BIRD OBSERVER

OF EASTERN MASSACHUSETTS

OCTOBER 1982

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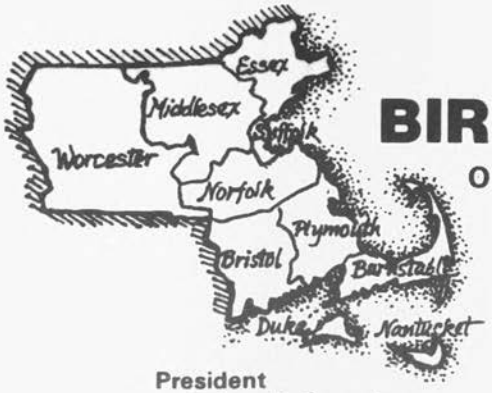

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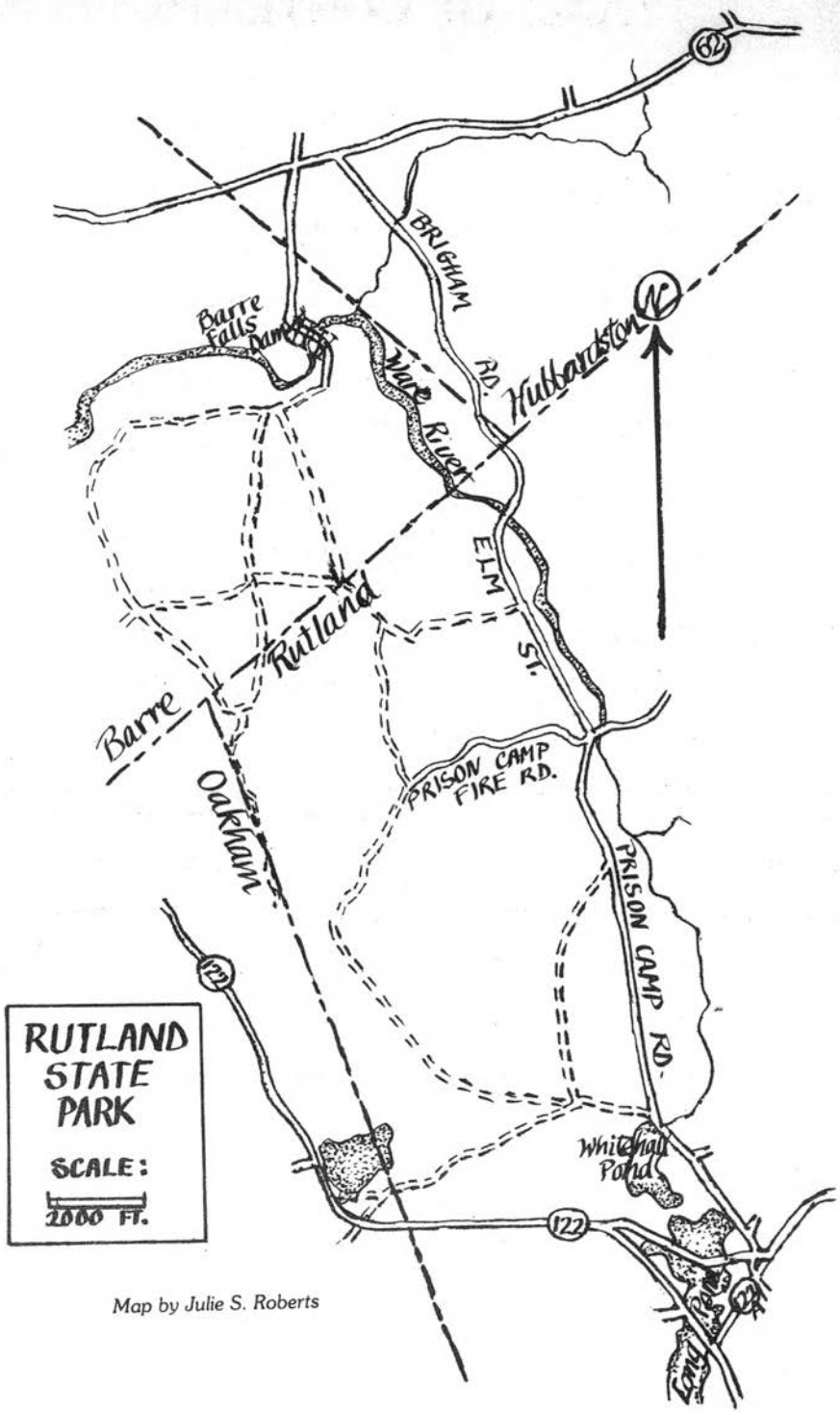
SCREECH OWL SURVEY

The Field Studies Committee of BOEM is conducting a Screech Owl survey from December 4 through 12, 1982. To participate, please contact Nick and Ollie Komar at 332-5509.



Map by Julie S. Roberts

BIRDING RUTLAND STATE PARK: A PRELIMINARY REPORT

by Mark C. Lynch, Worcester

There are many choice birding spots west of Route 128 that are not visited by many birders, except those local to that area. It seems that the further west one goes in the state, the larger the potential birding area becomes, while the population of birders decreases. The west of Route 128 birders are left with an enormous area to cover and too few people to cover every place thoroughly. Although most birders are familiar with such spots as Bolton Flats and Quabbin Reservoir, there are many secondary spots that deserve to be examined. Rutland State Park is just such a place.

Rutland State Park, a large plot of wooded land between Hubbardston and Barre (to the north and west) and Rutland (to the south and east), is owned by the Metropolitan District Commission (MDC) except for small tracts belonging to the U.S. Government. The park's 1400 acres are criss-crossed by numerous dirt roads of varying condition. The forest is mixed coniferous and deciduous with tracts of planted pines. There are several small ponds and streams near roads. It is the kind of deep, deserted wood, especially at night, in which one expects to see all manner of strange things and indeed there are several reports of UFO's from this area! It is a popular recreation area for fishing, hunting, snowmobiling and swimming but also offers definite surprises for the birder.

The best way to bird Rutland State Park is to drive down the dirt roads, stop where it looks good, and proceed a short way on foot. One of the popular routes to follow is the Prison Camp Road. Follow Route 122 west and take a right on 122A. Enter the park proper on your left about 1/4 mile up the road. Take your first right and drive beside Long Pond until the paved road ends at Whitehall Pond. These ponds promise much, but I have only found Canada Goose, Mallard, Black and Wood duck. Occasionally a Great Blue Heron drops into one of the smaller ponds in the interior. The road here curves around this pond that is frequented by picnickers and bathers in the summer, but you want to continue north on Prison Camp Road. This road essentially continues straight through the park until it intersects Route 62. Prison Camp Road changes its name to Elm Street at the junction with Prison Camp Fire Road (the ruins of the prison camp will be visible just past the junction, on the left). If you turn right at this junction you will very soon come to a small bridge crossing a stream: a good birding area when not populated by fishermen. Continuing north, Elm Street becomes Brigham Road at the Barre/Rutland line. When you finally reach the paved surface of Route 62, turn left and take your next left to reach the Barre Falls Flood Control Dam. There are cornfields to check for birds, especially raptors, on

your left; and the Barre Falls area has several trails that can produce rewarding birding. A large colony of Barn Swallows can be found under the bridge at the dam itself.

By all means explore the numerous other roads off the Prison Camp Road but be aware that none of the roads in the park is marked. It's a good idea to take along a compass so you don't go round in circles.

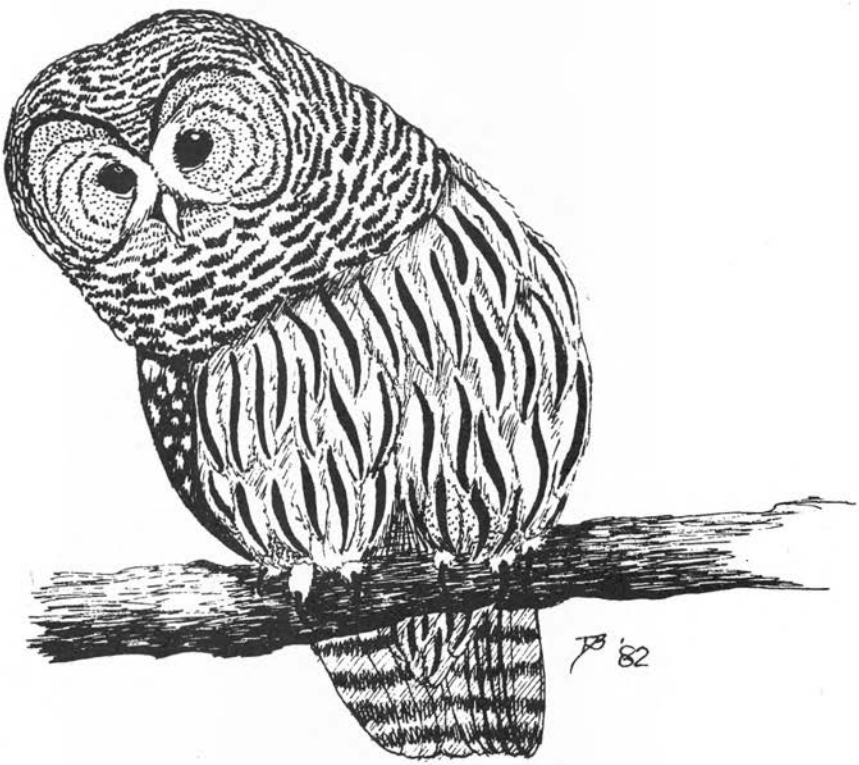
My primary interest in Rutland State Park is nocturnal birding, primarily for owls. Three species are well represented as breeders in the park: the Great Horned Owl (Bubo virginianus), Barred Owl (Strix varia) and Northern Saw-whet Owl (Aegolius acadicus).

I was introduced to the owls of the park when, hearing a mobbing group of nuthatches and chickadees, I found a roosting Barred Owl. Since that time I've led several "Owl Prowls" for classes here, and the Barred Owl is most regular. At the right times of the year it is typical to get from two to four owls on one sweep through the park, and I have gotten as many as seven in one evening. Barred Owls are among the most vocal of owls, and one can easily hear their deep resonant tones by simply driving down the Prison Camp Road a bit, stopping the car, dousing the lights, and waiting outside the car for 10-15 minutes. It is imperative to keep still and very quiet. Barred Owls have a wide variety of hoots and calls, other than the well-known "who-cooks-for-you." There is nothing quite so chilling as to be alone on a dark moonless night on a deserted dirt road in the middle of Rutland State Park and, without warning, hear the piercing scream of the Barred Owl close-by. There are also fascinating "hooting duets" that occur, but because of the observational limitations of nocturnal birding, it is difficult to surmise exactly what is occurring. Sometimes a pair seems to be communicating, hooting in response to one another; and sometimes it seems that two owls are having a heated territorial dispute. An imitation of their call will bring them close at hand but never for very long. Although I have heard Barred Owls throughout the year, including one memorable New Year's Eve, I have had the most luck in mid-fall, though why this is I'm not sure. It seems there are more owls here in October and November than December and January. They may be just as vocal prior to the breeding period (mid-March through April), but unfavorable road conditions usually hamper birding at this time.

The relationship between the Barred Owl and Great Horned Owl is a subject about which more research needs to be done. The Great Horned, though present in the park, is by no means as common or vocally conspicuous as the Barred. I've had the most luck with Great Horned in the southern and eastern portions of the park, but the owls are usually not very close. This would seem to reinforce the belief that Barred Owls

inhabit the deeper, more secluded sections of the forest and the Great Horned, the periphery of the park. I have heard both Barred and Great Horned calling at the same time, in apparent territorial response to each other but this was a singular occurrence.

Most delightful was the discovery of a population of the tiny Northern Saw-whet Owl in the park. Indeed on one night in April, I heard and/or saw at least four individuals and I knew of another's presence in another part of the park. Whether all these birds remained to breed in the park has not been determined. The beginning of April seems to be the best time to hear and see these uncommon owls. I noticed them becoming vocal just after sunset so that I could actually see the birds fly against the still somewhat light sky. Saw-whets like coniferous areas with marshy areas nearby, and Rutland State Park has several choice examples of this habitat. This habitat is also the breeding area for the wood frog, whose "quacking" calls I have heard on the same spots I've looked for Saw-whets. The tooting call of the Saw-whet carries further than you would expect, and it is difficult to find the location of a calling bird. Patience and a



Barred Owl *Illustration by Denise Braunhardt*

strong flashlight are needed. What a difference it is seeing a Saw-whet on its home turf, "active" and calling, from seeing the silent and still birds found in Plum Island's New Pines. The birds become less vocal as the year wears on. I have called a bird in by a voice imitation of its call in the fall but it did not vocally respond. Indeed the only way that I knew this tiny owl flew very close by was that I happened to catch glimpses of it against the night sky. Prison Camp Road through Brigham Road seems to be the most convenient route to follow in the hopes of seeing these owls. It should be noted that on one occasion an imitation of the call of a Saw-whet brought in a silent Barred Owl, probably looking for a meal.

Another nocturnal breeder in the park is the American Woodcock, whose fascinating aerial displays can be seen and heard at many of the scrubby fields throughout the park. I have had my best looks at woodcock on the ground and in the air in Rutland State Park. Other birds are present in the dark night woods, including the usual passerines that can be heard occasionally chirping and thrushes that are often seen on the road in the headlights' glare; and it is not unusual to startle a Ruffed Grouse. This species is present in good numbers in the park. I can recall one night I was almost frightened to death when, while quietly waiting for an owl to call, a Ruffed Grouse exploded through the brush and trees next to me.

Rutland also offers some interesting day birding. Hawks and vultures are well represented, with Red-tailed Hawk and Turkey Vulture (in season) being the most obvious raptors in the park. Broad-winged, Sharp-shinned and Red-shouldered hawks, American Kestrel, and Osprey have all been recorded. I personally have not recorded Northern Goshawk at this location, but have seen it in areas surrounding the park, so I'm sure persistence will reward me with a sighting.

Common summer residents in the park include both cuckoos, Eastern Wood-Pewee, Eastern Phoebe, Wood Thrush, Hermit Thrush, Veery, Cedar Waxwing, Red-eyed Vireo, Ovenbird, Chestnut-sided Warbler, Common Yellowthroat, American Redstart, Northern Oriole, Indigo Bunting, Rose-breasted Grosbeak, Scarlet Tanager, American Goldfinch, Rufous-sided Towhee, and Swamp Sparrow, among others. I have recorded Pileated Woodpecker from the park, but it is a very uncommon and secretive resident. Early mornings or evenings after five p.m. seem the best times to bird the park in the summer, as the trail bikes are fewest at these times.

I have birded Rutland State Park a comparatively few times for spring and fall migrations, but the results are tempting. I have recorded Willow and Yellow-bellied flycatchers, Solitary Vireo, many warblers including Black-and-white, Parula, Blackburnian, Pine and Yellow-rumped, and White-crowned Sparrow. Once while looking for newts on a cloudy spring day, I was treated to the spectacle of over 100 Yellow-rumped War-

blers materializing about the small swamp I was in, seemingly from nowhere, flitting about a while before moving on.

Winter day birding can be bleak and sparse. Red-tailed Hawks, Black-capped Chickadees, Brown Creepers, Golden-crowned Kinglets and both nuthatches prevail. At least a few Red-breasted Nuthatches can be found throughout the year here (sometimes in impressive numbers in the fall) even when they are scarce in the eastern part of the state. I have not been in the park enough in winter to report definitely on winter finches; the few times I have tried, I have been unsuccessful in finding any. Snowmobiles flock in great numbers up and down the roads during winter, and their constant drone may explain why birds seem scarce.

Birding Rutland State Park is still in its infancy; more hours in the field and hopefully more birders will help to complete the birding picture.

NOTE: The condition of the dirt roads can be a problem and should not be attempted by anyone with a low-riding car. Spring mud and winter snow and ice sometimes make the roads hazardous to all but four-wheel drive vehicles.

MARK LYNCH teaches a two-semester course, An Introduction to Birding, in Worcester Adult Education and is also a teacher in the children's program of the Worcester Art Museum, rock director for radio station WICN and a parapsychical investigator. Mark's major interest in birds is the management of critically endangered species.

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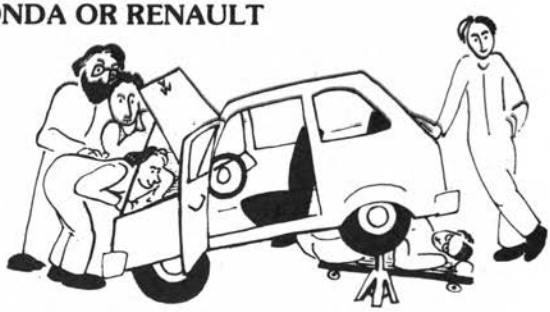
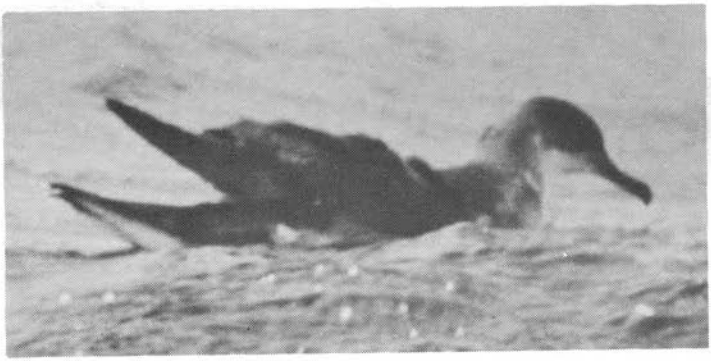


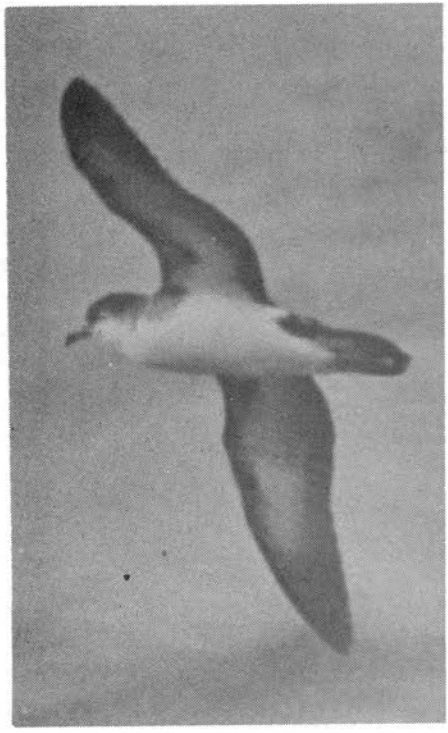


Shearwater
August 1982 pelagic trip

Photo by Alan Brady

Shearwater
August 28, 1982
pelagic trip

Photo by
Alan Brady



Audubon's Shearwater
off Virginia coast, 1979
Photo by Alan Brady

SMALL SHEARWATERS ARE NOT ALWAYS BLACK AND WHITE

- AND NEITHER ARE PHOTOGRAPHS

by Wayne R. Petersen, Whitman

On August 28, 1982, Bird Observer of Eastern Massachusetts sponsored a pelagic bird trip to the waters southwest of Martha's Vineyard and Nantucket Island. The date and relative proximity to waters seasonally warmed by the late summer influence of the Gulf Stream created a potential for observing several species of marine mammals and pelagic birds that would be otherwise unexpected on more traditional Stellwagen Bank pelagic trips. Among the species possibly to be encountered was Audubon's Shearwater (Puffinus lherminieri).

With this in mind over one hundred zealous observers left Plymouth at 4:30 A.M. for a lengthy trip through Buzzards Bay and southward past Cuttyhunk Island to a point approximately thirty-five miles southwest of Martha's Vineyard. By 11:30 A.M., heavy sea conditions and the factor of return travel time made it impossible to continue further toward the edge of the Continental Shelf or to the fifty fathom line, two critical oceanographic features that influence the distribution of warm-water cetaceans and pelagic birds in the region under discussion. A decision was made to "chum" using a concoction comprised of cod livers and fish remains. Within twenty minutes a few gulls, a small group of Wilson's Storm-Petrels (Oceanites oceanicus), and a small dark and white shearwater arrived to feed over the slick. At once, the small shearwater attracted great interest. Initially thought to be a Manx Shearwater (P. puffinus), a closer inspection by many of New England's most respected field ornithologists determined the bird to be Audubon's Shearwater, a species with which a number of observers on board had had previous field experience. Based upon its obviously brownish upperparts, apparently diffuse face pattern, long-tailed appearance, and distinctive behavior, the identification seemed conclusive. Despite the fact that several observers noted rather extensively white undertail coverts with only a narrow dark band showing at the distal end of the ventral tail surface, the characters described above and the fact that the season and location were appropriate for Audubon's Shearwater, all created a consensus that the bird in question was indeed Audubon's Shearwater - the first ever recorded on a pelagic birding trip off the Massachusetts coast.

Alan Brady from Pennsylvania, widely travelled photographer and respected birder, succeeded in getting several excellent black and white pictures which he kindly forwarded to the author upon request. Likewise, Alden Clayton of Concord, an equally respected local observer, was able to secure a respectable colored slide of the bird in question. Examination of Brady's photos (see accompanying pictures) seems to

Shearwater
August 28, 1982
pelagic trip

Photo by
Alden Clayton

Shearwater
August 1982 pelagic trip
Photo by Rick Cech

These two photos by Rick Cech of Connecticut were taken of the bird in question on the August 28 trip and were added as the issue went to press.

Shearwater
August 28, 1982 pelagic trip
Photo by Rick Cech

reveal a shearwater with long and extensively white undertail coverts, a sharp demarcation between the dark cap and the white face, dark cheeks, a relatively heavy bill, and body proportions in the flight photograph that are suggestive of Manx Shearwater - another species familiar to many on the trip, including the author, from prior field observations. In summary, Brady's photographs point to the shearwater's identity as Manx Shearwater, not Audubon's as originally determined. Close scrutiny of Clayton's colored slide of the same bird reveals what appears to be a long, ventrally dark tail against which the bird's feet are readily conspicuous, an extensive white cheek area, and a long-tailed, short-winged appearance that are characteristic of Audubon's Shearwater.

There are object lessons to be gained from these events. The first, and perhaps most germane to the issue at hand, concerns the use of photographic evidence to substantiate and support field observations. Dorothy Snyder, who co-authored the book Birds of Massachusetts (1955) with Ludlow Griscom, in 1956 published an article in the Bulletin of the Massachusetts Audubon Society in which she appropriately pointed out the value of using high quality photographs to document noteworthy Massachusetts state records. In closing her article, she wisely cautions, "It must be realized that for many forms no proofs other than specimens are adequate." In the light of recent advances in field identification techniques and given the level of expertise and sophistication present in many of today's top field experts, this situation is admittedly less true than it was twenty-five years ago. Nonetheless, the fact remains that not all species can be readily differentiated, and, more to the point, not all photos can be used to solve field problems. For instance, the use of photographic proof as a way of routinely establishing distributional records is what sets journals such as American Birds apart from The Auk and The Condor. In the first journal, ready use of quality photographs is considered acceptable evidence for the documentation of unusual field records. In the latter two journals, seldom is anything short of a specimen record deemed acceptable unless the photographs provide unequivocal proof. Needless to say, both have their value and both represent current perspectives in ornithology.

In the case of the shearwater photographed off Martha's Vineyard, we are confronted with both the question of interpretation of photographic evidence and of the inherent difficulties associated with the identification of Manx and Audubon's shearwaters. The fact is that the field identification of small shearwaters is not always a black and white situation. There are frequent allusions in the ornithological literature to the problems involved in identifying small shearwaters at sea. For a discussion of the problem the interested reader should especially consult the works and comments of Gordon (1955), Bailey (1955), Griscom (1955), Palmer (1962), Post (1964), Watson (1966), Leahy (1974), Bull (1974), and Cramp (1977). While the finite characters used

to differentiate Manx from Audubon's shearwaters are well treated in the works here listed, those of Palmer, Post, and Leahy are particularly useful. This paper will not attempt a thorough synthesis of existing distributional and identification information but will merely highlight the most critical considerations involved in identifying small shearwaters, particularly with the thought in mind of enlightening future observers as to the pitfalls to be encountered when dealing with birds in this group. The comments that follow will not deal with the Little Shearwater (P. assimilis) of the eastern Atlantic Ocean, a species whose occurrence in the western North Atlantic Ocean has been recorded fewer than five times.

Perhaps no introductory comment is more appropriate than to quote George Watson (1966), one of the world's leading seabird authorities, who writes, "The three species of small black and white shearwaters are very difficult to identify unless seen together for comparison (a very rare chance)." In essence, the Manx Shearwater is a small black and white species with long wings and a short tail. It is most common over ocean waters with cold surface temperatures. To be more precise, the race P. p. puffinus is typical of the Boreal Zone of Brown et al. (1975), a region characterized by August surface temperatures between 10° and 19° centigrade. While apparently regular in New England waters from March to November, there is also a scattering of winter sight records as well. The species was first recorded in the northern Chesapeake Bight off Maryland in 1974 (Rowlett 1980), and there are specimen records from Florida and Texas (Clapp et al. 1982). In 1973 a Manx Shearwater's nest was found on Penikese Island, establishing a first North American breeding record (Bierregaard et al. 1975). The reader is referred to the paper by Post (1967) for a full discussion of the distribution of all the small shearwaters in the western Atlantic Ocean.

Audubon's Shearwater is smaller and usually, though not always, browner than the Manx Shearwater, and it has short wings and a long tail. It is strongly associated with warm surface water and is typical of the Cool Subtropical Zone (Brown et al. 1975), a region with August surface temperatures ranging between 19° and 23° centigrade. Audubon's Shearwater was first recorded in Canada in 1975 (Godfrey 1976); however, its northern distribution is apparently regular only to the outer Continental Shelf area of New England (Powers et al. 1982) or occasionally closer to shore when late summer Gulf Stream eddies raise inshore surface temperatures (Brown 1977 and Davis 1978). There are only three confirmed records for Audubon's Shearwater in our inshore area, all specimens from the Martha's Vineyard - Woods Hole region (Griscom 1955 and Keith 1968).

The most critical characters upon which an observer should concentrate when seeing a small shearwater at sea are undertail pattern, face pattern, shape, and behavior. Manx

Shearwaters in the western North Atlantic are of the race puffinus, a population that exhibits long, extensively white undertail coverts. When the short, black tail is closed, the effect produced is that the undertail is white with a narrow black border. At a distance and on birds sitting in the water, the undertail often looks completely white. CAVEAT: In flying birds that are banking into the wind with their tails fanned, the outer portion of the undertail appears extensively black but always retains the central intrusion of white created by the undertail coverts. The reader should see Figure 2 in Post (1964).

In contrast, the Audubon's Shearwater has a longer tail and shorter, dark undertail coverts. These two features create the impression of a completely dark undertail with little or no white visible. In some individuals the dusky coloration on the undertail coverts may actually extend forward between the legs. In either case, the total absence of white under the tail, combined with the extra tail length compared to the Manx Shearwater, serve to qive the undertail area more the look, minus the dusky belly patch, shown by the Greater Shearwater (P. gravis) than that of the Manx Shearwater. The accompanying photograph of a bird off the Virginia coast demonstrates this effect very clearly.

The face pattern of shearwaters can be difficult to observe clearly under many circumstances; however, there are some important differences if they can be seen. Manx Shearwaters have black caps set off from the white of the face by a line running backwards from the gape of the bill, below the eye and including the cheek area. Audubon's Shearwater has this line of demarcation beginning slightly above the bill gape and extending backwards at an angle that runs through the eye and above the cheek area. These differences have a tendency to make Audubon's Shearwater appear whiter faced and to have a less contrasting cap and face demarcation. CAVEAT: Manx Shearwaters usually exhibit a pronounced, mottled white triangle in the ear region (see Harper and Kinsky 1978) which should not be construed to be the white cheek area described above for Audubon's Shearwater.

The shape and behavior of Manx and Audubon's Shearwaters are sufficiently different to be of use in separating the two species under field conditions. In fact, under many circumstances, these may be the singularly most useful identification criteria. The flight of the two species is a function of the proportional wing and tail differences described above. In general, the long-winged Manx Shearwater flies much like a miniature Greater Shearwater. While its wingbeats are faster than the Greater Shearwater's, it nonetheless shows the same flutter and glide pattern that is typical of all the diving shearwaters (including Audubon's). Lockley (1961) describes it by saying, "Once on the wing the shearwater is all grace as it glides, careening from side to side, now skimming the water for fifty yards with one wing tip, then

rising to about ten feet above the surface, beating its wings once or twice or thrice to gather a fresh momentum, then skimming the sea for a similar distance with the other wing down." When flushed from the water by a boat, the Manx Shearwater usually gets up rather directly, circles once or twice, and then moves off. Only birds on a flat sea or individuals that have recently fed are likely to allow a prolonged examination from a boat. Under such flat sea conditions, the flight of this species is often startlingly fluttery, suggesting certain of the flight attributes more typical of Audubon's Shearwater.

By contrast, the short-winged Audubon's Shearwater is seemingly much less agile on the wing than the Manx. Often encountered sitting on the water, Audubon's Shearwater will frequently raise its wings without taking off as if in hesitation as to what to do, or else it will patter along the surface with wings extended horizontally, occasionally fluttering as though trying to get airborne. These feeble efforts often result in a terminal plop into the water after a flutter/run of several hundred feet. Once on the wing, Audubon's flutters with rapid wing beats broken by wheeling maneuvers in tight circles. The overall effect is one of greater effort than is shown by the Manx Shearwater.

A final caveat applies to alleged differences in dorsal coloration between Manx and Audubon's Shearwaters. While it is true that Audubon's is a rich dark brown above, a feature that can be observed in good light (contra Pough 1956), it is also true that feather wear and bleaching by the sun can often lend the normally jet black dorsal plumage of the Manx Shearwater a distinct and uniform brownish tone. This brownish coloration can be sufficiently obvious to cast grave doubt on the use of brownish color as a sole character on which to base the identification of Audubon's Shearwater. The author has at least two Ektachrome slides in his possession that vividly depict Manx Shearwaters with brown upperparts; however, considering the cautionary notes above, the possibility of a photographic aberration cannot be ruled out.

Where does this leave the photographically documented black and white shearwater that was observed off Martha's Vineyard? Obviously, the photographic confirmation that is so frequently lacking in such situations is in this case at hand for all to examine. Lacking on film, however, are the behavioral manifestations of the bird - aspects very crucial to the identification of birds of this type. Thus, we are left with the question of whether the collective judgment of the many observers involved could have been sufficiently impaired to make a significant error in field identification. Or, is this a case where the photographic evidence may in fact muddy the waters leading to a correct interpretation of all the facts? The readers are left to draw their own conclusions.

In summary, based upon information presented in this paper,

observers are reminded of the importance of some of Leahy's (1974) concerns that (1) conditions at sea are often not the most favorable for noting fine distinctions, (2) that experience with only one of the species is a great handicap in dealing with the problem, and (3) that photographs are particularly valuable, along with on-the-spot notes, in evaluating records of small shearwaters. While the issue of photographs may in fact seem problematical in this instance, the existence of pictures for others to evaluate, along with careful notes, at least provides a forum for intellectual decision-making. Finally, based upon the many data sources consulted by the author, along with twenty-five years of personal experience, it is suggested that all small black and white shearwaters observed off the southern Massachusetts coast be identified with extreme caution and that most such birds seen within fifty miles of eastern Massachusetts waters are probably Manx Shearwaters unless conclusive contrary evidence can be presented.

[Editor's comment: When asked the direct question, Which of the two shearwaters did we see on the BOEM pelagic trip on August 28?, Wayne Petersen stated that he felt that the bird he observed off Martha's Vineyard was an Audubon's Shearwater despite the somewhat conflicting appearance of the photos.]

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WAYNE R. PETERSEN, resident of Whitman, teaches life science at Hanover Junior High School. He is particularly interested in waterbirds, with special emphasis on shorebirds. In addition, he has taught courses in bird biology and identification, has lectured extensively, and has published a number of papers on various aspects of birdlife.

GEORGES BANK AND MARINE BIRDS

by Kevin Powers, Manomet Bird Observatory

In 1976 the Manomet Bird Observatory (MBO) initiated a distribution and abundance survey of marine birds on Georges Bank and its adjacent waters. The survey was justified because of proposed petroleum development of the Georges Bank area and its probable impact on the bird resource. We knew very little about the seasonal and spatial distributions of marine birds off the New England coast, and this survey was to provide a baseline from which we could measure a change, natural or unnatural.

Georges Bank is a submarine bank which lies east and southeast of Massachusetts (Fig. 1). The bank is generally defined by the 100m isobath, a depth which also corresponds to dramatic bathymetric and oceanographic changes of its surroundings. Georges Bank provides fishing grounds of international economic importance, unnavigable shoals of historical importance, and unique marine habitats of biological importance.

The biological uniqueness of Georges Bank is due to its physical configuration. Georges Bank is surrounded on three sides by deeper waters (>150m). These deeper waters, which are below seasonal thermoclines and mixing effects from storms, accumulate nutrients (e.g. nitrates-NO_3). Due to surface circulation of the Gulf of Maine to its north and Gulf Stream influenced slope waters to its south, there is a net clockwise circulation pattern on Georges Bank. This gyre draws the surrounding deep nutrient rich waters onto the bank. Therefore, since Georges Bank is shallow enough to allow light to penetrate to the bottom (the photic zone) and receives a constant supply of nutrients which are mixed vertically by tides and wind, the rate of photosynthesis (growth of phytoplankton) is exceedingly large for such a relatively small parcel of ocean. Phytoplankton is the basis of a marine food web and upon which all other components of the ecosystem either directly or indirectly support themselves.

A survey of the birdlife of Georges Bank was challenging for several reasons: (1) Georges Bank may be a mere pinhead in the North Atlantic basin but it encompasses approximately 10,000 mi^2; an area about the size of Massachusetts, Connecticut and Rhode Island combined. (2) The only way to survey the bank is by ocean-going vessels. And (3) observers are needed who can spend several weeks at-a-time at sea. To overcome these sampling problems large sums of money are needed, but such funds cannot be justified to granting agencies on the basis of the bird resource alone. Therefore, we improvised a ships-of-opportunity program(SOP) which allowed trained volunteer and staff personnel to participate on a "not to interfere with general operations" basis on oceanographic research and

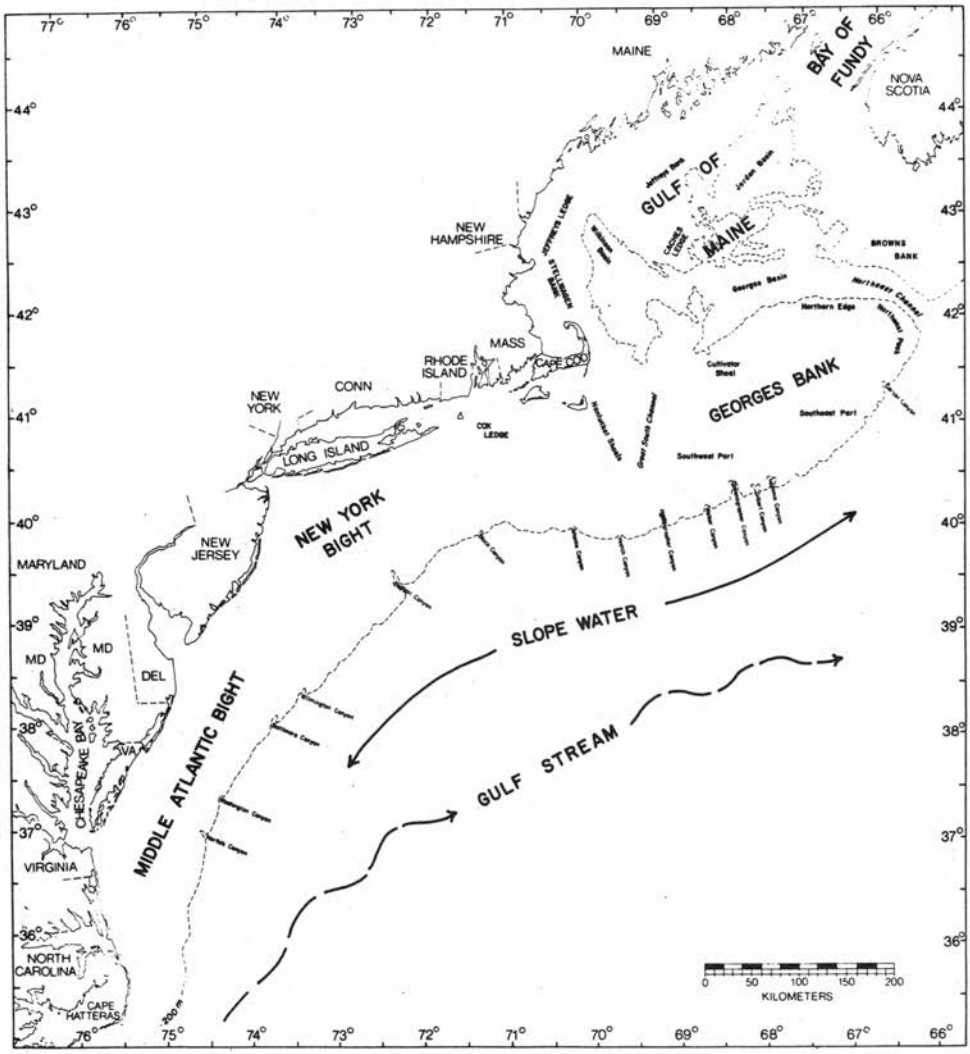

Figure 1. Location of Georges Bank

Coast Guard law enforcement cruises. SOP reduced financial and logistical problems enough to justify funding from the U.S. Fish and Wildlife Service (Office of Biological Services) in 1976-77, the U.S. Department of Energy (Marine Research Program) since 1978, and the National Marine Fisheries Service (Northeast Fisheries Center) since 1980. From 1976-1980, we have participated in 126 cruises, and 60 were made by volunteer observers.

The scope of the research has been a system study designed to investigate the general structure and function of the marine bird community. Goals within the study were: (1) to describe the species composition, distribution and abundance of the marine bird community; (2) to describe seasonal and regional patterns of species dominance; (3) to delineate areas of species and community importance; and (4) to identify physical oceanographic factors, fishing activities, and preferred prey resources that influence pelagic distributions of marine birds. Our findings will hopefully characterize the bird community in several ways, so that natural and man-caused environmental perturbations can be separated and evaluated in context of the birds.

Our most important finding has been that 10 species dominate the numbers, biomass, and energy flow of the bird community. Northern Fulmar, Cory's Shearwater, Greater Shearwater, Sooty Shearwater, Wilson's Storm-Petrel, Gannet, Red Phalarope, Great Black-backed Gull, Herring Gull, and Black-legged Kittiwake comprise 98 percent of the numbers and biomass annually. This means that by monitoring these 10 species, we can evaluate significant changes in bird populations. In addition to these common species, we have found 28 uncommon species and 18 rare species (includes waterfowl). Although most of these species were found on Georges Bank, the uncommon and rare birds pertain to waters from Cape Hatteras to the Bay of Fundy (our study area since 1979).

Distributions of birds are best described by maps. Figure 2 is an example distribution map of Northern Fulmars in winter. I have completed seasonal distribution maps for all species and a major manuscript summarizing much of the data is now being peer-reviewed. It will be an atlas "of sorts" but besides individual species accounts there will be a discussion of bird distribution and abundance in relation to seasonal changes in oceanographic conditions. It will be published in 1983 by the National Marine Fisheries Service as a special scientific report and it will include more than 110 figures.

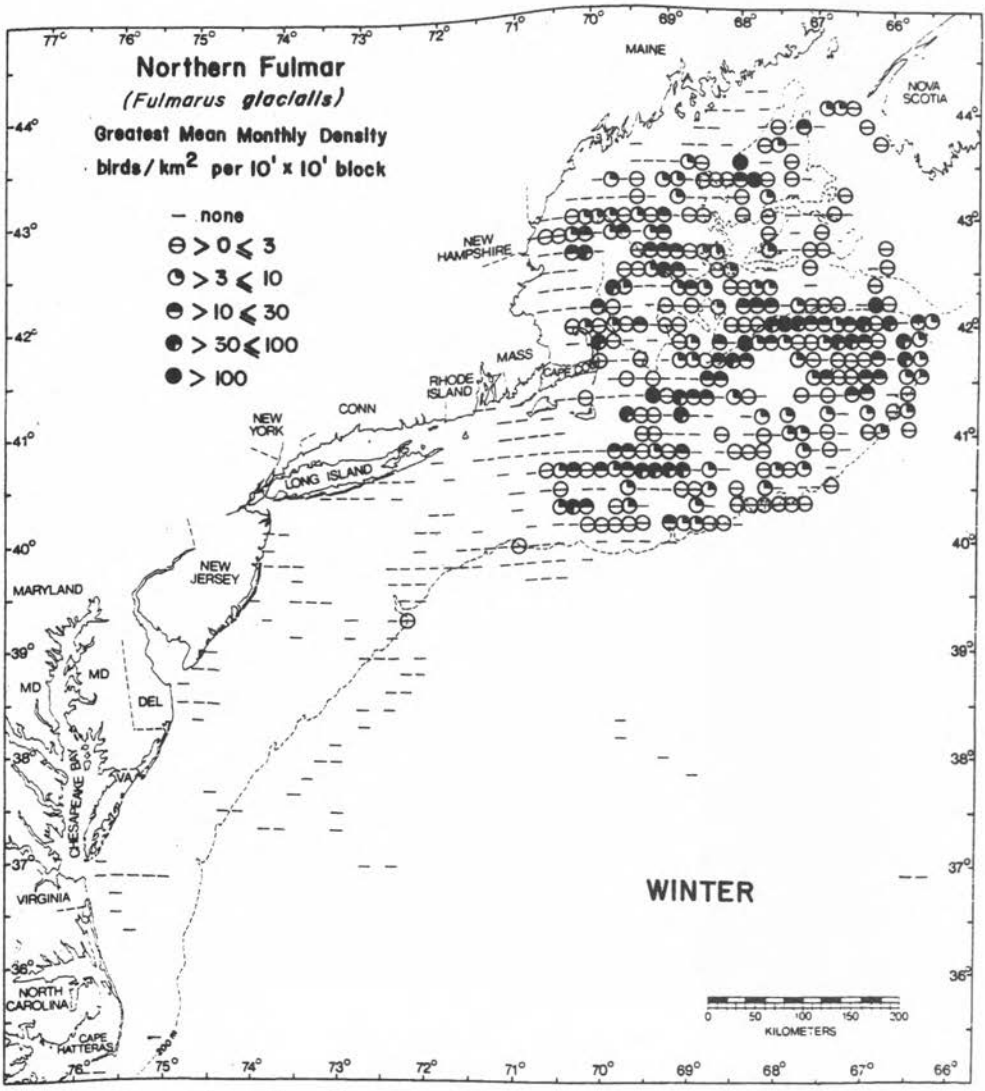

Figure 2. Distribution Map of Northern Fulmar in Winter

Seabirds spend more than half their lives at sea away from breeding colonies, where nesting space and predation are not significant regulators on population size. The distribution and availability of prey are probably the crucial determinants of pelagic distributions of marine birds. We have identified two important features in the Georges Bank area that influence and concentrate birds, fronts and fishing activities.

Fronts are narrow bands of water marked by sharp differences in temperature and salinity. Frontal areas directly or indirectly concentrate zooplankton, squid, and fishes. A front on the southern edge of Georges Bank at the boundary of cool shelf water and warm slope water appears to influence Red Phalarope spring migration in April and May, where flocks from 100's - 1,000's are recorded. A second front caused by tidal upwelling and surface currents exists from Nantucket Shoals east across the northern edge of Georges Bank. We find fulmars, Greater Shearwaters, Sooty Shearwaters, Wilson's Storm-Petrels and kittiwakes in greatest abundance in this frontal region.

We hypothesize that preferred prey is available in greater concentrations at or near the surface in the frontal areas. The birds can therefore forage more efficiently in these areas where food is concentrated. However, several important fishing grounds also exist near these fronts and we must separate the attraction from offal from naturally available food.

In summary, Georges Bank is an important feeding area for marine birds. I have identified the scope of the marine bird research at MBO and some of the significant findings to date. A major manuscript summarizing much of the research is in preparation, while new information is being collected and analyzed.

KEVIN POWERS graduated from the University of Connecticut with a BA in biology and earned his MS in wildlife biology at Louisiana State University. Following a year working for the U.S. Fish and Wildlife Service in Anchorage, assessing marine bird populations at their breeding sites, he joined the Manomet Bird Observatory staff in 1977, where he is the staff scientist supervising MBO's research in marine birds and mammals.

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BOOK REVIEW

The Birdwatcher's Companion: An Encyclopedic Handbook of North American Birdlife. Christopher Leahy. Illustrated by Gordon Morrison. 1982. Hill and Wang, New York. 877 pages. Publication date: November 29, 1982.

Here is a book where you can find nearly everything you want to know about birds, birdwatching, and birders in one compact, delightfully written, and aptly titled volume that is truly a portable "handbook," and every person concerned with birds, at any level of expertise, will want to own it and to have the book available on the most convenient shelf.

"The inspiration for the Companion is rooted in two desires," Leahy explains in his introduction.

> . . . One is the practical wish to own a single reference book that I could hold in one hand but that would tell me, for example: whether birds have a well-developed sense of taste; what "agonistic" means; what color a Dipper's eggs are; what "pomarine" means; how to pronounce "parula"; who Bendire was; how many species of woodpeckers there are in the world; what kind of bird a "hagdon" is; what special birds I might hope to see in the Pribilof Islands; how to measure a bird; when to visit the Florida Keys in order to be sure of finding a Black-whiskered Vireo; whether or not I should subscribe to The Condor; how to cook a scoter...and other such information, from the critical to the trivial. The other worthy ideal involves my desire for readable, non-technical (yet pithy and accurate) accounts of the basic elements of birdlife - accounts that can be read for pleasure as well as information . . . or simply for the fun of discovering some of the more bizarre peripheries of the bird world.

The author's mission has been admirably accomplished! Leahy has managed to collect, to organize, and to present a wealth of fascinating information in lively prose that is erudite, literate, witty, and, for this reviewer, readable to the point of addiction. The book reveals a truly creative mind at work.

Roger Pasquier points out in the very laudatory preface that the "Companion is useful to readers of every level." In addition to all that one expects to find in such a book (accounts of bird families and species, bird anatomy and physiology, avian ethology and evolution, etc.), there is much that is unexpected and this enhances and expands its general appeal. The backyard birdwatcher will be drawn to these topics: Birdhouse, Care of Distressed Birds, Food/Feeding, Conservation, Man-made Threats, Photography, Smoke/Fire, and Song. For the novice and the casual birder, the entries on Optical Equipment, Etiquette, Big Day, Checklist,

Christmas Count, Collecting, and Rare Bird Alert should be very enlightening. And what Hard Core birder will be able to resist that entry as well as those on Birdmanship, Good Call/Bad Call, Nouns of Assemblage, and Verification of Records? The entry headings are printed in good strong CAPS that leap provocatively to the eye so that leafing through the pages, I readily forgot what I had started to look up. A few headings that led me to wandering were Comfort Movements, Bird Skin (preparation described), Drunkenness, Edibility, Autolycism, Leucism, Moon Watching, Human Culture and Imagination (-Birds In), Play, Hinckley Ohio, Imping, Jizz, Madera Canyon, Topotype, and Zugunruhe.

The section, "How to Use This Book," provides a fine summary of the Companion's organization, contents, and features and includes several substantial lists of subject headings to enable the user to find material that might otherwise be overlooked in an alphabetical format. The list of unusual headings and the list of broad subjects that are presented as longer essays seemed especially helpful. The essays that I read all proved to be comprehensive, comprehensible, not excessively long, and well marked with conspicuous subheadings. Thus the author leads the reader easily to the information desired without cramming the book with redundant entries. The cross-referencing is well done and is fruitful without being tedious. No space is wasted in this book.

The last section of the book contains three valuable appendices and a very extensive bibliography usefully arranged by subject. Appendix I lists the common and scientific names of all regularly occurring North American birds arranged in phylogenetic sequence, annotated to distinguish visitors from breeders and to compare the numbers of families, genera, and species in North America with the numbers worldwide. Appendix II is a tabular list of vagrant species that shows where they are native, where they have visited this continent, and the basis of the record. Appendix III provides a temporal guide to bird finding by migration, by locality ("hot spots"), and by species (specialties).

The volume is beautifully illustrated by Gordon Morrison whose work in Newcomb's Wildflower Guide has been widely praised. Ninety-one species are depicted in six color plates and twenty-five black and white figures. The plates are a combination of line art and subtle coloration that creates an accurate, clean appearing, and aesthetically satisfying representation, and the artist's work has been well preserved in the printing process. The book jacket, an extra plate in which fourteen bird species (and one insect) are positioned on a silhouette of North America, is a lesson in visual instruction - how good art enhances learning. All of the art work has been meticulously planned to illustrate specific entries (e.g., Display, Ecological Niches, Mobbing, Types of Nests) as well as accurately portraying bird species. Only the closest cooperation between author and artist could have

produced such a felicitous, even synergistic, result.

Chris Leahy, a staff biologist of Massachusetts Audubon Society for which he has led birding tours throughout the world (most recently to Siberia and Mongolia), is described by John Henry Dick in Other Edens (Devin-Adair, 1979) as "one of the sharpest birders I have ever met. His experienced eyes and keen hearing could pick up a motionless trogon, a skulking wren in the darkest recesses of the forest, or quickly identify the shrill squeak of a hummingbird." Despite extensive touring, he remains an enthusiastic resident of the North Shore where he "wasted his youth watching birds, collecting dragonflies, and otherwise gratifying his senses" (Sanctuary, January 1982). He is also an expert photographer and, as this book amply attests, an accomplished writer.

If you have already invested in Terres' The Audubon Society Encyclopedia of North American Birds, my advice to you is to leave that volume displayed on the coffee table and put Birdwatcher's Companion in the car or on the nightstand. Read and enjoy! Dorothy R. Arvidson

A FIELD GUIDE TO THE BIRDS COLORING BOOK by Roger Tory Peterson, Peter Alden, and John Sill depicting 262 North American species is a delightful volume, chockfull of bird silhouettes that make one's fingers yearn for colored pencils. Because the bird outlines are reasonably sized and carefully arranged, 320 drawings are included in just 64 pages. All of the species have been printed in color on the four and a half pages of cover space (the back cover folds out) by reducing artist John Sill's beautifully drawn birds to miniatures. Congratulations to the authors and to Houghton Mifflin, the publisher, for devising such a handsome, yet inexpensive, educational book. Peter Alden's clearly written text contains condensed information about bird families and bird identification and about color, habits, and habitat that fixes the birds in mind and, combined with the coloring activity, provides a useful learning technique to sharpen the awareness of birdwatchers of any age. What better way to remember the chestnut patch on the shoulder of the Dickcissel than to put it there yourself as you scan a few words about its field marks, habitat, song, and distribution? AND, this book is not solely for children! Recently I saw it in use in a Nantucket cottage where three respected birders whose combined years of experience amount to well over a century were happily filling in the outlines with 48 rainbow-hued pencils. Let us hope that the well qualified authors will produce additional volumes to cover other parts of the world. Coloring books have a widespread appeal that must extend to Mexico City and Rio de Janeiro as well as Boston or St.Louis and could very well serve the cause of conservation by offering young people anywhere a pleasant and easy way to learn about the natural world. D.R.A.

Christmas Gift Specials

- The new Roger T. Peterson/Peter Alden/John Sill *A Field Guide to the Birds* ***Adult*** *Coloring Book* Now on sale for $2.75 (compare to $3.95 retail) plus $.15 tax plus $.75 postage
- The new Roger T. Peterson/Frances Tenenbaum *Field Guide to Wildflowers* ***Adult*** *Coloring Book* Now on sale for $2.75 (compare to $3.95 retail) plus $.15 tax plus $.75 postage
- Roger T. Peterson *Field Guide to the Birds*, eastern edition, hard-cover, for $10.50 plus $.53 tax plus $1.25 postage
- Roger T. Peterson *Field Guide to Western Birds*, paperback, for $2.00 plus $.10 tax plus $1.00 postage
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COLOR-MARKED COMMON TERNS

The Canadian Wildlife Service, Ontario Region, is continuing its program of color-marking Common Terns at two colonies in the lower Great Lakes to determine their post-breeding dispersal, migration routes and winter range.

In 1981 adults were marked with orange wing-tags and chicks with pink tags. Many of the adult tagged birds returned to their colonies in 1982 still carrying their tags. The tagged birds appeared fit and nested normally. Most tags were still clearly legible and showed little wear.

In 1982 bright blue wing tags (with black lettering) were put on adult Common Terns and black tags (with yellow lettering) on chicks just prior to fledging. Tags were put on both wings of all birds. All tags have combinations of letters and numbers (the two tags on any bird have the same combination). When you observe a tagged tern would you please report the date, location, color of the tag, and, if possible, the number/letter combination to: Banding Office, Canadian Wildlife Service, Headquarters, Ottawa, Ontario, Canada, K1A 0E7. All reports will be acknowledged.

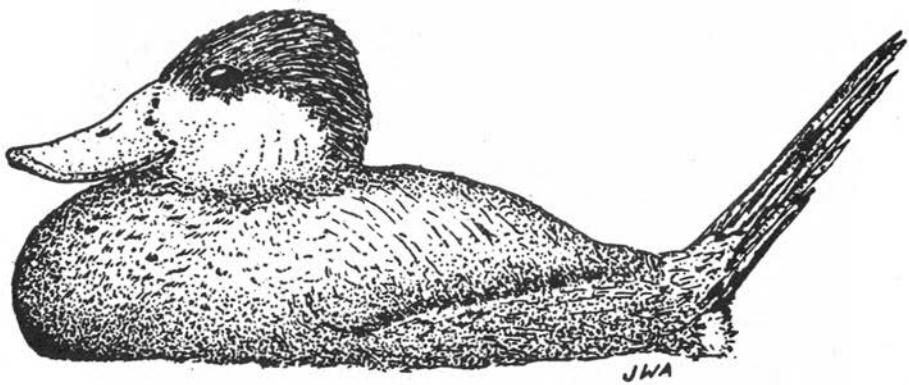
A LAKE AND POND WATERFOWL CENSUS

by John W. Andrews, Lexington

With the encouragement of Bird Observer magazine, a census of freshwater waterfowl was conducted in early November 1981. The purpose of this census was to determine the manner in which the various species of waterfowl were using lakes and ponds of different ecological character.

This project has acquired special significance with recognition of the growing threat of acid rain to freshwater ecosystems. Acid rain caused by emissions from smokestacks in the Middle West penetrates deep into wilderness regions of Canada and the northern United States. Waterfowl, especially the fish-eating species, may be facing a critical threat to their habitat. Here in Massachusetts, the Division of Fisheries and Wildlife has estimated that 38.5 percent of the state's ponds are endangered by acid rain. More than ten percent of these are classified as "critical," which means that their ability to neutralize acid precipitation has been nearly exhausted. Two lakes on the critical list - Lake Assawompsett and Billington Sea - were covered in this census.

For this census, nineteen observers visited 58 ponds and lakes in eastern Massachusetts within the period of November 6-10 and recorded the numbers of all loons, grebes, cormorants, ducks, geese, and coots using these areas. Only birds observed on the water or shores were counted; birds merely flying over the site were not recorded. A total of 5126 waterfowl of thirty different species were recorded. Some interesting statistics for the twenty sites having the largest counts are presented in Table 1. Counts by species are presented in Table 2. In order to fully achieve the study



Ruddy Duck *Illustration by John W. Andrews*

Table 1. Twenty Sites with Highest Total Waterfowl Counts.

Site	No. of Species	Total Count	Percentage of Divers	Most Abundant Species and Its Percentage of the Total	
Little Quittacus, Lakeville	10	574	99.1	Ring-necked Duck	52.3
Great Meadows NWR, Concord	9	462	0.6	Canada Goose	56.5
Breeds Pond, Lynn	4	380	5.3	Black Duck	92.1
Crystal Lake, Wakefield	5	344	0.0	Green-winged Teal	43.6
Pocksha Pond, Lakeville	10	284	98.9	Scaup (sp.)	70.4
Nagog Pond, Acton	5	279	30.8	Canada Goose	65.2
Arlington Reservoir, Arlington	8	245	12.7	Canada Goose	45.3
Flax Pond, Lynn	4	241	4.1	Mallard	53.9
Lake Quannapowit, Wakefield	3	198	0.0	Canada Goose	93.4
Fresh Pond, Cambridge	13	169	95.9	Canvasback	65.1
Big Springs Pond, S. Peabody	5	156	0.0	Mallard	38.5
Lake Assawompsett, Lakeville	9	147	95.9	Scaup (sp.)	44.2
Duck Feeding Pond, Newton	2	125	0.0	Mallard	99.2
Cambridge Reservoir, Waltham	7	110	95.5	Common Merganser	49.1
NN, Duxbury	5	96	1.0	Canada Goose	49.0
Hardy Pond, Waltham	2	84	95.2	Ruddy Duck	95.2
Winter Pond, Winchester	3	82	30.4	Canada Goose	54.9
Leverett Pond, Brookline	2	80	0.0	Mallard	53.8
Horn Pond, Woburn	9	75	21.3	Mallard	53.3
South Watuppa, Fall River	2	68	100.0	Ruddy Duck	98.5

Note: The category "divers" comprises mergansers, Ruddy Ducks, grebes, cormorants, loons, coots, scoters, and all ducks of the genus Aytha.

Table 2. Species Counts.

Species	Total Count	Number of Sites	Maximum Count and Location
Canada Goose	1099	13	261 Great Meadows NWR, Concord
Mallard	930	42	130 Flax Pond, Lynn
Black Duck	713	30	350 Breeds Pond, Lynn
Ruddy Duck	461	13	200 Little Quittacus, Lakeville
Ring-necked Duck	427	8	300 Little Quittacus, Lakeville
Scaup (sp.)	322	6	200 Pocksha Pond, Lakeville
Bufflehead	205	13	65 Pocksha Pond, Lakeville
Green-winged Teal	183	5	150 Crystal Lake, Wakefield
American Wigeon	179	11	87 Great Meadows NWR, Concord
American Coot	152	8	78 Great Pond, Braintree
Canvasback	146	6	110 Fresh Pond, Cambridge
Common Merganser	90	7	54 Cambridge Reservoir, Waltham
Hooded Merganser	61	6	25 Winter Pond, Winchester
Common Goldeneye	31	6	8 Nagog Pond, Acton
Pied-billed Grebe	28	9	10 Little Quittacus, Lakeville
Wood Duck	21	6	10 Big Springs Pond, South Peabody
Mute Swan	15	1	15 Billington Sea, Plymouth
Pintail	12	3	9 Great Meadows NWR, Concord
Northern Shoveler	12	1	12 Great Meadows NWR, Concord
Lesser Scaup	7	2	5 Nagog Pond, Acton
Horned Grebe	6	2	3 Great Quittacus, 3 Lake Assawompsett
Gadwall	5	2	4 Niles Pond, Gloucester
Common Loon	5	4	2 Lake Assawompsett, Lakeville
Double-cr. Cormorant	3	3	1 at 3 sites
Redhead	3	3	2 Fresh Pond, Cambridge
Blue-winged Teal	3	1	3 Arlington Reservoir, Arlington
Oldsquaw	2	1	2 Pocksha Pond, Lakeville
Red-breasted Merganser	2	1	2 Niles Pond, Gloucester
White-winged Scoter	1	1	1 Pocksha Pond, Lakeville
Great Cormorant(imm.)	1	1	1 Broken Stone Quarry, Weston
Goose Hybrid (Canada/White-fronted?)	1	1	1 Lake Quannapowit, Wakefield

objectives, censusing of a wider variety of sites will be necessary, and further study of the critical physical and ecological parameters for the individual bodies of water must be pursued. Efforts will continue over the next few years. Inspection and analysis of the 1981 census data, however, yielded the following observations and questions as to how species distributions vary:

1. Populations at most sites were heavily weighted toward either diving or dabbling waterfowl. Of the twenty most populated sites, fifteen had a ratio of greater than 20:1. Question: Why aren't there more sites with balanced populations?

2. There was a tendency for a single species to account for a large fraction of the total population at a site. In Table 1, the most abundant species accounts for more than 40 percent of the total in nineteen cases, more than 50 percent in fourteen cases, and more than 90 percent in five cases.

3. For many species, the site with the maximum count for that species had severalfold greater numbers of the species than the site with the second highest count. For example, Fresh Pond had 110 Canvasbacks while the runner-up for this species had only fifteen. Question: Is this due to flocking instinct, or is it due to ecological characteristics of the site?

The author would like to thank all observers for their participation, especially Bob Stymeist and Ollie Komar for helping recruit observers. The complete list of observers follows: John Andrews, Dorothy Arvidson, Thomas Athearn, George Gove, Bruce Hallet, Richard Heil, Janet Heywood, Craig Jackson, Oliver Komar, John Hines, Al Levine, John Loring, Edmund Newton, Rosamond Parks, Wayne Petersen, Martha Reinstein, Robert Stymeist, Lee Taylor, Richard Walton.

JOHN W. ANDREWS, a Lexington resident for three years, is president of Citizens for Lexington Conservation and an associate member of the Lexington Conservation Commission. A research engineer at M.I.T., John is the chairman of the Field Studies Committee formed under the auspices of Bird Observer.

THE CHRISTMAS BIRD COUNTS IN MASSACHUSETTS

by Robert H. Stymeist, Brookline

This year marks the 83rd anniversary of the original Christmas Bird Count, taken on Christmas Day, 1900, by an intrepid group of naturalists in twenty-five locations mostly here in the northeast. The now annual event has grown from its original twenty-five areas and twenty-seven participants to an amazing 1,418 locations and 34,863 participants last year. The counts are sponsored by the National Audubon Society and the complete results are published in the July issue of American Birds. Copies of this issue are available for $7.50 from American Birds, 950 Third Avenue, New York, NY 10022.

Each Christmas Bird Count is a day-long census, conducted near Christmas Day, of all birds found within a circular area fifteen miles in diameter. The count is undoubtedly the biggest birding event of the year. Some groups spend weeks scouting their areas, hoping for the biggest possible list of birds in their designated area. There is as well rivalry between different count circles, but in Massachusetts the Cape Cod Count seems to come out on top every year.

There is no limit to the number of participants and compilers attempt to field as many competent birders as they can to cover the roughly 177 square miles of a count circle.

Last year in Massachusetts a total of 177 species plus two additional subspecies (Bullock's Oriole and Ipswich Sparrow) were recorded on the twenty-four counts within the state. An additional six species were observed during the count period but not recorded on any count. Those species were: Great Egret on Cape Cod; Snow Goose on Martha's Vineyard; Common Moorhen, Saw-whet Owl and Western Kingbird on Nantucket and Bohemian Waxwing in Newburyport.

If you would like to participate in this year's counts you should contact the compilers for more information. The compilers and counts of eastern Massachusetts are listed below.

Athol	Robert Coyle	1978 Chestnut Hill Ave, Athol, MA 01331
Buzzards Bay	Richard Harlow	Box 244, Marion, MA 02738
Cape Ann	John Nove	Peabody Museum of Salem, Salem, MA 01970
Cape Cod	Blair Nikula	23 Atwood Lane, Chatham, MA 02633
Concord	Peter Alden	103 Bartlett Ave, Arlington, MA 02174
Greater Boston	Robert Stymeist	358 Tappan St, Brookline, MA 02146
Marshfield	Warren Harrington	Box 1114, N. Marshfield, MA 02059

Martha's Vineyard	Gus Ben David	Box 1055, Oak Bluffs, MA 02557
Mid Cape Cod	Janet Aylward	91 Wharf Lane, Yarmouthport, MA 02675
Millis	John Marshall	45 West St, Dedham, MA 02026
Nantucket	Edith Andrews	Box 1182, Nantucket, MA 02554
New Bedford	Jo Fernandez	786 Horseneck Rd, S. Dartmouth, MA 02748
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SUMMARY OF HIGHEST COUNTS OF INDIVIDUALS RECORDED FOR MASSACHUSETTS CHRISTMAS COUNTS, 1981

compiled by Robert H. Stymeist, Brookline

As mentioned earlier a total of 177 species were recorded on last year's Massachusetts Christmas Bird Counts. National high counts were recorded for the following: Black Duck, Oldsquaw, Common Eider, Great Black-backed Gull, Lesser Black-backed Gull, Black-legged Kittiwake, Hairy Woodpecker, Black-capped Chickadee and Yellow-breasted Chat. The five Lesser Black-backed Gulls on Nantucket were an all time high for a Christmas Bird Count. The following abbreviations are used: BB - Buzzards Bay; CA - Cape Ann; CC - Cape Cod; Con - Concord; Bos - Greater Boston; Green - Greenfield; Marsh - Marshfield; MV - Martha's Vineyard; MidC - Mid Cape Cod; Nan - Nantucket; N.B. - N.Berkshire; Newbt - Newburyport; Nhpt - Northampton; Q - Quincy; Spring - Springfield; Tuck - Tuckernuck Island; Worc - Worcester.

Common Loon 170 (MV); Red-throated Loon 178 (Nan); Western Grebe 1 (Nan); Red-necked Grebe 30 (Nan); Horned Grebe 61 (BB); Pied-billed Grebe 12 (CC); Northern Gannet 120 (CC); Great Cormorant 263 (Q); Double-crested Cormorant 9 (Q); Great Blue Heron 69 (CC); Snowy Egret 1 (Nan); Black-crowned Night-Heron 28 (CC); American Bittern 1 (CC, MV); Mute Swan 117 (MV); Tundra Swan 3 (MV); Canada Goose 3344 (Newbt); Brant 790 (CC); Mallard 1178 (Bos); American Black Duck 6925 (Newbt); Gadwall 18 (MidC); Pintail 60 (MidC); Green-winged Teal 184 (Nan); Eurasian Wigeon 1 (Nan); American Wigeon 69 (MV); Northern Shoveler 6 (Newbt); Wood Duck 10 (MV);

Redhead 130 (BB); Ring-necked Duck 120 (BB); Canvasback 269 (BB); Greater Scaup 3388 (BB); Lesser Scaup 79 (MV); Common Goldeneye 1489 (MV); Barrow's Goldeneye 7 (Q); Bufflehead 2319 (BB); Oldsquaw 8204 (Nan); Harlequin Duck 6 (MV); Common Eider 14,020 (CC); King Eider 4 (Q); White-winged Scoter 1771 (BB); Surf Scoter 2076 (BB); Black Scoter 610 (Nan); Ruddy Duck 51 (Bos); Hooded Merganser 125 (BB); Common Merganser 252 (MidC); Red-breasted Merganser 5413 (Nan); Northern Goshawk 4 (Newbt); Sharp-shinned Hawk 16 (CC); Cooper's Hawk 1 (CC, BB, MV, Newbt); Red-tailed Hawk 45 (MV); Red-shouldered Hawk 2 (CA); Rough-legged Hawk 10 (Newbt); Bald Eagle 1 (CC, Green, Newbt); Northern Harrier 54 (Nan); Peregrine Falcon 2 (CC); Gyrfalcon 1 (Nhpt); Merlin 5 (MV); American Kestrel 23 (Bos); Ruffed Grouse 51 (Millis); Bobwhite 153 (CC); Ring-necked Pheasant 190 (Con); Turkey 9 (Green); Virginia Rail 7 (Nan); Sora 1 (CC); American Coot 38 (BB); Killdeer 6 (MV); Black-bellied Plover 20 (Bos); Ruddy Turnstone 1 (CC); American Woodcock 6 (MidC); Common Snipe 8 (BB); Greater Yellowlegs 3 (CC); Red Knot 42 (Marsh); Purple Sandpiper 300 (Q); Dunlin 625 (CC); Sanderling 123 (MidC, Nan); Pomarine Jaeger 1 (CC); Glaucous Gull 11 (Nan); Iceland Gull 53 (Nan); Great Black-backed Gull 6462 (Nan); Lesser Black-backed Gull 5 (Nan); Herring Gull 46,078 (Nan); Ring-billed Gull 1572 (Bos); Black-headed Gull 4 (Bos); Bonaparte's Gull 1256 (Nan); Little Gull 1 (Bos); Black-legged Kittiwake 13,650 (Nan); Common Tern 1 (MidC); Razorbill 13 (Nan); Thick-billed Murre 1 (CC, Nan); Black Guillemot 22 (CC); Rock Dove 1867 (Bos); Mourning Dove 1669 (Nhpt); Barn Owl 3 (MV); Screech Owl 39 (Millis, Nhpt); Great Horned Owl 16 (Nhpt); Snowy Owl 2 (Newbt); Barred Owl 4 (Con); Long-eared Owl 2 (CA); Short-eared Owl 8 (Q); Belted Kingfisher 21 (CC); Common Flicker 138 (Nan); Pileated Woodpecker 5 (Spring); Red-bellied Woodpecker 1 (CA, N.B., Spring); Red-headed Woodpecker 2 (MV); Yellow-bellied Sapsucker 1 (CC); Hairy Woodpecker 151 (Con); Downy Woodpecker 399 (Con); Horned Lark 407 (CC); Blue Jay 751 (CA); Common Crow 3048 (Con); Fish Crow 58 (Con); Black-capped Chickadee 2407 (Con); Boreal Chickadee 3 (Worc); Tufted Titmouse 505 (Con); White-breasted Nuthatch 298 (Con); Red-breasted Nuthatch 156 (Spring); Brown Creeper 47 (Spring); Winter Wren 3 (Spring); Carolina Wren 17 (BB); Marsh Wren 2 (CC, Nan); Mockingbird 224 (Con); Gray Catbird 8 (MV); Brown Thrasher 7 (CC); American Robin 458 (Nan); Varied Thrush 1 (Con, Nhpt); Hermit Thrush 5 (BB); Eastern Bluebird 7 (MV); Townsend's Solitaire 1 (MV); Golden-crowned Kinglet 57 (BB); Ruby-crowned Kinglet 8 (CC); Water Pipit 12 (Nan); Cedar Waxwing 372 (CC); Northern Shrike 1 (7 counts); Starling 130,000 (Q); Orange-crowned Warbler 7 (CC); Nashville Warbler 1 (Bos); Yellow-rumped Warbler 3369 (Nan); Pine Warbler 5 (CC); Praire Warbler 1 (CC); Palm Warbler 13 (CC); Common Yellowthroat 2 (CC, MV, Tuck); Yellow-breasted Chat 4 (CC); House Sparrow 1712 (Con); Eastern Meadowlark 43 (Nan); Redwinged Blackbird 62 (MidC); Northern Oriole 2 (CC); "Bullock's" Oriole 1 (BB, CA); Rusty Blackbird 6 (BB); Common Grackle 1644 (MV); Brown-headed Cowbird 77 (Worc); Cardinal 386 (Con); Dickcissel 1

(BB); Evening Grosbeak 711 (Nhpt); Purple Finch 162 (Con); House Finch 596 (Nhpt); Pine Grosbeak 97 (Nhpt); Common Redpoll 259 (Nhpt); Pine Siskin 371 (Nhpt); American Goldfinch 710 (Con); Red Crossbill 30 (Nan); White-winged Crossbill 95 (Spring); Rufous-sided Towhee 18 (MV); Savannah Sparrow 18 (MV); "Ipswich" Sparrow 16 (Tuck); Grasshopper Sparrow 1 (Nan); Sharp-tailed Sparrow 6 (Marsh); Seaside Sparrow 1 (Marsh); Vesper Sparrow 1 (Bos, Spring); Dark-eyed Junco 1273 (Con); Tree Sparrow 1103 (Nhpt); Chipping Sparrow 6 (Nan); Field Sparrow 74 (BB); White-crowned Sparrow 3 (Nan); White-throated Sparrow 265 (CC); Fox Sparrow 8 (CC); Lincoln's Sparrow 1 (CC, Taunton); Swamp Sparrow 47 (CC); Song Sparrow 255 (Nhpt); Lapland Longspur 60 (CC); Snow Bunting 116 (CC, Nan).

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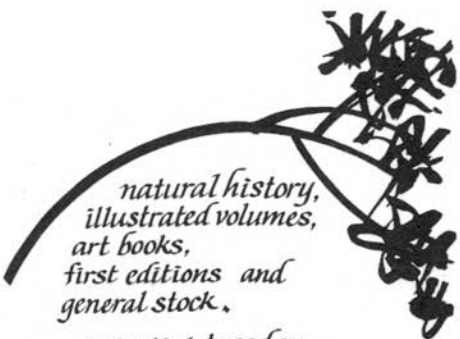

MEET THE PLOTOPTERIDS

by John Kricher, Mansfield

Imagine an ocean-going, flightless anhinga in excess of two meters long, with penguin-like paddles for wings, and the head of a gannet. Incredible as it may seem, such a magnificent monstrosity apparently existed some 25 million years ago, inhabiting the northern Pacific Ocean. In the depauperate world of fossil birds, recent analyses of a group of partial skeletons collected from rocks in Japan and Washington have revealed the existence of a "new" family of seabirds, the plotopterids.

Minute study of the delicate geometry of the fossil bones, all of which were collected from marine sedimentary rocks, revealed clearly that the extinct avians were members of the order Pelicaniformes and, within that group, were most closely allied with the anhingas, none of which are marine. However, these fossil anhingas were distinct enough from their modern cousins to justify their placement in a family of their own: thus the designation of plotopterids. To make matters more complex, the four or five species of plotopterids thus far discovered all looked like penguins! Characteristic of each was the total modification of the wings into paddle-like flippers extremely similar in structure to those found in penguins and the extinct great auk, an alcid. Such a case is an example of convergent evolution; three distantly related groups (penguins, auks, and anhingas) have evolved representatives with nearly identical specializations, due presumably to their having experienced identical selection pressures from their marine environments. The plotopterids in the north Pacific assumed the ecological niches occupied by the larger species of penguins in the Antarctic. Oddly, the plotopterid skull was highly gannet-like, and the face of the bird would have looked much more like a gannet or booby than a penguin.

Obviously, no one knows why the plotopterids became extinct. An intriguing speculation is that these large flightless birds, at least one species of which exceeded two meters (nearly seven feet!) in length, were out-competed by seals and porpoises, whose size and ecologies would have been highly similar. The next time you're on a west-coast sea trip passing time watching the porpoises, you might take a moment to praise the evolutionary victors and mourn the loss of what may have been the earth's largest seabirds.

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A ROADSIDE SURVEY OF SCREECH OWLS USING PLAYBACK TECHNIQUES

by John W. Andrews, Lexington
Oliver Komar, Newton and
Nicholas Komar, Newton

The Screech Owl (Otus asio) is almost certainly the most numerous and widespread bird of prey in Massachusetts. But because of its nocturnal habits and retiring nature, it is seldom seen by the casual observer. Furthermore, it is severely underrepresented on conventional bird surveys such as Christmas Bird Counts and breeding bird surveys. During the spring of 1982 the Bird Observer Field Studies Committee attempted to capitalize upon the general high level of interest in owls among ornithological enthusiasts by organizing a roadside survey of Screech Owls in eastern Massachusetts. The study was designed to provide insight into the habitat types in which breeding owls occurred and to provide an indication of the relative population densities in these habitats.

In their classic study of raptors during the 1940's, the Craigheads (1956) evaluated Screech Owl populations by a painstaking inspection of all likely roosting cavities for feathers, pellets, or roosting owls. Today we are fortunate to have a much less laborious means of detecting Screech Owls: the use of playback recordings. It has been found that Screech Owls readily respond to tape recordings (or good vocal imitations) of their vocalizations. A brief review of previous work using playback techniques will place the BOEM effort in perspective.

Nowicki (1974) used tape-recorded calls to census Screech Owls in Deerfield Township, Michigan. His census work was done during October and November between 6:00PM and 9:00PM. He found Screech Owls in 10 of 29 randomly selected plots of 0.25 sq. mi. in area. This produced a density of owls of 1.4 per sq. mi. overall or 6.1 per sq. mi. when only wooded habitat was considered.

In West Virginia, Beatty (1977) reported on a survey undertaken as part of a Christmas Bird Count. He covered a route of approximately 24 miles in length between midnight and 6:00 A.M. Screech Owls were found at 24 separate locations along this route. Beatty concluded that good Screech Owl habitat is "any place where we can safely pull off the road."

Playback techniques were used by Johnson et al. (1981) in riparian mesquite groves in Arizona to detect the highest breeding densities yet discovered for Screech Owls in North America. In the most productive habitat censused, Screech Owls were found at intervals of 50 meters and the density of breeding pairs was sometimes 1 pair for each 1.4 hectares (3.5 acres). Johnson reported that occasionally as many as

Eastern Screech-Owl *Illustration by Denise Braunhardt*

twelve pairs of Screech Owls were heard simultaneously responding to the playback. This data indicates that Screech Owl territories can be very small in optimum habitat.

The objective of the BOEM study was to advance our knowledge of population density and habitat preferences for breeding Screech Owls in eastern Massachusetts. In order to do this, survey techniques were devised which could be applied by conscientious non-professional observers using no special equipment or training. The study was designed so that the data it produced would have true ornithological value and so that the study could be repeated in a consistent manner in subsequent years.

Surveys were conducted between March 27 and April 4 along various routes in eastern Massachusetts. Surveys began no earlier than 2:00 A.M. and terminated no later than sunrise, approximately 5:30 A.M. Participants made stops along the route at roadside stations located no closer than 0.4 miles (644 meters) apart. This separation was imposed in order to insure independent results at each station. An attempt to elicit a response from a Screech Owl was carried out at each station using either a playback of recorded Screech Owl vocalizations or a human imitation of the typical Screech Owl calls. If no response was detected after three minutes of effort, then the attempt was terminated.

For each station participants completed a data form which included a breakdown of the proportion of various habitat types found within a circle of radius 0.1 mile (161 meters) around the station. Habitat types were defined largely according to vegetative cover and land use types employed in the Massachusetts Map Down Project, a state-wide mapping project based upon aerial photographs. Observers were asked to note the presence of open water within the 0.1 mile circle. Additional notes on the color phase of the detected birds and their behavior were requested.

A total of eleven data sets for ten different routes was submitted. Nine of these routes were located within the Greater Boston area and one was located on Cape Cod. Extremely windy weather during the first half of the survey period delayed the start of survey work for most participants. The one survey route covered under conditions of high wind was repeated on a calm night and produced an identical number of detections (two). In addition to Screech Owls, Great Horned Owls (Bubo virginianus) and Barred Owls (Strix varia) were heard calling on several routes. Most participants felt that the habitat data was readily determined with a single nighttime stop. However, at least one participant retraced his route during daytime to verify his habitat data.

Detection rate. Screech Owls were detected at 16 stations out of a total of 120. Thus the rate of detections was 13.2% (approximately one detection for each eight attempts).

Most observers were disappointed with this detection rate. In several cases no Screech Owls were found at sites where the owls had been encountered in previous years. Field work in the same areas eleven weeks later (in mid-June) was conducted in support of breeding bird projects and seemed to yield a higher level of response. For this reason, it is suspected that the survey was scheduled at a phase of the breeding cycle which was sub-optimal for owl response. In Southern New England, the Screech Owl incubation period is 21 to 25 days. The eggs hatch between April 7 and May 5 (Forbush, 1927). Since the survey began on March 27, many owls would have been incubating and may have been reluctant to respond.

Single versus pair detections. Participants recorded single owls at 14 of the 16 locations where detections occurred. This indicates that the breeding density is insufficient to produce a high incidence of conflicts between neighboring territories. It may also indicate that only one member of a breeding pair responds to territorial intrusions at this stage of the breeding cycle.

Non-vocal responses. In this survey, owls did not fly in and sit quietly, as has been reported in other studies. One explanation for this is that the survey took place during the breeding season when responding owls were adults on ter-

ritory. Differences in response behavior are to be looked for in autumn/winter surveys.

Duration of attempt. The three-minute time period allowed for each attempt appeared to be more than adequate. Some owls responded immediately to the tape, and almost all replies occurred within two minutes.

Vocal imitation versus tape. Vocal imitations and tape recordings appeared to be equally effective in eliciting responses (the success rates were 13.0% and 13.4% respectively). This is consistent with Beatty (1977) who also reported no difference in success rates between the two techniques.

Effect of time of day. Beatty (1977) indicated that owls were detected more frequently after 3:00 A.M. For the BOEM survey an analysis of the success rate as a function of time reveals an apparent increase in the rate of detections at about one hour before sunrise. However, the quantity of data is insufficient for drawing statistically significant conclusions in this regard.

Vocalizations. There was considerable individual variation in the vocalizations of responding owls. Four owls were reported to give only the monotone tremolo. Two gave only the descending "whinny." Three birds gave both calls. The pitch of the tremolo seemed to vary considerably from individual to individual. The "scream" call, which the authors (O.K. and N.K.) have heard twice in mid-June, was not reported during the survey.

Color phase. Participants were asked to provide the color phase of each owl when color could be determined. The results were 2 red-phase, 3 gray-phase, 13 undetermined. In future surveys it is hoped that the percentage of undetermined cases can be reduced by asking each survey team to carry a spotlight to illuminate responding owls.

Response distance. If survey data is to be used to estimate population densities (birds per unit area), then it is important to know the distance at which an owl will respond to the vocal imitation. The area which is effectively sampled by each playback attempt increases as the square of the response distance. Nowicki (1974) estimated that Screech Owls did not respond to his tape beyond a distance of approximately ¼ mile (402 meters). Several observers in the BOEM survey commented that most responses seemed to come immediately from owls within 100 yards. Often the promptness of the response implied that the owl could not have first flown in from a more distant location. Further experimentation designed to measure response distance would greatly enhance the usefulness of the survey data.

Habitat factors. Twenty-seven habitat types were defined for the survey. Table 1 lists the number of times each type of habitat was reported within the 0.1 mile circle surrounding each survey station. Also listed is the number of times Screech Owls occurred in association with each habitat type.

The quantity of data produced by this initial survey was insufficient to allow statistically significant conclusions to be drawn concerning Screech Owl occurrence in most habitat types. However, there was a statistically significant excess of detections for stations which included small hardwood

Table 1. Correspondence between Occurrence of Screech Owls and Habitat Types at the 120 Survey Stations

Habitat Type	Stations with Habitat Type	Stations with Owls
Low Density Residential	54	4
Large Hardwood Forest	33	7
Small Mixed Forest	28	4
Shallow Freshwater Marsh	27	4
Large Mixed Forest	23	5
Mown/Grazed Fields	19	3
Open Water	18	1
Dense Residential	17	4
Open Hardwood Forest	17	2
Abandoned Fields	17	5
Short Hardwood Forest	16	6
Urban Open (incl. cemeteries)	16	4
Large Softwood Forest	14	2
Urban Commercial	9	0
Open Mixed Forest	9	2
Short Softwood Forest	6	1
Recreation (incl. drive-ins, theaters, race tracks)	6	2
Orchards and nurseries	6	0
Tilled Fields	4	0
Highway/runways	3	0
Deep Freshwater Marsh	3	0
Dumps/Landfills	2	0
Open Softwood Forest	2	0
Softwater Wetland	1	0
Urban Industrial	1	0
Mining (incl. gravel pits)	1	0

Notes: 1) A habitat was recorded only if it comprised 10% or more of the area within o.1 mile of the station.

2) Open forests were forests with canopy closure of 60% or less. Mixed forests were forests in which neither hardwoods nor softwoods comprised more than 80% of the canopy.

forest (6 detections were recorded in 16 attempts). Other habitat types which exhibited a tendency for a greater rate of detection were abandoned fields, open urban land (playgrounds and cemeteries), and larger hardwood forest. More detailed conclusions are anticipated should future survey work add to the quantity of available data.

Presence of open water. An inspection of the effect of open water on Screech Owl detections produced some intriguing results. For stations at which open water was more than 10% of the area within the 0.1 mile circle, no increase in Screech Owl occurrence was noted. These stations were usually located beside lakes or reservoirs. Of the 34 stations with open water constituting 10% or less of the habitat, 9 produced Screech Owls (1 owl for every 4 stations). These were usually stations with small brooks. For stations with no open water, one owl was found for every 11 stations.

This survey has confirmed the abundance of the Screech Owl in our region and has demonstrated that it occurs in a variety of habitats in suburban areas. The survey techniques were well within the capabilities of the participants and the data which was produced was amenable to meaningful analysis.

Further advancement in our knowledge requires work in two areas. First, we must learn more about the probability that an owl at a given distance will hear the playback and the probability that it will respond once the playback is heard. This will allow us to correct for undetected owls and to convert the detection frequencies into a measure of area density. Second, a greater quantity of data must be obtained to produce a more definitive picture of habitat preferences. The enthusiasm for the study on the part of the participants seems to guarantee that the survey will be continued until some of these additional questions are answered.

ACKNOWLEDGMENTS

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JOHN W. ANDREWS, a Lexington resident for three years, is president of Citizens for Lexington Conservation and an associate member of the Lexington Conservation Commission. A research engineer at M.I.T., John is the chairman of the Field Studies Committee formed under the auspices of Bird Observer.

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THE AMERICAN ORNITHOLOGISTS' UNION

The American Ornithologists' Union, oldest and largest of the ornithological societies in North America, is celebrating the hundredth anniversary of its founding in 1983. Its quarterly journal, THE AUK, now includes about 1000 pages a year of papers on a wide variety of ornithological topics. The long-awaited sixth edition of the AOU Checklist of North American Birds will be published in time for the centennial meeting. If interested in knowing more about the AOU please write to Membership Chairman Dr. Gustav A. Swanson, Department of Fishery and Wildlife Biology, Colorado State University, Ft. Collins, CO 80523.

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TIME FOR A CHANGE: CHECK YOUR LIST!

by Robert H. Stymeist, Brookline

After twenty-five years, the long awaited sixth edition of The American Ornithologists' Union Check-list of North American Birds is now in press and should appear sometime in 1983. Recently published in The Auk was the thirty-fourth supplement to the check-list which included an updated list of species of birds reported with documentation through December 1981. The complete sixth edition will cover species from Bermuda, the West Indies, and Middle America (Mexico through Panama). Good-bye 700 club!

The new check-list will be revised considerably in the higher categories, that is, in the taxonomic sequence that is the presently accepted avian classification. The concept of primitive to derived sequences is used in the arrangement of taxa. English names, where changed, were adopted with a global viewpoint. Bird Observer will adopt this new phylogenetic list with our 1983 volume issue.

The new English names of most of the birds that we encounter here in eastern Massachusetts are given below.

Old Name	New Name
Gannet	Northern Gannet
White Pelican	American White Pelican
Louisiana Heron	Tricolored Heron
Green Heron	Green-backed Heron
Black-crowned Night Heron	Black-crowned Night-Heron
Yellow-crowned Night Heron	Yellow-crowned Night-Heron
Whistling Swan	Tundra Swan
Black Duck	American Black Duck
Pintail	Northern Pintail
European Wigeon	Eurasian Wigeon
Marsh Hawk	Northern Harrier
Goshawk	Northern Goshawk
Bobwhite	Northern Bobwhite
Common Gallinule	Common Moorhen
American Golden Plover	Lesser Golden-Plover
Northern Phalarope	Red-necked Phalarope
Black-headed Gull	Common Black-headed Gull
Common Puffin	Atlantic Puffin
Barn Owl	Common Barn-Owl
Screech Owl	Eastern Screech-Owl
Hawk Owl	Northern Hawk-Owl
Saw-whet Owl	Northern Saw-whet Owl
Northern Three-toed Woodpecker	Three-toed Woodpecker
Black-backed Three-toed Woodpecker	Black-backed Woodpecker
Common Flicker	Northern Flicker
Eastern Wood Pewee	Eastern Wood-Pewee

Old Name	New Name
Rough-winged Swallow	Northern Rough-winged Swallow
Common Crow	American Crow
Short-billed Marsh Wren	Sedge Wren
Long-billed Marsh Wren	Marsh Wren
Mockingbird	Northern Mockingbird
Starling	European Starling
Cardinal	Northern Cardinal
Tree Sparrow	American Tree Sparrow

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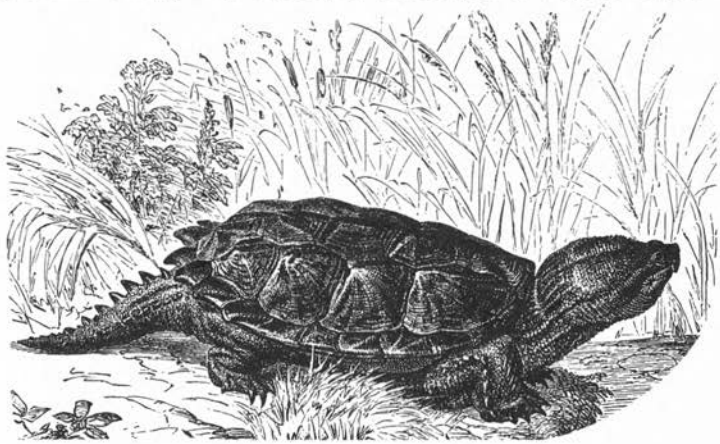
BEHAVIOR NOTES

by George W. Gove

In the late summer and fall, Snowy Egrets, mostly immatures, come in to the lagoon at Horn Pond, Woburn, to feed. While walking around the lagoon one evening, my attention was drawn to six or eight snowys feeding along the edge. When I looked at them with my binoculars, I noted that one of them was in deeper water than I would normally expect; in fact, it was up to its belly in the water which seemed to me unusual since I had never seen an egret in water much more than ankle (Snowy Egret "ankle") deep. I watched the egret as it went deeper and deeper into the water until eventually only its neck and head were out of water. It had not tried to get out but had only stared down at the water as it went in. Finally it went completely under, not to reappear again. Never having witnessed such a thing and knowing that Snowy Egrets are not diving birds, it eventually occurred to me what probably had happened. I have seen a lot of snapping turtles at Horn Pond and have seen a few ducks become meals for them. By simple deductive reasoning, I assume the egret had stepped too close to the vise-grip jaws of a snapper and was pulled under and made a meal of by an opportunistic turtle.

A Northern Phalarope at Great Meadows National Wildlife Refuge, one of two present, fared better in the same circumstances, perhaps. I was watching two birds feeding on a crust of dried algae when one of them went under water and popped up again, at which point it tried to run and fly away but was apparently securely anchored to the crust. The bird struggled and attempted to fly without success for several minutes. Finally with great effort, it pulled itself away from whatever was holding it and flew off several yards, then alighted and started preening. However, it did not come out of the struggle completely unscathed as it now had one foot where previous to the struggle it had had two. I suspect that it too was the victim of a snapping turtle, perhaps a small one.



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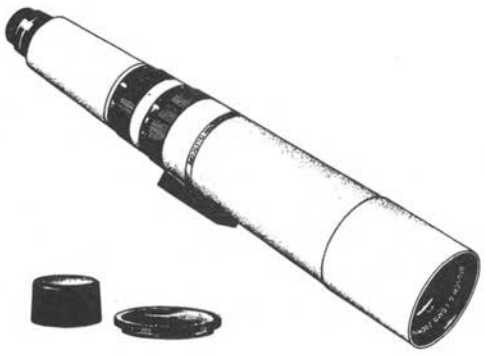

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VISA MASTER CARD AMERICAN EXPRESS

Field Records:

July 1982

Royal Tern

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

This midsummer month averaged on the warm side with above normal rain and sunnier than usual skies. The abnormal coolness of June continued into the first week of July. The year's first 90° reading came on the 7th, 27 days later than average. This was followed by seasonal temperatures until a severe heat wave struck, with highs in the 90's four days in a row. The highs on the 17-19th each set new records, topping 96° made in 1953, 97° in 1900 and 96° in 1946; the new records were 97°, 98°, and 98° respectively. Rain totaled 4.22 inches, 1.48 inches above normal. The first significant rain was 1.84 inches in less than 24 hours on the 20-21st. No heavy fog was noted during the month.

LOONS THROUGH RAILS

Six Red-throated Loons at Manomet were unusual for mid-summer; the most recent records for this species in July were way back in 1973 when two were noted in Manomet and one on Monomoy.

The first Bird Observer sponsored pelagic trip to Pollock Rip was a great success with about 800 Greater, 50 Sooty, 15 Cory's and 5 Manx shearwaters recorded in the calm waters off Monomoy and Chatham. Wilson's Storm-Petrels were noted in good numbers both at Stellwagen Bank (350+), and Pollock Rip (250+).

Heron reports were poor compared with previous years. Of note were Yellow-crowned Night-Herons at Monomoy, Squantum and Plum Island.

Interesting waterfowl reports included a late lingering Brant in Duxbury on the 17th and an adult Greater Scaup well observed at Stage Island Pool, Plum Island on the 11th.

An immature Bald Eagle was reported in Wareham where it was observed for about two weeks by local residents before it was identified. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Common Loon:			
11,25	Wareham, Monomoy	1, 2	K.Holmes#, BOEM (W.Petersen)
Red-throated Loon:			
8	Manomet	6	MBO staff
Pied-billed Grebe:			
12	P.I.	4	BBC
Cory's Shearwater:			
25	Pollock Rip	15	BOEM (W.Petersen)
Greater Shearwater:			
25	Pollock Rip	800	BOEM (W.Petersen)
Sooty Shearwater:			
25	Pollock Rip	50	BOEM (W.Petersen)
Manx Shearwater:			
25	Pollock Rip	5	BOEM (W.Petersen)
Wilson's Storm-Petrel:			
3,25	Stellwagen, Pollock Rip	350+, 250	J.Grugan, BOEM (W.Petersen)
Double-crested Cormorant:			
31	P.I.	500	BBC
Great Blue Heron:			
3,10	S.Hanson, Barnstable	8, 6	W.Petersen, B.Nikula
29,31	GMNWR, P.I.	4, 15	R.Walton, BBC

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Green-backed Heron:			
21,29	P.I., GMNWR	9, 6	D.Spencer, R.Walton
Little Blue Heron:			
thr., 3	P.I., Nantucket	1-2, 2 ad.	v.o., C.Jackson
Cattle Egret:			
thr.	Ipswich	max. 4	J.Berry
Great Egret:			
thr.,30	P.I., Saugus	3-4, 3	v.o., J.Berry
Snowy Egret:			
thr.,17	P.I., Cohasset	max. 210, 35	v.o., H.Mallers
24	Monomoy	200	W.Petersen
Tricolored Heron:			
thr.,5	P.I., Monomoy	max. 3, 1	v.o., B.Nikula
Yellow-crowned Night-Heron:			
24,28,31	Monomoy, Squantum, P.I.	1, 1 ad., 1	B.Nikula#, G.d'Entremont, v.o.
Least Bittern:			
thr.	P.I.	1+	v.o.
American Bittern:			
1,5+11	S.Dartmouth, P.I.	2, 1	K.Winkler, BBC+G.Gove
Glossy Ibis:			
thr.	P.I., Monomoy	max. 70, max. 19	v.o., v.o.
Canada Goose:			
26	P.I.	1000	BBC
Brant:			
17	Duxbury	1	R.Walton
Gadwall:			
21	P.I.	279	D.Spencer
Green-winged Teal:			
21	P.I.	23	D.Spencer
Blue-winged Teal:			
21	P.I.	43	D.Spencer
American Wigeon:			
24	P.I.	2	J.Berry
Northern Shoveler:			
5	P.I.	3	BBC
Wood Duck:			
thr.	GMNWR	30+	v.o.
Greater Scaup:	details on file		
11	P.I. (Stage I.)	1 ad.	J.Berry, I.Giriunas, R.Forster
Common Goldeneye:			
17	Duxbury	1	R.Walton
Common Eider:			
10	Rockport (Halibut Pt.)	75	J.Berry
Ruddy Duck:			
thr.	P.I.	max. 4	v.o.
Red-breasted Merganser:			
31	Monomoy	8	B.Nikula#
Turkey Vulture:			
1	S.Dartmouth	4	K.Winkler
Red-shouldered Hawk:			
2,5+11	SRV, Dover	1, 1	R.Walton, E.Taylor
24,30	Hamilton, Norwell	1, 2	J.Berry, W.Petersen
Bald Eagle:			
11	Wareham	1 imm.	K.Holmes, D.Emerson
Osprey:			
25	Scituate	1	SSBC
Peregrine Falcon:			
17	Wellesley	1	L.Robinson
Virginia Rail:			
17	GMNWR	17	H.Mallers
Sora:			
17	GMNWR	3	BBC
Common Moorhen:			
26	P.I.	7	BBC

SHOREBIRDS THROUGH TERNS

American Oystercatchers were present throughout the month on Monomoy with a total of 26 being reported on the 17th. Migrating shorebirds were noted in increasing numbers indicating that Fall migration is underway. Among the migrants, one can occasionally see

color marked and banded birds which were netted and released at James Bay.

A number of Piping Plover chicks were seen at four coastal locations. American Woodcock were seen in several locations indicating that they did not all perish in the April snowstorm. Whimbrels were seen at six locations and their numbers should increase in August. Solitary Sandpipers were seen at several usual inland locations and at one coastal location which is unusual as these birds are rarely seen on the coast.

Willets were seen throughout the month on Monomoy with a maximum of 50, including 15 of the western race, on the 14th. Red Knots were noted in extremely low numbers, particularly in Scituate where they were said to be the lowest numbers in the last five years according to Wayne Petersen, who has studied these birds in conjunction with an MBO program. Last year the maximum was 2500 birds compared to 175 this July. A maximum of 1800 Short-billed Dowitchers was noted on Monomoy and early Long-billed Dowitchers were noted on the 11th. Stilt Sandpiper numbers were down from last year. A breeding-plumaged Western Sandpiper was seen in Scituate and three Ruffs were noted in as many locations.

Three adult and one immature Little Gull were seen in Newburyport and one immature was noted in Scituate. A maximum of 100 "portlandica" Arctic Terns were counted on Monomoy and 200 Least Terns were counted at P.I. Royal Terns were noted at four locations with a maximum of three at P.I. One Sandwich Tern was on Nantucket and two were seen at Nauset and a single Caspian Tern was reported from Newburyport. Black Terns were noted throughout the last half of the month with five seen at Scituate on the 14th. Black Skimmers were seen at five locations with four present at Westport and three on Monomoy, one of the latter being a banded bird and at least two of these were adults. G.W.G.

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
American Oystercatcher:			
thr.	Monomoy	max. 26 (7/17)	v.o.
3,23	Nant., Nauset	2, 6	C.Jackson, B.Nikula
Semipalmated Sandpiper:			
11,21	P.I.	5, 241	R.Forster, D.Spencer
18,25	Scituate	50, 75	W.Petersen, SSBC
24	Monomoy	50	W.Petersen#
Piping Plover:			
9;25	Scituate	1 +yg.; 2 ad. +3 imm.	W.Petersen, SSBC
3	Duxbury	2 ad. + 2 imm.	R.Walton
21,24	P.I., Monomoy	4 ad. + 2 imm., 5	D.Spencer, W.Petersen#
Killdeer:			
21	Rowley, P.I.	5 +1 imm., 5	D.Spencer
24	SRV	3	R.Walton
Black-bellied Plover:			
13,24	Monomoy	50, 100	F.Hamlen#, W.Petersen#
Ruddy Turnstone:			
19,31	P.I.	30, 5	BBC, G.Gove
24,25	Monomoy, Scituate	25, 40	W.Petersen, SSBC
American Woodcock:			
16,17	Lincoln, Concord	1, 1	J.Carter
16,24	Beverly, Hamilton	1, 1	J.Berry
Common Snipe:			
25	SRV, Bridgewater	1, 4	R.Walton, W.Smith#
Whimbrel:			
4,17	Monomoy	2, 6	G.Gove#
18,21,31	P.I.	1, 1, 7	G.Gove#, D.Spencer#, R.Stymeist#
31	Newbypt	10	E.Nielsen#
18,23,29	Scituate	1, 1, 2	W.Petersen
18	Yarmouth	10	R.Forster
26	Annisquam	1	H.Wiggin
Upland Sandpiper:			
10,31	Newbypt, W.Newbury	6, 3	C.Floyd#, G.Gove
15	Bridgewater	4	W.Petersen
Spotted Sandpiper:			
3;5,11	S.Hanson; Rockport, P.I.	2; 2, 2	W.Petersen; J.Berry
17,24	GMNWR	6, 7	BBC, L.Taylor
5	SRV	4	R.Walton
Solitary Sandpiper:			
1,17,24	GMNWR	1, 5, 6	R.Walton, H.Mallers, L.Taylor
15,31	Framingham, Concord	2, 2	R.Forster
20	SRV	5	R.Walton
21,25	Scituate, Bridgewater	1, 1	W.Petersen, W.Smith#

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
Solitary Sandpiper:			
26-31	Wellesley	1	K.Winkler
Willet:			
thr.	Monomoy	max. 50+(7/14)	B.Nikula#
11,18	Newbypt, P.I.	2, 4	J.Grugan, H.Mallers
17,18	Yarmouth, W.Dennis	1, 1	R.Forster
Greater Yellowlegs:			
3	Newbypt-P.I.	40	W.Petersen#
21	P.I., Rowley (PRNWR)	45, 7	D.Spencer#
24	Monomoy	100	W.Petersen#
Lesser Yellowlegs:			
3,11	Newbypt	50, 300	R.Forster#, J.Grugan
21,25	P.I., Bridgewater	70, 35	D.Spencer#, W.Smith
24	Monomoy	150	W.Petersen#
Red Knot:			
4,24	Monomoy	12, 300	G.Gove#, W.Petersen#
18,21,29	Scituate	12, 75, 175+	W.Petersen
17	Duxbury	29	R.Walton
Pectoral Sandpiper:			
17;21,31	Rowley; P.I.	2; 6, 1	J.Berry; D.Spencer#, BBC
24,29	Monomoy, Scituate	5, 2	W.Petersen
White-rumped Sandpiper:			
24	Monomoy	1	W.Petersen#
Least Sandpiper:			
11,24	P.I.	15, 10	J.Berry
13,24	Monomoy	100, 450+	F.Hamlen#, W.Petersen#
17,18	GMNWR, SRV	5, 6	BBC, R.Walton
18,25	Scituate	50, 150	W.Petersen#, SSBC
Short-billed Dowitcher			
11-24	P.I.	max. 293 (7/18)	v.o.
13,24	Monomoy	400, 1800	F.Hamlen#, W.Petersen#
Long-billed Dowitcher:			
11,18	P.I.	4, 1	R.Forster#, G.Gove#
21	Scituate	1 ad.	W.Petersen
Stilt Sandpiper:			
11-25	P.I.	max. 8	v.o.
24	Monomoy	7	W.Petersen#
Semipalmated Sandpiper:			
5,26	P.I.	10, 27	BBC
18, 25	Scituate	200, 600	W.Petersen#, SSBC
24	Monomoy	1800	W.Petersen#
Western Sandpiper:			
23	Scituate	1 breeding plumage	W.Petersen
Hudsonian Godwit:			
thr.	Monomoy	max. 118	v.o.
11-25	Newbypt-P.I.	max. 23	v.o.
29,31	Scituate, Revere	1, 7	W.Petersen, K.Winkler
Ruff:			
3, 17-31	Monomoy, WBWS	1m, 2m	B.Nikula, v.o.
25	Bridgewater	1	W.Smith
Sanderling:			
21,24	P.I., Monomoy	260, 100	D.Spencer#, W.Petersen#
Wilson's Phalarope:			
5,31	P.I., Monomoy	2, 1	v.o., B.Nikula#
Laughing Gull:			
13	Monomoy	300	F.Hamlen#
Bonaparte's Gull:			
21	P.I.	60	D.Spencer
Little Gull:			
thr.	Newbypt	max. 4 (3 ad.)	v.o.
18	Scituate	1 imm. (ph)	W.Petersen
Forster's Tern:			
10,24-31	P.I., Monomoy	1, 1	J.Grugan, v.o.
Common Tern:			
3	Newbypt (Woodbridge I.)	175+	W.Petersen, R.Forster
18	Scituate (3d Cliff)	425	W.Petersen
Arctic Tern:			
thr.	Monomoy	max. 100 (Portlandica)	v.o., fide B.Nikula
18	Scituate	1 (Portlandica)	W.Petersen
Roseate Tern:			
23,29	Scituate	150, 200	W.Petersen

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
Least Tern:			
24	P.I.	200#	J.Berry#
Royal Tern:			
3,4,14	Monomoy	1, 1, 1	B.Nikula, G.Gove#
3,22	Nant., Scituate	1, 1	C.Jackson, D.Twitchell
12-31	P.I.	1-3	v.o.
Sandwich Tern:			
4,14	Nant., Nauset	1, 2	N.Jenks-Jay, V.Laux#
Caspian Tern:			
3	Newbypt	1	W.Petersen
Black Tern:			
14,21	Scituate	5, 1	J.Powers, W.Petersen
18,25,31	P.I.	1, 1, 1	C.Floyd +v.o.
Black Skimmer:			
2,9 +23	Plymouth, Nauset	2, 2	K.Holmes#, B.Nikula
11,25	P.I., Westport	1, 4	J.Berry#+v.o., F.Sweeney
25-31	Monomoy	max. 3	B.Nikula#+v.o.

CUCKOOS THROUGH SPARROWS

The numbers of records submitted and of rare species observed were both few for this group of landbirds. The only noticeable trend was that a small migratory movement developed, mainly at coastal sites, during the last week of the month. This was associated with a frontal passage and several days of rainy weather, beginning on the 26th. Single migrant Red-breasted Nuthatches were reported from both Framingham on the 26th and Annisquam on the 30th. Among the first southward migrant warblers were a Blue-winged at Cambridge, a Cape May at Annisquam, and a Black-throated Blue at Manomet. The July 29 date is a bit early for the fall migrant Yellow-throated Warbler seen at Naushon Island. The last two days of the month saw Northern Waterthrushes at Manomet and Plum Island.

A July 23 visit to the Carlisle conservation land found the male Kentucky Warbler, first reported in May, still singing. No females were observed all season, although this bird was accompanied by another male when it first arrived.

Orchard Orioles showed migratory movement about one week and one frontal passage earlier than other landbirds, with three individuals banded at Manomet on the 21st. About a week later, staff there remarked upon observing five more individuals. A Rose-breasted Grosbeak was seen at a non-breeding site in Cambridge on the 30th. The Pine Siskin banded in Rockport was unusual in two ways -- both in the timing of the occurrence, one of the very few in July, and in the fact that a brood patch was evident. At least two Grasshopper Sparrows were discovered in a small field in Lincoln. Though breeding was not confirmed, this site appeared to have appropriate habitat. L.E.T.

Yellow-billed Cuckoo:			
thr.	6 locations	8 ind.	v.o.
Short-eared Owl:			
17,31	Monomoy	2, 2	G.Gove, B.Nikula
Whip-poor-will:			
9	Dover	calling	E.Taylor
Ruby-throated Hummingbird:			
thr.	5 locations	7 ind.	v.o.
Pileated Woodpecker:			
4	Dover	1	K.Winkler
Eastern Kingbird:			
12-31	P.I.	20 max. (7/31)	BBC
Eastern Phoebe:			
5,17	Dover, GMNWR	4, 6	O.Komar, BBC
Willow Flycatcher:			
3,11	Bolton Flats, Newton	6, 4	BBC
11,15	SRV, Cambridge	2, 3	R.Walton, L.Robinson
Alder Flycatcher:			
3,23	Bolton Flats, Lincoln	2, 1	BBC, R.Walton
24	Lincoln	3+	C.Floyd#
Eastern Wood-Pewee:			
24	SRV	2	R.Walton
Tree Swallow:			
26	P.I.	1000+	BBC
Cliff Swallow:			
5-24	P.I.	14 active nests	v.o.

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
Purple Martin:			
5-26	P.I.	125 max. (7/26)	v.o.
Fish Crow:			
11,27	Wareham, Norwell	1, 1	K.Holmes#, W.Petersen
White-breasted Nuthatch:			
11	SRV	10	R.Walton
Red-breasted Nuthatch:			
10,26	Beverly, Framingham	1, 1	J.Berry, R.Forster
30	Annisquam	1	H.Wiggin
Brown Creeper:			
4-24,6-31	Dover, Norwell	2, nest w/young	K.Winkler, W.Petersen
House Wren:			
10	Beverly	4-5 m.	J.Berry
Winter Wren:			
1-5	Dover	1	v.o.
Marsh Wren:			
5,18	P.I., GMNWR	5, 50	BBC
Gray Catbird:			
26	Cambridge	10	L.Robinson
Wood Thrush:			
24	SRV	5	R.Walton
Hermit Thrush:			
thr.	Dover, Sherborn	5, 6	E.Taylor#
Veery:			
4,5	Natick, Dover	5, 3	BBC, O.Komar#
5,10	SRV, W.Newbury	5, 20+(incl. yg.)	R.Walton, C.Floyd#
Eastern Bluebird:			
thr.,3	Sherborn, S.Hanson	2, 1 m.	E.Taylor, W.Petersen
10,11	Plymouth, Northboro	2 nests, 1	MBO staff, J.Chamberlain
Blue-gray Gnatcatcher:			
11-18,15	Dover, Middleboro	1, 1	E.Taylor, W.Petersen
24	Dover (different site)	4 (incl. yg.)	K.Winkler
White-eyed Vireo:			
8	Scituate (Humarock)	1 singing	P.Butler
Yellow-throated Vireo:			
3	ONWR	1	BBC
Red-eyed Vireo:			
11,24	SRV, GMNWR	4, 7	R.Walton, L.Taylor
Warbling Vireo:			
2,11	Norwell, SRV	1, 3	W.Petersen, R.Walton
11,15	Newton, Bridgewater	2, 3	BBC, W.Petersen
Golden-winged Warbler:			
25	W.Newbury	1 m.	W.Smith#
Blue-winged Warbler:			
2,16	MBO	1 f. b., 1 f. b.	Staff
10,26	W.Newbury, Cambridge	3, 1 singing	R.Stymeist#, L.Robinson
"Brewster's" Warbler:			
5	W.Newbury	1 (good details)	W.Smith
Cape May Warbler:			
27	Annisquam	1	H.Wiggin
Black-throated Blue Warbler:			
29	MBO	1	Staff
Black-throated Green Warbler:			
5	Dover	1	O.Komar#
Yellow-throated Warbler:			
29	Naushon I.	1	M.Litchfield#
Pine Warbler:			
3	Wellesley	1 singing	K.Winkler
Ovenbird:			
4,5	Natick, Dover	1, 18	BBC, O.Komar#
Northern Waterthrush:			
30,31	MBO, P.I.	3 b., 1	Staff, BBC
Kentucky Warbler:			
from May - 23	Carlisle	1 m. singing	K.Harte
Common Yellowthroat:			
5	SRV	11	R.Walton
American Redstart:			
10	W.Newbury	2 (incl. yg.)	R.Stymeist#
Bobolink:			
3	E.Bridgewater	2 pr.	W.Petersen

SPECIES/DATE	LOCATION	NUMBER	OBSERVER
Eastern Meadowlark:			
25	Lincoln	15	R.Forster
Orchard Oriole:			
5	Wayland, W.Newbury	1 imm. m., pr. on nest	L.Robinson, W.Smith
6,10	Winchester, Concord	1 ad. m., pr.	G.Gove, G.Gove#
11,21	Newton, MBO	1, 3 b.	BBC, Staff
29	MBO	5	Staff
Northern Oriole:			
10,17	W.Newbury, GMNWR	1 ad. + yg., 2 ad. + 2 yg.	R.Stymeist#, H.Mallers#
Scarlet Tanager:			
24	Hamilton	3 m. singing	J.Berry#
Rose-breasted Grosbeak:			
5,17	SRV, GMNWR	5, 3	R.Walton, BBC
30	Cambridge	1	L.Robinson
Indigo Bunting:			
17, 17-24	Ipswich, GMNWR	1 m. singing, 2	J.Berry, BBC
24	SRV	4	R.Walton
Pine Siskin:			
13	Rockport	1 b. (w/brood patch)	R.Norris
Savannah Sparrow:			
11,23	PI, Concord	1, 1 ad. + 3 imm.	J.Berry, R.Walton
Grasshopper Sparrow:			
14-31,10	Lincoln, Medfield	2, 2	C.Floyd#, v.o.
Sharp-tailed Sparrow:			
1,10-31	S.Dartmouth, PI	4, 8 max.(7/31)	K.Winkler, v.o.
Seaside Sparrow:			
1,17	S.Dartmouth,Monomoy	4, 1	K.Winkler, G.Gove
18	P.I.	2	C.Floyd
Dark-eyed Junco:			
11	Dover	2 (confirmed breeding)	E.Taylor, B.Cassie
Swamp Sparrow:			
18	SRV	9	R.Walton
Song Sparrow:			
24	SRV	22	R.Walton

LIST OF ABBREVIATIONS

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

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Field Records: August 1982

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

August 1982 was cool, dry and cloudy. The temperature averaged 70.3°, 1.0° below normal. Though this difference seems small, August was still the coolest since 66.4° in 1964, 18 years ago. The month's high temperature was 87° on August 8, 10, and 17; this was the lowest August maximum since 86° in 1967. This was the first August since 1972 with no 90° reading. The low mark was 48° on the 29th. For much of the month the thermometer bobbed up and down but averaged near normal until the final plunge on the 29th, 10° below normal.

Rain totaled only 2.22 inches, 1.24 inches less than normal but still more than double last year's 1.04 inches. The most to fall was 1.70 inches on the 9th-10th. Fog was infrequent and no heavy fog was reported.

LOONS THROUGH WATERFOWL

A Bird Observer sponsored pelagic trip to the waters southwest of Martha's Vineyard recorded 50 Cory's, 25 Greater, 2 Sooty and one small black and white shearwater, which has caused a great deal of controversy over the past two months. The small shearwater was first determined to be an Audubon's Shearwater by many birders on board who had extensive field experience with this species. Alan Brady of Pennsylvania was able to get several good photographs of the shearwater, all of which suggested that the shearwater closely resembled a Manx! Alden Clayton of Concord also was able to photograph the shearwater and his photo strongly suggested an Audubon's Shearwater. (Are there other photographs?) Both the Brady and Clayton photographs are included in this issue in Wayne Petersen's article, Small Shearwaters Are Not Always Black and White-and Neither Are Photographs (see page 235).

Small black and white shearwaters have provided puzzles before; witness the second sight record of the Manx Shearwater in Massachusetts. The following is quoted from Birds in Massachusetts by Wallace Bailey (1955):

> On 7/28/53 a small shearwater was sighted off Chatham. It swooped down and alighted on the water about 100 feet from the boat. Behind the battery of scopes and binoculars trained on it, six competent ornithologists checked off the identifying marks and called it an Allied (Little) Shearwater (Puffinus assimilis). On 8/12/53 another party of four equally expert observers put to sea. Same bird, same place, same identification! For further study of this rarity, (Allen) Morgan collected it and took the skin to the Museum of Comparative Zoology. There. in comparison with skins of similar species, the Allied resolved itself into a Manx! All this is more proof that sight identifications are fine for keeping the eye alert and the excitement keen, but it is also a warning against too easy agreement on the identification.

Wilson's Storm-Petrels were recorded in good numbers with over 600 noted from Stellwagen and over 250 seen on the Bird Observer trip south of the Vineyard. Only one Gannet was reported.

Maximum counts of herons on Plum Island included 8 Great Blue, 6 Green-backed, 10 Little Blue, 2 Tricolored, 5 Great Egrets, 285 Snowy Egrets, and 3 Least Bitterns. A White Ibis was discovered at Wauwinet, Nantucket on the 19th, but could not be located after this date. The most recent records for this species are August-September 1975 in Westport and Cohasset in the summer of 1977.

The Parker River NWR personnel continued their monthly waterfowl survey. The results of August 28 are:

Mallard	532	Green-winged Teal	1212
American Black Duck	392	Blue-winged Teal	210
Gadwall	215	American Wigeon	22
Pintail	4	Northern Shoveler	7

Other interesting waterfowl records included 16 early Ring-necked Ducks in Lakeville, an Oldsquaw off Monomoy,and early Hooded Merganser migrants at Plum Island. R.H.S.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Common Loon:			
15,31	Monomoy, P.I.	12, 1	W.Petersen#
Pied-billed Grebe:			
1,24-31	S.Peabody, GMNWR	1, 1-3	R.Heil, L.Taylor#
Cory's Shearwater:			
28	At sea, s.of M.V.	50	BOEM
Greater Shearwater:			
28	At sea, s.of M.V.	25	BOEM
Sooty Shearwater:			
28	At sea, s.of M.V.	2	BOEM
Manx Shearwater:			
22	Stellwagen	5	BBC(H.Weissberg)
Audubon's Shearwater:			
28	At sea, s. of M.V.	1	BOEM
Wilson's Storm-Petrel:			
1,22	Stellwagen	100+, 600+	K.Holmes,BBC(Weissberg)
28	At sea s. of M.V.	250+	BOEM
Gannet:			
7	Rockport (Halibut Pt.)	1	J.Berry
Double-crested Cormorant:			
14,21,29	P.I.	200, 200, 203	v.o.
Great Blue Heron:			
thr.	Saugus, P.I.	max. 6, max. 8	J.Berry, v.o.
29,30	S.Dartmouth,Eastham	10, 24	T.Raymond, R.Forster
Green-backed Heron:			
6,7,10	P.I., SRV, Nauset	6, 6, 21	BBC,R.Walton,CCBC
Little Blue Heron:			
9,15	P.I., GMNWR	1 ad., 1	F.Bouchard, BBC
29,31	S.Dartmouth, P.I.	2 ad., 10	T.Raymond, W.Petersen#
Cattle Egret:			
thr.,22	Ipswich, Salem	max. 12 8/19, 1	J.Berry,BBC(Weissberg)
Great Egret:			
1.7	Westport, P.I.	16, 5	R.Stymeist#, BBC
29,31	S.Dartmouth, P.I.	14, 8	T.Raymond, W.Petersen
Snowy Egret:			
7	Monomoy, P.I.	54, 75	C.Floyd#, BBC
21,31	Cohasset, P.I.	90, 285	H.Mallers, W.Petersen#
Tricolored Heron:			
thr.	P.I., Monomoy	1-2, 1-2	v.o., v.o.
Black-crowned Night-Heron:			
1,29;30	P.I.; Eastham	24,36;40	BBC,D.Spencer;R.Forster
Yellow-crowned Night-Heron:			
2+18;7+16	Nantucket; Monomoy	1+1; 1 imm.	K.Harte#;G.Gove#,M.Lynch#
9+29,10+30	P.I.; Eastham	1+1, 6+1 imm.	BBC;B.Nikula#,R.Forster
17,30	S.Wellfleet, Orleans	1 ad., 1	W.Petersen, D.Williams
Least Bittern:			
1,7,14	P.I.	2, 1, 3	E.Nielsen,BBC,R.Stymeist
Glossy Ibis:			
thr.	Monomoy, P.I.	max. 12, max. 11	v.o., v.o.
White Ibis:			
19	Nantucket (Wauwinet)	1 ad.	Bazakas Family
	Excellent description,fide E. Andrews.		
Canada Goose:			
15	Sherborn	400	E.Taylor
Blue-winged Teal:			
29	Eastham	30	R.Forster
Northern Shoveler:			
28	Monomoy	4	W.Petersen
Wood Duck:			
15;22	Harwich,GMNWR;SRV	7, 10; 21	W.Petersen,BBC;R.Walton
Ring-necked Duck:			
31	Lakeville	16	W.Petersen
Oldsquaw:			
29-31	Monomoy	1	D.Stemple, H.Parker#
Common Eider:			
7,30	Monomoy, P.I.	21, 1	G.Gove#, J.Nove#
White-winged Scoter:			
1,15	S.Dartmouth, Monomoy	10, 10	R.Stymeist, W.Petersen
28,31	Annisquam, P.I.	5, 26	H.Wiggin, W.Petersen

SPECIES/DATE	LOCATION	NUMBER	LOCATION
Surf Scoter:			
3	Manomet	1	K.Anderson
Black Scoter:			
18	Monomoy	8	W.Petersen
Ruddy Duck:			
thr.	P.I.	max. 4	v.o.
Hooded Merganser:			
31	P.I.	6	W.Petersen#
Red-breasted Merganser:			
7,16	Monomoy	9, 7	G.Gove#, M.Lynch#

RAPTORS THROUGH COOT

Northern Goshawks were on the move by mid month with an adult well observed in Boston and other non residents seen in Annisquam and Plum Island. Other vanguard raptor migrants were moving at month's end. A Peregrine Falcon was reported on two occasions on Plum Island.

American Coot were hard to find all summer and only one individual was reported all month. R.H.S.

Northern Goshawk:			
8,12	Middleboro,Boston(Chestnut Hill)	1, 1 ad.	I.Nisbet, R.Stymeist
21,27	P.I., Annisquam	1 imm., 1 imm.	BBC, H.Wiggin
Sharp-shinned Hawk:			
29,30,31	Eastham,Pembroke,Truro	1, 1, 1	BBC,W.Petersen,R.Forster
Cooper's Hawk:			
29,30	S.Dartmouth, Pembroke	1, 1	T.Raymond, W.Petersen
Red-shouldered Hawk:			
21	W.Wareham	1	K.Anderson
29	MNWS	1 imm.	R.Heil
Broad-winged Hawk:			
7,14	Newburyport,E.Middleboro	1, 2	G.D'Entremont#,K.Anderson
17,26	Manomet, Lexington	1 b., 2	MBO, L.Taylor#
27,30	Waltham, Brookline	1, 1	L.Taylor, J.Heywood
Bald Eagle:			
11	Fairhaven (Sconticut Neck)	1 imm.	M.Schuetz
Northern Harrier:			
thr.	Monomoy, P.I.	max. 3, max. 5	v.o., v.o.
Osprey:			
1, 28	Westport, Lincoln	30, 4	R.Stymeist#, J.Carter
Peregrine Falcon:			
22,25	P.I.	1 imm., 1	J.Grugan, J.Carter
Merlin:			
29	S.Dartmouth	1	T.Raymond
Northern Bobwhite:			
14	Lincoln	3	J.Carter
Sora:			
29,30	P.I., Pembroke	1, 3	BBC, W.Petersen
Common Moorhen:			
thr.,5	P.I., GMNWR	max. 13, 5	v.o., W.Petersen#
American Coot:			
29	P.I.	1	D.Spencer

SHOREBIRDS THROUGH TERNS

American Oystercatchers continued throughout the month on Monomoy with a maximum of 38 counted on the 22nd. This is the highest count of recent years. Semipalmated Plovers peaked at 1000 on Monomoy on the 7th,and Piping Plovers were also seen there in good numbers. Black-bellied Plovers were also at their maximum reported numbers on the 22nd.

Lesser Golden-Plovers appeared in the last two weeks of the month with 15 counted at Plum Island on the 29th. As predicted, Whimbrel counts increased in August and a maximum of 100 were present on Monomoy on the 13th. Upland Sandpipers were also seen throughout the month and 30 were present on MV. One Western Willet was noted at Monomoy. The Western is generally larger and paler than the Eastern. Red Knot numbers continued to be low with a maximum of 1500 at Monomoy and 900 at Scituate compared to 2800 there at this time last year. Hopefully, they have found a more preferred resting and feeding area which is not presently being censused. White-rumped Sandpipers

were reported throughout the month, and Baird's Sandpipers appeared in the waning days. An early Dunlin was noted at Scituate on the first. Dowitchers were present throughout the month as were Stilt Sandpipers with 28 being reported from Plum Island. Maximum counts of Semipalmated Sandpipers of 2000 were noted at three locations with some Western Sandpipers being found among them. Also noted were some color dyed and tagged birds including one color-marked Lesser Yellowlegs. These birds were probably captured at James Bay. The area of the dyeing on the bird and the location of the color band denote the age class.

Marbled Godwits were seen throughout the month on Monomoy as were Hudsonian Godwits in the Newburyport-Plum Island area and Monomoy with peak counts of 50 and 150 from those respective locations. Single Wilson's Phalaropes were reported from Scituate and Wellfleet.

A dark phase Parasitic Jaeger made several passes at the terns on Monomoy, and another was reported from Stellwagen. Lesser Black-backed Gulls were noted from four locations; the two seen at Scituate on the first were young birds with one molting into second winter plumage and the other in second summer plumage. The bird photographed there on the 2nd was noted to have heavy primary molt.

On a visit to Monomoy a differently plumaged gull was noted. This particular gull stood out from the rest because of its overall coloration which was a uniform dark charcoal with no particular pattern; i.e., no spots, mottling, vermiculation or contrasting feather edging. The gull was seen in various postures including standing, walking, stretching and calling and in flight. It appeared slightly smaller and more delicately proportioned than a Herring Gull. The color was charcoal, not brown as an immature Herring Gull. The wing linings were lighter, almost silvery, and the underparts were lighter also. The primaries were darker as was the tail which was uniformly dark with no light areas and no band. There was a lighter, gray patch on the top of the wing at the base of the primary and secondary flight feathers, visible when the bird was standing. From the color, the bird would appear to be an immature; however, the bill, which appeared slightly smaller than a Herring Gull's, was a dusky yellow color and there was a large red spot on the tip of the lower mandible which would suggest an adult bird going into winter or basic plumage. The eye color was also suggestive of an adult with a light yellow iris and a dark pupil. Direct comparisons were made with hatching year Herring Gulls and there seemed to be little similarity in color, apparent weight, or proportion, or other markings, particularly the bill. The bird called a number of times and sounded much like a Herring Gull and was probably a melanistic bird of that species.

A total of 1600 Bonaparte's Gulls was reported from Revere. Laughing Gulls continued at Monomoy with 500 reported and 375 were reported from Boston Harbor. Little Gulls were present all month in Newburyport Harbor.

Forster's Terns were seen throughout the period at Monomoy and more than 10,000 Common Terns were noted flying to roost at Jeremy Point in Wellfleet.

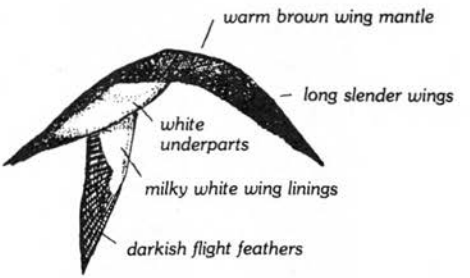
A probable Bridled Tern was noted on a BOEM pelagic trip in Buzzard's Bay to southern Massachusetts' waters. The following is from Richard Heil's journal, notes that were taken immediately after the sighting:

> Viewed in good light (bird to our west) but at some distance (200-300 yds.); seen flying away for about 10-12 seconds by R.S.Heil, R.R.Veit, B.Nikula; bird was heading NW into Buzzard's Bay.
>
> Noted to have "warm-brown upperparts" (RRV, RSH), "gleaming white underparts" (RSH, RRV, BN) and "white underwing linings" (RSH). Flight was with loose but deep wingbeats, at first banking in shearwater-like fashion. Head area not observed as bird was flying away.
>
> Other species rulled out: white underwing and smaller size eliminates all jaegers; even warm-brown upperparts rules out Sooty Tern and small gulls such as Bonaparte's, Little, Sabine's; and small size eliminates Laughing Gull; white wing linings and larger size ruled out Black Tern.

The date is highly consistent with other area records (late August-September is when the species reaches peak numbers in the Gulf Stream) although most or all prior sightings were storm-related; however stiff SW winds have been prevalent through much of this month. It should be made clear that this record is probable primarily because of the distance that we were from the bird, despite the fact that a process of elimination favors Bridled Tern.

This note was made from observations written immediately after the sighting.

What Richard S. Heil saw:



Royal Terns were noted at four locations, and a Sandwich Tern was on Nantucket for at least two weeks. Individual Caspian Terns were seen at Monomoy and West Harwich. Black Terns intermingled with other terns and Black Skimmers continued at Monomoy and two to three were seen at Plymouth Beach on the BOEM trip and the following day. G.W.G.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
American Oystercatcher:			
thr.	Monomoy	max. 38(8/22)	v.o.
18,29	Nantucket, Chatham	12, 7	K.Harte, BBC
Semipalmated Plover:			
thr.	Monomoy	max. 1000 (8/7)	v.o.
21,22	Cohasset, Revere	250, 85	H.Maller, R.Emery#
29	P.I.	545	D.Spencer#
Piping Plover:			
thr.	Monomoy	max. 35 (8/14)	v.o.
1,7	P.I.	8, 3	BBC
Killdeer:			
13-31	Monomoy	1	v.o.
7,15	Wayland, Lincoln	14, 4	BBC, J.Carter
22,25;24	SRV; Concord	8, 12; 35+	R.Walton, J.Carter
29	Rockland	16	W.Petersen
Lesser Golden-Plover:			
15,16	Chatham, M.V.	16, 3	W.Bailey, V.Laux
22,29	Monomoy	1 ad., 1	W.Petersen, D.Stemple
29,31	Scituate, S.Wellfleet	3, 1 ad.	W.Petersen, R.Forster
28-31	P.I.	max. 15 (8/29)	v.o.
Black-bellied Plover:			
14-31	Monomoy	max. 2500 (8/22)	v.o.
7-29	P.I.	max. 212 (8/29)	v.o.
21,28	Revere, Duxbury	200, 276	BBC, R.Walton
Ruddy Turnstone:			
1-21	Monomoy	max. 200 (8/14)	v.o.
thr.	Newburyport-P.I.	max. 15 (8/28)	v.o.
2;21,29	Scituate;Revere,Chatham	100; 4, 4	W.Petersen; BBC
Common Snipe:			
15,25	GMNWR, P.I.	1, 1	BBC, J.Carter
Whimbrel:			
thr.	Monomoy	max. 100+(8/13)	v.o.
14-31	P.I.	max. 5 (8/25)	v.o.
6,18	Nantucket, Chatham	18, 18	K.Harte, W.Petersen
25	GMNWR	1	R.Walton
29	Scituate, Wellfleet	6, 2	W.Petersen, BBC
Upland Sandpiper:			
1-18	Newburyport	max. 3 (8/7)	v.o.
1;15,17	Bridgewater;Lincoln	1; 12, 6	D.Evered; J.Carter
21,24-31	Monomoy, M.V.	2, max. 30	B.Nikula, V.Laux
Spotted Sandpiper:			
1	Dartmouth, S.Peabody	21, 21	R.Stymeist, R.Heil
15	SRV, GMNWR	5, 3	R.Walton, BBC
Solitary Sandpiper:			
1,7	S.Peabody, Wayland	6, 4	R.Heil, BBC

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Solitary Sandpiper (continued):			
28,29	SRV, Wellfleet	5, 5	R.Walton, BBC
	7 individuals from as many locations.		
Willet:			
thr.	Monomoy	max. 20 (8/1,7,31)	v.o.
thr.	P.I.	max. 2	v.o.
29	Chatham	27	BBC(J.Barton)
	4 individuals from as many locations.		
Greater Yellowlegs:			
thr.	Monomoy	max. 150	v.o.
thr.	P.I.	max. 259 (8/29)	v.o.
21	Eastham	57	D.Clapp
Lesser Yellowlegs:			
1-14	Monomoy	max. 25	v.o.
thr.	Newburyport-P.I.	max. 242 (8/29)	v.o.
Red Knot:			
thr.	Monomoy	max. 1500 (8/7)	v.o.
1	Scituate	900	W.Petersen
21,29	Revere, Chatham	2, 250	BBC
Pectoral Sandpiper:			
thr.	P.I.	max. 3	v.o.
17,29,31	S.Wellfleet,Truro,Monomoy	1, 1, 2	W.Petersen,BBC,R.Bowen
White-rumped Sandpiper:			
thr.	P.I.	max. 21 (8/12)	v.o.
14-31	Monomoy	max. 3	v.o.
Baird's Sandpiper:			
29	Marblehead	1	R.Heil
30,31	P.I.	2 juv., 5	R.Heil, W.Petersen
Least Sandpiper:			
thr.	Monomoy	max. 500	v.o.
Dunlin:			
1	Scituate	1	W.Petersen
Short-billed Dowitcher:			
11-22	Monomoy	max. 100 (8/15)	v.o.
thr.	P.I.	max. 149 (8/25)	v.o.
Long-billed Dowitcher:			
12-31	P.I.	max. 45 (8/12)	v.o.
18,22	Monomoy	1 ad.	W.Petersen#
Stilt Sandpiper:			
thr.	P.I.	max. 28 (8/31)	v.o.
1,10	S.Peabody, Scituate	2, 1	R.Heil, W.Petersen#
15,17	Harwich, S.Wellfleet	8, 2	W.Petersen#
Semipalmated Sandpiper:			
thr.	Monomoy	max. 2000 (8/14)	v.o.
thr.	Newburyport-P.I.	max. 900 (8/1)	v.o.
thr.	Scituate	max. 2000 (8/2)	W.Petersen
21	Revere 2000(included 2 dyed birds)		BBC(J.Barton)
Western Sandpiper:			
16,31	Monomoy	1, 2	M.Lynch#, R.Bowen#
15,21	P.I.	5, 1	E.Nielsen, BBC(R.Prybis)
19	Squantum	3	E.Nielsen
Buff-breasted Sandpiper:			
16	M.V., Monomoy	1, 1	V.Laux, S.Carroll#
29,31	Monomoy, P.I.	1, 1	D.Stemple, W.Petersen
Marbled Godwit:			
thr.	Monomoy	max. 5 (8/21)	v.o.
Hudsonian Godwit:			
thr.	Newburyport-P.I.	max. 50 (8/18)	v.o.
thr.	Monomoy	max. 150 (8/1)	v.o.
18,21	Nantucket, Revere	2, 2	E.Andrews, J.Barton
Sanderling:			
thr.	Monomoy	max. 1000 (8/14)	v.o.
thr.	P.I.	max. 194 (8/29)	v.o.
21	Revere	2000	BBC
Wilson's Phalarope:			
1-18	Monomoy	1	v.o.
12-31	P.I.	max. 3 (8/25)	v.o.
28,29;31	Scituate; WBWS	1, 1; 1	K.Winkler,W.Petersen;R.Forster
Red-necked Phalarope:			
28	Nantucket Shoals	1	BOEM

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Parasitic Jaeger:			
1,22	Monomoy, Stellwagen	1 dark, 1	v.o., BBC
Lesser Black-backed Gull:			
3,7,19	Nantucket	1 ad.	K.Harte
1,2	Scituate	2, 1 (ph.)	W.Petersen#
1,13	M.V., Barnstable	1, 1 ad.	A.Keith, J.Bryant
Bonaparte's Gull:			
21,25	Revere, Newburyport	1600, 150	BBC-J.Barton, R.Forster
Laughing Gull:			
thr.	Monomoy	max. 500	v.o.
8	E.Boston	375	R.Heil
15;20,31	Watertown; Saugus	1; 2, 1	R.Stymeist; J.Berry
Little Gull:			
thr.	Newburyport	max. 3	v.o.
Black-legged Kittiwake:			
1,2	Monomoy, Scituate	2 imm., 1 imm.	G.Gove#, W.Petersen
Forster's Tern:			
thr.	Monomoy	max. 7	R.Bowen# + v.o.
1,15	P.I., Nantucket	2, 1	E.Nielsen, E.+C.Andrews
Common Tern:			
23	Eastham	10,900	B.Nikula
Roseate Tern:			
1,2	Scituate, P.I.	200, 8	W.Petersen, H.Weissberg#
19	Eastham	1200	W.Petersen, B.Nikula
Least Tern:			
1	P.I., S.Dartmouth	150, 35	E.Nielsen#, R.Stymeist#
Royal Tern:			
1,3	P.I., Nantucket	1, 1	E.Nielsen#, K.Harte#
10,19	Scituate, Eastham	1, 1	W.Petersen
Sandwich Tern:			
8,10,22	Nantucket	1	Nan Jenks-Jay,K.Harte,E.+C.Andrews
Caspian Tern:			
7,14	Monomoy, W.Harwich	1, 1	G.Gove#, S.Surner#
Black Tern:			
1+7;14+21	Monomoy	1; 2	B.Harrington#,G.Gove#; BBC
15,28	Nantucket, Buzzard's Bay	5, 2	E.Andrews, BOEM
Black Skimmer:			
1-24	Monomoy	2-3	v.o.
28,29	Plymouth	2, 3	BOEM, N.Komar

CUCKOOS THROUGH VIREOS

A watch each evening from a Brookline hilltop resulted in a remarkable count of close to 2400 migrant Common Nighthawks in two weeks. The passage of several cold fronts during the last week of the month brought many migrants, especially for observers in the field on the 29th. Empidonax and Olive-sided Flycatchers, Veery and Blue-gray Gnatcatchers were very well represented in this movement.

The Woburn site where a roost of blackbirds and over 4000 American Robins formed last year (Bird Observer, Vol. 9 No. 6, December 1981) was monitored on the evening of August 26, the same date as one of last year's large counts. A total of two robins was observed. A further check at several points within five miles of the site did not show any concerted evening movement of robins. Whether a major roost developed elsewhere in the region is not known.

WARBLERS THROUGH SPARROWS

Cape May Warblers, which were rather scarce in the spring, were reported in good numbers during August, with a high count of 75 at Plum Island on the 22nd. Cape Cod observers were treated to a fine wave of warblers on August 29. Of note were counts of Bay-breasted Warbler, Ovenbird, Northern Waterthrush, Canada Warbler, and American Redstart. There is always interest in "Lawrence's" Warbler, the less common Blue-winged/Golden-winged hybrid. Two well-documented reports of adult males were received, from Wellesley and Marblehead on consecutive days.

Two adult male Yellow-headed Blackbirds turned up at coastal sites during the month, the Brewster bird remaining for several days. The August 8 date for the occurrence of three Orchard Orioles at Marblehead Neck is several weeks beyond the point when the bulk of the population would normally have departed. A Chipping Sparrow on Monomoy was noteworthy for being somewhat out of its normal element. L.E.T.

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Yellow-billed Cuckoo:			
7	E.Middleboro, Harwich	1, 1	K.Anderson, B.Schlinger
Great Horned Owl:			
18,27	Lexington, Waltham	2, 1	J.Carter, L.Taylor
Short-eared Owl:			
thr.	Monomoy	1-2	v.o.
Chuck-wills-widow:			
7	Chappaquiddick M.V.	2 seen and heard chucking	M.Norman#
Whip-poor-will:			
16	E.Middleboro	1 calling	K.Anderson
Common Nighthawk:			
14,15-30	Arlington, Brookline	3, 2395	L.Taylor, R.Stymeist#
22,24-27	Middleboro, Sudbury	8, 88	K.Powers, R.Walton
24,26	Weymouth, Ipswich	30, 1	R.Campbell, J.Berry
29,30	Eastham, Newton	2, 100	R.Forster, N.Komar
Chimney Swift:			
25,30	Cohasset, Brookline	40, 12	H.Mallers, R.Stymeist
Ruby-throated Hummingbird:			
10;15,16,31	Whitman; Wellesley	1; 1, 1, 2	W.Petersen; K.Winkler
Eastern Kingbird:			
7-30,7	P.I., Wayland	26 max. (8/29), 35	v.o., BBC
24,31	GMNWR, Eastham	16, 11	L.Taylor#, R.Forster
Great-crested Flycatcher:			
13,18-29	Wellesley, P.I.	4, 4 max. (8/18)	K.Winkler, v.o.
Yellow-bellied Flycatcher:			
14,16,22,31	MNWS	1, 1, 2-3, 2	v.o.
24,29	Wellesley, Brewster	1, 1 b.	K.Winkler, H.Stabins#
22,26,29	Chatham	1, 1, 6	v.o.
Least Flycatcher:			
22,25	MNWS, P.I.	5-8, 1 calling	W.Smith, R.Forster
30	Nantucket	4 b.	E.Andrews
Empidonax species:			
22,29	P.I., Scituate	7, 10	J.Grugan, W.Petersen
29,31	Chatham, MNWS	38, 6	v.o., R.Heil
Eastern Wood-Pewee:			
15,25-31	Concord, MNWS	2, 3	L.Taylor, R.Heil
Olive-sided Flycatcher:			
1,3	P.I., MNWS	1, 1	L.Robinson, R.Heil
22,29,31	MNWS	2, 2, 2	v.o.
29,31	Chatham, Lincoln	2, 4	R.Forster#,W.Harrington
Tree Swallow:			
2,30	P.I.	2000, 12,000	v.o.
Northern Rough-winged Swallow:			
8,11	S.Peabody, MNWS	9, 6 all migrants	R.Heil
15,22	GMNWR, Chatham	25, 2	BBC, W.Petersen#
Barn Swallow:			
2,26	P.I., GMNWR	850, 70	BBC, L.Taylor
Cliff Swallow:			
1-14,5	P.I., Concord	15 max. (8/1), 1	v.o., W.Petersen#
18	Framingham	1	R.Forster
Purple Martin:			
1,31	P.I.	100, 20+	v.o.
Fish Crow:			
23	Whitman	1	W.Petersen
Red-breasted Nuthatch:			
17,29	Annisquam, Wellfleet	2, 2	H.Wiggin, BBC
Carolina Wren:			
1,7	Westport, E.Middleboro	12, 1	R.Stymeist#, K.Anderson
Marsh Wren:			
1,3	P.I., Marshfield	10, 25+	BBC, W.Petersen
15,31	GMNWR, P.I.	6, 2	BBC, W.Petersen#
Gray Catbird:			
1,7	SRV, Wayland	9, 25	R.Walton, BBC
14,23	P.I., Marshfield	20, 17	BBC, D.Clapp
Swainson's Thrush:			
30	Chatham	1	R.Forster
Veery:			
27,29	Waltham, Chatham	1, 11	L.Taylor, R.Forster
31	Wellesley, MNWS	2, 8	K.Winkler, R.Heil

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Eastern Bluebird:			
14-17,15	Concord, GMNWR	2, 1	J.Carter, BBC
Blue-gray Gnatcatcher:			
3-7,23	Wellesley, SRV	1, 3	L.Robinson, R.Walton
25-31,29	MNWS, Scituate	3, 2	R.Heil, W.Petersen
29	Chatham	4	R.Forster#
Loggerhead Shrike:			
29	MV	1	V.Laux
White-eyed Vireo:			
22,29	MNWS, S.Dartmouth	1, 1 imm.	W.Smith, T.Raymond
Red-eyed Vireo:			
26,31	GMNWR, Littleton	13, 3	L.Taylor, J.Baird
Philadelphia Vireo:			
29,31	Chatham, MNWS	1, 3	BBC, R.Heil
Warbling Vireo:			
1,16	Lincoln, Littleton	3, 1	R.Forster, J.Baird
25-31,30	MNWS, Newton	2 daily, 1	R.Heil, N.Komar
Black-and-white Warbler:			
22	SRV, MNWS	6, 4-6	R.Walton, W.Smith
27,29	Waltham, Chatham	8, 40	L.Taylor, B.Nikula#
30-31,31	Nantucket, MNWS	13 b., 23	E.Andrews, R.Heil
Worm-eating Warbler:			
11	MNWS	1	R.Heil
Golden-winged Warbler:			
11,14-15	MNWS, Wellesley	1, 1 f.	R.Heil, K.Winkler#
Blue-winged Warbler:			
15-26,16	Wellesley, MNWS	2 max. (8/16), 9	K.Winkler, R.Heil
27,29	Waltham, Chatham	1, 1	L.Taylor, R.Forster
31	Littleton	1	J.Baird
"Lawrence's" Warbler:			
15,16-18	Wellesley, MNWS	1 m., 1 m.	K.Winkler#, R.Heil
Tennessee Warbler:			
21,22	Chatham, MNWS	1, 3-4	BBC, W.Smith
29,30	Chatham, Newton	3, 10	v.o., O.Komar#
Orange-crowned Warbler:			
29	Chatham	1	BBC
Yellow Warbler:			
1,7	SRV, P.I.	7, 25	R.Walton, BBC
10,15	MNWS, Wellesley	40, 6	R.Heil, K.Winkler
24,31	GMNWR, Littleton	2, 1	L.Taylor, J.Baird
Magnolia Warbler:			
22,25	MNWS, P.I.	3, 2	W.Smith, R.Forster#
29,31	Chatham, Littleton	11, 1	R.Forster#, J.Baird
Cape May Warbler:			
14,17,22	Annisquam	4, 14, 16	H.Wiggin
22	MNWS, P.I.	7, 75+	W.Smith, J.Grugan
28,29	Lincoln, Chatham	6, 7	J.Carter, R.Forster#
29,30	Scituate, Nantucket	12, 5 b.	W.Petersen, E.Andrews
Black-throated Blue Warbler:			
22,29	P.I., Chatham	1, 3	S.Sweet, v.o.
Yellow-rumped Warbler:			
25,31	P.I., Lakeville	1, 1	R.Forster#, W.Petersen
Black-throated Green Warbler:			
22,29	MNWS, Chatham	1, 1	W.Smith, v.o.
Blackburnian Warbler:			
22,29	MNWS, Chatham	1, 3	W.Smith, R.Forster#
29,31	Scituate, Littleton	1, 1	W.Petersen, J.Baird
Chestnut-sided Warbler:			
15,22	Wellesley, MNWS	3, 2	K.Winkler#, W.Smith
26,29	GMNWR, Chatham	1, 10+	L.Taylor, B.Nikula#
Bay-breasted Warbler:			
22	MNWS, Monomoy	6-8, 2	W.Smith, W.Petersen
25,26	Annisquam, Wellesley	2, 3	H.Wiggin, K.Winkler
29,31	Chatham, MNWS	60+, 35	B.Nikula#, R.Heil
Blackpoll Warbler:			
22,28	MNWS, P.I.	1, 1	W.Smith, BBC
Pine Warbler:			
29,31	Chatham, Lakeville	1, 5	BBC, W.Petersen
Prairie Warbler:			
29,31	Chatham, Littleton	2, 1	R.Forster#, J.Baird

SPECIES/DATE	LOCATION	NUMBER	OBSERVERS
Ovenbird:			
3,21	Annisquam, Wellesley	1, 2	H.Wiggin, K.Winkler
21,22	Chatham, MNWS	1, 1	BBC, W.Smith
27,29	Waltham, Chatham	1, 8+	L.Taylor, B.Nikula#
Northern Waterthrush:			
1	GMNWR, Westport	1, 2	R.Forster, R.Stymeist#
14,22	Wellesley, MNWS	8, 5	K.Winkler, W.Smith
29	Scituate, Chatham	2, 20	W.Petersen, B.Nikula#
Louisiana Waterthrush:			
15	Nahant	1	S.Carroll#
Mourning Warbler:			
10-31,22	MNWS, P.I.	5 imm., 1	R.Heil, J.Grugan
26,29	MBO, Chatham	1 b., 4	staff, W.Bailey #
Yellow-breasted Chat:			
29,30	Nantucket	1, 1 b.	E.Andrews
Wilson's Warbler:			
3-7,22	Wellesley, MNWS	2, 1	L.Robinson, W.Smith
29	P.I., Chatham	2, 3	BBC, R.Forster#
Canada Warbler:			
20,22	Wellesley, SRV	1, 7	K.Winkler, R.Walton
22,27	MNWS, Waltham	5, 6	W.Smith, L.Taylor
29	Chatham	25	B.Nikula#
American Redstart:			
22,29	MNWS, Chatham	60, 150	W.Smith, B.Nikula#
29,30	Scituate, Nantucket	12, 14 b.	W.Petersen, E.Andrews
31	MNWS, Littleton	65, 6	R.Heil, J.Baird
Bobolink:			
26,29	Lexington, Truro	40, 500	L.Taylor#, BBC
29,30	Newton	160, 262	N.+O.Komar
Yellow-headed Blackbird:			
18,24-26	Newburyport, Brewster	1 ad. m., 1 m.	M.Lynch#, fide K.Anderson
Orchard Oriole:			
8	S.Peabody	3	R.Heil
Northern Oriole:			
22,29	SRV, Chatham	6, 4	R.Walton, BBC
Brown-headed Cowbird:			
21-24,31	Concord, Wellesley	100+, 38	J.Carter, K.Winkler
Rose-breasted Grosbeak:			
7,25	Wayland, P.I.	8, 3	BBC, R.Forster
Indigo Bunting:			
1	SRV	5	R.Walton
Dickcissel:			
25	P.I.	1	R.Forster#
Sharp-tailed Sparrow:			
1,29	P.I.	7, 12	BBC
14,21	Monomoy	30, 8	BBC
Seaside Sparrow:			
14	Monomoy	1	BBC
Vesper Sparrow:			
21	Eastham	1	D.Clapp
Chipping Sparrow:			
22	Monomoy	1	W.Petersen
Song Sparrow:			
1	SRV	22	R.Walton

CORRIGENDA FOR MAY 1982

Yellow-throated Warbler:			
5	M.V.	1	D. Brown#
		should be:	
5	M.V.	1	A. Brown#
Spotted Sandpiper:			
20	N.Scituate to Marshfield	99	B. Cassie + K. Winkler
		should be:	
20	Hull to Scituate	99	B. Cassie + K. Winkler

ADDENDA FOR JUNE 1982

Manx Shearwater:			
4	Nantucket	1 dead	N. Jenks-Jay
Oregon Junco:			
14, 21	Nantucket	1	S. Perkins, N. Jenks-Jay

At a Glance . . .

August 1982 Photo

AT A GLANCE aims to provide the fun and challenge of a puzzle but also to improve our birding skills with New England birds. As BOEM's format is limited to black and white, an opportunity is provided to look for field marks in the absence of color. Although color provides one of the great aesthetic satisfactions of birding, it is a factor in identification that often leads to contention among birders in the field because it is so dependent on light and the perception of the viewer.

The picture problems presented here will deal with New England birds, breeders and migrants with perhaps an occasional rarity, and the solution should be possible for the general birder relying on field guide information. However, in the interest of education, some of the esoteric distinctions apparent in the photos will be discussed to give some insight into the subtleties of species differentiation not necessarily found in field guides and apt to be overlooked by slower or less experienced eyes in the fleeting glimpse one often has of birds in the field.

H. B. Kane's superb photo of a hawk (that much is easy) that appeared in August's BOEM provides much material for speculation. Two features that catch the eye tell the viewer at a glance that it is an immature: the breast streaking and the incompletely grown flight feathers revealed in the spread wing (despite the overexposure of the very white underwing). The next problem is to assign this immature hawk to its proper subgroup. The bird pictured is probably not a falcon: the wing seems too wide, i.e., is not long and pointed; the tail is too ample; and careful examination of the bill does not reveal the upper mandibular notch that is present in falcons. Nor does it seem possible that it is a harrier: the tail is too short.

Can it be an accipiter? At first glance, the wing seems to be rounded, but we must consider that the primaries are incompletely grown. Also, as already noted, the tail is short, and the dusky head appears rather heavy, not the small, angular head typical of accipiters. Note as well that the legs are short and sturdy; thus, the bird does not have the slender, long-legged jizz of the bird-hunting hawks. Although the light supercilium might suggest a young goshawk, the streak is not as broad nor as extensive as shown in the field guides. Also, the breast streaking is too coarse for a goshawk, and there is no sign of a fluffy white crissum. We can safely conclude that the pictured bird is not an immature of the accipiter genus.

How about a buteo? The background of oak (?) leaves offers one size comparison that suggests a small buteo. Despite this, we should proceed carefully and eliminate the larger buteos on other grounds. Is it a young Red-tailed Hawk? The chest is not white but is heavily streaked, and there is no dark mark at the bend (carpal joint) of the wing.

Red-shouldered Hawk can be eliminated as a possibility because the bird in our photo has white rather than dusky wing linings, the wings lack "windows" (pronounced in many young Redshoulders because of the contrast with the dark wing linings), and finally the tail is short.

There is one additional, rather subtle, indication of the kind of bird this is if we look carefully at the primary feathers. They do not seem to be emarginated (Look it up!). Emargination is a feature of the flight feathers that aids in soaring, the sort of flight associated with the more sedentary (W.Peterson's word), less migratory type of hawk, e.g., Redtail. The far-ranging migrant hawks (e.g., Broad-wing) for whom rapid gliding is an important adaptation show fewer emarginated flight feathers. The validity of this observation can perhaps be questioned because this is an immature bird but is included in the interest of expanding the reader's know-how in examining photographs.

What then remains in our diagnosis? The photo shows a small, immature buteo with a relatively short, indistinctly banded tail, a large expanse of white under a wing that is bordered by dark-tipped primaries. It must be a Broad-winged Hawk! May you be able to distinguish your next Broadwing at a glance! D.R.A.

CALENDAR 1982 - 1983

TASL WINTER HARBOR SURVEYS

Boston Harbor	Newburyport Harbor
Sat., November 13, 1982	Sun., November 14, 1982
Sat., January 15, 1983	Sun., January 16, 1983
Sat., February 12, 1983	Sun., February 13, 1983
Sat., March 12, 1983	Sun., March 13, 1983

For details of times, meeting places and leaders, please contact TASL coordinators: Craig Jackson, 321-4382, or Soheil Zendeh, 628-8990.

More information on these censuses and other TASL activities appears in TASL News. To subscribe to TASL News, mail a check for $2.50 payable to Bird Observer, 462 Trapelo Road, Belmont, MA 02178.

At a Glance . . .

Photo by Herbert H. Dill *Courtesy of Massachusetts Audubon Society*

Can you identify this bird?

Identification will be discussed in next issue's *At a Glance.*

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