sky. Now, instead of being viewed in silhouette, the birds are dimly

illuminated from below and observed with binoculars, telescope, or more sophisticated night vision equipment. The components involved are inexpensive, highly portable (the lights can be operated off a car battery), and the technique can be used on many more nights than moonwatching. Yet it gives comparable quantitative data on the magnitude of low altitude migration and flight directions.

Angels. Even with teams of cooperative observers, however, these visual methods gave one the feeling of peeping through a keyhole. If only we could walk into the room and see everything that is happening. A serendipitous discovery during World War II brought us as close to this possibility as we shall probably ever come. British radar surveillance technicians rather frequently observed echoes on their screens which could not be attributed to aircraft, weather, or ground targets. Because of their ephemeral nature and the inability of military personnel to identify them, the echoes were dubbed "angels," a term still applied to anomalous returns on radar scopes. But the appearance and movements of these original angels were not random. The great British ornithologist, David Lack, analyzed some radar films and realized that the timing and directions of the movements were remarkably coincident with those of migratory birds. This discovery opened the way for the era of radar ornithology in which such names as Sutter, Gehring, Lack, and Eastwood in Europe, and Bellrose, Drury, and Nisbet in North America were prominent.

Radar works much like a searchlight, but instead of a beam of light, a beam of microwave energy is emitted. A minute amount of this energy is reflected back from appropriate objects in the air space, and is detected as an "echo" by the receiving unit of the radar. Water is highly reflective of radar wavelength energy, and for that reason rain and birds (whose bodies contain much water) are readily detected. With long-range surveillance and weather radars, movements of birds could be seen in all directions and at ranges of tens or even hundreds of miles. Problems of estimating the number of birds seen by a radar scan have remained bothersome. A given blip on the screen might contain many birds, but at least it was now possible to view simultaneously the vast sweep of migration over an entire region. Another explosion of information ensued over the next twenty years or so.

The general validity of the broad-front view of night migration was confirmed. Unlike diurnal migrants which often follow coastlines, ridges, and other conspicuous landmarks, night migrants largely ignore such features on the ground. We could now estimate fairly precisely the height and flight speed of migrating birds, and there were surprises on both scores. The majority of night migrants fly at quite low altitudes; on most nights the bulk is below 3000 feet. And the speed at which they fly, without any wind effects, is often no more than 25 mph. The influences of weather now be-

came abundantly clear. Even during peak season, the volume of migration often varies by three orders of magnitude from night to night. Some truly huge migrations have been witnessed. I well recall a late September night when Sid Gauthreaux and I were making radar and ceilometer observations at stations about eighty miles apart in Georgia and South Carolina. A cold front had passed and it was a clear, cool night with winds from the northwest, perfect for autumn migration. Birds were passing at the incredible rate of over 200,000 individuals per hour along a one-mile front.

From observations in several parts of the world, some general patterns have emerged. Tail winds usually accompany large flights of night migrants. In spring these southerly winds are normally accompanied by rising temperatures, while in fall north winds bring cooler air. Rain, strong winds, and stormy weather generally ground migrants, sometimes producing spectacular concentrations. So-called reverse migrations and flights in other, seemingly peculiar directions are relatively common, most often accompanied by winds blowing in the same directions. Perhaps the most important observation from the earlier radar studies was that even under solid overcast skies, migrating birds flew on straight and level tracks and as a group the birds were as well oriented as under clear skies. That finding was at odds with many of the general ideas emerging simultaneously from experimental studies of orientation mechanisms in migratory birds.

Sun and star compasses. Late in the 1940s, Gustav Kramer made a discovery in Germany that would revolutionize the study of migratory orientation. He found, first in the starling, a diurnal migrant, and later in several species of European night migrants, that during the appropriate seasons birds placed outdoors in round cages tended to hop and flutter in directions that corresponded to the migratory ones. This behavior enabled Kramer to perform experiments that demonstrated a sun compass in birds (in the same year, 1950, Karl von Frisch published the independent discovery of a sun compass in the honeybee). But most birds migrate at night. Further experiments by Kramer showed that such species also oriented appropriately in his cages so long as the birds had a view of a cloudless night sky. There was thus the clear hint that the birds might be using stars to determine direction.

Kramer's untimely death interrupted his pioneering studies, but the question of star orientation was taken up by other German investigators, Franz and Eleanore Sauer. They took Kramer's round cages into a planetarium where star patterns could be manipulated at will. Their work, later extended in this country by Stephen Emlen, showed that the migrants were indeed able to use star patterns as a nighttime compass. Emlen's extensive research on the Indigo Bunting revealed many details of how the star compass works and how it is learned by young birds prior to their first autumn migration. Thus at the time the first major radar studies were coming out, the

Illustration by Denise Braunhardt

primary hypothesis to explain the mechanism of orientation was based on visual cues, the sun by day and the stars at night. A naive prediction would have been that birds would either refrain from migrating on overcast nights or that they would become disoriented if they attempted to do so. Both were clearly false. Such conflicts in scientific data often result in unpleasant controversy, but they also usually mean that we are missing some important pieces of the puzzle. In this case, experiments being performed in Germany were soon to reveal one of those pieces.

Multiple cues. At the University of Frankfurt, Friedrich Merkel and his colleagues were using orientation cages to test night migrants, not under stars, but in covered cages in closed rooms. They reported weak orientation under these so-called "visually cueless" conditions and resurrected the old, largely discredited idea that the birds might be using magnetic information to orient. The climate of the times was not favorable to this idea and the birds' orientation data was far from impressive. Despite considerable criticism, Merkel and his student, Wolfgang Wiltschko, continued the work and were ultimately able to perform compelling manipulations of orientation cages.

At roughly the same time, undeniable magnetic effects on pigeon homing were being found, and these discoveries led to a new approach to orientation research. It was becoming clear that there was no single orientation mechanism but at least two and perhaps several. This meant that experiments had to be designed and interpreted very carefully. Just because a

bird was still able to orient itself correctly in spite of the experimental elimination of a potential orientation cue did not mean that the bird never used that cue. It might simply have switched to another system in a highly redundant series. Our emphasis was forced in the direction of seeking the relationships among various types of orientation information. In the 1970s, field observations and manipulative experiments converged on this problem with some force.

Radar observations by Sid Gauthreaux and me in the southeastern states had revealed a major influence of wind direction on the flight orientation of migrating songbirds. Indeed, in that region wind direction seemed to override all other cues, with the birds almost invariably heading downwind regardless of wind direction. Wind direction is, of course, a critical factor for migrating birds and can significantly speed or retard their passage or drift them laterally. Wind is also a factor affecting free-flying birds that is entirely absent in the orientation cage experiments.

I continued to examine the orientation of free-flying night migrants in upstate New York with the aid of a renovated Korean War vintage tracking radar. Unlike the long-range surveillance units widely used in earlier studies, trackers are poorly designed to reveal broad regional patterns of migration. What they do superbly, however, is lock onto and follow individual birds, giving second-by-second positions of the bird in space. Its height, flight direction, and speed, even the pattern of its wingbeats, can be recorded with precision. The latter information gives a rough indication of the bird's identity - passerines fly with a characteristic bursting wingbeat pattern, a brief period of flapping alternating with a period of no flapping. At the outset of these studies, I assumed that I would observe the same relationship between wind and orientation that we had seen in the Southeast. That assumption turned out to be naive.

In the Northeast, wind still makes its mark. Many more birds embark on nights with favorable winds, and sometimes birds do head downwind in seasonally inappropriate directions but only under special conditions. When skies are clear enough for potential migrants to see either the sun late in the day or the stars at night, they orient in appropriate directions regardless of wind. When thick cloud cover prevents access to these visual cues, however, the birds head downwind even if that results in a reversed flight. These data clearly reveal a relationship between wind direction and the visual cues, the sun and stars. It is important to note that as yet neither my studies nor those of others have found a clear indication of the influence of a magnetic compass on free-flying migrants.

It may at first seem peculiar that nocturnal migrants should pay attention to the sun. After all, it is not visible to them when they are flying. On the other hand, it is a predominant feature in the sky at a time of day (dusk) when birds

may well be making decisions about whether to fly and in what direction. Recall from the radar studies that most birds take off during this twilight period. In fact, at the same time these field studies were in progress, Frank Moore of Clemson University was able to show that Savannah Sparrows in orientation cages performed much better if afforded a view of the sky around sunset. These results brought us full circle back to Kramer, who had noticed that his orientation cage subjects did better if he allowed them to see the glow of sunset.

It is not yet clear exactly how the birds use the setting sun. Moore recently built an orientation cage equipped with mirrors placed so that he could shift the apparent position of the sun as the birds viewed it, a procedure identical to the one Kramer used to discover the sun compass. Indeed, Moore succeeded in shifting the orientation of his sparrows in the predicted way. However, it turns out that the clear sky contains other information related to the position of the sun. Sunlight is polarized as it passes through the atmosphere and the direction of the plane of polarization is a direct function of the position of the sun. Homing pigeons, like many invertebrates, have recently been found to be able to perceive polarized light, raising the possibility that migratory birds might make use of the orientation information contained in skylight polarization patterns. Although this seemed an unlikely prospect, I tested the idea by using some large sheet polarizers on top of orientation cages in which I placed White-throated Sparrows at dusk. By changing the polarization pattern viewed by the birds, I was able to alter their orientation predictably, suggesting that at least this one species of night migrant has another previously unknown trick in its already rather full bag of orientation capabilities.

The abandonment of the older, single-cue approach in the search for the mechanism of orientation opened the gates to the discovery of seemingly endless complexity. Much remains to be done in working out the relationships between the various cues used by birds, and it may well be that we do not yet even possess all the pieces of the puzzle. As if these problems were not vexing enough, there is reason to believe that migratory birds have navigational abilities similar to those of the homing pigeons discussed by Charles Walcott. Recently we have been equipping Wood Thrushes with tiny radio telemetry transmitters and displacing them from their nesting territories. For reasons as yet unclear, the thrushes are very slow to return, flying only a mile or two each day, nearly always at dawn. However, those short flights are well oriented in the homeward direction, implying that the thrushes know where they are going from the outset.

Great progress has been made in untangling the problems of bird orientation and navigation, but we still cannot explain in a mechanistic way how the birds do what we know they do. Much remains to be done and if the past is any harbinger of the future, there are some surprises in store for us.

KENNETH P. ABLE, a member of the faculty of Biological Sciences of the State University of New York at Albany, has studied migration with various techniques, including radar, for the past fifteen years. Most recently, he has been investigating the use of orientation cues by migrants. An avid birder since childhood, Dr. Able enjoys chasing rarities. His signature is one of the early ones (first page) of the Western Reef-Heron visitor's book.

NEW ENGLAND GULL PROJECT

In an effort to determine behavioral patterns and movements of an inland-feeding population of gulls and to estimate the numbers using an area, U.S. Fish and Wildlife biologists have color-marked and released gulls in the Manchester/Concord, New Hampshire area in May and June. The gulls have been dyed red and tagged with a numbered yellow leg marker.

IF MARKED BIRDS ARE SIGHTED, PLEASE REPORT DATE AND LOCATION to: Rene Bollengier, Project Coordinator
U.S. Fish and Wildlife Service
Box 1518, Federal Building, Concord, NH 03301
Telephone: (603) 225-9621.

THE FLIGHT OF THE SEA COOT

A LOOK AT AUTUMN SCOTER MIGRATION

by Wayne R. Petersen, Whitman

Picture a sparkling blue sea, a cloud-studded azure sky, and a brisk north wind, and you have just the ingredients for one of midfall's finest coastal migration spectacles - the flight of the sea coot. Sea coot are more properly called scoters, of which we in North America have three species: the Black Scoter (Melanitta nigra), the Surf Scoter (M. perspicillata), and the White-winged Scoter (M. fusca). Colloquial names like "black coot," "skunkhead," and "bull whitewing" are widely used among veteran sea duck hunters and are descriptively appropriate. Regardless of name, all scoters are chunky, soot-colored sea ducks whose preferred winter haunts are the storm-tossed waters of the Atlantic Ocean. Males of each species are distinctive. The Black Scoter sports a swollen yellow knob on top of its bill, and the Surf Scoter displays white patches on the front and back of its head. Both male and female White-winged Scoters flash large white wing patches. Females and immatures of all scoters are brownish-gray in color and in Black and Surf scoters lack the distinctive bill and head markings of the adult males.

The autumnal passage of these sea fowl provides viewing pleasure to the casual observer, ornithologist, and sportsman alike. In long wavy strings they come, some flying high in loose formations that melt into ever-changing bunches as they draw closer, while others travel low in lines, barely clearing the wave tops as they scud along among the troughs. On days with favorable migration conditions, spectacular numbers of southward-bound scoters can be witnessed in only a few hours of morning observation. The flights are best observed from an exposed headland that affords a full view of the sea, ideally during the month of October, although any time from mid-September to mid-November will promise at least a few birds. The favored locations along the Massachusetts coast include Halibut Point in Rockport, Point Allerton in Hull, the Glades in North Scituate, Gurnet Point in Duxbury, Manomet Point in Plymouth, and Sandy Neck Beach in Barnstable. Wind conditions will influence both the height that the birds fly and their distance from shore, but at prime locations, such as Manomet Point, many flocks are within easy naked-eye viewing distance. Generally the largest flights occur in early

to mid-morning, but on days of heavy migration, the birds move all day. In spite of subtle interspecific differences in the timing of migration, all three scoters can often be encountered in a single flock. In addition, various other species often migrate south with the scoter flocks, the most frequent being Common Eiders (Somateria mollissima) and Oldsquaws (Clangula hyemalis).

Gunners with a taste for adventure (few but the most ardent gourmets have a genuine appetite for scoters!) enjoy hunting the birds from small boats. Historically, undertaking their sport in cooperative fashion, coot shooters would form long lines of boats anchored in such a way that passing flocks would run a gauntlet of gunfire. The scoters would often repeatedly return to crippled companions or to investigate the dark wooden blocks that served as decoys for these unsuspecting birds. Today, few sportsmen are intrepid enough to brave an October gale or skillful enough in aiming a shotgun in a bouncing boat to make the endeavor very fruitful. Manomet was, and remains still, one of the preferred localities to observe the migration as well as to see coot shooting.

Of course, there is more to be derived from the observation of scoter migration than aesthetic pleasure. In fact, there is much that remains to be learned about scoters, especially the Surf Scoter, which is possibly the least studied waterfowl in North America. With this in mind, the author undertook the responsibility of designing and directing a sea duck migration study for the Manomet Bird Observatory during the fall seasons of 1969-1973. With the initiation of the Seawatch Project, a number of questions were immediately raised. What was the relative abundance of the three species of scoters during their fall migration? What local weather conditions seemed to most strongly affect scoter migration in southeastern Massachusetts? What were the flight pathways for scoters entering Massachusetts waters? How did migrant scoters entering lower Cape Cod Bay negotiate Cape Cod on the way to their wintering grounds? What was the timing sequence of age and sex classes in the scoter species? For a detailed discussion of the findings of the study on these questions, the reader should consult the author's Manomet Bird Observatory research report listed in the references. For the purposes of this article, only the principal findings concerning migration routes and behavior, weather correlations, and the relative abundances of the species will be discussed.

All three scoter species breed in the boreal forest areas of western Canada and Alaska with only the White-winged Scoter barely reaching the northern border of the western prairie states in the United States. The Black Scoter's breeding range is confined largely to Alaska. However, both the Black and the Surf Scoter have disjunct populations of uncertain size in the northern reaches of the Ungava region of Quebec. All three species winter on both Atlantic and Pacific coasts in varying numbers, but the Surf Scoter is much the most

abundant on the Pacific coast, and the Black Scoter is the least common on both coasts. Migration from arctic and subarctic breeding areas to the coasts of North America is accomplished in several ways, but only the Atlantic coast approach will be outlined.

While some uncertainty surrounds the precise migrational strategy employed by scoters as they head for Atlantic coastal wintering areas, it is thought that most either make nocturnal flights to the southeast from James Bay, probably hitting the coast on a broad front in northern New England, or else fly eastward toward Labrador and the Gulf of St. Lawrence before turning southward down the coast. Regardless of their approach to New England waters, it appears that two distinct flight lines exist by the time the birds reach Massachusetts. The first of these local routes follows the inner coast and accounts for the birds that one sees off Cape Ann and in lower Cape Cod Bay. The other route brings birds over the Atlantic to outer Cape Cod from the northeast, possibly from flights originating in the Canadian Maritime Provinces.

The way in which the large numbers of scoters that enter Cape Cod Bay actually make their way around Cape Cod is quite interesting, if not still somewhat mysterious. On days of major flights at Manomet, one finds upon a visit to Sandy Neck in Barnstable that as birds reach Scusset Beach, at the southwestern corner of Cape Cod Bay, they swing east parallel to the shore and fly for several miles, often to the cul-de-sac at Eastham where the shore turns northward. Here, they circle to the west which brings them back toward Barnstable. Thus, an observer at Barnstable is frequently able to see large flocks of scoters headed in two directions, some close to the beach headed eastward and some way off shore headed to the west. Ultimately, these milling flocks congregate several miles off Barnstable Harbor forming dense rafts comprising thousands of birds. They will usually remain there until late afternoon when small groups of birds begin to take off. After some preliminary circling at great heights, they set off to the south on a course that brings them out, undoubtedly, somewhere near Centerville on the Cape's south side. It is known that scoters are loath to fly over land by day. So they must be using this technique in order to make the cross-Cape flight by night, despite the short distance. Variations on this theme suggest that some of the birds, but certainly not most of them, will cross the Cape directly by day - near the canal, over Barnstable Harbor, or at Eastham. This usually occurs on heavy flight days, most frequently in early morning or late afternoon.

Once the birds cross the Cape, their behavior is difficult to ascertain, because most often the flights occur at night. Undoubtedly some birds (perhaps many?) swing east to the shoals off Monomoy, or they continue south across Nantucket Sound passing east of Martha's Vineyard on their way to wintering areas off Long Island or points south. The precise

wintering destinations and concentrations vary, but the majority of the population of each species ends up between southern New England and the capes off Virginia.

The heaviest scoter flights tend to come following a Canadian cold front or with winds from the north and east sides of the compass. Severe northeast storms in October always generate major flights often with counts of many thousands being recorded in a day at such favored localities as Manomet. Southwest winds are the very worst for observing sea duck flights.

The species composition of each day's flight may vary somewhat, but on a seasonal basis, the Seawatch Project showed that at Manomet in the early 1970s Surf Scoters dominated the season's passage by better than 2:1 over the White-winged Scoter, and Black Scoters were consistently the least common species. To illustrate these generalizations, some figures from the Manomet Bird Observatory data for the years 1969-1972 may be useful. The combined four-year totals for each species were as follows: Surf Scoter - 165,425, White-winged Scoter - 74,358, and Black Scoter - 32,662. What is particularly interesting about this data is that the White-winged Scoter traditionally dominated the flights in the 1930s and earlier. Even today it is the Whitewing that constitutes the majority of the huge scoter rafts wintering on the Nantucket and Monomoy shoals. The principal wintering grounds of the Surf Scoter lie to the south, off New Jersey and Virginia. Indications from a variety of sources seem to suggest that a decade ago there had been an increase in the Atlantic population of the Surf Scoter rather than any decline in White-winged Scoter numbers. More study of this situation would definitely be of value.

There is still much to be learned about the local behavior and population of Massachusetts' scoters. Of particular interest, in addition to the assessment of present scoter population numbers, is the migratory behavior of scoters reaching outer Cape Cod from the northeast. Also, what is the final destination of scoters that cross the lower Cape, and how do the great Monomoy and Nantucket aggregations arrive? And finally, an area that is rich for further investigation is the spring migration of the scoters. Circumstantial and historical evidence suggests that their spring migration strategies may be very different from those they use in autumn.

Keeping some of the above facts and questions in mind, with the first brisk north winds of October, indulge yourself in a day of coastal migration watching that promises to provide both mystery and pleasure. Follow, as the author has done, the flight of the sea coot.

The author wishes to acknowledge the support provided by the Manomet Bird Observatory and the many people who helped in the gathering of information that made this article possible. The Seawatch Project required many volunteers who were willing to make observations at a variety of locations under variously

adverse conditions. Their findings deserve grateful acknowledgment. Where would ornithology be today if it were not for generations of willing volunteers?

For those wishing additional information on scoters, the following references are recommended.

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NIGHT SOUNDS

by Robert H. Stymeist, Brookline

Night singing is mostly associated with some of our owls, the goatsuckers, and some shorebirds, notably the American Woodcock and the Common Snipe. Birding after dark can be fun, and sorting out night sounds is challenging to say the least. For example, the sound of the "Timberdoodle" is not a true song but is made by the passage of air through the outer three primaries. The winnowing of the Common Snipe is also produced by air passing through the stiffened outer tail feathers during courtship flight.

Song is at its best at night near sunset and again near dawn although some species like the mockingbird sing regularly throughout the night. While spring migration is underway and also during the breeding season, many species will sing at night. Common Yellowthroats, Song and Swamp sparrows, Marsh Wrens and Eastern Kingbirds stand out as night singers in my experience. Some species sing a night song that has little resemblance to the day song. The Ovenbird's flight song - a wild outpouring of jumbled notes of various pitches with a few familiar "teachers" thrown in - is one of the remarkable vocal performances among the warblers, and this song is most frequently heard in the night. Other birds have a distinctive "evening song" for which the birds are named - Evening Grosbeak and Vesper Sparrow, and some thrushes sing variations beginning after sunset and continuing into darkness.

Much of bird migration passes unnoticed because so many birds migrate at night. To be sure, there are many species that travel long distances during daylight hours, usually larger birds or birds that can feed while flying, e.g., the swallows. Smaller birds, notably warblers, thrushes (except the robin), wrens, and other secretive birds, tend to make their long migrations at night. As better methods such as radar have been used to study nocturnal migration, more and more birds, including waterfowl and shorebirds as well as the smaller songbirds, have been found to migrate then. By flying at night, small birds avoid the attacks of hawks, gulls and other predatory birds that could easily catch them. Another advantage of night flight is that it allows all the daylight hours for feeding and rest; small birds burn up energy so quickly that after a long night in the air, they must feed extensively to restore energy sources. Most of our songbirds, in addition to being small, are not the strongest of flyers and must travel great distances in a relatively short time to get to the breeding ground. The most efficient system for doing this is to travel at night and to rest and feed during the day.

Birds migrating at night often emit characteristic flight calls. Some species use the same calls during the daytime, and these can be recognized by experienced birders on nights of heavy migration. On a quiet night, the sky may be filled

with call notes that can be identified as to family, if not to species. The calls of these birds probably help to keep individuals in touch with one another and the flocks together.

Night sounds have been studied for nearly one hundred years, but much is still unknown. William Brewster (1886) suggested that night calls hold the migrating flocks together and that young birds benefit from the experience of adults by travelling together. Frank Chapman (1907, page 57) writes the following about the nocturnal journey of birds.

> "On September 26, 1981, I visited the Bartholdi statue of the Goddess of Liberty in New York Bay. The weather was most favorable. The first bird was observed at eight o'clock, and for the succeeding two hours others were constantly heard, though comparatively few were seen. At ten o'clock it began to rain; and almost simultaneously there was a marked increase in the number of birds about the light, and within a few minutes there were hundreds where before there was one, while the air was filled with the calls of the passing host. At daybreak a few stragglers were still winging their way, but before the sun rose the flight was over. From the balcony which encircles the torch the scene was impressive beyond description. We seemed to have torn aside the veil which shrouds the mysteries of the night, and with the searching light exposed the secrets of Nature."

Not so, Mr. Chapman. Much has still to be learned about the function of these calls. However, there has been no lack of speculation. Ball (1952) supposed that the dawn surge of call notes of the thrushes might be inspired by hunger and light from the oncoming dawn. Hudson (1923) thought the calls were an expression of fear in the unfamiliar night. Another idea, similar to Brewster's, was that the calls are mutually stimulating, each call urging flight partners onward (Tyler, 1916). Still another idea, though there is lack of evidence, is that the calls may serve an echo-sounding function, facilitating the landing process (Lowery and Newman, 1955). Hamilton (1962) clearly found evidence that for at least some passerine species the calls are communicatory. Hamilton in his studies with captive Bobolinks recorded and played back these calls to caged birds. The Bobolinks showed migratory restlessness and the urge to join the flock. In all likelihood, birds in the wild, resting for the moment, may be spurred on by the calls of other members of their species flying overhead.

The call note used by Bobolinks in flocks, migrating at night, appears to the ear of the listener to be the same distinctive flight call used by flocking Bobolinks during the day. Other species that migrate at night, often in flocks that appear to include a number of species, use call notes that are different from those heard during the day. These birds, notably the thrushes, do not flock during the daytime hours, and therefore a special call would be needed to keep the flock

together as they migrate. The "heep" of the Swainson's Thrush is one call that can be recognized.

On a night of heavy migration, a considerable number of calls may be heard. In 1975, Joseph (Terry) Leverich, unable to sleep on the warm night of May 21, spent the quiet hours after midnight on the steps outside his apartment in the South End of Boston. Here he recorded an amazing 4700 migrating Swainson's Thrush and 39 Gray-cheeked Thrush [BOEM,3(4):137]. The exact frequency at which a migrating bird flying overhead calls is not known, but Leverich allowed three call notes per bird based on the results of listening and watching on earlier evenings of insomnia. Another recent report of heavy nocturnal migration occurred on the night of September 3-4, 1981, when Richard Heil of Peabody counted over 600 Swainson's Thrush, 250 Veerys, and over 500 Bobolinks on a low-overcast evening with light northeast winds and a fine mist [BOEM, Field Records, 9(6): 310].

Much has yet to be discovered and many points about night calls remain unsettled. What precisely are the call notes of migrating birds; that is, what is their function and how many of these notes can the experienced observer readily distinguish? Do individuals of one species recognize the call notes of other species? What influences the rate at which the birds call? How does the number of calls heard by observers on the ground reflect the number of birds migrating overhead? Field observers can render an important service by carefully documenting weather conditions and any observations of the things that go "heep" in the night.

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Carolina Wren in Winter. The wintering success of Carolina Wrens in southeastern Massachusetts is, in part, linked to the severity of the winter. Though the winter of 1982-83 was not excessively cold, it was marked by several severe snowfalls and the usual array of winter surprises. On the South Shore, there were several Carolina Wrens seen in usual spots throughout the winter. Ferry Hill Thicket and the banks of Cove Creek in Marshfield produced a bird every now and then through the coldest weather.

There was a wintering bird in Scituate that few people saw. It wintered in a garage and fed in the adjoining yard. A window, left open about three inches, provided access for the wren and the bird was still present after five months. The wren roosted in the garage each night and many of the coldest days. It would exit whenever the garage was in use and return when his barracks had been made secure.

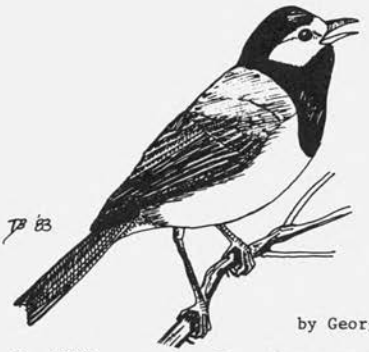
The most pleasant part of this relationship was with the human observer who was favored throughout the winter with occasional bursts of song. The wren is as mentioned, still present and, following the nature of its kind, will probably nest* in a flower pot on the back porch.

David E. Clapp, Sanctuary Director
Marshfield, Massachusetts
April 15, 1983

[*Ed. note: The bird did not, but the householder reports that he has accommodated a Carolina Wren in his garage for the last few winters and the bird disappears towards the end of April.]

A Flushed Woodcock. While birding in the evening at Horn Pond in Woburn, I walked into a small aspen/willow swamp with the intention of finding a woodcock. Halfway through the swamp, one flushed straight up in front of me. However, rather than exploding out of the swamp, it fluttered straight up before me and sailed toward and past me much like a milkweed seed. Its wings were fluttering and legs dangling and it sailed about forty feet from me and landed. Upon landing, it fanned its wings and walked/ran toward me on a zigzag path, all the while uttering a low, nasal sound lasting about one second each time. It continued to do this until it got within ten to fifteen feet of me and then turned and started off in the direction from which it came still fanning its wings and walking/running. Occasionally it would stop, probe into the ground once, and then continue its strange perambulation. When it got to the place it had originally landed, it fluttered up and flew farther away, about forty feet, where it landed out of sight. All this had taken perhaps three to four minutes. This occurred less than an hour before sunset. Perhaps the bird was getting ready for its evening courtship display or perhaps I had set it off the nest.

George W. Gove, BOEM staff
April 28, 1983



Field Records
May 1983

by George W. Gove, Robert H. Stymeist, Lee E. Taylor

May 1983 was extraordinarily cloudy and rainy though not far from normal in temperature and total precipitation. The temperature averaged 58.2°, just 0.3° below normal. The first eight days averaged over 8° above normal, and the high was 81° on May Day, 17° above average. Cool weather predominated the rest of the month with a low of 40° on the tenth. The greatest deficit was 12° below average on the twenty-seventh.

The wet weather failed to dampen the enthusiasm of the hundreds of birders who monitored the migration at Mount Auburn Cemetery in Cambridge. Rainfall totaled only 2.94 inches; however rain was excessively frequent, with measurable amounts on eighteen days, leaving only seven days with no rain. This year's accumulation now stands at 29.55 inches, 10.53 inches over normal and the sixth wettest for the period in 166 years! Thunder was heard on three days, one day more than average. Fog was excessively frequent in the middle and latter parts of the month. Southwest winds were frequent, noted on twelve days as compared with just one during May 1982. Last May, you may remember, set a record of twenty-three days with easterly winds whereas only two days with east winds were recorded this May. R.H.S.

LOONS THROUGH HERONS

The Scituate Western Grebe that was in the Third Cliff area since November 1982 finally decided to move on and was last reported there on May 8. Apparently the same bird made it to Nahant where it was found feeding on May 15. A Pied-billed Grebe at Mount Auburn was unusual especially because of the late date it was recorded. A White Pelican was seen flying over the Belle Isle Marsh in East Boston on May 15. Soheil Zendeh reported seeing the bird heading north; indeed observers noted a White Pelican in Brunswick, Maine, and one was seen later in Rumford (fide Peter Vickery).

The big news of the season didn't make the headlines until July - a strange heron appeared on Nantucket but remained unidentified until July 11, 1983. The Western Reef Heron (Egretta gularis) is included in the tabulation below and was also inserted in April's BOEM.

Snowy Egret nests totaled 82 on Monomoy. This is only the second year that the Snowy Egrets took up residence on Monomoy. Only 20-25 nests were recorded in 1982. Tricolored Herons were reported from five locations with off and on sightings throughout the month at Plum Island. An adult Yellow-crowned Night-Heron was noted at Great Meadows, the only one noted this past May. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Red-throated Loon:			
28,30	P.I., Woods Hole	9, 1	R.Stymeist#,H.D'Entremont
Common Loon:			
9,11	Nantucket Sound	10+, 10+	J.Berry
14,23	Stellwagen, Newton	6, 1	W.Petersen#,N.Komar
25,28	Mt.A., P.I.	3, 3	J.Heywood#,T.Walsh#
28,30	Monomoy, Lakeville	4 migrants, 8	W.Petersen#
Pied-billed Grebe:			
thr.,18+29	P.I., Monomoy	1-2, 1+2	R.Emery#&v.o.,B.Nikula#&v.o.
28	Mt.A.	1	F.Bouchard&v.o.
Horned Grebe:			
21	Lynn	1	C.Floyd,G.Gove,R.Stymeist
Red-necked Grebe:			
25	P.I.	1	F.Bouchard

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Western Grebe:			
1-8	Scituate (Third Cliff)	1 from Nov.	T.Leverich#,H.Mallers#
15	Nahant	1	J.Heywood,R.Stymeist
Northern Fulmar:			
14,29	Stellwagen	3, 1	W.Petersen,C.Leahy
Northern Gannet:			
7,10	Truro, Nantucket	1000, 600+	B.Nikula#,J.Berry
14,30	Stellwagen, Scituate	25, 1	W.Petersen#
White Pelican:			
15	E.Boston (Belle Isle)	1 ad.	S.Zendeh,C.Jackson
Great Cormorant:			
9	Nantucket	3 imm.	J.Berry
30	Lakeville (Little Quittacus)	1 imm.	W.Petersen
Double-crested Cormorant:			
thr.	Mt.A.	149 migrants	v.o.
15	Nahant (Egg Rock)	1000+	J.Heywood,R.Stymeist
American Bittern:			
1,8;5,7	GMNWR; Lynnfield	1, 1; 2, 1	A.Williams
6-21,18	P.I., Milton (FM)	max 3, 1	v.o.,R.Titus
19,21	Newton, Wellesley	1, 1	K.Winkler
Least Bittern:			
21,28,29	P.I.	3, 2, 2	M.Noland#,R.Stymeist#,F.Bouchard#
21	Lynnfield	1	H.Wiggin#
Great Egret:			
1;2	Truro, P.I.;Saugus	1, 2; 1	R.Titus,I.Giriunas#;J.Berry
21,22	Squantum, Westport	2, 7	S.Smith#,D.Davis#
Other reports of single individuals from 8 locations.			
Snowy Egret:			
2,8	Saugus, Squantum	9, 12	J.Berry,G.Wilson
15	P.I., Essex	8, 27	D&D.Oliver#,I.Giriunas#
27	Monomoy	82 nests	D.Holt,J.Lortie
Little Blue Heron:			
thr.	Marshfield	1-2 ad.	v.o.
thr.	P.I.	1-3	v.o.
19,21	GMNWR, Winthrop	1, 1	R.Walton,C.Jackson
Tricolored Heron:			
9,15,28	P.I.	1	J.Grugan&v.o.
20,22	Duxbury, Plymouth	1, 1	C.Wood,S.Van Etten
28,30	Monomoy, Scituate	2, 1	W.Petersen#
Western Reef Heron:			
thr.	Nantucket	1	E&C.Andrews#
Cattle Egret:			
1,3	Lakeville, E.Orleans	6, 3	K.Holmes,A.Williams
15	Marshfield, Ipswich	3, 6	BBC
19	Middleboro, Concord	3, 1	K.Holmes,J.Bertrand#
Green-backed Heron:			
15,21	P.I., Wellesley	6, 8	BBC,K.Winkler#
Other reports of 1-2 individuals from various locations.			
Black-crowned Night-Heron:			
30	Hingham	11	H.Mallers#
Yellow-crowned Night-Heron:			
26	GMNWR	1 ad.	J.Barton
Glossy Ibis:			
3,24	Squantum, Ipswich	30, 11	S.Smith,R.Forster#

WATERFOWL

A Cinnamon Teal reported from Martha's Vineyard is an interesting report although the origin of this individual is still unknown. Brant continued at various locations throughout the month with good numbers present at mid-month. A "Common" Teal was noted at Plum Island and a Bufflehead found Halcyon Pond at Mount Auburn Cemetery to his liking. Other highlights included three Harlequin Ducks in East Orleans, and large numbers of scoters at Nahant and Lynn. R.H.S.

Mute Swan:			
5	Wayland	1	Gregory
Brant:			
thr.	Newburyport Harbor	275-37	v.o.
12,13	E.Boston, Squantum	140, 150+	S.Zendeh,G.Wilson#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Brant (continued):			
15	Duxbury, Scituate	350, 75	S.Higginbotham,W.Petersen
30	N.Scituate, Scituate	28, 8	W.Petersen
Wood Duck:			
21	Wellesley, Lynnfield	15, 8	K.Winkler#,H.Coolidge#
21	Middleboro	18	W.Petersen
"Common" Teal:			
6	P.I.	1	A.Williams
Northern Pintail:			
18,29	Monomoy	3, 3	D.Holt#
Cinnamon Teal:	(no details)		
12	M.V.	1	V.Laux
Northern Shoveler:			
thr.	P.I.	max. 4	v.o.
18, 29	Monomoy	2, 2	B.Nikula#
Northern Gadwall:			
thr.	P.I.	max. 20+	v.o.
American Wigeon:			
18	P.I., Monomoy	2, 3	BBC,D.Holt#
Greater Scaup:			
1	Newburyport	12	BBC(Giriunas)
Common Eider:			
15,30	Nahant, Scituate	40, 5	R.Stymeist#,R.Titus#
Harlequin Duck:			
3	E.Orleans	2 m., 1 f.	A.Williams
Oldsquaw:			
thr.	Newburyport Harbor	max. 200+	v.o.
Surf Scoter:			
4, 11	Scituate,Nantucket Sound	87, 200+	R.Emery#,J.Berry
White-winged Scoter:			
9	Nantucket Sound	450+	J.Berry
15	Nahant-Lynn	400+	R.Stymeist#
Bufflehead:			
6,7	Mt.A., Lakeville	1 m., 3	v.o., W.Petersen
14,22	Newburyport, Squantum	1, 1	N.Komar,SSBC
Red-breasted Merganser:			
28	P.I., Monomoy	11, 2	R.Stymeist,W.Petersen
Ruddy Duck:			
thr.	P.I.	max. 10	v.o.

RAPTORS

A Black Vulture, American Swallow-tailed Kite, and a Mississippi Kite made Cape Cod the raptor mecca of Massachusetts this May. The Mississippi Kite was the seventh record for the state, the most recent being September 1, 1982 when a call came into Massachusetts Audubon about an injured hawk in someone's yard in North Easton. (See Roger Everett's photograph of this year's individual in this issue). The American Swallow-tailed Kite was the fifth recent Massachusetts record; the last report of this species was a bird seen in Marion on June 11, 1980, and presumably the same bird was reported again in Sandwich on June 12, 1980. The Black Vulture, by no means common in Massachusetts, has appeared much more regularly though there were no reports published in 1982. The last reports were of an individual seen on the outer Cape and on Nantucket in September and October 1981.

Osprey nests were found in Marion and Lakeville. Over thirty active nests were located along the Westport River and its branches, and Ospreys continue to increase on Martha's Vineyard. There was no significant hawk movement reported with the exception of 100+ Sharp-shinned Hawks from Chatham on May 6 and 125+ and 130+ at Truro on May 7 and 8. A well described light phase Rough-legged Hawk was noted from the Sudbury River Valley on the late date of May 7.

A sighting of a possible Black-shouldered Kite (White-tailed Kite) at Mount Auburn Cemetery on May 8 is indeed interesting. Written reports of this observation were received from three different birders, all with enough details to confuse anyone, most of all this reporter. I was present at the cemetery at the time of all this excitement but didn't get "on" the bird. Many other birders were able to catch a glimpse and all these reports leave this report where it belongs - up in the air! R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Black Vulture:			
21	P'town (no details)	1	W&P.Bailey,C.Goodrich
Turkey Vulture:			
1,2	W.Newbury, Middleboro	2, 1	BBC,K.Holmes
10,21,28	SRV, P'town, Wellfleet	1, 1, 1	R.Walton,W.Bailey#,L.Taylor#
Osprey:			
thr.	Lakeville, Marion	active nest at both sites	W.Petersen,G.Gove
thr.	Westport	30+active nests	v.o.
15	E.Boston,N.Scituate,Newbypt.	3, 1, 1	S.Zendeh,W.Petersen,R.Stymeist
27-30	M.V.	12	BBC (R.Culbert)
American Swallow-tailed Kite:			
8	Chatham	1	J.Barabe
Mississippi Kite:			
6	Chatham	1	D.Folger,W.Bailey
7	Truro	1 photographed by R.Everett	B.Nikula,D.Reynolds
Bald Eagle:			
7	Truro	1 imm.	B.Nikula,D.Reynolds
Northern Harrier:			
10	Lynnfield, Nantucket	2, 8	BBC,J.Berry
Sharp-shinned Hawk:			
1	P.I., Mt.A.	30, 8	BBC,R.Stymeist
6	Chatham	100+	D.Folger,W.Bailey#
7,8	Truro	125+, 130+	B.Nikula,D.Reynolds#
Cooper's Hawk:			
6;7	Chatham; E.Middleboro, Truro	1; 1, 1	W.Bailey#;K.Anderson,B.Nikula#
8,11,14	Truro, Concord, W.Newbury	3, 1, 1	B.Nikula#,R.Walton,G.Gove#
Northern Goshawk:			
6,17	Middleboro, Lancaster	1, 1 imm.	D.Briggs,A.Williams
Red-shouldered Hawk:			
thr.,1	E.Middleboro, Hingham	2, 1	K.Anderson,SSBC
15+28,23 on	Boxford, Norwell	pair, nesting pair	R.Stymeist#,fide W.Petersen
22, 25	Milton, Sharon	1, 1 ad.	J.Leverich#,R.Titus
Broad-winged Hawk:			
1,6	Mt.A., Chatham	10, 23	R.Stymeist#,D.Holt#
7,8	Truro	40+, 50+	B.Nikula#
8,26	Canton, P'town	8, 85	R.Titus,M.Mello
Red-tailed Hawk:			
thr.	Ipswich	pr. nesting	J.Berry&v.o.
Rough-legged Hawk:			
7	SRV	1 (light phase)	R.Walton
Merlin:			
1,3	Mt.A., Middlesex Fells	1, 1	R.Stymeist,C.Jackson
6,14	P.I.	1, 1	Athol Bird Club,G.Gove#
Peregrine Falcon:			
1-18	Monomoy	at least 3 individuals	D.Holt,J.Lortie#
15	E.Boston,Newburyport	1, 1 ad.	S.Zendeh#,J.Heywood#
23	MNWS	1	R.Heil,J.Smith#

WILD TURKEY THROUGH AMERICAN COOT

Northern Bobwhite were heard calling in Cambridge and Belmont, and Wild Turkeys were noted as far east as Winchendon. A Purple Gallinule was seen and heard at Fowl Meadow in Canton at mid month. King Rails were noted at three locations. R.H.S.

Wild Turkey:			
May	Winchendon	4	J.O'Regan
Northern Bobwhite:			
14,15	Cambridge, Whitman	1, 3	L.Taylor,W.Petersen
24-26	Belmont	1	L.Taylor
King Rail:			
21,25	P.I., Lynnfield	1, 1	J.Barton#,H.Coolidge#
28	Milton (FM)	1	R.Abrams
Virginia Rail:			
thr.	Lynnfield	7-8 reported most of the month.	v.o.
Sora Rail:			
thr.	Lynnfield	3-4 reported most of the month.	v.o.
Purple Gallinule:			
17,18	Canton (FM)	1	D.Brown,R.Titus#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Common Moorhen:			
8	GMNWR	2	A.Williams
American Coot:			
28	GMNWR	1	C.Johnson

SHOREBIRDS

Black-bellied Plover numbers increased toward the end of the month at coastal locations. Three Lesser Golden-Plover reports from Plymouth Beach were received; whether this was one bird or three is problematical although one report noted that the bird was in breeding plumage. A report of a Wilson's Plover from the same location provided no details. In the BOEM records, 1973-1983, there have been six previous reports with one in the month of April, two in May and three in June. The May 3 record of Semipalmated Plover is an early date as there have been only three April records in the past eleven years and this is the second earliest May report. American Oystercatchers were noted in Boston Harbor and at the more usual coastal locations with a maximum of twenty on Monomoy where four nests were found. A Black-necked Stilt spent five days in Ipswich and was well seen by many observers. According to Sanctuary, the MAS monthly newsletter, there have been only ten records of this bird in Massachusetts this century. Five of these have occurred in the BOEM record period with one bird in the month of April, two in May and three in June, the same pattern as noted above for Wilson's Plover. American Avocet, noted in Duxbury, has been recorded sixteen times and, unlike the above patterns, most of the records are July through October, indicating post-breeding dispersal rather than spring migration overshoot which is probably the explanation in the former cases.

A total of fourteen Solitary Sandpipers were counted in the Sudbury River Valley on May 6, and Upland Sandpipers were noted from eight locations including three inland. Remarkably, no Whimbrels were reported this month, the first May since 1973 with no reports of this species. Two Hudsonian Godwits were seen flying over Stellwagen Bank on May 29; only four of the previous ten years had May reports of this species and these were of single birds. For an excellent discussion of this species' known migration patterns, see the article by J.A. Hagar in the March 1983 Sanctuary.

A Bar-tailed Godwit in breeding plumage was seen in Squantum on the afternoon of May 23. The light underwing linings and the barring on the tail were well seen by the fortunate observers. There have been seven previous records since 1973 of this Eurasian species with only one other in May. The fifty Red Knots at Monomoy on the twenty-eighth constitutes a high count for May, and Least Sandpipers seen on May 1 were the first reported this year. Purple Sandpipers were still present throughout the month which is not unusual, but there are no previous records for June. The Stilt Sandpiper report from Monomoy is early. Ruffs continued to mid-month at Newburyport with at least two individuals and possibly five or six being seen. G.W.G.

Black-bellied Plover:			
7-31	Newburyport	max. 2000 (5/29)	v.o.
3,12	Plymouth, Winthrop	50, 100	B.Harrington#,S.Zendeh
15,30	Scituate	80, 35	W.Petersen,R.Titus#
27-30,28	M.V., Monomoy	200, 1300	BBC,SSBC
Lesser Golden-Plover:			
3,8,21	Plymouth	1, 1 (br. pl.), 1	W.Smith#,J.Leverich#,W.Petersen#
Wilson's Plover:			
3	Plymouth	1 (no details)	B.Harrington#
Semipalmated Plover:			
3,4	Plymouth, SRV	1, 1	B.Harrington#,R.Walton
15	PI, Scituate, Essex	150+, 45, 15	J.Heywood#,W.Petersen,BBC
21,22	Halifax, Bolton	1, 8	K.Anderson, BBC
Piping Plover:			
3,8,12	Plymouth, Scituate, Winthrop	2,2,1	B.Harrington#,H.Mallers#,S.Zendeh
15;29	Scituate; M.V., P.I.	4; 3, 4	W.Petersen;BBC,F.Bouchard
Killdeer:			
1,15;18	Newburyport,P.I; Lincoln	3, 4; pr. nesting	BBC;J.Carter
American Oystercatcher:			
thr.	Monomoy	max. 20 (5/28)	v.o.
15-22	Thompson's I. & Squantum	1	v.o.
10,27-30	Nantucket, M.V.	pr., 10	J.Berry,BBC
Black-necked Stilt:			
24-29	Ipswich	1	R.Meyer+B.Valentine+v.o.
American Avocet:			
13-14	Duxbury	1	C.Wood

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Greater Yellowlegs:			
1,29	Newburyport-P.I.	26, 10	BBC,G.Gove
3-11,12	Squantum, Winthrop	max. 100 (5/11), 165	G.Wilson#,S.Zendeh
23,24	Dover, SRV	2, 6	F.Hamlen,R.Walton
Lesser Yellowlegs:			
1,7	Newburyport-P.I.	6, 20	BBC
3,10	Squantum, Halifax	1, 1	S.Smith,W.Petersen
12,17	Winthrop, SRV	1, 1	S.Zendeh,R.Walton
Solitary Sandpiper:			
1;6	SRV, Manomet; SRV	1, 1; 14	R.Walton,T.Lloyd-Evans;R.Walton
14,25	Chatham, P'town	4, 4	B.Nikula#
21	Halifax,Marshfield;Wellesley	2, 2; 3	W.Petersen;K.Winkler#
7-31	Individuals from 14 locations		
Willet:			
thr.	Newburyport-P.I.	max. 5 (5/7)	v.o.
3, 21	Plymouth	1, 1	B.Harrington#,W.Petersen#
17,21	Squantum	1, 2	D.Brown,W.Petersen#
15,24	Ipswich	1, 2	BBC,D.Alexander
12, 27-30	Winthrop, M.V.	1, 2	S.Zendeh,BBC
Spotted Sandpiper:			
1	P.I., Hingham	1, 1	BBC,SSBC
12;21	Winthrop;Wellesley,South Shore	6;8,16	S.Zendeh;K.Winkler#,W.Petersen#
5-31	1-2 from each of 13 locations		
Upland Sandpiper:			
1,7	Newburyport	1, 3	BBC, J.Berry#
8;10	P'town, Truro; Halifax	1, 1; 3	B.Nikula#;W.Petersen#
18,19;27-29	Middleboro; Lincoln	1; 2	K.Holmes;J.Carter
22,29	Easton, Marshfield	3, 1	R.Titus,R.Abrams
Hudsonian Godwit:			
29	Stellwagen Bank	2	C.Leahy
Bar-tailed Godwit:			
23	Squantum	1 (br. pl.)	T.deBoor,H.D'Entremont
Ruddy Turnstone:			
3,8	Plymouth	2, 4	B.Harrington#,G.Gove#
12,15	Winthrop, Squantum	12, 25	S.Zendeh,SSBC
27-30,28	M.V., Monomoy	13, 50	BBC,SSBC
Red Knot:			
27-30, 28	M.V., Monomoy	10, 50	BBC,SSBC
Sanderling:			
3;15,21	Plymouth; Nahant	30; 100, 50	W.Smith#;R.Stymeist,H.Wiggin#
28	Monomoy	800+	SSBC
Semipalmated Sandpiper:			
3,7	Plymouth, P.I.	4, 1	B.Harrington#,BBC
12,15	Winthrop, Scituate	4, 12	S.Zendeh,W.Petersen
27-30,28	M.V., Monomoy	35, 200	BBC,SSBC
Least Sandpiper:			
1,3	P.I., Plymouth	14, 50	BBC,B.Harrington#
7,14;7	Topsfield; Newburyport	20, 125; 500	G.Gove
10,15	Halifax, Scituate	150, 225	W.Petersen
18,24	Newburyport, Ipswich	300, 20	J.Berry
White-rumped Sandpiper:			
thr.	Newburyport-P.I.	max. 8 (5/7)	v.o.
12;15,28	Winthrop;Scituate,Monomoy	6; 1, 6	S.Zendeh;W.Petersen
Pectoral Sandpiper:			
1,3	P.I., SRV	1, 2	BBC,R.Walton
10,14	Halifax, Essex	3, 10	W.Petersen,BBC
29	Marshfield	4	R.Abrams
Purple Sandpiper:			
1-24	Marblehead	max. 12	J.Smith#
8,15	Gloucester, Lynn	45, 15	BBC,R.Stymeist#
15,30	Scituate	200, 40	W.Petersen
Dunlin:			
3,7	Plymouth, P.I.	30, 55	W.Smith#,BBC
12,18	Winthrop,Newburyport	150, 20	S.Zendeh,J.Berry
27-30,28	M.V.,Monomoy	10, 175	BBC,SSBC
Stilt Sandpiper:			
17	Monomoy	1	D.Holt&J.Lortie
Ruff:			
1,7,18	Newburyport	1, 1, 1	BBC,D.Skeels#,N.Komar#
9,14	Newburyport	1 F, 1 M & 1 F	J.Grugan

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Short-billed Dowitcher:			
1,7;3	P.I.; Plymouth	2, 6; 5	BBC,H.Wiggin;W.Smith#
12,22	Winthrop, Squantum	3, 5	S.Zendeh,SSBC
Common Snipe:			
5,7	Lynnfield, Newburyport	2, 1	J.Berry
American Woodcock:			
1,24	Ipswich, Hamilton	3, 7	J.Berry
	Individuals from 4 locations		
Wilson's Phalarope:			
thr.	P.I.	max. 5 (5/15)	v.o.
8	P'town	1	B.Nikula#
Red-necked Phalarope:			
14	Stellwagen Bank	6	W.Petersen#

JAEGER THROUGH TERNS

An adult Franklin's Gull (Larus pipixcan) in summer plumage was found on the shorebird flats of Monomoy (North Island) on May 28. The following is excerpted from the details provided by the observer. Attention was first drawn to the bird as it flew ahead, and the extensive white trailing edges of its wings, pale gray mantle and the conspicuous white-tipped primaries and transverse pale stripe just behind the wing tips were noted. The bird landed among Black-bellied Plovers, and its small size and short legs were evident. Readily obvious marks as it stood were the prominent white orbital crescents, short reddish bill and legs, medium gray mantle coloration as compared to nearby Laughing Gulls, small size with a stubby-winged appearance and the extensive white wing tips. The complete black hood did not extend as far down the nape as on a Laughing Gull, and the hood configuration produced the effect of a very wide white collar between the back of the hood and the gray mantle. This was the third Franklin's Gull seen in Massachusetts by the observer, the last also a spring record almost exactly two years ago.

An adult Common Black-headed Gull in breeding plumage was seen defending territory in the Laughing Gull colony on Monomoy. One wonders when this species will be found breeding in the state. Iceland and Glaucous gulls continued throughout the month and Great Black-backed Gulls were seen feeding on herring in Lakeville.

Individual Caspian Terns were noted from Scituate and Plum Island, and a Sandwich Tern was seen at Plymouth Beach. Only a single Roseate Tern was observed at Monomoy, leading to speculation that this species will not use that location as a breeding area this year. A total of twenty-eight Arctic Terns was seen there on the same date including eight "portlandicas." Black Terns were reported from four locations throughout the month with a high count of ten at Monomoy on May 28. One Black Skimmer was seen on the Vineyard on the thirtieth. G.W.G.

Parasitic Jaeger:			
14	Stellwagen Bank	2	W.Petersen#
29,30	Monomoy, P'town	2, 1	W.Bailey#,B.Nikula#
Laughing Gull:			
8,21	Newburyport	1, 2	R.Stymeist, H.Wiggin#
27-30	M.V.	2	BBC
Franklin's Gull: (details)			
28	Monomoy	1	W.Petersen#
Little Gull:			
14,22,29	Newburyport	3 ad. & 4 imm.,1 imm., 1	G.Gove#,W.Petersen#,F.Bouchard
14-31	Monomoy	max. 2	B.Nikula#
Common Black-headed Gull:			
thr.	Monomoy	1 ad.	D.Holt#
Bonaparte's Gull:			
18,28	Newburyport, Monomoy	52, 4	J.Berry, W.Petersen#
Ring-billed Gull:			
18,21,25	Newbypt,Plymouth,Ipswich	250, 175, 25	J.Berry,W.Petersen#,J.Berry
Iceland Gull:			
14;14,28	Newbypt,Stellwagen,Monomoy	1 (1S); 2, 1	E.Nielsen#; W.Petersen#
Glaucous Gull:			
14,25	Newburyport, P.I.	1 (1S), 1	E.Nielsen#, F.Bouchard#
Great Black-backed Gull:			
7	Lakeville	150	W.Petersen#
Black-legged Kittiwake:			
10,12	P'town, Winthrop	1, 1 imm.	A.Williams, S.Zendeh
28	Monomoy	2	W.Petersen#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Caspian Tern:			
7-11,15	N.Scituate, P.I.	2, 1	v.o.,BBC
Sandwich Tern:			
22	Plymouth	1	S.van Etten
Roseate Tern:			
8-31	Plymouth	6	v.o.
27-30,28	M.V., Monomoy	2, 1	BBC,SSBC
Common Tern:			
thr.	Plymouth	max. 250	v.o.
15	P.I., Ipswich	6, 6	BBC
27-30	M.V.	220	BBC
Arctic Tern:			
21,28	Plymouth, Monomoy	2, 28	W.Petersen#
Least Tern:			
15	P.I.,Ipswich;Marshfield,Scituate	4, 4; 2, 2	BBC;SSBC
22,28	Westport, Monomoy	25, 50	BBC,SSBC
27-30	M.V.	200	BBC
Black Tern:			
12, 15-18	Mt.A., GMNWR	1, 1	BBC,R.Walton
17,28	Monomoy	3, 10	D.Holt#,W.Petersen#
29,31	M.V., GMNWR	3, 3	BBC,S.Sweet
Black Skimmer:			
30	M.V.	1	BBC

DOVES THROUGH WOODPECKERS

Black-billed and Yellow-billed cuckoos were well represented with high counts of four for the former and five for the latter species. Six species of owls were reported with two adult and two young Barn Owls seen together at Martha's Vineyard. Five Short-eared Owls were noted on Monomoy where a nest with six young and three eggs was found. A Northern Saw-whet Owl was present from April to at least mid-month in Chatham. A group of 106 Common Nighthawks was seen circling, feeding, and drifting northwest on the evening of May 31 in Sudbury. A Chuck-will's-widow was flushed from the yews in the Dell at Mt. Auburn. It landed on a branch at eye level for a few observers where it provided a brief look before flying off. It was described as large, Merlin size, and a tawny brown in color. Two days later, a Whip-poor-will was seen on the ground at the same location, and it provided contrast to the former bird, being smaller and gray rather than brown. An estimated 3500 Chimney Swifts were seen circling to roost in a small chimney of a church in Haverhill. Local residents said the birds had been coming there for years and that their numbers increase through September. Ruby-throated Hummingbirds were seen in good numbers on migration and four were seen flying north at Stellwagen Bank.

A pair of Red-bellied Woodpeckers was seen at a nest on Martha's Vineyard. Remarkably, there are two reports of Black-backed (three-toed) Woodpecker from the Cape, one being described as a male and the other as a female. This would mean that there were two individual birds which would seem to be an unprecedented occurrence, particularly at that location and this time of year in a non-flight year. The last May record was in 1975; from 1955-1975, this species was recorded more than 160 times with at least ten May records and one in June. G.W.G.

Mourning Dove:			
thr.	Brookline, Newton	11, 8	H.Wiggin,N.&O.Komar
Black-billed Cuckoo:			
4,7	Wellesley, Lexington	1, 1	K.Winkler,J.Andrews
15,21	W.Newbury, Newton	2, 2	BBC, N.Komar
22,28	Westport, Boxford	2, 4	BBC,J.Heywood#
	14 individuals from 14 locations		
Yellow-billed Cuckoo:			
3-18,8	Mt.A., Canton	1, 1	v.o.,R.Abrams
21,22	Wellesley, Newton	3, 5	K.Winkler,N.& O.Komar
26,29	Lincoln	3	J.Carter,R.Stymeist#
	14 individuals from 14 locations		
Common Barn Owl:			
26,29	Chatham, M.V.	1, 2 ad. & 2 yg.	D.Holt,BBC
Eastern Screech-Owl:			
thr.	W.Newbury, Mt.A.	3, 1 (gray)	R.Stymeist#,v.o.
8-12,10	Saugus, P'town	1, 1	C.Jackson,A.Williams
27-30	M.V.	2	BBC
Great Horned Owl:			
22,31	Lexington, Hamilton	1, 1	J.Andrews,J.Berry

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Barred Owl:			
thr.	Belmont	1	fide R.Stymeist
21,28	Topsfield, Boxford	1, 2	C.Floyd#,R.Stymeist#
Short-eared Owl:			
18,27-30	Monomoy, M.V.	5+, 1	D.Holt#,BBC
Northern Saw-whet Owl:			
6-13	Chatham	1	B.Nikula#
Common Nighthawk:			
8,9	Brookline, Newburyport	1, 1	R.Hamburger,J.Grugan
19,21	Canton, P.I.	8, 15	R.Titus#,R.Stymeist#
31	Lincoln, SRV	15, 106	J.Carter,R.Walton
Chuck-will's-widow:			
4	Mt.A.	1	G.Gove,H.Wiggin,L.Heron#
Whip-poor-will:			
2,6,11;8	Mt.A; E. Middleboro	1, 1, 1; 1	v.o.;K.Anderson
7,14	W. Newbury	3, 7	G.Gove
24,27-30	Hamilton, M.V.	3, 5	J.Berry, BBC
Chimney Swift:			
thr.	Newton	13	N&O.Komar
1,2	Brookline, Baldwinville	6, 20	H.Wiggin,J.O'Regan
8,15	Gloucester, W. Newbury	12, 10	BBC
26	Haverhill	3500+	R.Stymeist&J.Heywood
Ruby-throated Hummingbird:			
thr.	Mt.A.	max. 5 (5/14)	v.o.
11,19	Newton, Manchester	2, 6	N&O.Komar,BBC
21	Salisbury, Wellesley	3, 3	J.Grugan,K.Winkler
22,23	Stellwagen, P.I.	4, 4	K.Holmes, v.o.
27-30	M.V.	3	BBC
	10 individuals from 10 locations		
Belted Kingfisher:			
1,30	Newburyport, Scituate	2, 1	BBC,R.Titus#
Red-headed Woodpecker:			
1,19-23	Middleboro, Hingham	1 m., 1	M.Rice-Braun,J.Leonard
22,27-30	Lowell, M.V.	1, 1	A.Blaisdell,BBC
Red-bellied Woodpecker:			
8,15	Gloucester, MNWS	1, 1	BBC,J.Grugan
11-12,21	Ipswich, Newton	1, 1	M.Pendergast, O&N.Komar
28	M.V.	pair at nest	BBC
Yellow-bellied Sapsucker:			
1-14,21	Mt.A., Wellesley	max. 5 (5/1), 1	v.o.,B.Cassie#
Downy Woodpecker:			
thr.	Newton	10	N&O.Komar
Hairy Woodpecker:			
thr.	Newton	4	N&O.Komar
Black-backed Woodpecker: (no details)			
8,16	Wellfleet, Eastham	1m, 1f	S.McNair,P.Goodrich,(fide B.Nikula)
Northern Flicker:			
thr.	Newton	12	N&O.Komar
21	Wellesley	63	K.Winkler
Pileated Woodpecker:			
7,21	Canton, Milton	1, 1	R.Abrams,W.Petersen#
28	Hamilton	pair	J.Berry

FLYCATCHERS THROUGH VIREOS

For the first year since 1980, most area observers were treated to a strong spring passerine migration. Heavy movement began early, as evidenced in the April records (Bird Observer, June 1983). The relation of this April pulse to weather patterns is described by Chris Leahy in the field notes of the July/August Sanctuary [12(9): 16-17]. There followed somewhat of a lull in migration during early and mid-May. Then during the period of May 18-25 large numbers of birds came in on the prevailing warm southwest winds. The nineteenth and twenty-fifth were days of particularly high counts. Some idea of the breadth of this year's migration can be derived from the compiled data for the Bird Observer Field Studies Committee's Spring Migration Watch project. Of ten sites reporting for the second consecutive year, nine logged more warbler species, most by significant margins.

The Common Raven at Chatham from April remained through the first few days of May. A very good count of twelve Blue-gray Gnatcatchers on May 8 was received from Truro, a new site for significant numbers of this species. This count is only exceeded during

the last five years by a report of twenty at Provincetown in 1979. Sighting of a Loggerhead Shrike towards the end of May (the twenty-fourth) is noteworthy for being extraordinarily late. Red-eyed Vireo, in spite of the early pioneer bird at Mt. Auburn in April, was reported in low numbers during this year's migration, with the only good counts received for May 21. The 45 Warbling Vireos recorded in Wellesley constituted a remarkable count for a single town, and were the result of a careful censusing effort.

Several quite interesting reports of breeding activity were received during May, a time when most attention and expectation are turned towards migration. Horned Larks with young were seen at both coastal and inland sites. A Brown Creeper nest was discovered in Saugus. An active Golden-crowned Kinglet nest in Lakeville constituted one of the few breeding records for that species in Plymouth County. Yellow-throated Vireo nesting reports from any site other than the regular Oxbow National Wildlife Refuge are uncommon. Thus the pair building a nest in Wayland was significant for recent times.

L.E.T.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Olive-sided Flycatcher:			
17,18	Bolton, Boston	1, 1	A.Williams,R.Langley
18,21-31	Mt.A., 8 locations	1, 12 total	v.o.
Eastern Wood-Pewee:			
8 on	Middleboro	2+	D.Briggs#
8,11	Milton, Waltham	1, 1	R.Abrams,L.Taylor
18,21	Mt.A., Wellesley	4, 10	R.Stymeist#,K.Winkler#
Yellow-bellied Flycatcher:			
18,21	Mt.A., Wellesley	1, 1	v.o.,C.Quinlan#
22-28,31	Newburyport, MNWS	1, 1	v.o.,C.Blasczak
31	MBO	1 b.	staff
Acadian Flycatcher:			
26	MBO, Westport	1 b., 1	staff,E.Cutler
Alder Flycathcer:			
22,23	Bolton, Bridgewater	1, 1	BBC,K.Holmes
25-26,27	Newton, W.Newbury	1, 1	n.Komar,N.Clayton#
29,31	Annisquam, Lincoln	1, 1	H.Wiggin,J.Carter
Willow Flycatcher:			
21,22	3 locations, Milton	4, 3	v.o.,R.Stymeist#
22,28-29	Bolton, P.I.	3, 3	BBC,v.o.
Least Flycatcher:			
2,3	Boxford, Mt.A.	2, 1	W.Drummond#,T.Leverich#
13-25,18-22	Mt.A., Newton	10 total, 2 max.(5/18)	v.o.,N&O.Komar
21,22	MNWS, Bolton	4, 3	C.Blasczak,BBC
Eastern Phoebe:			
21,26	Wellesley, GMNWR	11, 2 ad. +3 yg.	K.Winkler#,B.Porter
Great-crested Flycatcher:			
thr.,3-23	Mt.A., Newton	1-2 daily, 1-2	v.o.,N&O.Komar
8,21	Saugus, Wellesley	5, 17	BBC,K.Winkler#
22,27-30	Westport, M.V.	4, 6 total	BBC
Eastern Kingbird:			
thr.,3	Mt.A., Woburn	1-3 daily w/ max. 6, 4	v.o.,G.Gove
21,27-30	Wellesley, M.V.	59, 20	K.Winkler,BBC
Horned Lark:			
27,28	Lincoln, P.I.	2 ad. +1 yg., 9 ad. + 1 yg.	J.Carter,R.Stymeist#
Purple Martin:			
1-18,3	P.I., Mt.A.	75 max.(5/7), 1	v.o.,K.Winkler
10-18,28-29	Newton, Wellesley	3 singles, 14	N&O.Komar,K.Winkler#
Tree Swallow:			
1-18,13	P.I., N. Scituate	500 max.(5/7), 250	v.o.,H.Mallers
15,24	S.Hanson, Ipswich	200+, 50+	W.Petersen,J.Berry
Northern Rough-winged Swallow:			
thr.,21	12 locations, Wellesley	1-5, 11	v.o.,K.Winkler#
Bank Swallow:			
11-21,14	Wellesley, W.Newbury	50 max., 10	K.Winkler,D.McHale
21,27-30	Rowley, M.V.	50+, 25	J.Berry#,BBC
Cliff Swallow:			
11-28,15-26	Wellesley, P.I.	7 max., 25 max.	K.Winkler,R.Emery#
17-18,27-30	GMNWR,M.V.	8 max., 4	R.Walton#,BBC
Barn Swallow:			
1-15,11	P.I.,Wellesley	50 max., 50	v.o.,K.Winkler#
5,15	W.Harwich, S. Hanson	250, 100	B.Nikula#,W.Petersen
Blue Jay:			
6,21	Newton, Wellesley	36 migrants, 131	N&O.Komar,K.Winkler#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
American Crow:			
21	Wellesley	197	K.Winkler#
Fish Crow;			
thr.,1	Mt.A., Lexington	pair nesting, 2	v.o.,J.Andrews
5-31,15	Newton, W.Roxbury	4 max. (5/21), 2	N&O.Komar,BBC
21-30	Scituate	2 max. (5/30)	W.Petersen
Common Raven:			
from April-2	Chatham	1 ph.	R.Clem#
Red-breasted Nuthatch:			
8-30,28	8 locations, Hamilton	9 total, pair	v.o.,J.Berry
Brown Creeper:			
7,8	Mt.A., Saugus	1, nesting pair	H.Wiggin#,C.Jackson
Carolina Wren:			
28,30	M.V., Middleboro	pair nesting, 1	BBC,W.Petersen
House Wren:			
2,6	Boxford, Newton	4, 8	B.Drummond#,N.Komar
21	Wellesley	24	K.Winkler#
Winter Wren:			
1	Wellesley, Hingham	1, 1	K.Winkler,SSBC
Marsh Wren:			
1-28,5	P.I., Lynnfield	40 max. (5/28), 10	v.o.,J.Berry
Golden-crowned Kinglet:			
6,28	Newton, Hamilton	1, 1	N.Komar,J.Berry
30	Lakeville	2 ad. +1 yg. in nest	W.Petersen
Ruby-crowned Kinglet			
3,2-10	Mt.A., Newton	17, 15 total	v.o.,O&N.Komar
19,22	Manchester, Squantum	3, 1	BBC,C.Jackson#
Blue-gray Gnatcatcher:			
thr.	Bridgewater, Provincetown	6 max.(5/6),8 max.(5/7)	K.Holmes,B.Nikula#
8,15	Truro, Belmont	12, pair	B.Nikula#,R.Stymeist
21,29	Wellesley, W.Newbury	4, 1	K. Winkler#,T.Leverich
Eastern Bluebird:			
thr.,15	WBWS, Tyngsboro	1 pair, 2	D.Reynolds#,BBC
18	W.Newbury	1 m.	BBC
Veery:			
1,9	Brookline, Newton	1, 3	H.Wiggin,O.Komar
14,18	MNWS, Mt.A.	9, 16	C.Blasczak,v.o.
21,25	Wellesley, P'town	9, 15	K.Winkler#,B.Nikula#
Gray-cheeked Thrush:			
18-21	4 locations	6	v.o.
22,25	Mt.A., MBO	3, 3 b.	v.o.,staff
Swainson's Thrush:			
18,22,25;21	Mt.A.,Wellesley	40, 30, 18; 6	v.o.;K.Winkler#
22,25	Newburyport, MNWS	10, 10	W.Petersen,J.Paputseanos
25	Provincetown	6	B.Nikula
Hermit Thrush:			
3-15,21	Newton, Wellesley	8, 1	N&O.Komar,Cloutiers
23,25;30	Mt.A.; Middleboro	1, 1; 1	M.Noland,v.o.;W.Petersen
Wood Thrush:			
3,5	Newton, Winchester	3, 5	O.Komar,G.Gove
7,15	Milton, MNWS	12, 11	R.Abrams,C.Blasczak
21	Wellesley	28	K.Winkler#
American Robin:			
21,22	Wellesley, Westport	184, 77	K.Winkler#,BBC
Gray Catbird:			
15,19	P.I., Newton	25, 28	BBC,N.Komar
21,25	Wellesley, Mt.A.	191, 14	K.Winkler#,v.o.
22,27-30	Westport, M.V.	27, 100	BBC
Brown Thrasher:			
3,4	Newton, Mt.A.	5, 6	N.Komar,v.o.
21,27-30	Wellesley, M.V.	6, 1	K.Winkler#,BBC
Water Pipit:			
1,5	Lincoln, SRV	1, 1	R.Forster,R.Walton
10-21,24	4 locations, Hanover	4 singles, 1	v.o.,W.Petersen
24	W.Dennis	1	J.Bryant
Cedar Waxwing:			
2,10	Newton, MBO	13, 12	N.Komar, staff
15,25	Lexington, Mt.A.	14, 125	J.Andrews,F.Bouchard#
Loggerhead Shrike:			
24	W.Dennis	1	J.Bryant

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
White-eyed Vireo:			
1-18,15-29	MNWS, 7 locations	3 max., 7 singles	J.Smith#,v.o.
Solitary Vireo:			
3,14	Mt.A.	10, 3	v.o.
25,30	Provincetown	8, 2	B.Nikula#
Yellow-throated Vireo:			
2-23,2-17	Mt.A., 7 locations	5 singles, 7 singles	v.o.
21-26,22	4 locations, ONWR	4 singles, 4	v.o.,BBC
28	Wayland, Boxford	2(nest-building), 1	R.Walton#,C.Floyd#
Warbling Vireo:			
1,9	Wellesley, Newton	1, 4	K.Winkler, N.Komar
15,21	Cambridge, Wellesley	3, 45	L.Taylor,K.Winkler#
30	Chatham, Lakeville	1, 1	B.Nikula#,W.Petersen
Philadelphia Vireo:			
21	W.Newbury	1	BBC
22,23-24	Westport, MNWS	3, 1	BBC,C.Blasczak#
Red-eyed Vireo:			
4-31,21	Mt.A.,Newburyport	5 max.(5/18), 6	v.o.,BBC
21	Newton, Wellesley	8, 69	N&O.Komar,K.Winkler#

WARBLERS

The total count of warbler species and hybrids for the May 1983 period was 36, below the average (surprisingly) for the previous four years which generated 35, 38, 39, and 37, respectively. Numbers of individuals were significantly up for most warbler species, however, but particularly noticeable in the rarer species.

Eight reports of Orange-crowned Warbler are remarkable when compared to the typical May counts of 1-2 with a maximum of 4 since 1979. May 25 was a very late date for the large numbers of Yellow-rumped Warblers (300) moving at Provincetown. The total of four Yellow-throated Warblers was slightly above the mean for recent Mays. All occurred early in the month, as is typical, and provided nice excitement factors during the general migration lull. Cerulean Warbler reports totalled nine individuals, with three seen in a single day at the Newburyport cemetery. This may be compared to an average of four individuals for the region during May for each of the last four years. For the third straight month, Prothonotary Warbler was reported from Cape Cod. Ten individual Kentucky Warblers were reported for the month, more than double the recent average of four. Hooded Warbler numbers were similarly up, with the 1983 count of thirteen compared to a recent average of eight. L.E.T.

Blue-winged Warbler:			
1-22,3-21	Mt.A., W.Newbury	6 max.(5/5). 7 max.(5/15)	v.o.
8-22	Milton	7 max. (5/22)	v.o.
Golden-winged Warbler:			
1-24,12-28	Mt.A., 5 locations	4 total, 5 singles	v.o.
14-28,15-28	W.Newbury, Ipswich	1, 2 max.	v.o.
"Brewster's" Warbler:			
9-15,25	W.Newbury, Hingham	1, 1	v.o.,S.Smith#
26-31	Lincoln	1	H.Ellis
Tennessee Warbler:			
1-31,21	Mt.A., Newton	15 max.(5/22), 9	v.o.,N&O.Komar
21,22	Wellesley, Newburyport	41, 20+	K.Winkler#,W.Petersen
25,27-30	Provincetown, M.V.	40, 20	B.Nikula#,BBC
Orange-crowned Warbler:			
6	Middleboro	1	D.Briggs
8-28,15	Mt.A., Marshfield	2 max., 1	v.o.,BBC
19,21	Brookline, Newburyport	1, 1	R.Stymeist,BBC
23	P.I., Newton	1, 1	D.Alexander#,N.Komar
Nashville Warbler:			
thr.,14	Mt.A., Newton	9 max.(5/18), 6	v.o.,O.Komar
16,25	Milton, Provincetown	3, 10	S.Higginbotham,B.Nikula#
Northern Parula:			
thr.,15	Mt.A., P.I.	25 max.(5/14), 12	v.o.,BBC
21	Newton, MNWS	10, 13	N&O.Komar,C.Blasczak
23-25,27-30	Provincetown,M.V.	15, 1	B.Nikula#,BBC
Yellow Warbler:			
3,7	W.Newbury, P.I.	26, 50	R.McHale,BBC
8,18	Gloucester, Newton	24, 19	BBC,N&O.Komar
21,27-30	Wellesley, M.V.	170, 80	K.Winkler#,BBC

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Chestnut-sided Warbler:			
3,24	Mt.A.	2, 8	F.Bouchard#,v.o.
7-18,15	W.Newbury, Ipswich	4 max., 8	v.o.,BBC
15,31;22	MNWS; Westport	7, 2; 4	C.Blasczak; BBC
25,27-30	Provincetown, M.V.	4, 2	B.Nikula,BBC
Magnolia Warbler:			
1	Mt.A., Provincetown	1, 1	v.o.,B.Nikula#
21	MNWS, Wellesley	55, 49	C.Blasczak,K.Winkler#
23,25	P.I., Provincetown	25, 40+	R.Emery#,B.Nikula
Cape May Warbler:			
2,4,14	Mt.A.	1, 1, 6	v.o.
18,19	Newburyport, Newton	3, 2	J.Grugan,O.Komar
21,23	Wellesley, P.I.	2, 2	K.Winkler,R.Emery#
27-30	M.V.	1	BBC
Black-throated Blue Warbler:			
1,3,15;15	Mt.A.; P.I.	2, 3, 7; 8	v.o.;BBC
20,21	MNWS, Wellesley	7, 5	C.Blasczak,K.Winkler#
25	Provincetown	3	B.Nikula
Yellow-rumped Warbler:			
3,24,28	Mt.A.	90, 18, 3	v.o.
13,25;21	Provincetown; Newburyport	400, 300; 40	B.Nikula#;BBC
Black-throated Green Warbler:			
11,22;15	Mt.A.; MNWS	6, 28; 12	v.o.;C.Blasczak
21	Provincetown, Newburyport	20+, 36	B.Nikula#,BBC
21,27-30	Wellesley, M.V.	8, 8	K.Winkler#,BBC
Blackburnian Warbler:			
2,22;18	Mt.A.; Newburyport	1, 17; 20	v.o.;J.Grugan
21,25	Wellesley, Provincetown	11, 40+	K.Winkler#,B.Nikula#
27-30,31	M.V.,MNWS	8, 6	BBC,C.Blasczak
Yellow-throated Warbler:			
1	Wellesley, Provincetown	1, 1	K.Winkler,B.Nikula
5-6,6	Mt.A., Newton	1, 1	v.o.,O&N.Komar
Pine Warbler:			
1,10	Mt.A., Provincetown	2, 6	v.o.,A.Williams
28-29,30	M.V., Lakeville	7, 6	BBC,W.Petersen
Prairie Warbler:			
8,14	Saugus, W.Newbury	9, 3	BBC,R.McHale
22,27-30	Westport, M.V.	9, 10	BBC
Palm Warbler:			
1,11;1	Mt.A.; Boston	8, 1; 7	v.o.;F.Bouchard
7	Provincetown, Milton	5, 5	B.Nikula,R.Abrams
14	MNWS	1	C.Blasczak
Bay-breasted Warbler:			
4-5;5,22	Middleboro; Mt.A.	1; 1, 8	K.Holmes#;v.o.
21;21,25	Wellesley; Provincetown	15; 20+, 20+	K.Winkler#;B.Nikula#
25,31	Waltham, MNWS	12, 5	L.Taylor,C.Blasczak
Blackpoll Warbler:			
5;5,23,25	Newton; Mt.A.	1; 1,20, 17	N&O.Komar;v.o.
21,25	Wellesley, Provincetown	28, 25	K.Winkler#,B.Nikula#
27-30,31	M.V., MNWS	20, 6	BBC,C.Blasczak
Cerulean Warbler:			
7	P.I., Provincetown	1, 1	M.Barnett#,B.Nikula#
17-21,21	Mt.A., Newburyport	1, 3	m.ob.,J.Grugan#
22,23	Uxbridge, MNWS	1, 1	M.Lynch#,R.Heil
23-26	Millis	1	B.Cassie
Black-and-white Warbler:			
2,14;3	Mt.A.; Newton	25, 5; 15	v.o.;N&O.Komar
15,21	P.I., Provincetown	25, 15	BBC,B.Nikula
23	MNWS	9	C.Blasczak
American Redstart:			
21	MNWS, Wellesley	25, 100	C.Blasczak,K.Winkler#
22,25	Mt.A., Provincetown	25, 20+	v.o.,B.Nikula#
26,31	Chatham, MNWS	20+, 12	R.Taylor#,C.Blasczak
Prothonotary Warbler:			
8,18-19	Mt.A.	1m, 1f.	G.Gove#,J.Barton#
29	Provincetown	1	A.Lyford
Worm-eating Warbler:			
1-28,6-8	Mt.A., Bridgewater	4 max.(5/7), 1	v.o.,K.Holmes
3;4,20	Dover; MBO	1; 1, 1b.	F.Hamlen; MBO staff
2,16;12-13,24	WBWS; Boxford	1, 1; 1, 1	D.Reynolds#;v.o.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Worm-eating Warbler (continued):			
22-29	Canton	pair	C.Floyd#
Ovenbird:			
thr.,21	Bridgewater, Newton	20+, 17	D.Briggs#,N&O.Komar
21,22	Wellesley, Westport	21, 12	K.Winkler#,BBC
27-30	M.V.	25	BBC
Northern Waterthrush:			
21	MNWS, Newton	6, 7	C.Blasczak,N.Komar
21,28	Wellesley, M.V.	22, 1	K.Winkler#,BBC
Louisiana Waterthrush:			
3,17	SRV, Ashburnham	2, pair	R.Walton,B.Sorrie
18	Boxford	3	J.Berry
Kentucky Warbler:			
2,6	Chatham, Newton	1, 1	D.Holt,O.Komar
14-31,15	Canton, Manomet	1m., 1m.	R.Abrams#,B.Sorrie#
16-18,17	MNWS, Bridgewater	1, 1	J.Smith#,K.Holmes
19,21	Brookline, Milton	1m., 1	R.Stymeist#,W.Petersen#
21,22	Marshfield, Westport	1, 1	W.Petersen#,BBC
Mourning Warbler:			
19,21	Waltham, Salisbury	1, 1	L.Taylor,J.Grugan
23-25,24	Mt.A.,WBWS	1-2, 1	M.Reinstein#,D.Reynolds
24	Brookline, MBO	1; 1m. b., 1f. b.	H.Wiggin,staff
25-26,25	Newton, Nahant	1, 1	N.Komar,H.Coolidge
25,26	Wellesley, Chatham	1m, 1	D.Flood,R.Taylor
29,31	P.I., MNWS	1, 2	D.Brown#,C.Blasczak
Common Yellowthroat:			
3,15	W.Newbury, P.I.	45, 45	R.McHale,BBC
19,21	MNWS, Wellesley	30, 97	C.Blasczak,K.Winkler#
27-30	M.V.	80	BBC
Hooded Warbler:			
1,9-12,13-31	Mt.A.	1m. ph., 1f., 3m. + 1f.	J.Grugan#,v.o.,v.o.
4,7	Brookline, Newton	1, 1	D.Arvidson#,O.Komar#
18,19-20	WBWS, Wellesley	1, 1m	D.Reynolds#,K.Winkler
21,23-24	Provincetown, MNWS	1, 1	C.Goodrich#,R.Heil#
25,25-27	Bridgewater, Braintree	1, 2	K.Holmes,R.Campbell
Wilson's Warbler:			
9,22;21	Mt.A.; Wellesley	1, 5; 13	v.o.;K.Winkler#
25,31	Provincetown, MNWS	20, 3	B.Nikula,C.Blasczak
Canada Warbler:			
3,22;21	Mt.A.; MNWS	1, 15; 14	v.o.; C.Blasczak
21, 25	Wellesley, Provincetown	34, 40	K.Winkler#,B.Nikula#
Yellow-breasted Chat:			
21,27	Canton, Westport	1, 1	C.Hess, E.Cutler

SUMMER TANAGER THROUGH EVENING GROSBEAK

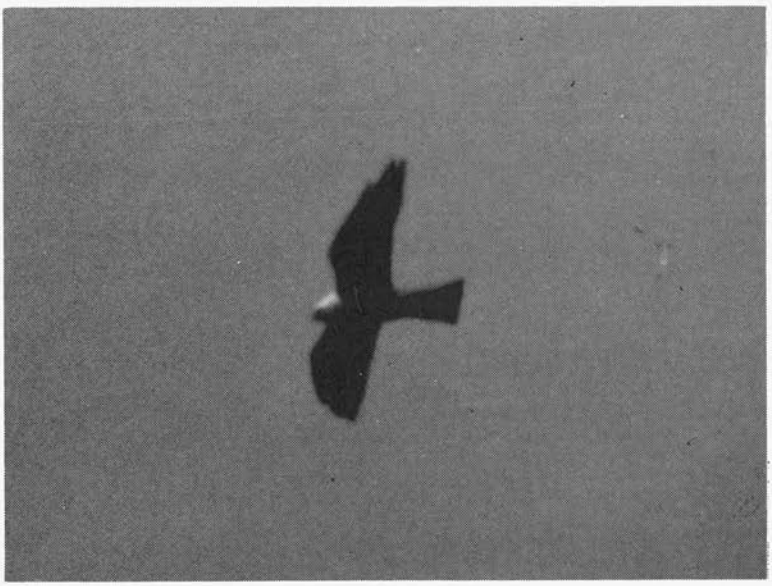
At least thirteen Summer Tanagers were reported during May, exactly the same number recorded during May 1982. This was a good year for numbers of Rose-breasted Grosbeaks reported; note the high counts at Mount Auburn Cemetery, Newton, Wellesley, and Provincetown. The maximum number reported last year in any one location was but seven individuals. A very interesting report of a possible female Black-headed Grosbeak on a nest in Uxbridge created quite a stir, but no photographs were obtained, and a comparison of grosbeak skins at Massachusetts Audubon Society revealed sufficient variation in the amount of breast streaking and coloring in female Rose-breasteds to question the identification of this bird as a Black-headed Grosbeak. The mate of this nesting grosbeak (two young) was a full-plumaged Rose-breasted male. Four Blue Grosbeaks were noted with three seen together at Mount Auburn Cemetery. There were just two reported last May. High numbers of Indigo Buntings were noted with twenty and twenty-five individuals counted at Mount Auburn on May12 and May 14, respectively. A female Painted Bunting was reported with full convincing details by Jim Barton at Mount Auburn on May 12, but unfortunately the bird was not seen again. Last year a male Painted Bunting visited a feeder at West Tisbury, Martha's Vineyard.

A Clay-colored Sparrow, rare in Massachusetts in spring, was discovered on the outskirts of Fowl Meadow Reservation in Canton on May 21, where it remained until May 29. The last spring records were in May 1981 when one was banded in Rockport, and another was found at Mount Auburn Cemetery. Only four Vesper Sparrows were noted during May, but good numbers of Chipping Sparrows were recorded. A Grasshopper Sparrow was found in Newton, an unlikely location, and other reports indicate they have returned to Medfield again this year. There were many reports of Lincoln Sparrows and about the usual numbers of spring White-crowned Sparrows reported.

A Yellow-headed Blackbird was noted at Orleans on May 11; two were reported last year. Orchard Orioles were well reported with at least twenty-six individuals noted. The highlight of the month was the banding of a Eurasian Siskin at Rockport on May 5. A full report including photographs was published in BOEM 11 (3): 172-173, June 1983. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Summer Tanager:			
2-2,25	Mt.A.	1 imm. m, 1 m. in heavy molt	J.Barton+v.o.,M.Noland
3	Newton, Marshfield	1, 1	O&N.Komar,D.Clapp
10,18	Manomet	1 f., 1 m.	T.Lloyd-Evans+v.o.
14,18-19,20-23	Marblehead	1, 1, 1	J.Smith + v.o.
19-22,25;25	P'town; Boston (AA)	2 at feeder,1;1	M.Mello,B.Nikula#;R.Langley
Scarlet Tanager:			
5,7	Winchester, Dover	1 f., 1	G.Gove,F.Hamlen
7-25,21	Newton, Wellesley	max. 10, 29	N&O.Komar,K.Winkler#
8-31	Mt.A.	max. 6 on 5 days after 5/18	v.o.
Rose-breasted Grosbeak:			
thr.	Mt.A.	max. 20 (5/14)	v.o.
3-26	Newton	17 max., 10 (5/21)	N&O.Komar
21,23	Wellesley, MNWS	56, 12	K.Winkler,C.Blasczak
25	P'town, Waltham	35, 7	B.Nikula,L.Taylor
Blue Grosbeak:			
8-26,14-22	WBWS,Mt.A.	1, 1-3	N.Stabins#,v.o.
28	M.V.	1 ad.	BBC(R.Culbert,H.D'Entremont)
Indigo Bunting:			
thr.	Mt.A.	max 20(5/12), max. 25(5/14)	E.Nielsen#+v.o.
21	Wellesley	14	K.Winkler
Rufous-sided Towhee:			
1	P.I., Brookline	4, 1	I.Giriunas#,H.Wiggin
thr.,27-30	Newton, M.V.	max. 14, 150	N&O.Komar,BBC
Chipping Sparrow:			
thr.	Mt.A., Newton	max. 28(5/4), 12	v.o.,N&O.Komar
1,15,21	Boston,P.I.,Wellesley	6, 4, 76	F.Bouchard,BBC,K.Winkler
Clay-colored Sparrow:			
21-29	Canton(FM)	1 m.	R.Vernon +v.o.
Field Sparrow:			
thr.	Newton	10	N.Komar
1;5	Brookline;Lynnfield,Lexington	1; 2, 4	H.Wiggin;A.Williams,J.Andrews
2,21	Newton, Wellesley	7, 3	N.Komar,C.Quinlan#
Vesper Sparrow:			
10,12,21	Eastham, Newton, Plymouth	1, 1, 3	A.Williams,N.Komar,W.Petersen#
Savannah Sparrow:			
7;14	Wellesley, P.I.; Medford	16, 8; 8	K.Winkler,J.Berry;C.Jackson
15,19	Essex, Newton	4, 4	J.Berry,N.Komar
27-30	M.V.	30	BBC
Grasshopper Sparrow:			
22,29	Newton, Medfield	1 (details), 1 m.	N.Komar,R.Emery#
Sharp-tailed Sparrow:			
14,28	Quincy, Monomoy	2, 8	R.Abrams,SSBC
Seaside Sparrow:			
28	P.I.	1 m.	T.Walsh#
Song Sparrow:			
1,21	Saugus, Wellesley	20, 172	BBC,K.Winkler#
Lincoln's Sparrow:			
5,18	Lynnfield, Newton	1, 3	A.Williams,N.Komar
14,15,18,21,22	Mt.A.	1, 1, 1, 2, 2	v.o.
17-23,25	MNWS,P'town	1-3, 3	R.Heil#,B.Nikula#
15-29	individuals from 13 locations		
Swamp Sparrow:			
1,5	Saugus, Lynnfield	4, 3 m.	BBC,J.Berry
thr.	Newton	3	N.Komar
White-throated Sparrow:			
1,2	Boston, Rockport	12, 25 banded	F.Bouchard,O.Norris
thr.	Mt.A.	max. 60(5/3)	v.o.
16,26	Milton, MNWS	35, 1	S.Higginbotham,A.Williams
White-crowned Sparrow:			
5-6,10-15	Mt.A.	1, 2-3	v.o.
15,17,23	P.I.,SRV, Rowley	3, 2, 2	BBC,R.Walton,R.Emery
7-30	individuals from 9 locations		

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Dark-eyed Junco:			
1-4,8	Mt.A.	12-6, 1	v.o.,C.Floyd#
8,14,21	Saugus, Boston, Wellesley	3, 1, 2	BBC,R.Stymeist#,B.Cassie#
Bobolink:			
3+7,7	W.Newbury, Rowley	2+30, 20+	R.McHale+D.Resnick,J.Berry#
8,8-26	N.Scituate, Newton	5, 15	H.Mallers#,N&O.Komar
15	Mt.A., Duxbury-Marshfield	12, 50+	v.o.,BBC(R.Timberlake)
18,23;21	Bridgewater;SRV	104, 60; 65+	K.Holmes;R.Walton
20,21	Middleboro, Wellesley	100+, 32	D.Briggs, K.Winkler#
Red-winged Blackbird:			
21	Wellesley	424	K.Winkler#
Eastern Meadowlark:			
17	Lincoln	nest w/4 young	J.Carter#
Yellow-headed Blackbird:			
11	Orleans	1 m.	fide D.Reynolds
Orchard Oriole:			
1,2,3,5,6,18	Mt.A.	1, 2, 3, 2, 4, 1	v.o., fide R.Stymeist
3,4-6	Woburn, Wellesley	3, 2	G.Gove#,K.Winkler
5-10,8	Newton, Lexington	1, 1	N.Komar,J.Andrews
5,7	Ipswich, WBWS	1, 4	J.Berry,v.o. fide B.Nikula
12 on,14	Boston (AA), Lynnfield	2, 1	M.Dickey+v.o.,G.Gove#
15,16	Whitman, Hingham	1, 2	W.Petersen,L.Mallers
21	S.Weymouth;Halifax,Scituate	1; 1, 1	S.Smith;W.Petersen#
Northern Oriole:			
thr.	Mt.A., Newton	max. 20(5/15)), 27	v.o.,N&O.Komar
15,18	Ipswich, Methuen	14, 10-15	BBC,J.Berry
Purple Finch:			
1,2-23	P.I., Newton	6, 15	BBC,N&O.Komar
Eurasian Siskin: (See Boem 11 (3): 172-173.)			
5	Rockport	1 b,	R.Norris
Evening Grosbeak:			
3,4	Newton, MNWS	1, 4	O.Komar, J.Smith



Mississippi Kite
Pilgrim Heights, Truro, May 7, 1983 *Photo by Roger Everett*

Field Records
June 1983

by George W. Gove, Robert H. Stymeist, Lee E. Taylor

June 1983 tied for the seventh warmest in 113 years of record. The temperature averaged 70.7°, 2.7° above normal. The high was 97° on the twenty-second, a new record for that date, beating the old record of 95° in 1941. The lowest temperature recorded was 53° on the ninth. The temperature on June 23 and 24 established a record high minimum; for those dates the mercury fell only to 74°. Five days reached 90° or higher, two more than average and the most since 1976. Rain totaled only 1.07 inches, 1.85 inches less than normal and the least in June since 1979. This June tied with 1924 for the fifteenth driest June in 166 years. No measurable rain came in a twenty-day stretch, June 5-24, beating the old June record of nineteen days set in 1887.

Many of the records received for June were the result of a month-long breeding bird census conducted in Millis by Brian Cassie. The town was divided into blocks and an effort was made to give some coverage to each area. Some of the results of this study are given in the records as two counts: the number of pairs exhibiting definite evidence of breeding and the number of singing males.

LOONS THROUGH BOBWHITE

Ten Northern Fulmar were noted off Chatham in early June, none were reported in June 1982; other tubenoses were virtually absent. Only five Greater and seven Sooty shearwater reports were received, and there was no record for Manx Shearwater during the month. There were good numbers of Wilson's Storm-Petrel reported with counts of 1000 and 250 individuals noted this month. An immature Great Cormorant was found lingering in Plymouth on June 1.

The Western Reef Heron, although unidentified during June was present throughout the month at Quaise, Nantucket [see BOEM 11(3), June 1983]. Three Tricolored Herons were reported from Monomoy, and two adult Yellow-crowned Night-Herons from Annisquam highlighted the month.

Good numbers of waterfowl were present all month on Monomoy including three Northern Shoveler and three American Wigeon. Two King Eider were reported off Monomoy on June 5, and another adult King Eider was reported from Annisquam on June 11.

An American Swallow-tailed Kite was reported from Plymouth Beach on June 6. This is only the sixth record in the last eleven years. This may be the same bird that was reported from Chatham on May 8. Another report of this species over Everett on June 22 was well detailed. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Pied-billed Grebe:			
thr.	Monomoy	2	J.Lortie#
Northern Fulmar:			
5,21	off Chatham, off Plymouth	10, 1	BBC,R.Abrams
Greater Shearwater:			
5,30	off Chatham, off Plymouth	1, 1	BBC,R.Campbell
27	Stellwagen	3	A.Williams
Sooty Shearwater:			
1,27	Stellwagen Bank	1, 6	W.Petersen,A.Williams
Wilson's Storm-Petrel:			
1,5	Stellwagen, off Chatham	40, 10	W.Petersen,BBC
21,30	off Plymouth	1000, 25	R.Abrams,R.Campbell
25	Monomoy	250	G.Gove,C.Floyd,L.Taylor

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Northern Gannet:			
1,5	Stellwagen, off Chatham	20, 10	W.Petersen, BBC
11	Monomoy	2	W.Petersen
Great Cormorant:			
1	Plymouth	1 imm.	W.Petersen
American Bittern:			
7,24	Middleboro, Wayland	1, 1	D.Briggs, A.Williams
Least Bittern:			
5,30	Milton(FM), P.I.	1, 2	J.Paputseanos,R.Heil
Little Blue Heron:			
5,11	Plymouth	1 ad., 1 ad.	R.Titus,G.Gove#
Tricolored Heron:			
12	Monomoy	3	W.Petersen#
Western Reef-Heron:			
thr.	Nantucket	1	E.& C.Andrews
Green-backed Heron:			
thr.	Millis	5	B.Cassie
Black-crowned Night-Heron:			
16,27	Harwich, P.I.	15, 12	B.Sorrie,BBC
Yellow-crowned Night-Heron:			
20	Gloucester	2 ad.	H.Wiggin
Wood Duck:			
26,29	GMNWR, Dunstable	35, 10	BBC,N.Komar
Green-winged Teal:			
thr.	Monomoy	12-15	J.Lortie#+v.o.
Northern Pintail:			
thr.	Monomoy	3+	J.Lortie#+v.o.
Blue-winged Teal:			
thr.	Monomoy	10-12+	J.Lortie#+v.o.
Northern Shoveler:			
thr.	Monomoy	3+	J.Lortie#+v.o.
Gadwall:			
thr.	Monomoy	12+ (1 nest w/11 eggs)	W.Petersen#+v.o.
American Wigeon:			
thr.	Monomoy	3	J.Lortie#+v.o.
King Eider:			
5,11	Off Monomoy, Annisquam	2, 1 ad.	B.Nikula#+v.o.,H.Wiggin
Oldsquaw:			
2,12	Chatham	6, 3	B.Nikula#,W.Petersen#
Surf Scoter:			
12, 25-27	Monomoy, E.Orleans	1, 1	W.Petersen,A.Williams
Ruddy Duck:			
thr.	Monomoy	11	J.Lortie#+v.o.
Turkey Vulture:			
4,5	Lakeville, Ipswich	1, 1	K.Holmes,J.Berry
Osprey:			
thr.	Yarmouth-Wellfleet	8-10+	v.o.
11	Marion	2 at nest	G.Gove,C.Floyd
American Swallow-tailed Kite:			
6	Plymouth Beach	1	D.& D.Oliver
22	Everett	1	R.DeRosa
Northern Harrier:			
7	E. Orleans	1 m.	A.Williams
Sharp-shinned Hawk:			
thr.	Middleboro, Millis	1, 1	D.Briggs,B.Cassie
28	Sharon	1	R.Titus
Northern Goshawk:			
12,26	Annisquam, Lincoln	1 ad., 1	H.Wiggin,R.Forster
Red-shouldered Hawk:			
1,26	E.Middleboro, Taunton	1, 1	K.Anderson,B.Sorrie
Broad-winged Hawk:			
thr.	E.Middleboro, Millis	1-2 on nest, 3	K.Anderson,B.Cassie
Red-tailed Hawk:			
thr.,25	Millis, Dover	3 prs. + 2, 5	B.Cassie,BBC
American Kestrel:			
thr.	Millis	9 separate territories	B.Cassie
22	Lakeville	3m.,2f.,yg, banded	K.Anderson
Ruffed Grouse:			
thr., 3	Millis, Lincoln	5, 1 dead	B.Cassie,J.Carter
Northern Bobwhite:			
thr.	Millis, Medfield	4 prs. + 6 m., 4 prs.	B.Cassie,v.o.
5	Milton	1 ad. + 10 chicks	J.Paputseanos

A Clapper and a King Rail were seen together at Plum Island and a two Sora were seen at Monomoy and were said by the observer to be historically rare on Cape Cod in the summer. Two very young oystercatchers and a nest with three eggs of that species were noted at Monomoy where at least ten pairs of adult oystercatchers were present. Two Black-necked Stilts were seen on the third at Martha's Vineyard and one continued through the fifth. As was noted last month, there had been only ten records of this species this century prior to this, and this month's report makes three records this year and six records since BOEM has been publishing. A maximum of twenty Willets was reported from Plum Island where four adults and two young were seen on June 29. A maximum of forty Willets was reported from Monomoy where twelve nests of this species were found. Two adult Upland Sandpipers with three chicks were seen at Hanscom Air Force Base. The first returning Hudsonian Godwit was noted on June 26 at Monomoy where a Marbled Godwit was seen on the second as was a Western Sandpiper. The first June record in BOEM for Purple Sandpiper was established with three birds at Scituate on the third; the previous late date was May 30. An adult Curlew Sandpiper in breeding plumage was well seen by many observers in the salt pans at Plum Island and another was reported earlier in the month from North Beach in Chatham. Nesting Common Snipe were noted in Concord, and an adult American Woodcock with two young was seen in Lincoln.

The adult Common Black-headed Gull continued in the Laughing Gull colony at Monomoy where a bird in second summer plumage was also seen. Two Lesser Black-backed Gulls were noted. There were three Royal Terns reported and at least two, possibly three, individual Sandwich Terns were seen at Monomoy where a maximum of 150 "portlandica" Arctic Terns were counted and two Forster's Terns spent the month. Another Sandwich Tern was reported from Nantucket. Three breeding-plumaged Black Terns continued from May into the first week of June at Great Meadows and there were two other reports of this species. Black Skimmers spent most of the month on Monomoy with a maximum of three being noted. A murre of unknown species was seen at Plum Island.

Black-billed and Yellow-billed cuckoos were again well represented with thirteen of the former and ten of the latter found on an intensive census in Millis. In Easton, three adult Yellow-billeds plus a nest with three young were found. Six Short-eared Owls continued on Monomoy and a Ruby-throated Hummingbird was found nesting in a hanging plant in Andover. The aforementioned census in Millis found 98 Downy Woodpeckers, 32 Hairy Woodpeckers and 77 Northern Flickers. A pair of Hairys was seen feeding young at a nest hole in E. Middleboro and a female Pileated was seen in a nesting cavity with a male calling from nearby woods in Lincoln. G.W.G.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Clapper Rail:			
30	P.I.	1	R.Heil
King Rail:			
11,18-19,30	Milton (FM), Yarmouth, P.I.	1, 1, 1	R.Abrams,P.Trimble#,R.Heil
Virginia Rail:			
1,11,20	Lincoln, Monomoy, P.I.	6, 1, 2	J.Carter,J.Lortie#,BBC
26	GMNWR	6	BBC
Sora:			
11,12	Monomoy	2	W.Petersen#
Common Moorhen:			
1,27	P.I.	6, 1	D.Taylor,BBC
Black-bellied Plover:			
2,9;25	Monomoy	750, 100; 150	B.Nikula#;G.Gove#
Semipalmated Plover:			
24	Scituate	1	W.Petersen#
Piping Plover:			
6,8	Ipswich, S.Dartmouth	3, 1	BBC,M.Argue#
11	Plymouth, Dartmouth	2, 2	C.Floyd#,G.Gove#
Killdeer:			
thr.	Millis	5 pr. + 6	B.Cassie
American Oystercatcher:			
thr.	Monomoy	10+ pr.	J.Lortie#
5	Plymouth, Westport Neck	4, 2	B.Sorrie
Black-necked Stilt:			
3,4-5	M.V.	2, 1	fide V.Laux,V.Laux
Greater Yellowlegs:			
4,13,26,30	P.I.	1, 2, 1, 1	v.o.
6	Ipswich	3	BBC
Lesser Yellowlegs:			
26,30	P.I.	17, 20	G.Gove,R.Heil

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Willet:			
thr.	P.I., Monomoy	max. 20(6/20), 40	v.o.
6	Barnstable	4	A.Williams
29	P.I.	4 ad. + 2 yg.	D.Arvidson #
Upland Sandpiper:			
2,6	Lincoln, Boston (Logan)	2, 6	J.Andrews
10	Lincoln	2 ad. + 3 chicks	J.Carter
20,21	Newburyport, Millis	3, 1	BBC,B.Cassie#
Whimbrel:			
2,26	Monomoy	1, 1	B.Nikula#,R.Veit#
Hudsonian Godwit:			
26	Monomoy	1	R.Veit#
Marbled Godwit:			
2	Monomoy	1	B.Nikula
Ruddy Turnstone:			
11,25	Westport, Monomoy	2, 10	C.Floyd#,G.Gove#
Red Knot:			
4	P.I.	2	SSBC
Sanderling:			
24	Scituate	6	W.Petersen#
Semipalmated Sandpiper:			
4,26,30	P.I.	30, 26, 20	SSBC,G.Gove,R.Heil
2,9;6	Monomoy; Ipswich	1500, 750; 5	B.Nikula#;BBC
Western Sandpiper:			
2,3	Monomoy, Scituate	1, 1	B.Nikula,R.Forster
Least Sandpiper:			
4,27;11	P.I.; Dartmouth	50, 10; 10	SSBC,BBC;G.Gove
White-rumped Sandpiper:			
2,9,26	Monomoy	15, 10, 3	B.Nikula#
13;20,27	P.I.	3; 2, 2	N.Jenks-Jay; BBC
Purple Sandpiper:			
3	Scituate	3	R.Forster
Dunlin:			
13	P.I.	60	BBC
Curlew Sandpiper:			
10	Chatham (North Beach)	1 ad. br. pl.(ph.)	J.Bryant
29.30	P.I.	1 ad. br. pl.	H.Weissberg + v.o.
Short-billed Dowitcher:			
26;30	Squantum, Monomoy; P.I.	16, 35; 25	R.Abrams,B.Nikula#;R.Heil
Common Snipe:			
2	Concord	1 (apparently nesting)	J.Carter
American Woodcock:			
6,12	Ipswich, Lincoln	1, 1 ad. + 2 yg.	BBC,J.Carter
6,19,27	Millis, Quincy, Newbury	6, 1, 3	B.Cassie,C.Jackson,BBC
Wilson's Phalarope:			
thr.	P.I.	2	v.o.
9,25;23-25	Monomoy; Nantucket	1 f, 1 m; 1 m	B.Nikula,G.Gove#;N.Jenks-Jay
Red-necked Phalarope:			
5,20	off Chatham, Nantucket Sound	7, 1	BBC,V.Sprong
Parasitic Jaeger:			
9	Provincetown	3	B.Nikula
jaeger species:			
11	Monomoy	1	W.Petersen#
Little Gull:			
thr.	Monomoy	max. 3	B.Nikula#
Common Black-headed Gull:			
thr.	Monomoy	1 ad.	D.Holt#
9	Monomoy	1 (2S)	B.Nikula
Iceland Gull:			
5,21	off Chatham, off Plymouth	1, 1	BBC,R.Abrams
Lesser Black-backed Gull:			
2,26	Annisquam, Monomoy	1 ad., 1	H.Wiggin,G.d'Entremont#
Black-legged Kittiwake:			
25	Monomoy	3	L.Taylor#
Royal Tern:			
13,30;25	P.I.; Nantucket	1, 1; 1	G.Jenks,R.Heil;E.Andrews#
Sandwich Tern:			
22-25.26	Monomoy	1 basic pl., 1 ad.	B.Nikula#,N.Jenks-Jay
24	Nantucket	1	N.Jenks-Jay
Roseate Tern:			
26	Monomoy	20	R.Veit#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Common Tern:			
thr.,6	P.I., Ipswich	max. 25, 10	v.o.,BBC
Arctic Tern ("portlandica"):			
thr.	Monomoy	max. 150	v.o.
Forster's Tern:			
thr.	Monomoy	2	v.o.
Least Tern:			
thr.	P.I.	max. 10	v.o.
Black Tern:			
1;4,11	Plymouth; GMNWR,Dartmouth	3;3(br.pl.),1 (basic pl.)	W.Petersen;G.Gove#
Black Skimmer:			
9-30	Monomoy	max. 3	v.o.
murre species:			
30	P.I.	1	R.Heil
Black-billed Cuckoo:			
thr.	Millis, Annisquam	13, 1	B.Cassie,H.Wiggin
19-30,22	Middleboro, Whitman	1, 1	D.Briggs,W.Petersen
24,27	Norwell, P.I.	1, 1	W.Petersen,BBC
Yellow-billed Cuckoo:			
thr.	Millis, E.Middleboro	10, 2	B.Cassie,K.Anderson
3-8	Easton	3 ad.+nest w/3 yg.	R.Titus
5,25	Bridgewater, Mashpee	1, 2	K.Holmes,B.Nikula
17,21	Norwell, Hanover	1, 1	W.Petersen
Great Horned Owl:			
11	Lexington	1	J.Andrews
Short-eared Owl:			
thr.	Monomoy	6	D.Holt#
Common Nighthawk:			
1,3	Cohasset, N.Scituate	27, 63	N.Osborne
Whip-poor-will:			
2,3	Holliston, Milton	1, 2	A.Williams,R.Abrams
7-12,27	E.Middleboro, Newbury	1 calling, 3	K.Anderson,BBC
Chimney Swift:			
4	Whitman	250	W.Petersen
Ruby-throated Hummingbird:			
9,11	Andover, Dartmouth	1, 1	R.Mattolz,C.Floyd#
Belted Kingfisher:			
11,15	Lexington, Concord	1, 1	J.Andrews,L.Taylor
Downy Woodpecker:			
thr.	Millis	24 pr. + 50	B.Cassie
Hairy Woodpecker:			
4,thr.	E.Middleboro, Millis	pr., 10 pr. + 12	K.Anderson,B.Cassie
Northern Flicker:			
thr.	Millis	16 pr. + 45	B.Cassie
Pileated Woodpecker:			
7,13,29	Wayland, Lincoln,Dunstable	1, 1f, 1	Ms.Thesilos,P.Swift#,N.Komar#

FLYCATCHERS THROUGH STARLING

During the month, Brian Cassie undertook a complete survey of the town of Millis, and Nick Komar organized a census of summer residents in Newton during the ten day period June 19 - June 29. The results are interesting and constitute a significant contribution to the records for the breeding season.

Late migrants included four Olive-sided and seven Yellow-bellied flycatchers. Acadian Flycatchers were found in Scituate, Stoughton and Marblehead. Probable nesting Alder Flycatchers were noted in both Millis and Newton. Eastern Kingbirds have a stronghold in Millis with seventy-two pairs counted.

A Brown-chested Martin (Phaeoprogne tapera fusca), a first North American record for this species was found on June 12, 1983, on Monomoy Island. The bird was photographed alive and was later found dead by Wayne R. Petersen, Blair Nikula and Denver Holt. The Brown-chested Martin is a species native to South America; however, the southern race fusca regularly migrates northward as far as Panama where it spends the austral winter from mid-April to late September. The bird probably overshot its normal austral wintering grounds and was swept northward to New England, possibly by the same weather systems that brought so many southern warblers and early migrants this spring. Resembling a martin-sized Bank Swallow, the race fusca is distinctive in having an area of heavy ventral spotting below the broad, brown breast band. The bird apparently met an untimely death when it hit the side of the Monomoy lighthouse, where a Cliff

Swallow was also found dead. Details of this first North American record will be published elsewhere. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
Olive-sided Flycatcher:			
2	Bridgewater, MNWS	1, 1	K.Holmes,C.Blasczak
3,7	Annisquam, Concord	1, 1	H.Wiggin,J.Carter
Eastern Wood-Pewee:			
thr.,19-29	Millis, Newton	50+, 9	B.Cassie,N.Komar#
3,11	Annisquam	5, 1	H.Wiggin
Yellow-bellied Flycatcher:			
1,2	P.I., Mt.A.	2, 2	D.Taylor,F.Bouchard
3,5,8	Annisquam,Newton,Middleboro	1, 1, 1	H.Wiggin,N.Komar,D.Briggs
Acadian Flycatcher:			
3,10,24	Marshfield,Stoughton,MNWS	1, 1, 1	J.Baird,R.Titus,R.Heil
Alder Flycatcher:			
thr.,2	Millis, Concord	2, 3	B.Cassie,J.Carter
5,11	Newton, Plymouth	2, 1	N.Komar,B.Sorrie
Willow Flycatcher:			
thr.	P.I., Millis	max. 8(6/1), 3	D.Taylor+v.o.,B.Cassie
5;26	Lynnfield,Lexington;GMNWR	3, 2; 3	A.Williams,J.Andrews;BBC
19-29	Newton	9	N.Komar#
Least Flycatcher:			
5	Ipswich	1	J.Berry
thr.,12	Millis, N.Andover	2+, 1	B.Cassie, S.& E. Wilson
Eastern Phoebe:			
thr.	Millis	15 prs.	B.Cassie
Great-crested Flycatcher:			
thr.,19-29	Millis, Newton	3 prs. + 30, 12	B.Cassie,N.Komar#
Eastern Kingbird:			
thr.,19-29	Millis, Newton	72prs. + 9, 24	B.Cassie,N.Komar#
Brown-chested Martin (Phaeoprogne tapera fusca):			
12	Monomoy	1 found dead (specimen)	W.Petersen,B.Nikula,D.Holt
Purple Martin:			
thr.	Middleboro, P.I.	60+, 40+	E.Akers# +v.o., v.o.
8	E.Orleans	1 f.	A.Williams
Bank Swallow:			
thr.,24	Millis,N.Carver	223 prs., 60 prs.	B.Cassie,K.Anderson
Cliff Swallow:			
thr.	P.I.	20-25	v.o.
Blue Jay:			
12,19	Monomoy, Rockport	16+ migrants, 9 migrants	W.Petersen#,J.Berry#
19-29	Newton	70	N.Komar#
Fish Crow:			
2-10,10	E.Middleboro, P'town	1, 2	K.Anderson,B.Sorrie
11,19-29	Plymouth, Newton	1, 9	T.Lloyd-Evans,N.Komar
Black-capped Chickadee:			
thr.	Millis	137 prs. +	B.Cassie
15,19-29	Dover, Newton	39, 113	N.Komar,N.Komar#
Tufted Titmouse:			
thr.,19-29	Millis, Newton	38 prs., 48	B.Cassie,N.Komar#
Red-breasted Nuthatch:			
5	Hamilton	1 on nest	J.Berry
11,23	Carver, E.Middleboro	1, 1	G.Gove,K.Anderson
White-breasted Nuthatch:			
thr.,19-29	Millis, Newton	16 prs.+39, 25	B.Cassie,N.Komar#
Brown Creeper:			
thr.	Millis	12 prs.+ 9	B.Cassie
14,19	Dover, Stoughton	6, 2 ad.+4 yg.	O.Komar#,R.Titus
Carolina Wren:			
thr.,5	Middleboro, Bridgewater	pr. nesting, 1	D.Elkin,K.Holmes
House Wren:			
thr.,19-29	Millis, Newton	39 prs.+50, 11	B.Cassie,N.Komar#
Blue-gray Gnatcatcher:			
thr.	Millis	1 pr. + 1	B.Cassie
5,6	Bridgewater, Easton	3, 1	K.Holmes,R.Titus
Eastern Bluebird:			
2 on,11	Middleboro, Plymouth	1 pr., 2	R.Harju#+v.o.,SSBC
11	N.Falmouth	2	W.Petersen#
Wood Thrush:			
19-29	Newton	19	N.Komar#

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
American Robin:			
19-29	Newton	180	N.Komar#
Gray Catbird:			
19-29	Newton	146	N.Komar#
Northern Mockingbird:			
19-29	Newton	34	N.Komar#
Brown Thrasher:			
19-29	Newton	5	N.Komar#
Cedar Waxwing:			
19-29	Newton	51	N.Komar#
European Starling:			
19-29	Newton	421	N.Komar#

VIREOS THROUGH HOUSE FINCH

As initially noticed during the May migration, reports of Red-eyed Vireo remained quite low. Northern Parulas were reported well into June from four sites, mostly on Cape Cod. Also on the Cape, at Chatham, a lingering Blackpoll Warbler was seen on the twenty-fifth. The Mourning Warbler at Swampscott on June 22 constitutes a surprisingly late record for the coastal part of the state. At least four breeding pairs of Grasshopper Sparrow were discovered in North Falmouth, a nice concentration. L.E.T.

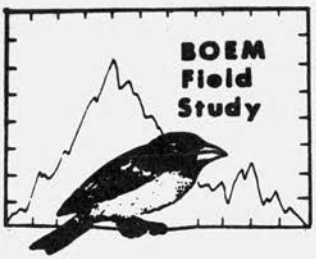
White-eyed Vireo:			
8	S.Dartmouth	1 m.	N.Claflin
Solitary Vireo:			
5,15	Lakeville, Dover	1, 1	B.Sorrie,O.Komar#
Yellow-throated Vireo:			
1,5	Wayland, Dover	nesting, 1	R.Forster,E.Cutler
19	Taunton	1 m.	B.Sorrie
Warbling Vireo:			
2,12	Watertown, N.Andover	3, 2	F.Bouchard,BBC
7, thr.	Bridgewater, Millis	pr., 3 pr.	D.Briggs#,B.Cassie
Red-eyed Vireo:			
thr.,7	Millis, Middleboro	4 pr., 3	B.Cassie,D.Briggs
12,14	Monomoy, Dover	1, 10	W.Petersen#,O.Komar#
Blue-winged Warbler:			
thr.	Millis	3 pr. + 43 singing m.	B.Cassie
4,12	W.Newbury, N.Andover	3, 1	SSBC,BBC
Golden-winged Warbler:			
thr;,8,9	Millis;Sharon,Stoughton	1 f.; 1, 1	B.Cassie;R.Titus
15,18-19	Hamilton, Rowley	1 pr. + 1 yg., 4-5	J.Berry
"Brewster's" Warbler:			
7-9	Hingham	1 m.	J.Richardson#
Tennessee Warbler:			
5	Annisquam	1 m.	H.Wiggin
Nashville Warbler:			
3,11	Mt.A., Plymouth	2, 1 m.	R.Stymeist,SSBC
Northern Parula:			
13,16	Manchester, W.Yarmouth	1 m., 1 m.	B.Sorrie
18,25	Osterville, Mashpee	2, 2	B.Nikula#
Yellow Warbler:			
thr.	Millis	28 pr. + 95 singing m.	B.Cassie
Chestnut-sided Warbler:			
4,12	W.Newbury, N.Andover	1, 4	SSBC,BBC
Magnolia Warbler:			
3,5	Annisquam, Bridgewater	1, 2	H.Wiggin,K.Holmes
5,15	Newton, MNWS	1, 1 f.	N.Komar,J.Smith
Cape May Warbler:			
6	Stoughton	1 m.	R.Titus
Yellow-rumped Warbler:			
11	Wareham	4	G.Gove#
Black-throated Green Warbler:			
thr.,3	Millis, Annisquam	2, 2	B.Cassie,H.Wiggin
5,14	Lakeville, Dover	3 m., 1	B.Sorrie,O.Komar#
Blackburnian Warbler:			
1,2	Newton, Mt.A.	1, 2	N.Komar,F.Bouchard
Pine Warbler:			
thr.	Millis, E.Middleboro	1, 1 m.	B.Cassie,K.Anderson
11,15	Plymouth, Dover	10, 3	C.Floyd#,O.Komar#

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Prairie Warbler:			
thr.	Millis	1 pr. + 15 singing m.	B.Cassie
5,11	Milton, Lexington	3, 1	J.Paputseanos,J.Andrews
Bay-breasted Warbler:			
3	Mt.A.	5	R.Stymeist
Blackpoll Warbler:			
3,25	Mt.A., Chatham	9, 1	R.Stymeist,D.Holt#
Black-and-White Warbler:			
thr.	Millis	3 pr. + 37 singing m.	B.Cassie
2,11	Annisquam, Plymouth	1 m., 2 m.	H.Wiggin,SSBC
American Redstart:			
thr.,1-5	Millis, Cambridge	11, 6 total	B.Cassie,v.o.
2,5	Provincetown, Bridgewater	4, 3	B.Nikula,K.Holmes
Ovenbird:			
thr.	Millis	5 pr. + 97 singing m.	B.Cassie
11,15	Lexington, Dover	1, 18	J.Andrews,O.Komar#
Northern Waterthrush:			
thr.	Millis	16	B.Cassie
Kentucky Warbler:			
from May - 9	Canton	1 m.	R.Titus
Mourning Warbler:			
1,5;2	Newton; Annisquam	2, 1; 1 f.	N.Komar;H.Wiggin
5	Marshfield, Gloucester	1, 1	D.Clapp,C.Leahy
22	Swampscott	1 m.	J.Smith
Common Yellowthroat:			
thr.	Millis	21 pr. + 403 singing m.	B.Cassie
Hooded Warbler:			
1, from May - 1	Nahant,Mt.A.	1, 1	A.Kucara,R.Stymeist
Canada Warbler:			
thr.,5	Millis, Cambridge	2, 1	B.Cassie,P.Stevens
5,9	Annisquam, E. Middleboro	1, 1 m.	H.Wiggin,K.Anderson
Scarlet Tanager:			
thr.	Millis	8 pr. + 53 singing m.	B.Cassie
Northern Cardinal:			
thr.	Millis	14 pr. + 68 singing m.	B.Cassie
Rose-breasted Grosbeak:			
thr.	Millis	5 pr. + 32 singing m.	B.Cassie
Indigo Bunting:			
thr.	Millis	6 pr. + 33 singing m.	B.Cassie
Rufous-sided Towhee:			
thr.	Millis	55 pr. + 58 singing m.	B.Cassie
Chipping Sparrow:			
thr.	Millis	30 pr. + 42 singing m.	B.Cassie
Field Sparrow:			
thr., 29	Millis, Dunstable	10 pr. + 8 singing m., 10	B.Cassie,N.Komar#
Vesper Sparrow:			
11	Plymouth	3	SSBC
Savannah Sparrow:			
11	P.I.	10	BBC
Grasshopper Sparrow:			
thr.,6	N.Falmouth, Wellfleet	4+ pr., 1	B.Nikula#
8,10	S.Dartmouth, Lincoln	1, 1	M.Argue,J.Carter
18,25	Marston's Mills, S.Shore	1, 2	B.Nikula#,W.Petersen
Sharp-tailed Sparrow:			
7,25	E.Orleans, Monomoy	6, 1 yg. in nest	A.Williams,C.Floyd#
Seaside Sparrow:			
6,11	Barnstable, Marion	1, 1 m.	A.Williams,C.Floyd#
13-29	P.I.	4 max.	v.o.
Song Sparrow:			
thr.	Millis	81 pr. + 138 singing m.	B.Cassie
Swamp Sparrow:			
thr.	Millis	3 pr. + 49 singing m.	B.Cassie
White-throated Sparrow:			
thr.	Millis	2 pr.	B.Cassie
Bobolink:			
thr.	Millis	10 pr. + 16 singing m.	B.Cassie
2,5	Concord, Bridgewater	6 m., 6	J.Carter,K.Holmes
Eastern Meadowlark:			
thr.	Millis	3 pr. + 11 singing m.	B.Cassie

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Orchard Oriole:			
2,6	Watertown, Millis	1, 1	F.Bouchard,B.Cassie
11,15	Chatham, Sharon	2, 3(incl. 2 yg.)	W.Petersen#,R.Titus
Northern Oriole:			
thr.	Millis	52 pr. + 36 singing m.	B.Cassie
14,26	Dover, GMNWR	9, 4	O.Komar#,BBC
Purple Finch:			
thr.	Millis	1 pr. + 5 singing m.	B.Cassie
9,13	Lincoln, P.I.	pr. (+ nest), 6	J.Carter,BBC
House Finch:			
thr.	Millis	6 pr. + 9 singing m.	B.Cassie
thr.,12	Annisquam, Monomoy	4 nests, 1 pr.	H.Wiggin#,W.Petersen#

LIST OF ABBREVIATIONS

ad.	adult
alt.	alternate (plumage)
b.	banded
br.	breeding
dk.	dark (phase)
f.	female
fl.	fledge
imm.	immature
ind.	individuals
loc.	locations
lt.	light (phase)
m.	male
max.	maximum
migr.	migrating
ph.	photographed
pl.	plumage
pr.	pair
thr.	throughout
v.o.	various observers
W	winter (2W = second winter)
w/	with
yg.	young
#	additional observers
A.A.	Arnold Arboretum
A.P.	Andrews Point, Rockport
Buzz.	Buzzards (Bay)
C.Cod	Cape Cod
E.P.	Eastern Point, Gloucester
F.E.	First Encounter Beach, Eastham
F.H.	Fort Hill, Eastham
F.M.	Fowl Meadow, Milton
gr.	greater as in Gr.Boston area
I.	Island
M.V.	Martha's Vineyard
Mt.A.	Mt. Auburn Cemetery, Cambridge
Nant.	Nantucket
Newbypt	Newburyport
ONWR	Oxbow National Wildlife Refuge
P.I.	Plum Island
P'town	Provincetown
R.P.	Race Point, Provincetown
S.N.	Sandy Neck, Barnstable
Stellw.	Stellwagen (Bank)
ABC	Allen Bird Club
BBC	Brookline Bird Club
BOEM	Bird Observer of Eastern Massachusetts
CBC	Christmas Bird Count
DFWS	Drumlin Farm Wildlife Sanctuary
FBC	Forbush Bird Club
GBBBC	Greater Boston Breeding Bird Census
GMNWR	Great Meadows National Wildlife Refuge
IRWS	Ipswich River Wildlife Sanctuary
MAS	Massachusetts Audubon Society
MBO	Manomet Bird Observatory
MNWS	Marblehead Neck Wildlife Sanctuary
NBBC	Newburyport Breeding Bird Census
SSBC	South Shore Bird Club
TASL	Take a Second Look (BOEM project)
WBWS	Wellfleet Bay Wildlife Sanctuary
WMWS	Wachusett Meadows Wildlife Sanctuary



SEPTEMBER

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25	26	27	28	29	30	

OCTOBER

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30	31					

SPARROW MIGRATION PROJECT STARTS SEPTEMBER 17

In the fall of 1982, nine observers participated in a Sparrow Migration Watch. They made brief (thirty minutes or more) weekly visits to selected sparrow habitats to count migrant sparrows during September, October, and early November. The project proved to be enjoyable for participants, and it yielded insights into migration dynamics, population abundances, and habitat utilization for the targeted species. A short summary of results will appear in the October issue of BOEM.

This fall the sparrow project will continue between September 17 and November 6. Anyone interested in participating is urged to select a site and contact the compiler for instructions and data forms.

Compiler: Mike Sharpe, 56 Winthrop Shore Drive, Winthrop, MA 02152. Telephone: 846-8257.

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NOVEMBER

			1	2	3	4	5
6	7	8	9	10	11	12

LAKE AND POND WATERFOWL SURVEY

The BOEM Field Studies Committee is planning to continue its fall freshwater duck project, this year on the November 5-6 weekend. The purpose is to investigate the distribution of waterfowl on our local lakes and ponds during the height of migration. Methods will be the same simple set used in previous years: to survey the water bodies of the observer's choice on either or both days and count all loons, grebes, geese, ducks, etc.

Last year, sixteen parties of observers censused 58 sites and reported close to five thousand birds. Observers interested in participating this year should contact the compiler for data forms and instructions and to coordinate the choice of sites so that there is a minimum of duplicated coverage.

Compiler: Lee Taylor, 92 Brooks Ave., Arlington, MA 02174. Telephone: 646-2529 (evenings).

EASTERN MASSACHUSETTS HAWK WATCH

Hawks are flying and, again, birders in eastern Massachusetts have an excellent opportunity to see significant numbers of hawks in good variety. The Eastern Massachusetts Hawk Watch (EMHW), in its eighth year, will attempt to monitor portions of this flight.

The EMHW will maintain a consecutive-day hawkwatch on the suumit of Wachusett Mountain in Princeton from September 3 through October 10, and on all weekends from September 3 through November 13.

Participating in a coordinated watch throughout New England, the EMHW will also cover as many sites as there are volunteers available on four weekends, September 10-11, 17-18, October 1-2 and October 29-30. Volunteers are needed to report hawk activity from any site on any of the eight coordinated weekend dates. Select a site near your home or contact the EMHW coordinator for recommendations as to the best sites requiring coverage.

You don't need to be a hawk identification expert to participate and report. In fact, reporting the magnitude of the hawk flight is the critical essential, but there is no better way to learn hawk identification than in the field.

Volunteers are also needed to cover Wachusett Mountain and to submit a report of the day's flight. Observers are needed for all dates between Setember 5-9, 19-23, 26-30, and October 3-10. Can you contribute one weekday's coverage to the Wachusett watch? We need your help if we are to maintain consecutive day coverage there and maintain the coordinated weekend watch.

If you would like to participate, please contact:
Paul M. Roberts, 254 Arlington Street, Medford, MA 02155
telephone: 617- 483-4263 (after 8 P.M.)

If you would like more information on hawkwatching in eastern Massachusetts, including a complete report on the 1982 hawk flights, please send $1 to help defray the costs of printing and postage. Additionally, a silhouette guide (six pages) to the hawks of the northeast is available for $1.25, including postage, and a sixteen page Beginner's Guide to Hawkwatching is available for $1, including postage. (Checks should be made payable to Paul M. Roberts.)

At a Glance . . .

June 1983 Photo

No one - repeat - NO ONE responded to this page of the June issue. Searching for the reason, I had almost concluded that the April "junco-tanager" picture made everyone wary when friend Janet, BOEM's kindly production manager, directed my attention to the June 1983 issue of Birding, and the explanation was revealed to me, right there on page 100:

> Real birders always have the correct answer to the 'Photo Quiz' - but never send in their answers.

So, hello all you REAL BIRDERS out there who knew immediately that the mother warbler in Hal Harrison's magnificent photo carrying inchworms (?) to its nest on the ground was a Golden-winged Warbler. What else, with bright wing patch, unstreaked breast, gray-shadowed throat, and characteristic face marking? Flip through Peterson's latest field guide to the bottom of page 243, and there she is. Probably, this identification was no great challenge. A friendly adviser at MAS has suggested to me, "Why don't you just stick to shorebirds?" And I may just do that, or better. How about a series of immature gulls?

Anyway, let me assure you good people that there will be a really decent prize awarded to the one who sends in the most correct answers. A real birder you may be, but why deprive yourself of this opportunity?

D.R.A.

At a Glance . . .

Photo by Roger Everett

Can you identify this bird? Identification will be discussed in next issue's *At a Glance*. *Bird Observer* will award a PRIZE to the reader who submits the most correct answers in 1983. Please send your entry on a postcard to Bird Observer, 462 Trapelo Road, Belmont, MA 02178 before the answer is published in the next issue.

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