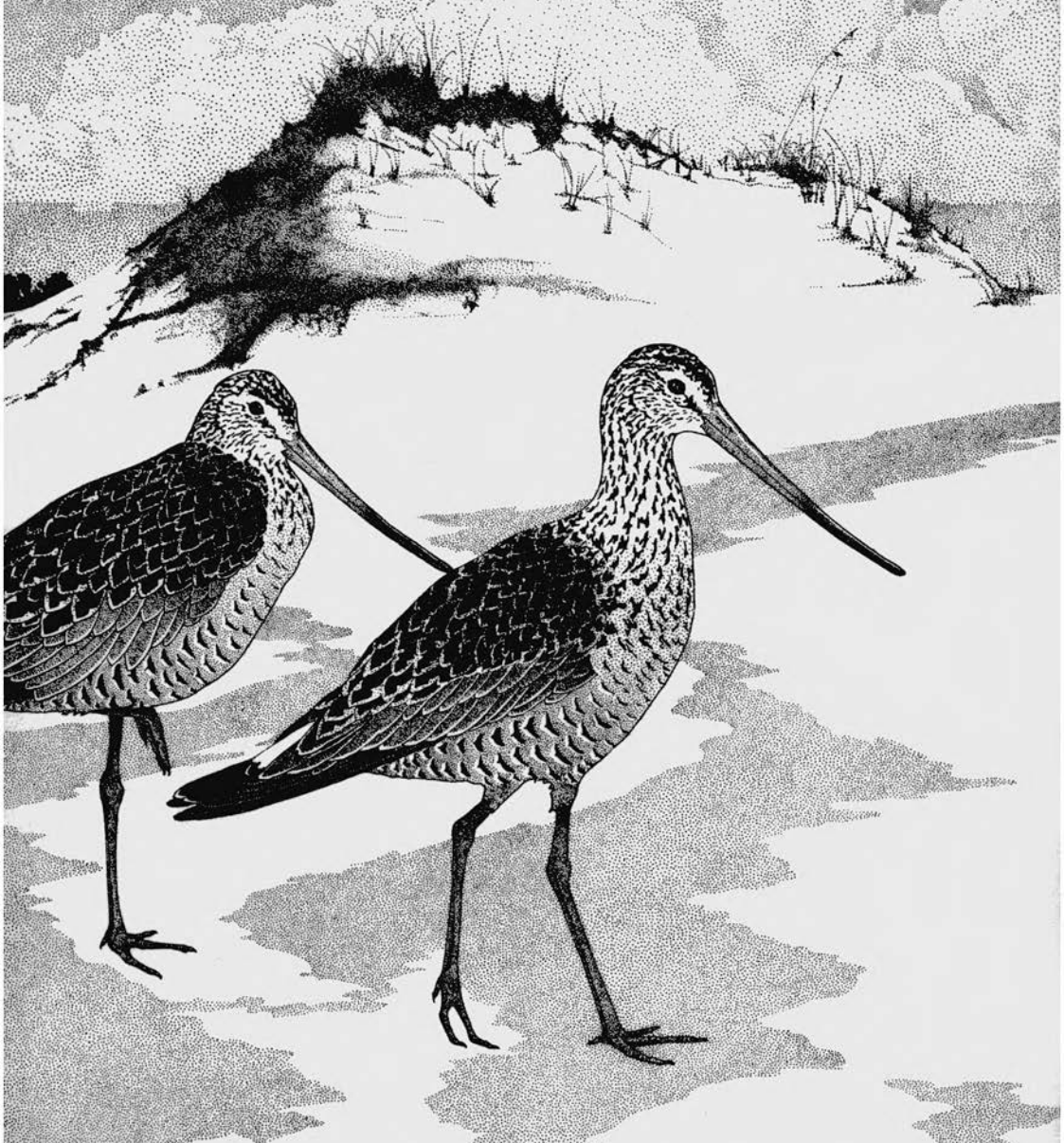


BIRD OBSERVER

OF EASTERN MASSACHUSETTS



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EDITOR'S PAGE

POOLING OUR ENERGY

This summer it may be easier for birders to find petrels than petrol. Industry and government reports indicate a shortfall in the production of gasoline sufficient to cause spot shortages, if not worse, throughout the nation. Gasoline stations might be closed on Sundays or entire weekends, if not by legal mandate, then by the lack of adequate supplies or the desire to reduce operating costs. Even if supplies should prove ample, which seems highly unlikely, we will not be able to avoid paying a very high price for our gasoline. With late April prices ranging from 74¢ to 86¢ per gallon and going higher almost daily, birding trips are proving quite expensive and can only become more so.

Bird Observer therefore encourages its readers to car-pool whenever possible. Not only will you undoubtedly conserve gasoline and save money, both laudable achievements in their own rights, but also you might discover more birds! To this end, we will publish a car-pooling directory for our subscribers, if interest warrants. If you regularly bird one of the following areas (in season) and would be interested in car-pooling, please send us your name, address and telephone number on a postcard, noting which areas of the following you like to bird with some regularity: the Outer Cape, Monomoy, Westport-Dartmouth, Cape Ann, Newburyport-Plum Island, Sudbury Valley, Mt. Wachusett, and Quabbin. We will publish this information in a forthcoming issue, clustering potential car-poolers by their general region of residence, i.e., the Cape, the South Shore, the western suburbs, etc. You would then make your own arrangements with someone in your area, or car-pool from a shopping center en route. Bird clubs might also consider "clustering" at local shopping centers and car-pooling for their longer field trips.

NEWBURYPORT AND BOSTON BREEDING BIRD COUNTS

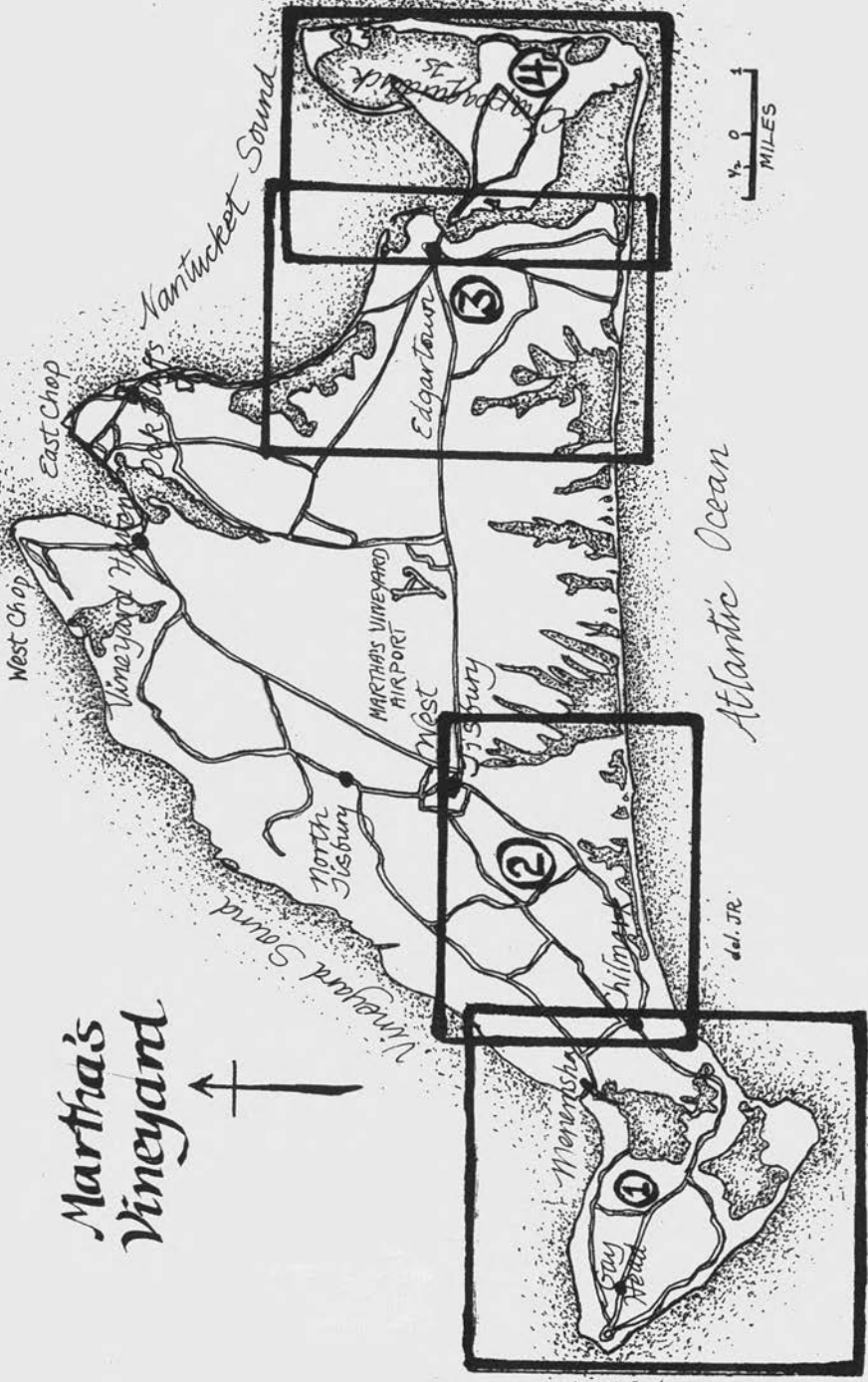
On Saturday, June 16, a breeding bird census of Newburyport and vicinity will be conducted. The area covered, the rules, and the format will be the same as for the annual Christmas Bird Count. Contact Rick Heil, 20 MacArthur Circle, Peabody, MA. 01960, in advance for details, or call 531-7790.

On Sunday, June 17, a Greater Boston Breeding Bird Census will be held. With limited coverage, 112 species were reported in the first year of the count. Anyone interested in participating in this project is urged to contact Robert H. Stymeist, c/o Bird Observer, 462 Trapelo Rd., Belmont, MA. 02178, or call 734-1289.

LOON PUBLICATIONS AVAILABLE

Two publications about loons are now available through the Loon Preservation Committee of the Audubon Society of New Hampshire. The proceedings of the January Loon Conference, "The Common Loon," contain status, research, and management papers from the U.S. and Canada. Edited and published by the L.P.C., it is available for \$5.50 postpaid. A paper published in New Hampshire Audubon's annual report, "Loons in the Northeast - A Chronological Profile," is also available for \$1.00 postpaid. Orders must enclose payment and should be sent to: Loon Preservation Committee, Main Street, Humiston Building, Meredith, New Hampshire 03252.

Martha's Vineyard



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MILES

d.d. JR.

A GUIDE TO BIRDING ON MARTHA'S VINEYARD

by Richard M. Sargent, Montclair, New Jersey

A total of 357 species have been recorded on Martha's Vineyard. This represents 85 per cent of all the birds recorded in the state of Massachusetts. Probably the most famous of them, excluding the now extinct Heath Hen, was the Eurasian Curlew, first identified on February 18, 1978, and subsequently seen by several hundred birders during the month that it remained "on location." Of the 357 species, approximately 275 are regular, occurring annually. The variety of species present and the overall charm of the Vineyard make it a fun place to bird.

The Island is reached by ferry from Woods Hole and if you plan to take your car it is very advisable, if not a necessity, to make advance reservations with the Steamship Authority for both in-season and out-of-season trips. And here a note of caution: much of the property around the ponds and access to many of the back areas is private property and posted. The areas discussed in this article are open to the public and offer a good cross-section of Vineyard birding areas. If there are private areas you want to cover, be sure to obtain permission before entering them.

The Vineyard is roughly triangular in shape with the base of the triangle twenty miles, east to west, and the height, north to south, ten miles. It is of glacial origin with much of the north shore hilly and formed by glacial morain. To the south there are broad, flat outwash plains cut by many fresh water or brackish ponds separated from the ocean by barrier beaches.

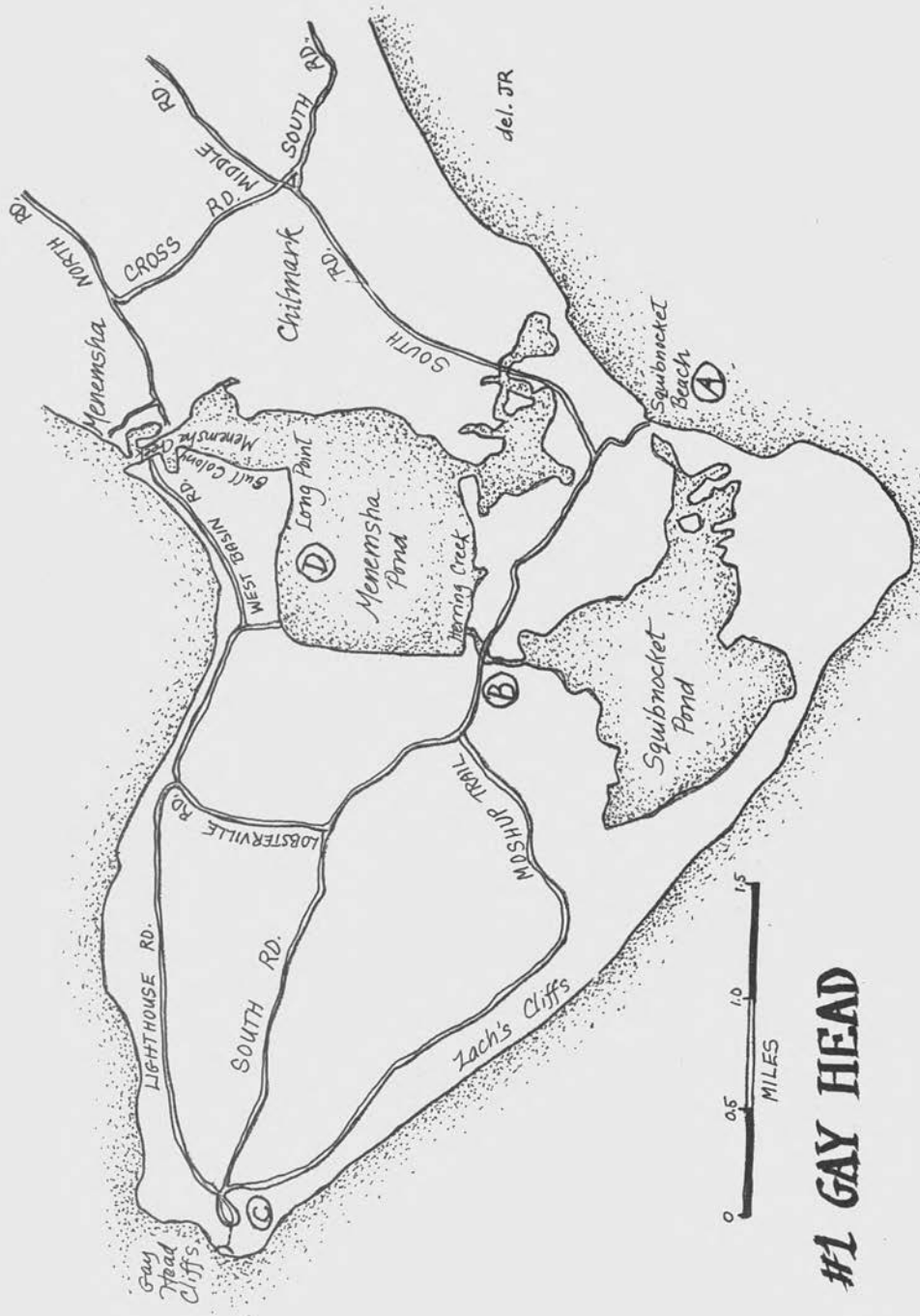
Probably the best time to bird the Vineyard is the month of September. The warbler migration is in full swing and the shore birds are still going through. Anyone used to birding Monomoy will be disappointed with the Vineyard shore birds. There are two basic reasons for this. It is just enough west of the major flight line to miss the heavy concentration of the southern migration and, more importantly, there are very few good mud flats. Probably the best area is the southwest corner of Chappaquiddick when there are low tide mud flats in Katama Bay. Passerines are pretty much where you find them but a trip through the Quenames "loop" should prove interesting in this area.

The following areas are covered by detailed maps and discussion:

1. Gay Head
2. Quenames Loop
3. Katama
4. Chappaquiddick

I. GAY HEAD

(A) Squibnocket Beach. From the parking lot, walk to the right along the beach about 1/4 mile. At low tide Mussel Shoals are exposed where you may see Semi-palmated, Piping, and Black-bellied Plovers; turnstones; Semi-palmated Sandpipers; and Sanderlings. Also present will be the four common gulls of the Island--Great Black-backed, Herring, Ring-billed



#1 GAY HEAD

and Laughing, together with the three terns--Common, Roseate and Least. In late summer look also for Forster's and Black Terns. In recent years off Mussel Shoals there have been from four or five to more than 20 summering Common Eider, much of the time on the large rock off the shoal. In the winter this same rock plays host to Purple Sandpipers.

(B) Herring Creek. On the way to Gay Head, stop at Herring Creek where it passes under the road. Along the creek to the left is a favorite spot for Snowy Egrets and Black-crowned Night Herons. Also, on occasion, a Pied-billed Grebe and Blue-winged Teal may be seen.

(C) Gay Head. The outlook here is not particularly productive in the summer, but in the winter it is the best place on the island for Razorbills and murre as well as the normal winter sea ducks and scoters.

(D) Menemsha Pond. Lobsterville Road gives a good outlook onto Vineyard Sound where there are usually summering Common Loons. Continuing along the road will take you to the northwest corner of Menemsha Pond where you can park and walk the north shore of the pond for shore birds, gulls and terns. It was at Long Point during our annual February census of Island birds that we first found the Eurasian Curlew. Continuing north along Menemsha Creek is a large nesting colony of Herring and Great Black-backed Gulls. Without a long walk, the eastern end of the West Basin Road will take you fairly close to the gull colony.

2. QUENAMES LOOP

Three miles east of Chilmark on the South Road you will pass Meeting House Road on the left. Take the dirt road on the right about half a mile east of Meeting House Road and follow this making the loop shown on map #2. Stop at open places along the road. Puddles in the road can be particularly productive. All the side roads, two of which are indicated, are private roads and should be avoided. Particularly in September the Loop can be good for warblers, chickadees, Red-eyed and Philadelphia Vireos, both nuthatches, Hairy and Downy Woodpeckers, phoebes, pewees, and both cuckoos, as well as the other common passerines.

3. KATAMA

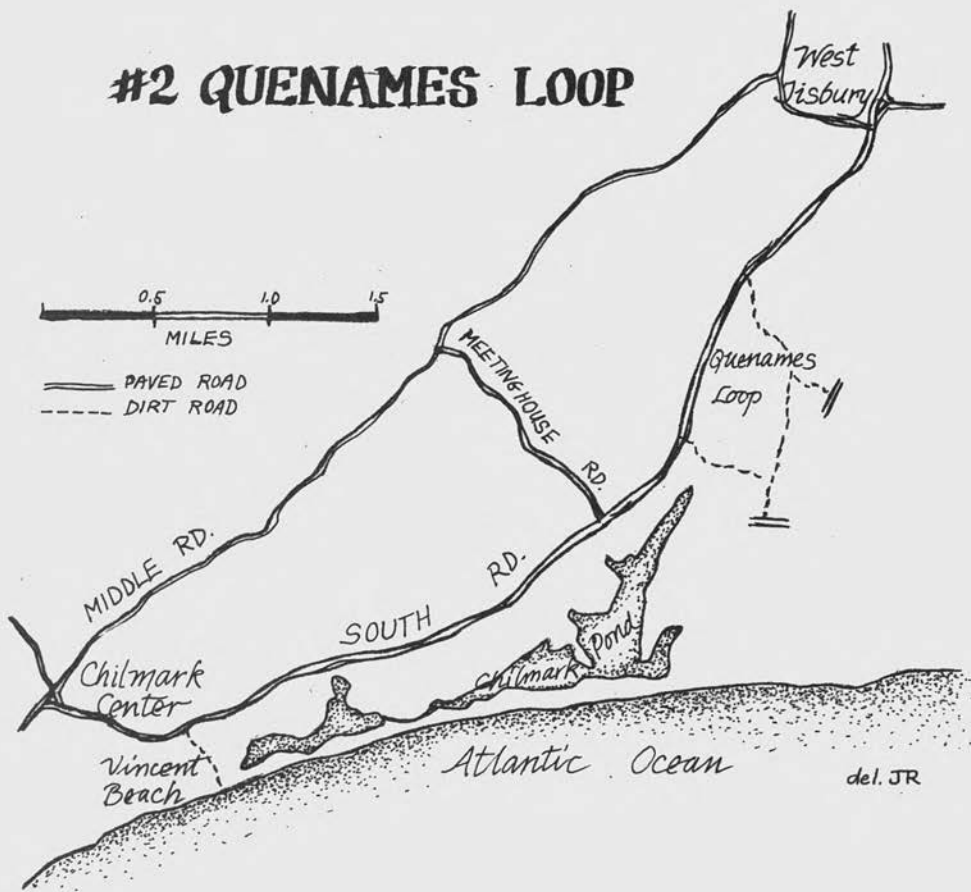
(A) Sengekontacket Pond. Most of this pond can be covered by car from the Edgartown-Oak Bluffs road. The best places for shore birds are the tidal flats around Sarson's Island. With a scope most of the standard shore birds are usually seen at one time or another during the summer, including Semi-palmated, Piping and Black-bellied Plovers; Ruddy Turnstones; Spotted, Least, Semi-palmated and Western Sandpipers; both yellowlegs, knots, Dunlins, dowitchers and Sanderlings. The island and the inlet are gathering places for large numbers of gulls and terns--Great Black-backed, Herring, Ring-billed and Laughing Gulls; and Common, Roseate and Least Terns, with Forster's and Black Terns in September. This is also a likely spot to find an Arctic Tern.

(B) Felix Neck Wildlife Sanctuary. The entrance to the Sanctuary is about 2 1/2 miles from the center of Edgartown on the Vineyard Haven Road. The sanctuary manager is Gus Ben David and the sanctuary is usually open daily from sunrise to sunset. There is a very attractive

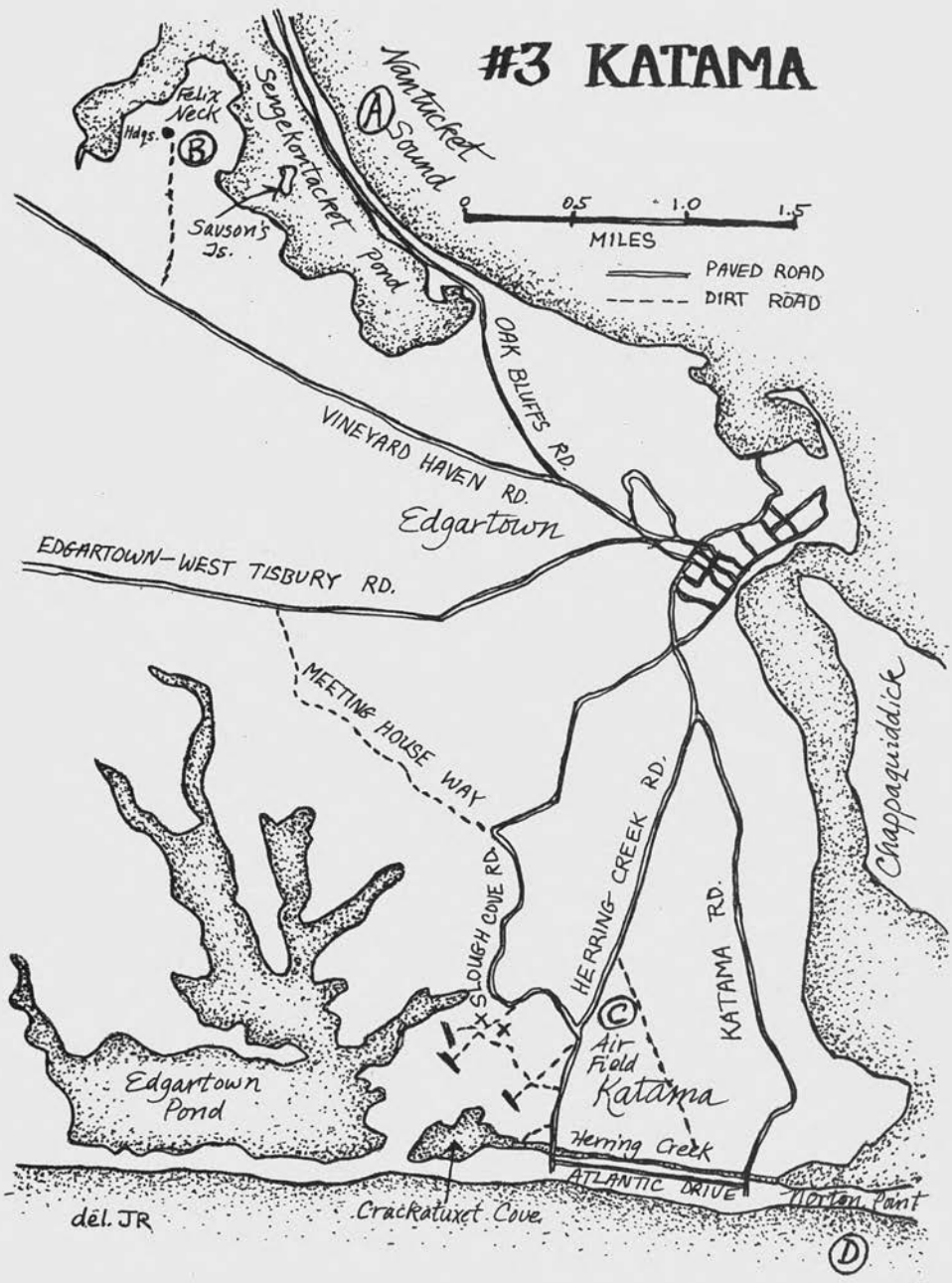
#2 QUENAMES LOOP



— PAVED ROAD
- - - DIRT ROAD



#3 KATAMA



Felix Neck
Hags. (B)

Savson's Js.

Nantucket Sound (A)

0.5 1.0 1.5
MILES

PAVED ROAD
DASHED ROAD

VINEYARD HAVEN RD.
Edgartown

OAK BLUFFS RD.

EDGARTOWN-WEST TISBURY RD.

MEETING HOUSE WAY

Edgartown Pond

SLOUGH COVE RD.

HERRING CREEK RD.

KATAMA RD.
Air Field Katama (C)

Chappaquiddick

Herring Creek

ATLANTIC DRIVE

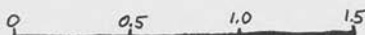
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Crackatuxet Cove

Norton Point

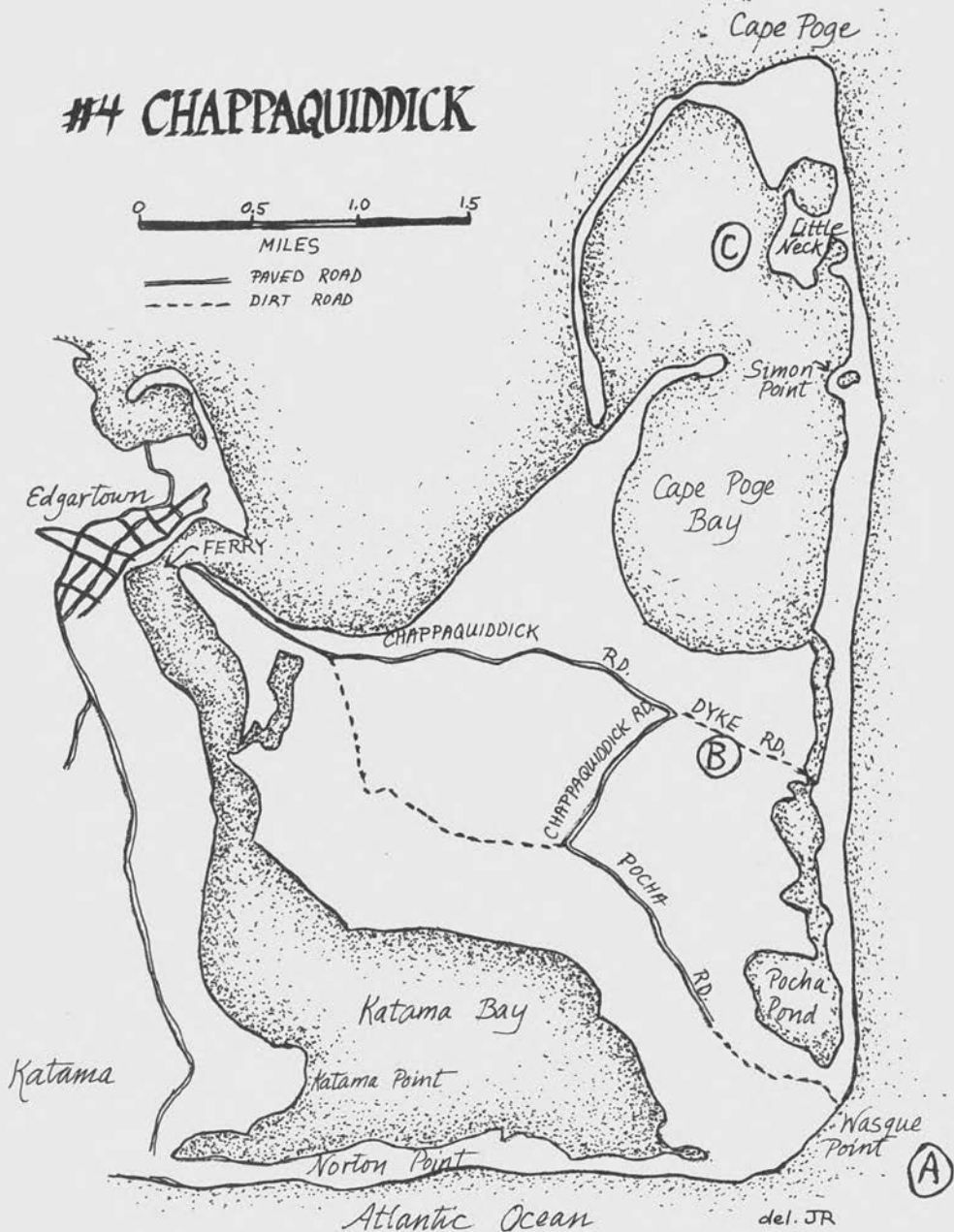
(D)

#4 CHAPPAQUIDDICK



MILES

— PAVED ROAD
- - - DIRT ROAD



shop at the sanctuary center as well as interesting exhibits and wild-life trails leading to the salt marshes surrounding Felix Neck. Of special interest is the waterfowl pond. This pond is populated by many species of ducks, some captive but many wild birds which have been attracted by the pinioned birds and the food which is liberally distributed. It is the best and by far the easiest way to add a Wood Duck to your island list as they fly in and out at will. There is a blind for convenient observation. There are many feeders around the headquarters buildings which attract a variety of song birds; an Osprey nesting pole is an added attraction.

(C) Katama Plains. The Katama Airfield runway, from the airport buildings south along Herring Creek Road, is where the Buff-breasted Sandpiper is usually first seen on the Vineyard in the first week of September. Continuing south and turning right on a dirt track just before Herring Creek permits access to the eastern end of Crackatuxet Cove--a fresh water pond which should produce a Great Blue Heron, Mute Swans, geese, Mallards, Black Ducks and teal as well as some shore birds and maybe a Pied-billed Grebe. Walking east along the north side of Herring Creek could put up a Short-eared Owl. Keep an eye open for Red-tailed and Rough-legged Hawks over the plains. Take Slough Cove Road and scope the fields indicated by "X" on the map. (Please do not walk in the fields.) There should be many Black-bellied Plover and Killdeer; this is the best place on the island for Upland Sandpiper. By the third week in August the Golden Plover should arrive.

(D) Norton Point. Norton Point forms the southern shore of Katama Bay and connects Chappaquiddick with the main part of the island (see also map 4). At the Katama end there are good flats at low tide for the usual gulls, terns and shore birds. (See species listed under Sengekontacket Pond.)

4. CHAPPAQUIDDICK

A small island east of the Vineyard, Chappaquiddick is reached by a two-car ferry from Edgartown. The fare is nominal and ferries operate on demand during daylight hours.

(A) Wasque Point. The salt water pond at Wasque Point is good for shore birds--quality rather than quantity. This is an excellent spot for White-rumped and Pectoral Sandpipers. In the sand and dunes on the ocean side of the pond are Piping Plovers and Horned Larks together with nesting Least and Common Terns. At low tide there are extensive tidal flats in the eastern arm of Katama Bay--a good place for shore birds, gulls and terns. Look off Wasque Point for shearwaters and Gannets.

(B) Dyke Road. About 3/10 of a mile from the western end of Dyke Road, on the left, is Mytoi. This consists of a small pond landscaped to represent a Japanese garden and is a good stopping place for warblers and other small birds. Walk around the pond and in the pine woods behind the pond. After covering Mytoi, continue along Dyke Road by car to the bridge which will afford a good view of salt marshes in both directions. Herons, egrets, and possibly Whimbrels may be seen here. Look for Osprey along the edge of the woods.

(C) Little Neck. The road ends on the east side of Dyke Bridge and becomes a jeep track suitable only for 4-wheel drive. A good part of the area to Little Neck is owned by The Trustees of Reservations and a beach permit is required to drive the area. For those who have a permit or can get a ride, or are willing to tackle the 2 1/2 mile walk, the trip to Little Neck can be rewarding. The ponds at Simon Point and Little Neck generally produce Whimbrels, oystercatchers and Willets, all of which are difficult to find elsewhere on the island. The salt marsh at Little Neck is a good place for Sharp-tailed Sparrows and with luck you may flush a Yellow-crowned Night Heron from one of the small salt ponds.

PELAGIC BIRDING

Very little has been done in the way of regular ocean birding trips off the Vineyard. All three regular shearwaters are usually reported each year from shore sightings. In June of 1963, a nesting Manx Shearwater was reported at Penikese Island (just north of Cuttyhunk) and other sightings around the Vineyard have subsequently been reported. The Leach's Petrel also nests on Penikese and is irregularly reported off the Vineyard. The Parasitic Jaeger is regular but the other jaegers and Red and Northern Phalaropes are not. These birds are reported in large numbers off Cox's Ledge by pelagic trips made from Montauk but this ledge is really nearer the Vineyard than Montauk. Any reports of ocean trips would be very welcome.

WINTER BIRDING

The most exciting part of winter birding is the larger numbers and variety of species of waterfowl. In the summer, about all you can expect to see are Pied-billed Grebes, Mute Swans, geese, Black Ducks, Mallards, Blue-winged Teal, Wood Ducks, an occasional summering eider and an odd scoter. Last February, over a three-day weekend, we had 33 species of waterfowl. Enormous rafts of scoters feed off Wasque Point. Large rafts of eider were seen from the ferry as well as in Nantucket Sound off Oak Bluffs and in the ocean off Gay Head. For three of the last four years we have had Barrow's Goldeneye in February--twice off Katama Point in Katama Bay and last February off Sarson's Island in Sengekontacket Pond.

ACCIDENTAL SPECIES

If you do bird the Vineyard, I hope this article will make your trip more enjoyable. If you see any unusual species, I would greatly appreciate your advising me, giving me details of time and place and the observers involved. My address is 38 Prospect Avenue, Montclair, New Jersey 07042.

EDITOR'S NOTE:

The following references provide additional information on the birds of Martha's Vineyard:

1. Griscom, L. and G. Emerson, Birds of Martha's Vineyard (1959). Privately printed, Athoensen Press, Portland, Maine.
2. Keith, R., and E. L. Chalif, A Supplemental List of Martha's Vineyard Birds (1968). Sponsored by Massachusetts Audubon Society.
3. Sargent, R. M., Check-list: Birds of Martha's Vineyard. Revised 3-31-75 by the Vineyard Gazette.

FIELD IDENTIFICATION NOTES: THE TWO WATERTHRUSHES

by Joseph T. Leverich, Boston

The Northern Waterthrush (*Seiurus noveboriensis*) and the Louisiana Waterthrush (*Seiurus motacilla*) occur regularly in Massachusetts both as migrants and as summer residents. Although extreme individuals of these two species are easily identified by sight, other intermediate birds can be quite confusing. This article summarizes information bearing on the field identification of the two waterthrushes.

Binford (1971:1) states that "the ornithological literature is confusing and misleading. Field guides vary considerably as to which characters are mentioned or stressed, and none adequately depicts the subtle differences between the two species. Most guides overemphasize the throat spotting, incorrectly describe the eyeline, and fail to mention the flank color."

Habitat

Where the two species overlap in range they tend to occupy different habitats, the Northern in bogs along the edges of small pools (still water), and the Louisiana next to brooks and small streams (running water). Thus, both species are seen most often in places of deep shade. Crooked Pond, Boxford, where both occur in close proximity, is marvelously gloomy.

Unfortunately, those visual field marks that separate the two species have to do with tints of grey, buff and yellow. I have always counted myself lucky to view either species in enough light to see that the back color is brown and not black. Determination of the ground color of the underparts was beyond the pale. Hence, this article concludes with a discussion of the territorial songs and call notes of the two species, both of which are absolutely diagnostic.

Discussion of the Field Marks

1. Posture

Both species maintain a quite horizontal posture and walk with a bobbing motion reminiscent of a Spotted Sandpiper. This teetering continues even when the bird is at rest.

2. Size

Peterson (1947:150) remarks that the Louisiana Waterthrush is larger. According to Robbins, et al (1966:271) the difference in average size is approximately 1/4" on birds of length 5", a size difference of only 5%. As Binford (1971:2) states, "The differences in over-all size ... are so slight that only an expert birder who is very familiar with both species and has an exceptional eye for size could distinguish between even the extremes of the two species."

3. Bill Size (Somewhat useful)

The bill of the Louisiana Waterthrush is, on the average, longer, deeper and wider. - It looks big for the head of the bird, whereas the bill of the Northern Waterthrush is less prominent, more in proportion to the rest of the head. However, there is overlap in absolute measurements, and thus this field mark should not be used except when encountering either of the extremes.

4. Color of the eyestripe (A useful character)

Most authorities state that the eyestripe of the Louisiana Waterthrush is invariably a glistening, pure white throughout. Although this is often one's first impression, the facts are otherwise. Close examination will show that the anterior part of the eyestripe (between the bill and eye) is "always washed with grayish-olive or grayish-buff and hence is similar to the same portion of the eyeline in noveboracensis" (Binford 1971:2). Clearly, it is the rear half of the eyeline that is critical. This part of the eyeline is indeed pure white on 80% of the Louisiana Waterthrushes. On the other 20% the posterior is marked with buff.

The eyestripe color on a Northern Waterthrush is uniform, usually buffy or clear yellow or deep cream. However, many individuals of the western race (Grinnell's Waterthrush) have eyestripes so white as to be indistinguishable from Louisianas. Griscom and Snyder (1955:206) say, "Students are warned that individuals of this species with white eyebrows and whitish underparts are regular transients in this state and have led to a spate of incompetent sight records of the Louisiana Waterthrush in late May and fall."

The following chart may be useful:

	Color of the posterior half of the eyeline	Species
a)	clear yellow	Northern
b)	uniformly buffy	Northern
c)	marked with buffy	Louisiana
d)	uniformly whitish	Northern or Louisiana

5. Shape of the eyestripe (Excellent character)

Wallace (1976:28) points out that although the color of the supercilium is a difficult mark to see and to use, the shape is completely diagnostic. The field mark is well-illustrated by Singer (Robbins, et al, 1966:271). The eyestripe of a Northern Waterthrush is narrower, shorter, of a uniform width throughout. On the Louisiana Waterthrush, the eyestripe is wider (and therefore brighter) and extends farther around the head.

6. Throat spots

Contrary to the comments in the field guides, the presence or absence of throat spotting is a nearly useless field mark. Wallace (1976:28) says, "Some Louisianas have larger and better defined spots than some Northerns." Approximately 3% of the Northern Waterthrushes have no throat spots at all (and sport immaculately white throats!)

Will Russell suggests that, if the throat is spotted, then "there is a useful field character in the pattern of marks across the lower throat and upper chest. If there are many sharp spots noticeably clustered there, the conspicuous collar or gorgette so formed is indicative of Northern" (Wallace, 1976:29).

7. Throat color (Good character)

The throat color of the Louisiana is always a pure, glistening white. About 97% of the Northern Waterthrushes have a ground color that is yellowish or off-white. Unfortunately, the other 3% have immaculately white throats.

8. Underparts (Best mark)

The underparts of Northern Waterthrushes are usually of a uniform ground color, lemon yellow, yellowish or off-white. On Louisianas the underparts are two-toned: flanks and undertail coverts are "clear pale buff, ochraceous buff, cream buff, pale cinnamon, or pale fawn color ... [and] this buff color is usually rather bright, often very bright" (Binford, 1971:4). Binford regards this field mark as the single most reliable field character, but Dr. A. D. Brewer stresses that absence of showy flank patches does not exclude a Louisiana, since a very few of this species have a yellowish cast throughout the underparts.

9. Territorial song

The territorial songs of both species descend in pitch. The Northern's song is forceful throughout, speeding up slightly toward the end and usually ending with an emphatic "chew, chew, chew."

Pough (1949:182) describes the song of the Louisiana Waterthrush thus: "It opens with 3 or 4 long, upslurred, rather slowly uttered notes, then breaks into a hurried jumble of short, almost explosive notes, some high, some low, but usually trending downward."

10. Call notes

Call notes of the two species are quite similar but yet sufficiently distinctive to be diagnostic. Field guides describe these notes as a sharp "clink" or "pink." To me these are possible representations of the notes, but they fail to portray their smack-like sound.

Most birders will find it fairly easy to learn to differentiate these two notes from those made by other warblers. Distinguishing between them is hard to describe but plain to the ear.

The call note of the Louisiana Waterthrush sounds like that of the Northern Waterthrush, but with an added element, a certain popping sound uttered in the middle of the note. This popping sound tends to color the over-all quality. Hence, I would render the call of the Louisiana as a "chock" to contrast it with the "chink" of the Northern Waterthrush. However, transliterations such as these are notoriously subjective. Rather than attempting to record these call notes as words, it would be more to the point to compare the extra popping sound with other sounds

possibly already familiar to the reader. At times this pop reminds me of the sound made by wooden orchestral blocks. More often I am reminded of one of the Bantu clicks that Miriam Makeba uses in the songs of her native South Africa. To make this sound, cup the tongue tightly against the roof of the mouth (as if holding a marble in place), create a suction above the tongue, and then jerk the tongue downwards to break the suction.

Summary

Binford (1971:5) says that "no single character is one hundred percent diagnostic. A bird that has strongly ochraceous-buff flanks or a combination of pure white eyeline (posterior part) and pale buff flanks is definitely a Louisiana. Any bird with a yellowish tint on the posterior part of the superciliaries or strong yellow on any portion of the underparts is definitely a Northern." Binford, it should be remembered, does not discuss the shape of the eyeline; Wallace apparently believes this mark to be diagnostic.

It must be remembered that the Louisiana Waterthrush normally arrives some two weeks earlier than the Northern Waterthrush. Reports of migrants are most common from the third week of April through the first week of May. Bailey (1955:193) says that "the nesting period probably extends from May 5 to 30. This warbler is one of the earliest to move south and normally disappears between July 15 and 30."

Northern Waterthrushes arrive usually in the last week of April. Peak counts normally fall between May 17 and 23. Fall migrants appear in early August, with the bulk of the flight moving through from August 21 to September 21.

Literature Cited

- Bailey, W. 1955. Birds in Massachusetts. The College Press, South Lancaster, Massachusetts.
- Binford, L. C. 1971. "Identification of Northern and Louisiana Waterthrushes," California Birds (2):1-10.
- Griscom, L., and D. E. Snyder. 1955. The Birds of Massachusetts, An Annotated and Revised Check List. Peabody Museum, Salem, Massachusetts.
- Peterson, R. T. 1947. A Field Guide to the Birds. Houghton Mifflin, Boston.
- Pough, R. H. 1949. Audubon Land Bird Guide. Doubleday and Co., Garden City, New York.
- Robbins, C. S., B. Bruun and H. S. Zim. 1966. Birds of North America. Golden Press, New York, New York.
- Wallace, D. I. M. 1976. "A review of waterthrush identification with particular reference to the 1968 British record," British Birds (69):27-33.

FROM THE FORESTS, TO THE MOUNTAINS, TO THE OCEANS....

Would you like to spend two weeks in Panama studying the changes in the composition and abundance of certain species of tropical birds? How about three weeks in the Sierra Nevada Mountains of California, studying more than forty subalpine species of birds?

EARTHWATCH, a non-profit organization headquartered in Belmont, Mass., is a clearinghouse matching volunteers with scientists and research scholars who require additional funds and volunteers to conduct their research, such as the projects in Panama and California. This year EARTHWATCH is aiding 350 scholars with projects in 19 states and 44 countries. Anyone between the ages of 16 and 75 can participate. Volunteers are required to pay their own transportation to and from the site, and a set share of the expedition's cost, both of which are tax-deductible.

This year three expeditions are of special interest to birders, with several others of local significance.

In California, Dr. David DeSante of the Point Reyes Bird Observatory and volunteers will conduct a census of breeding birds of the Inyo National Forest and observe their behavior to find out how stable these communities are and whether human activity poses a threat to the more than 40 species of subalpine birds that inhabit the area. Participants will net, band and observe birds, hike, swim and enjoy the magnificent scenery. Each of four teams will spend three weeks in the field, beginning June 10, July 1, July 22, and August 12. Each participant's share of the costs is \$775.

Meanwhile, in Hawaii, Dr. Charles van Riper of the University of Hawaii and volunteers will be investigating the causes of the reduction of native Hawaiian bird populations. Two hundred years ago there were 70 species of birds native to the Hawaiian Islands. Today 24 species are believed extinct and 27 others have been placed on the endangered list. Working in the lush tree fern forests of Hilo, the team will net and band birds, take blood samples to determine whether diseases introduced from the mainland are depleting the populations, and release the birds. A two-week study will begin on May 26, with each participant's share of the costs \$650.

The brilliantly colored birds of the Panamanian forests are the focus of a study conducted by Dr. James R. Karr of the University of Illinois. Working 5 miles north of Gamboa in the Panama Canal Zone, participants will be netting, identifying and banding tropical birds and sampling the plants that they use as food to determine how these resources affect the abundance and distribution of the species. The expedition offers a rare opportunity for birdwatchers to observe many beautiful but secretive tropical birds. Teams will be in the field for two weeks, beginning July 6. Costs are \$725 each, plus transportation.

In all of these programs, volunteers will receive instruction in the necessary field techniques.

Of local non-ornithological interest, EARTHWATCH is offering three projects

on Cape Cod this summer. Dr. Stephen Leatherman, Director of the National Park Service's Cooperative Research Unit, is studying the past and present coastal environment of Nauset Spit. The great barrier beaches of the eastern United States are vanishing, victims of the worldwide rise in sea level, occasional storms, and increasing numbers of off-road vehicles. Leatherman hopes to accumulate baseline data which will help the National Park Service formulate land management plans for Nauset Spit and other barrier islands. Teams will begin two-week study periods on July 15 and August 5, with each participant's share of costs \$700.

Near the elbow of Cape Cod, between Chatham and Orleans, is Pleasant Bay, 3700 acres of tidal creeks, salt marsh, beaches and islands. Some developments are being proposed for the area which might have an adverse impact on its value as a marine nursery. More information is needed to help citizens determine if the proposed developments might destroy the shellfish potential of the bay, or if revenues from commercial fishing might offset losses due to possible prohibitions on land development. George Buckley, of Harvard, is leading the project, which this summer hopes to determine the density, distribution and interaction of organisms like oyster drill, shrimp, certain mollusks and algae. Volunteer teams will work two weeks, beginning July 9, July 27 and August 14. Costs are \$600.

The question of shoreline development is also being studied at Provincetown, where Drs. Barbara S. Mayo and Graham S. Giese will conclude a three-year study of the harbor. A dramatic decline in shellfish and other marine resources led to this intensive study which will help determine a harbor management policy for Provincetown. A two-week field study will begin on June 10, with each participant's share \$700.

For further information on any of these projects, write: EARTHWATCH, 10 Juniper Road, Box 127VR, Belmont, MA. 02178.

TAKE A SECOND LOOK

Bird Observer would like to remind everyone of its continuing series of "Take a Second Look" field trips. These trips are intended to give participants the opportunity to study and analyze birds' behavior and their relationships with other birds and the rest of their environment. Participation is limited; anyone interested in one of these trips is encouraged to contact the leader several weeks in advance for exact details

June 3	"Survey of Nesting Birds in Lynn Woods"	Lynn Woods	Rick Heil (531-7790)
June 24	"Nesting Ground Birds and Raptors in a Suburban Habitat"	Weston	Leif Robinson (864-7360)
July 29	"Wading and Shorebirds in a Local Salt Marsh"	Belle Isle Marsh	Soheil Zende (628-8990)

THE WINTER SEASON
NOVEMBER 1978 - FEBRUARY 1979

November was cold and dry; the temperature averaged 43.6°. The high mark was a mild 70° on the 18th, the low, 17° on the 27th. The season's first freeze for the Boston area came on the 13th, 6 days later than average. Snow totaled 4.2 inches, the most for November since 4.9 inches in 1945. The season's first snow was 2.1 inches on the 21st, a whole 4 weeks before average.

December was mild and sunny with somewhat below normal precipitation. The mercury averaged 35.3°, 2.3° above normal. The highest temperature was 62° on the 4th; the low mark was 19° on the 11th, 18th and 19th. Precipitation totaled 3.63 inches with 1.2 inches on the 9th-10th. Snowfall was but 5.8 inches, 2.3 inches less than average. The most snow in 24 hours was 4.8 inches on the 9th-10th. A bad sleet storm on the 20th-21st caused severe glazing and many accidents were reported.

Mild temperatures, cloudy skies and flooding rains dominated the weather for January in eastern Massachusetts. The year started with a hint of spring with the temperature of 58° on New Year's Day, rising to 61° on the 2nd. There were 5 days in the 50s. It was pleasant weather for searching out the Boreal Owl in Salisbury, but to no avail. The low mark was 4° on the 19th. Precipitation totaled 10.55 inches, about triple the 3.69 inches normal and set a new record for January. This was the 9th greatest total for any month and the wettest of any since August, 1955 (17.09 inches). Days with more than one inch also set a new record for January at 5; the most precipitation in 24 hours was 2.72 inches on the 20th-21st. Snow totaled 10.5 inches, 2.3 inches under normal, with 4.2 inches on the 17th being the most in any one storm. The ground was bare most of the month. The two great rainstorms caused disastrous flooding in eastern Massachusetts.

February was very cold and sunny with near normal precipitation. The first 20 days were very cold, averaging 12.6 degrees below normal. The entire month averaged 23.1°, 7.3° below normal. This was the coldest February since 1936 (22.8°) and the 7th coldest in 109 years of record. The mercury dipped to 5° or lower for 10 days in a row, setting a new record. The month's low was -3° on the 11th, the high temperature reading was 53° on the 22nd and 28th. Precipitation totaled 3.46 inches; the most in any one day was 1.75 inches on the 26th. Snow totaled only 6.6 inches, 5.4 inches less than average and less than a fourth of the February 1978 27.2 inches. The most in any 24 hour period was 3.7 inches on the 7-8th. This was the windiest month of any since January, 1971. The winds continued stronger than average right through most of the month's coldest days, producing bitter and even dangerous wind-chill conditions. According to Robert Lautzenneiser, state climatologist, northwesterly winds prevailed throughout the first two-thirds of the month, the longest such steady direction within recall, possibly a record duration. The "storm of the month" was the "Great Sleet Storm" on the 26th. This dropped 2.6 inches of nearly all sleet mixed with some freezing rain at times. The sleet and icing conditions varied with location and elevation. Great Blue Hill received more freezing rain with heavy build-up on tree limbs causing severe damage. Roads were very hazardous and strong northeasterly winds battered the coastline. Another feature of the month was the high air pressure of 30.86 inches on the 18th, the highest reading since December 31, 1971.



Boreal Owl, Salisbury, Massachusetts, December 31, 1978
Photographed by Fred Atwood, Alexandria, Va.

Loons through Herons

An unusually large number of loons present in the waters around Nantucket in late December included 355 Common (cf., CBC totals since 1974: 69, 299, 99, 241) and 375 Red-throated (cf., 4, 132, 19, 51) while counts elsewhere along the coast were considered normal. At Rafes Chasm, Magnolia, an Eared Grebe present January 27 to February 4 represents the only state sight record since January, 1975 (Sandy Neck, Barnstable). Traditionally the least likely shearwater to appear in winter is the Sooty since this species, along with the Wilson's Storm-Petrel, are among the first of our summer pelagics to depart New England waters--in this case for breeding colonies in the southern hemisphere. Surprisingly late were single Sooty Shearwaters on Cultivator Shoals December 12 and from shore at Eastham (Nauset) during the northeast' of December 17. It is likely that such lingering individuals are non-breeding sub-adults spending the entire winter in the north Atlantic. Other late pelagic sightings included 5-6 unidentified shearwaters from the cape in mid-December and two very late Wilson's Storm-Petrels on Georges Bank November 15. Migrant Gannets staged an excellent flight, noted primarily from typical Cape Cod observation points. During 35 mph NE-NW winds on December 17, the Cape Cod CBC tallied nearly 12,000 Gannets. This count is exceeded only by an estimate of 15,000 Gannets off Monomy December 20, 1973. In recent years Double-crested Cormorants seem to be lingering into the winter though sightings decrease as the winter progresses: cf., monthly totals for the last four seasons:

	<u>December</u>	<u>January</u>	<u>February</u>
1978-9:	15	6	1
1977-8:	5	5	0
1976-7:	9	2	0
1975-6:	1	0	0

Common Loon:

11/12,19	Barnstable (SW), Salisbury	150,9	R. A. Forster, BBC
12/9,15	Saltuate, Buzzards Bay	44,42	SSBC, CBC
12/17,31	Cape Ann, Nantucket	39,355	CBC
1/28	P.I.	19	BBC
2/15,22	Cape Ann, Salisbury-P.I.	15,12	J. Gragan, R.S. Heil

Red-throated Loon:

11/5	Breed's Pd., Lynn	1	R.S. Heil
11/11,12	Provincetown, Plymouth-S.N.	25,75	R.R. Veit#, SSBC
12/9,27	Rockport, Plymouth	74,4	BBC, CBC
12/17,31	Cape Cod, Nantucket	11, 375	CBC
1/20,2/16-19	Nantucket, M.V.	125,8	R.R. Veit#, A. Keith#

Red-necked Grebe:

11/22,23	Provincetown, Rockport	2,5	R.S. Heil#, R.A. Forster
12/16,27	Buzzards Bay, Plymouth	6,10	CBC
12/31,1/5	Nantucket, Cape Ann	91,6	CBC, BBC
1/20,23	Nantucket, Provincetown	15,25	R.R.Veit#, L.Crofoot#
2/22,25	Salisbury, Rockport	7,6	R.S.Heil,R.H.Stymiest#

Horned Grebe:

11/4, 5-26	Lakeville, Wollaston	17,60-203	W.R.Petersen, D.T.Brown#
12/16,23	Buzzards Bay, Newburyport	583,36	CBC
1/20,27	Nantucket, P.I.	275,40	R.R.Veit#, BBC
2/4,16-19	Cape Ann, M.V.	30,40	BBC,R.Sargent#

Eared Grebe:

1/27-2/4	Rafes's Chasm-Magnolia	1	M.Martinek#
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Pied-billed Grebe:

11/11,24	Braintree, Lakeville	12,24	W.R.Petersen, BBC
12/2	Braintree (Great Pond)	14	S.Higginbotham
12/16,17	Buzzards Bay, Cape Cod	33,33	CBC
1/13	P.I.	4	BBC
1/15,20	Acoaxet, Lakeville	5,3	W.R.Petersen

Greater Shearwater:

11/24	Eastham (Nauset), Nantucket	100,60	W.R.Petersen, R.R.Veit#
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Sooty Shearwater:

12/12,17	Cultivator Shoals, Eastham (Nauset)	1,1	MBO staff, W.R.Petersen & P.K.Donahue
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Manx Shearwater:

11/24	Eastham (Nauset)	2	W.R.Petersen
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shearwater, sp.:

12/10,17	Eastham (First Encounter)	3+,2-3	B.Nikula, W.R.Petersen#
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Wilson's Storm-Petrel: (no details)

11/15	SE Georges Bank	2	MBO staff
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White Pelican:

11/1-12/7	Truro to Centerville	1	v.o.
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White Pelican:

11/1-12/7	Truro to Centerville	1	v.o.
<u>Gannet:</u>			
11/12,24	Eastham(First Encounter)	2000+, 4000	R.W.Smart & B.Nikula#
11/22	Nantucket, Provincetown	4000, 1000	R.R.Veit#, R.S.Heil#
12/10,17	Eastham(F.E.), outer cape	1000+, 11,845	B.Nikula, CBC
1/28	Rockport, Provincetown	1 imm., 11	J.Berry, L.Crofoot#
2/3,25	S.Georges Bank, Rockport	13,1	MBO staff, G.L.Souay#
<u>Great Cormorant:</u>			
11/5,8	Nahant, Cape Ann	80, 65+	BBC, BBC
11/23	Waltham(Camb. Res.)	1 imm.	R.A.Forster
12/16,17	Buzzards Bay, Cape Cod	573, 305	CBC
1/7,13	Squantum, Nahant	120, 105	BBC, S.Zendeh
<u>Double-crested Cormorant:</u>			
11/12	Newburyport, Lakeville	10, 1	R.S.Heil, BBC
11/18,30	Rockport, Newburyport	1, 1 imm.	BBC, R.S.Heil
12/3,13	N.Scituate, Plymouth	1, 5 imm.	R.R.Veit#, R.S.Heil
12/17,23,31	Cape Cod, Newburyport; Ipswich	6, 1 imm.; 2	CBC; J.Berry
1/5,7	N.Scituate, Quincy	1 imm., 3	G.Wilson#, D.T.Brown
1/1,20	Ipswich, Plymouth	1, 1 imm.	J.Berry, W.R.Petersen
2/28	M.V.	1	V.Laux
<u>Great Blue Heron:</u>			
11/11,25	P.I., Essex	10, 16	BBC, BBC
12/16,17	Buzzards Bay, Cape Cod	34, 31	CBC
12/30,31	Marshfield, Nantucket	20, 55	CBC
1/7-27	5 localities	10 individuals	v.o.
2/3,16-19	Milton, M.V.	3, 3	BBC, G.Daniels#
thr. Feb.	5 localities	5 individuals	v.o.
<u>Green Heron:</u>			
11/5,12/16,30	M.V., Worcester, Tuckernuck I.	1, 1, 1	V.Laux, CBC, CBC
<u>Great Egret:</u>			
11/4-23	Nauset	1	B.Nikula#
<u>Black-crowned Night Heron:</u>			
11/18,26	E.Boston, Hingham	1,1 imm.	R.R.Veit#, G.Wilson
12/16,30	Pocasset, Tuckernuck	8, 12	CBC
1/5,2/16-19	Hingham, M.V.	1 imm., 5	G.Wilson, E.M.Sears#
<u>American Bittern:</u>			
11/4-11.11-30	Salisbury, P.I.	1, 1	R.R.Veit#, R.S.Heil#
12/16,17	Wareham, Cape Cod	1, 2	CBC

Waterfowl

Several Snow Geese seen in Ipswich in late December and almost certainly the same individuals at Newburyport during February were notable winterers. The appearance of Fulvous Whistling Ducks during November, now nearly an annual event, continued this year when ten were well described from P.I. on the 7th, the same locality where ten were noted during November, 1977. A mid-February cold spell with 12 consecutive days of below freezing temperatures displaced many wintering dabbling ducks to unlikely environs. Gadwall flocks were encountered in the surf at Gloucester and Magnolia while single Pintail were found in salt water at Manchester and in a drainage ditch in Peabody. The Lakeville region has long been known to be the prime staging area for Ring-necked Ducks in late fall, but some 800 estimated on the Lakeville Ponds November 12 represents the highest count ever made in Massachusetts, substantially eclipsing the November 22, 1975 high of 660. The status of Greater and Lesser Scaup in Massachusetts is still unclear. Although Lesser Scaup is far more numerous on the southeastern coastal plain than elsewhere, such high CBC "counts" as 574 from Buzzard's Bay and 451 from Nantucket are perhaps questionable. The concentration of Red-breasted Mergansers along the inside shore of Truro peaked at 12,000 on November 5, exceeding last year's previous high count of 8000. An estimate of 7000 in Nantucket Harbor December 30 probably involved a large component of the Truro flock.

Mute Swan:

11/1-26	Ipswich	9	v.o.
12/30,31	Westport, Nantucket	50,81	G.W.Gove, CBC
1/7,15	Falmouth, Acoaxet	11,75	BBC, W.R.Petersen#
thr. Feb.,18	M.V., Acoaxet	135, 150	V.Laux, P.Yarkey
<u>Whistling Swan:</u>			
11/19-1/10	P.I.(11/19), then Ipswich	1 ad.	G.W.Gove, BBC

Canada Goose:	Buzz,Bay,Cape Cod,Newburyport	1022,1300,1925	CBC
12/16,17,23	Framingham	418	K.S.Hamilton#
1/5			
Brant:			
11/3,11	Wollaston, Orleans	200, 5000+	G.Wilson,R.R.Veit#
12/8,17	Wollaston, Cape Cod	2500+, 1517	G.Wilson,CBC
12/23,30	Newburyport, Marshfield	160, 2405	CBC
1/19,27	Duxbury, P.I.	450, 1	T.Raymond, BBC
2/16-19	M.V.	200	A.Keith#
Snow Goose:			
11/19	P.I.	1	BBC
12/2-3,23 on	GMNWR, Ipswich	1, 4	G.W.Gove, CBC#
1/27	Salisbury	3	BBC
2/3-10,27-28	Newburyport, Belmont	3, 3	B.Nikula#, M.Dodder
"Blue" Snow Goose:			
12/25 on	Nantucket	3 adults	C.Jackson#
Fulvous Whistling Duck:			
11/7	P.I. salt pans	10	Mrs.H.Abbott
Mallard:			
12/27,30	Plymouth, Concord	518, 594	CBC
Black Duck:			
11/12	Newburyport-P.I.	7030+	R.Heil
12/17,23	Cape Cod, Newburyport	2214, 3496	CBC
1/20,2/23	Duxbury-Plymouth, Halifax	2000, 700	W.R.Petersen
Gadwall:			
11/5,22	Ipswich, GMNWR	44, 55	BBC, R.Walton
12/23,30	Newburyport, Nantucket	19, 16	CBC
1/1,5 on	Ipswich, Salem	11, 35	BBC, R.Heil
1/12,2/16	Magnolia, Gloucester	10, 6	W.Conwell#, C.Leahy
2/16-19,25	M.V., Plymouth	10, 10	C.Lincoln#, SSBC
Pintail:			
11/19,30	Monomoy, P.I.	400, 200	C.Goodrich#, R.Heil
12/23, thr.Jan.	P.I., Chatham	43, 12	CBC, R.Prescott
1/13,30	GMNWR, P.I.	4, 21	R.Walton, D.Brown
2/11-13,12-15	Manchester, S.Peabody	1, 1 female	H.Carr#, R.Heil
2/23,16-19	Halifax, M.V.	3, 8	W.R.Petersen,R.Sargent
Green-winged Teal:			
11/11,22	P.I., GMNWR	140, 205	BBC, R.Walton
12/17,30,31	Cape Cod,Concord,Nantucket	7, 3, 82	CBC
2/10,16-19	E.Boston, M.V.	1, 9	S.Zendeh,E.Sears#
Blue-winged Teal:			
11/4,12	GMNWR, Lakeville	3, 5	G.W.Gove,P.Hallowell
thr.Jan.	Sandwich	2	R.Pease
American Wigeon:			
11/5	GMNWR, Ipswich	200, 145	BBC, BBC
11/25	Nantucket	340	R.R.Veit & M.J.Litchfield
12/16,27,31	E.Falmouth,Plymouth,Nantucket	91, 20, 272	CBC
1/5,18	Cohasset, Hatchville	2, 60	R.P.Emery#, P.Garrey
2/16-19,18	M.V., Wollaston	10, 1	G.Daniels#, BBC
Northern Shoveler:			
11/11,4-22	P.I., GMNWR	25, 26-14	BBC, G.W.Gove#
12/1;23,31	E.Boston; P.I., Nantucket	single males	S.Zendeh; CBC
1/21	E.Boston (Belle Isle)	1 male	S.Zendeh
Wood Duck:			
11/11	Hingham, GMNWR	2, 3	B.Treat, BBC
12/16-31	4 localities	7 individuals	v.o.
1/5,7	Framingham, Brookline	4, 2	K.S.Hamilton#,C.Hubbard
1/28,29	Saugus, Jamaica Plain(A.A.)	1, 2	C.Jackson, J.Satterly
2/7,11-12	E.Lexington, Chatham	1, 1	L.Schimmel,B.Nikula#
2/16-19	M.V.	8	A.Keith
Redhead:			
11/5-10,6	Cambridge(F.P.), Eastham	2, 22	F.Bouchard,SSBC
11/25,12/16	Nantucket, Buzzards Bay	240, 30	R.R.Veit & M.J.Litchfield CBC
12/30,31	Tuckernuck, Nantucket	90, 29	CBC
1/17,22	Falmouth, Acoaxet	53, 8	P.Garrey, G.W.Gove
2/11-18,17-18	Acoaxet, Nantucket	max.6, 50	P.Yaukey, C.Jackson
Ring-necked Duck:			
11/11,12	Braintree, Lakeville	265, 800	W.R.Petersen, G.W.Gove
12/16,17	Buzzards Bay, Cape Cod	88, 82	CBC

1/5,7	Framingham, Falmouth	3, 10	R.A.Forster#, BBC
2/9,16-19	Plymouth, M.V.	3 pr., 4	K.S.Anderson,G.Daniels#
Canvasback:			
11/11	Braintree, Cambridge(F.P.)	65, 200	W.R.Petersen,R.K.Walton
11/12,16	Lakeville, Falmouth	300, 150	P.Hallowell, P.Garrey
12/16, 31	Buzzards Bay, Nantucket	194, 200	CBC
1/2-23, 22	Wollaston, Acoaxet	7, 200	R.P.Emery#, G.W.Gove
2/3,14	Newburyport, Mancheste.	2, 4	R.S.Heil#, H.Weissberg
2/16-19,25	M.V., Poponneset Bay	30, 125	V.Laux, B.Nikula
Greater Scaup:			
11/9,12	Wollaston, Lakeville	75, 400	G.Wilson, BBC
12/3;16,31	Winthrop;Buzz.Bay, Nantucket	2212;5550,1924	R.H.Stymaist; CBC
1/23,28	Squantum, Lynn	2000, 1800+	G.Wilson, S.Zendeh
2/25	Winthrop	900+	BBC
Lesser Scaup:			
11/17,28	Cambridge(F.P.), Braintree	2, 6	S.A.Perkins, D.T.Brown
12/16	Winthrop, Buzzards Bay	35, 574	CBC
12/17,31	Chatham, Nantucket	118, <u>451</u>	CBC
1/27	Falmouth	3	R.H.Stymaist#
2/25, 29	Winthrop, Lakeville	1, 3	BBC, D.Briggs
Common Goldeneye:			
11/12,25	Lakeville, Ipswich	30, 20	P.Hallowell, BBC
12/17,23,31	G.Boston,Newburyport,Nantucket	649,729,3117	CBC
1/30	Newburyport	900+	R.S.Heil
2/16-19,25	M.V., Newburyport	1000, 1000	E.M.Sears, R.R.Veit#
Barrow's Goldeneye			
11/11,25	Wollaston, Nantucket	1m 5f,3m 1f	D.T.Brown, R.R.Veit#
12/16,17	N.Falmouth, G.Boston	1, 1	CBC
12/23,30	Newburyport, Marshfield	3m, 1	CBC
12/2-18,10	Scituate, Wollaston	1, 1	W.R.Petersen,D.T.Brown
1/1,6	Quincy, Rockport	1, 1	D.Skiel, B.Keenan#
thr. Jan.	Chatham, Dennis	2m, 1m	v.o.
1/11 on	Newburyport	1m	GLS#
1/14,14 on	Gloucester, Scituate	2m 1f, 2m	BBC, W.R.Petersen#
2/14, thr. Feb.	Quincy, Newburyport	2, max.5(2/20)	G.Wilson, D.T.Brown#
Bufflehead:			
11/23,29	Nahant, Newburyport	700, 700	R.Heil
12/16,17	Buzzards Bay, Cape Cod	2490, 1335	CBC
1/28	Lynn/Nahant	580	S.Zendeh
2/16-19	M.V.	500	G.Daniels
Oldsquaw			
11/12,25	S.N., Tuckernack I.	1500+, 7500	R.A.Forster, R.Veit#
11/4,26	Lakeville, Sharon	3, 1	W.R.Petersen, D.Clapp#
12/14,16	Nantucket, Buzzard's Bay	51,000, 998	E.Andrews, CBC
2/28	Newburyport	1200	R.Heil
Harlequin Duck:			
11/5,22 on	E.Orleans	4, 5+	SSBC, B.Nikula#
thr. Dec.	E.Orleans, Magnolia	11, 4	B.Nikula#, v.o.
12/2-23	Cohasset	1	R.Veit#
thr. Jan.	E.Orleans, Magnolia	max.10, 6	B.Nikula#, G.Soucy#
1/6-16,14	Gloucester, Nahant	1m, 1m	B.Keenan#, S.Garret
1/27,31	N.Scituate, Acoaxet	1m, 3	W.R.Petersen, D.Briggs
2/4-18,25	Magnolia, Rockport	max.5, 2	G.D'Entremont#,L.Jodrey#
2/16-19	M.V.	4	R.Sargent
Common Eider:			
Nov.-Jan.	Nahant-Winthrop	max.18,000(12/6)	R.Heil
11/5	Truro	5000	W.R.Petersen
12/30,31	Marshfield, Nantucket	9027, 18,599	CBC
1/7,21	Long I.,Duxbury-Plymouth,M.V.	8300,9000,10000	BBC,W.R.Petersen,V.Laux
King Eider:			
11/3-23,6-23	Wollaston, Nahant	1sub-ad,m, 1sub-ad,m	v.o., R.Heil
11/28	Hull	1 ad,m	B.Cassie
12/2,3	N.Scituate, Winthrop	1m, 2m 1f	W.R.Petersen,R.Stymaist
12/2-3,17	Hull, Cape Cod	1f, 2m	R.Veit, CBC
12/23,31	Quincy, Nantucket	1, 1 ad,m	CBC
1/7,14	Long I., Nahant	2m, 1f	BBC, S.Garret
2/23,25	Boston, S.N.	1 sub-ad,m,imm,m	R.Campbell, D.Briggs
White-winged Scoter			
11/4,5	Lakeville, Wollaston	2, 250	W.R.Petersen, S.Zendeh
12/30,31	Nantucket Sound, Nantucket	2500, 1547	R.Heil#, CBC

Surf Scoter:			
11/12	S.N.	500	SSBC
12/16,30	Buzzards Bay, Nantucket Sound	809, 150	CBC, R.Heil#
2/17-18,18	Nantucket, Cape Ann	100, 20	C.Jackson, BBC
Black Scoter:			
11/4-18,22	Lakeville, Truro	1, 2000+	W.R.Petersen, R.Heil#
12/17,29	Cape Cod, Nantucket Sound	35+, 600	CBC, S.Zendeh
2/16-19,18	M.V., Cape Ann	100, 6	G.Daniels#, BBC
Ruddy Duck:			
11/4	Lakeville, Framingham	350, 36	W.R.Petersen, R.A.Forster
11/11	Braintree, P.I.	80+, 12	W.R.Petersen, BBC
12/2,17	Braintree, Cape Cod	31, 73	S.Higginbotham, CBC
1/7,27-28	Wollaston, Lakeville	1, 1	BBC, D.Briggs
Hooded Merganser:			
11/5,10	Ipswich, P.I.	28, 16	BBC, G.Gove
11/17,28	Falmouth, Braintree	19, 27	P.Garrey, D.Brown
12/16	E.Falmouth, Bourne	99, 120	B.Nikula#, W.Petersen#
1/5,23	Framingham, Salem	4, 2	R.A.Forster, R.Heil
1/28,2/18	Lakeville, Eastham(F.H.)	15, 30	K.S.Anderson, P.Trull#
Common Merganser:			
11/7,24	Worcester, Cambridge Res.	47, 160	B.Blodget, R.Walton
11/28	Braintree	133	D.Brown
12/23,27	Newburyport, Plymouth	46, 264	CBC
1/16,21	E.Milton, Dorchester	28, 15	W.Cornwell
2/25	Newburyport, Popponesset Beach	42, 200	R.Stymeist#, B.Nikula
Red-breasted Merganser:			
11/5	Ipswich, Truro	150, 12,000	BBC, SSBC
12/16,30	Buzzards Bay, Nantucket	1777, 7000	CBC, R.Heil#
1/7,2/13	Acoaxet, Whitman	200, 1	B.Cassie, W.R.Petersen
2/4,16-19	Cape Ann, M.V.	200, 350	BBC, C.Lincoln#

Vultures through Rails

In Chatham a Black Vulture observed on December 19 is one of a remarkable number of winter records and specimens. Red-tailed and Rough-legged Hawks were well reported from the usual favored wintering sites. Bald Eagles totaled a minimum of 20 individuals from 10 localities; encouragingly, at least 13 were immature. Single Peregrines wintered on the outer cape, downtown Boston and possibly the P.I. area while no less than 10 Merlins were identified, all on the southeastern coastal plain, December-February. A Sandhill Crane, ranging from Middleton to Beverly, survived the entire winter foraging in stubble corn fields though cracked corn was regularly supplied at the latter location. An adult Purple Gallinule was captured alive on Morris Island, January 25, and later released at Felix Neck W. S., M.V. A "purple bird with yellow legs" had been reported from Cackle Cove, Chatham, 4-5 days before.

Black Vulture:

12/19	Chatham	1	H.Rich
Goshawk:			
thr. Nov.	6 localities	6: 2 ad., 1 imm., 3 unspecified	v.o.
12/17,23,30	Nauset, Newburyport, Concord	1, 1, 2	CBC
12/1,10	Framingham, Halifax	1 ad., 1 ad.	R.A.Forster, W.R.Petersen
12/24-30	E.Middleboro	1	K.S.Anderson
1/16	Rockport, Brookline	1 imm., 1 ad.	G.Soucy, C.Lovell
1/20,20-28	Lakeville, WBWS	1 ad., 1 imm.	W.R.Petersen, W.Bailey
2/1,11-19	Carlisle, Littleton	1, 1 ad.	D.Souphall, J.Baird
Sharp-shinned Hawk:			
11/5-27	5 localities	singles	v.o.
12/16	Millis, Buzzards Bay	4, 5	CBC
12/17,23,27	Cape Cod, Newburyport, Plymouth	12, 3, 4	CBC
thr. Jan.	7 localities	8 individuals	v.o.
2/16-19, thr. Feb.	M.V., 6 localities	4, singles	V.Laux, v.o.
Cooper's Hawk:			
11/18,20	Eastham, Barnstable	1, 1	C.Godrich, R.Pease
11/21,12/4	S.Peabody, Concord	1, 1 imm.	R.Heil, J.Baird
12/24,30	E.Middleboro, Nantucket	1 ad., 1	K.S.Anderson, S.Zendeh
12/30,1/4	Concord, Fall River	3, 1	CBC, D.Brown
1/8-22,14	WBWS, Ipswich	1, 1	W.Bailey, G.Soucy#
2/4,11	Truro, Ipswich	1 sub-ad., 1m	B.Nikula#, G.Soucy#
2/20	Nantucket	1	S.A.Perkins

Red-tailed Hawk:		
11/5,22	E.Lexington, Nantucket	4, 5 R.Veit & M.J.Litchfield
12/16,17	Wilmington, Cape Cod	8, 9 CBC
12/23,27	Newburyport, Plymouth	19, 11 CBC
thr. Jan.	11 localities	16 individuals v.o.
2/4,16-19	Bridgewater, M.V.	5, 20 BBC, C.Lincoln#
thr. Feb.	18 localities	30 individuals v.o.
Red-shouldered Hawk:		
11/11,26,28	N.Carver, Hingham, Middleboro	singles D.Briggs
12/16, 1/6	Millis, Woburn	1, 1 CBC, BBC
2/4,28	Salisbury, Bridgewater	1 imm., 2 W.R.Petersen, J.Flaherty
Rough-legged Hawk:		
11/25,26	Ipswich, Salisbury	3, 3+ G.Hotz, P.Roberts#
thr. Nov.	M.V., 6 other localities	5, 6 individuals V.Laux, v.o.
12/12,20	Salisbury, P.I.	3d. 1 l., 4 l. R.Heil
12/30;31	Concord, Marshfield; Nantucket	3, 4; 13 CBC
thr. Jan., 15	Cape Cod, Bridgewater	3-4, 4 B.Nikula#, B.Litchfield
thr. Jan.	10 other localities	20 individuals v.o.
2/16-19, 17-18	M.V., Nantucket	6, 5-6 V.Laux, C.Jackson
2/23, thr. Feb.	Halifax, 10 other localities	3, 13 individ. W.R.Petersen#, v.o.
Golden Eagle:		
12/30, 1/31	Quabbin Reservoir	1 imm. J.Swedberg & v.o.
2/7	Orleans	1 ad. C.Goodrich, P.Trull+J.Harris
Bald Eagle:		
11/19	Monomoy	1 imm. W.Bailey
12/17	Chatham, Nauset	1 imm., 1 imm. CBC
12/19-20, 31-2/18	Concord, Nantucket	1 ad., 2 imm. R.A.Forster, CBC
1/2, 16	Magnolia, Wellfleet	1 imm., 1 imm. C.Baines, C.Goodrich
1/17	Chatham	1 imm. B.Nikula
1/19 on	Quabbin Reservoir	max. 8 v.o.
2/14-16, thr. Feb.	Manchester, Eastham-Chatham	1 imm., 3 imm. H.Weissberg, v.o.
thr. Feb.	Quabbin Reservoir	max. 11: 6 ad., 5 imm. H.Bates#
thr. Feb.	W.Newbury (Merrimack R.)	2 imm. fide R.Heil
Marsh Hawk:		
11/5, 29	Orleans-Truro, P.I.	4, 5 SSBC, R.Heil
12/2	Salisbury, P.I.	4, 4 P.Roberts#
12/17, 30, 31	Cape Cod, Tuckernuck, Nantucket	23, 9, 40 CBC
2/3-20	Newburyport-Salisbury	max. 4 R.Heil
2/16-19, 17-18	M.V., Nantucket	10, 10 R.Sargent#, C.Jackson
Osprey		
11/2, 3	Sharon, M.V.	1, 1 D.Clapp, V.Laux
11/5-8, 9	Lynnfield, Lincoln	3, 1 R.Heil#, R.A.Forster
11/10, 11	Norfolk, Woburn	2, 1 S.Langer, S.Zendeh#
Peregrine Falcon:		
11/10, 19	Provincetown, Monomoy	1, 1 ad. P.Arrigo#, B.Nikula#
11/19, 24-25	P.I.	1 imm., 1 imm. m P.Roberts#
11/25-2/24	downtown Boston	1m R.Campbell + v.o.
12/17, 23	Chatham, P.I.	1, 1 CBC
1/17	Wellfleet	1 D.McNair
2/8-9, 19	S.Orleans, P.I.	1, 1 C.Goodrich#, E.Smith
Merlin:		
11/4-24, 11	P.I.-Salisbury, Woburn	3, 1 v.o., S.Zendeh#
11/19, 12/17	Monomoy, G.Boston	1, 1 W.Bailey#, CBC
12/16, 17	E.Falmouth, Cape Cod	1, 4 CBC
12/27, 31	Plymouth, Nantucket	1, 3 CBC
thr. Jan., 7	Eastham-Chatham, Marion	1-3, 1 fide B.Nikula, D.Briggs
2/4, 20	N.Beach, Nantucket	1 ad., 3 B.Nikula, S.A.Perkins
American Kestrel:		
11/5, 29	Bridgewater, P.I.	5, 6 BBC, R.Heil
12/17	G. Boston, Cape Cod	18, 21 CBC
12/23, 30	Newburyport, Marshfield	15, 15 CBC
1/5, 6	Framingham, P.I.	9, 11 R.A.Forster#, H.Wiggin#
thr. Feb.	4 localities	8 individuals v.o.
Ruffed Grouse:		
12/16, 23	Buzzards Bay, Newburyport	5, 9 CBC
12/27, 30	Plymouth, Concord	29, 29 CBC
Bobwhite:		
12/16	Millis, Buzzards Bay	23, 158 CBC
12/17, 27	Cape Cod, Plymouth	29, 28 CBC
2/16-19	M.V.	40 E.M.Sears

<u>Sandhill Crane</u>			
1/8 on	Danvers and Middleton	1	v.o.
2/2 on	Beverly (Cherry Hill)	1 (same)	R.Heil + v.o.
<u>Clapper Rail:</u>			
12/2, 1/1-2	Newburyport	1, 1	J.Grugan, BBC + v.o.
<u>Virginia Rail:</u>			
11/6, 23	GMNWR, Nantucket	2, 5	R.Walton, R.Veit#
12/17, 27	Cape Cod, Plymouth	5, 3	CBC
12/30, 31	Marshfield, Nantucket	3, 7	CBC
1/13, 18	Middleboro, S. Peabody	1, 3	R.Turner, R.Heil
thr. Feb., 11-17	S.Peabody, Ipswich	1, 2	R.Heil, G.Soucy#
<u>Sora:</u>			
11/6-12/30	GMNWR	1	R.Walton#, CBC
1/13, 14	GMNWR, Ipswich	2, 2	R.Walton, G.Soucy#
<u>Purple Gallinule:</u>			
1/25	Morris I., Chatham	1 ad.	D.Reynolds#
<u>Common Gallinule:</u>			
11/11-12, 22-26	P.I., Nantucket	1, 1	R.Heil#, R.Veit#
2/20	Nantucket	1	S.A.Perkins
<u>American Coot:</u>			
11/4, 12	P.I., Lakeville	223, 450	R.Veit#, BBC
12/2, 17	Braintree (Great Pond)	200, 40	S.Higginbotham
12/16, 17	Buzzards Bay, Cape Cod	22, 53	CBC
1/5, 15	Lynn, Plymouth	22, 25	R.Heil#, W.Cornwell

Shorebirds

A very late Semipalmated Plover was reported from Acoaxet January 7. Singles of this species are casually noted into mid-December locally, however January sightings are almost unknown. Several other lingering shorebirds remaining until late November included a Lesser Yellowlegs at Newburyport November 12, a critically identified Semipalmated Sandpiper at P.I. November 30, and at least one Western Sandpiper there on the 4th. For the second year running, Long-billed Dowitchers were encountered on the Newburyport CBC December 23. It is likely, as several observers have speculated, that the same individuals are involved each year. Surprisingly late were December flocks of Red Phalaropes on Cultivator Shoals and from Surfside Beach, Nantucket.

<u>Semipalmated Plover:</u>			
11/5	Ipswich	1	BBC
1/7	Acoaxet (no details)	1	J.Murphy#
<u>Killdeer:</u>			
11/1-7, 1-14	Sharon, Woburn	max. 19, max. 24	D.Clapp, G.Gove
11/5, 12/23	Ipswich, Newburyport	23, 1	BBC, CBC
12/27, 30	Plymouth, Westport	5, 2	CBC, G.Gove
1/1, 20	Squantum, Plymouth	1, 3	S.Higginbotham, W.Petersen
1/23, 26	M.V., Orleans	1, 2	V.Laux, P.Trull
<u>American Golden Plover:</u>			
11/7-14, 11	M.V., P.I.	3, 1	V.Laux, BBC
<u>Black-bellied Plover:</u>			
11/3, 24	Winthrop, Eastham	400, 50	S.Zendeh#, W.R.Petersen
11/5	Ipswich, Nauset	225, 200	BBC, SSBC
12/17, 30	Cape Cod, Marshfield	47, 9	CBC
12/31, 1/7	Nantucket, Acoaxet	15, 1	CBC, B.Cassie
2/10	Acoaxet	1	R.Stymeist#
<u>Ruddy Turnstone:</u>			
11/11, 17	N.Scituate, Winthrop	50, 30	W.R.Petersen, S.Zendeh#
12/2, 18	Rockport, N.Scituate	3, 60	R.Walton, S.Higginbotham
12/23, 25	Quincy, Winthrop	11, 6	CBC
1/15, 20	Cohasset, Gloucester	10, 4	W.Conwell, BBC
1/22	Winthrop	4	S.Zendeh
<u>American Woodcock:</u>			
11/9, 22	Cambridge, Provincetown	1, 1	J.Knapp, M.Kasprzyk#
12/17, 27	Cape Cod, Plymouth	2, 1	CBC
12/25	Sandwich	1	R.Pease
2/14	Chilmark, M.V.	1	V.Laux
<u>Common Snipe:</u>			
12/16, 23	Wareham, Newburyport	10, 14	CBC
1/7, 18	Buzzards Bay, S.Peabody	8, 3	SSBC, R.Heil
2/3, thr. Feb.	Newburyport, S.Peabody	3, 2	R.Heil
2/16, 16-19	Gloucester, M.V.	2, 4	C.Leahy, A.Keith

Willet:				
11/1-19,11	Salisbury, Nauset (C.G.)	1, 1		v.o., B. Nikula
Greater Yellowlegs:				
11/5,6	Orleans-Truro, E.Boston	75, 35		SSBC, R.Heil
12/2,24	P.I., Marion	3, 2		P.Roberts#, G.Gove
12/23,29	Quincy, Eastham	1, 6		S.Zendeh, C.Goodrich
1/1-23,15	Wollaston, Acoaxet	1, 1		G.Wilson, W.R.Petersen#
Lesser Yellowlegs:				
11/3,12	E.Boston, Newburyport	1, 1		S.Zendeh, B.Cassie+R.Heil#
Red Knot:				
11/5,11	Nauset(C.G.), Scituate	40, 60		SSBC, W.R.Petersen
12/18,25	N.Scituate, Winthrop	150+, 11		S.Higginbotham, S.Zendeh
1/5,22	N.Scituate, Winthrop	150, 30		R.Emery#, S.Zendeh
Purple Sandpiper:				
11/19,28	Rockport, N.Scituate	250, 300		P.Roberts, M.+B.Litchfield
12/6,18	Winthrop, N.Scituate	150, 300		R.Heil, S.Higginbotham
1/7	Acoaxet	80		B.Cassie
2/3,18	Cape Ann, P.I. Jetty	150, 55		BBC, R.Heil
Pectoral Sandpiper:				
11/5,7	Lynnfield, W.Boylston	4 juv., 1		R.Heil, B.Blodget
11/11	Truro, GMNWR	1, 1		R.Veit, BBC
11/13	M.V.	4		V.Laux
White-rumped Sandpiper:				
11/4	Scituate; P.I., Salisbury	4; 13, 7		W.R.Petersen, R.Veit + M.J.Litchfield
11/4-11,5	Nauset(C.G.), <u>Lynnfield</u>	max. 10+, 1		B.Nikula#, R.Heil
11/23,30	Nantucket, P.I.	1, 1		R.Veit, R.Heil
Dunlin:				
11/6,12;19	Lynn Harbor, Newburyport, Monomoy	1300, 2200; 2000		R.Heil; W.Bailey
12/2,12	Scituate, Newburyport	700+, 120		W.R.Petersen, R.Heil
12/17,30	Cape Cod, Marshfield	2223, 237		CBC
1/5,17	Cohasset, Acoaxet	200, 110		R.Emery, R.Heil
Long-billed Dowitcher:				
11/4, 24, 30	P.I.	25, 3, 2		R.Veit#, T.Raymond#, R.Heil
12/23	P.I.basin	2		W.Petersen, B.Nikula, G.Gove
Semipalmated Sandpiper:				
11/4,30	Scituate, P.I.(S.Pool)	3, 1		W.R.Petersen, R.Heil
Western Sandpiper:				
11/4	P.I.	1		R.Veit + M.Litchfield
Calidris sp.				
11/4	P.I.	4		R.Veit#
Marbled Godwit:				
11/19	Monomoy	3		C.Goodrich + W.Bailey
Hudsonian Godwit:				
11/3,8	E.Boston, Eastham	3, 4		S.Zendeh, M.Perkins
11/4,11	Nauset (C.G.)	8, 6		B.Nikula#
Sanderling:				
11/6,11	Lynn Harbor, Duxbury	900+, 300		R.Heil, G.Wilson
12/6,17	Revere, Cape Cod	700, 751		R.Heil, CBC
1/5,28	Marblehead, Lynn/Nahant	35, 300+		R.Heil, S.Zendeh
Red Phalarope:				
12/12,31	Cultivator Shoals, Nantucket	28, 6		MBO staff, R.Smart

Jaegers through Alcids

Totally unexpected were at least 10 Pomarine Jaegers and 2-4 unidentified jaegers observed passing by First Encounter, Eastham during a very weak northeaster' on the remarkably late date of December 10. Equally impressive was a single jaeger sp. well inshore at Winthrop December 10. Skuas, species distinctions aside, are clearly increasing in New England waters. Following a total of some 34 birds on the offshore fishing banks last autumn were four separate skua sightings from as many Cape Cod and Nantucket localities during December. A moderate northeaster' January 13 produced a good show of white-winged gulls at Cape Ann. On the 14th 12 Glaucous (1 adult, 3 second or third year, 8 first year) and 60 Iceland gulls (40% adult) were located there. Presumably storm-related in their appearance, numbers of this magnitude were not present before the 13th or found thereafter. Beginning in late November, Black-legged Kittiwakes, like Gannets, were present in unprecedented numbers in the waters around Cape Cod. The CBC there counted nearly 13,000, noted moving both in the typical counter-clockwise fashion around Cape Cod Bay and streaming south along Nauset. In late January, massive numbers observed actively feeding around Race Point, Provincetown,

were conservatively estimated at 15,000. Although there have been three December sightings since 1958, a Forster's Tern at Menemsha Pond, M.V., January 21, is believed to be the only mid-late winter record. A brief but heavy flight of alcids occurred at Halibut Point, Rockport in the early A.M. of February 25 when 300 Thick-billed Murres and 200 Razorbills were noted. The next day seemingly equal conditions and wind direction yielded virtually no alcids.

Pomarine Jaeger:			
11/12,24	Eastham(First Encounter)	4, 8	C.Goodrich, B.Nikula#
12/10	Eastham(First Encounter)	10+(most ad.)	B.Nikula + W.Bailey#
Parasitic Jaeger:			
11/12	S.N.	12	R.A.Forster
11/24	Eastham(F.E.), Eastham(Nauset)	1-2, 2	C.Goodrich#, W.R.Petersen
jaeger sp.:			
12/9, 16	Rockport, Winthrop	1 imm. d., 1	R.Veit + M.J.Litchfield
12/10	Eastham (First Encounter)	2-4	B.Nikula#
Great Skua:			
12/6	Gulf of Maine	2	MBO staff
skua sp.:			
12/10, 16	Eastham(F.E.), Truro	1, 1	B.Nikula#, D.McNair
12/17, 1/10-11	Orleans(N.Beach), Nantucket	1, 1	W.Harrington#, G.Frost#
2/21	Georges Bank	1	MBO staff
Glaucous Gull:			
11/11	Provincetown	1 (3rd w.)	R.Veit + M.J.Litchfield
12/9, 23	Gloucester, Newburyport	1, 2	BBC, CBC
1/14	Rockport-Gloucester	12	R.Heil + M.Kasprzyk
thr. Jan.	5 other localities	6 individuals	v.o.
2/5, 25	Brookline, Gloucester	1, 2	D.Arvidsen, R.Veit#
2/21, 22	Salisbury, Newburyport	2, 1	R.Walton, R.Heil
Island Gull:			
11/11, 12	Provincetown, Newburyport	1 ad., 1	R.Veit#, R.Heil
11/12	Sandwich, S.N.	2, 1	W.R.Petersen#, R.A.Forster
11/24, 30	Nantucket, Newburyport	8, 7	R.Veit#, R.Heil
12/2, 30	Salisbury, Concord	10, 1	R.A.Forster, CBC
12/26-1/2, 12/31	Bridgewater, Nantucket	2, 30	W.R.Petersen, CBC
1/14, 27	Cape Ann, Salisbury-P.I.	60, 20	R.Heil#, BBC
thr. Feb.	P.I., Gloucester max.45(2/3), max.40(2/25)	W.R.Petersen, R.Veit#	
2/25	Manchester	25	BBC
Great Black-backed Gull:			
11/17, 23, 31	Cape Cod, Newburyport, Nantucket	8425, 425, 1880	CBC
Lesser Black-backed Gull:			
11/11(from Oct.)	Provincetown(Hatch's Harbor)	1 adult	R.Veit#
11/23-12/31, 11/24	Nantucket(harb), Sachacha Pd.	1 2nd w., 1 ad.	R.Veit, S.Perkins + M.J.
12/31	Nantucket (Great Pt.)	1 ad.	S.Perkins Litchfield
Ring-billed Gull:			
11/18, 30	Middleboro, Newburyport	400, 275	W.R.Petersen, R.Heil
12/6, 12	Revere, Newburyport	220, 300+(95% ad.)	R.Heil
12/17, 23, 27	Cape Cod, Quincy, Plymouth	601, 779, 434	CBC
Black-headed Gull:			
11/17-18, 24	E.Boston, Sandwich	1, 1	S.Zendeh#, R.Pease
12/3-16, 13 thr. Feb.	E.Boston, Plymouth	max.4ad., 1 imm.	R.Stymiest, R.Heil#
12/10	Milton, Eastham(F.E.)	2, 1 ad.	D.Brown, B.Nikula
12/16, 17	Buzzards Bay, Orleans	1, 1	CBC
12/18, 31	N.Scituate, Nantucket	2, 1 ad. 1 imm.	S.Higginbotham, CBC
1/1, 20	Salisbury, Dorchester	1, 1	S.+R.Higginbotham, w.Cornwell
2/8, 22	Magnolia, Newburyport	1 ad., 1 ad.	R.Heil
2/8, 16	M.V., Gloucester	1 ad., 2	V.Laux, C.Leahy
2/25	Dorchester	2	R.Emery#
Laughing Gull:			
11/6;6, 23	Winthrop; Nahant	37;25 ad., 1 ad.	R.Heil
11/21, 24	Woods Hole, Squantum	47, 25	R.Veit, G.Wilson
12/7, thr. Dec.	Scituate, Edgartown, M.V.	3, max. 15	D.Clapp, V.Laux
12/17, 30	Chatham, P.I.	2, 1	CBC, B.Cassie
Franklin's Gull:			
12/7	Monomoy	1 ad.	R.Clem, fide W.Bailey
Bonaparte's Gull:			
11/23, 26	Nahant-Revere, Hull	375, 500	R.Heil, G.Wilson
12/23, 30, 31	Newburyport, Tuckernuck, Nantucket	169, 1620, 1406	CBC
1/7, 14	Acoaxet, Scituate-Cohasset	250, 350	B.Cassie, SSEC

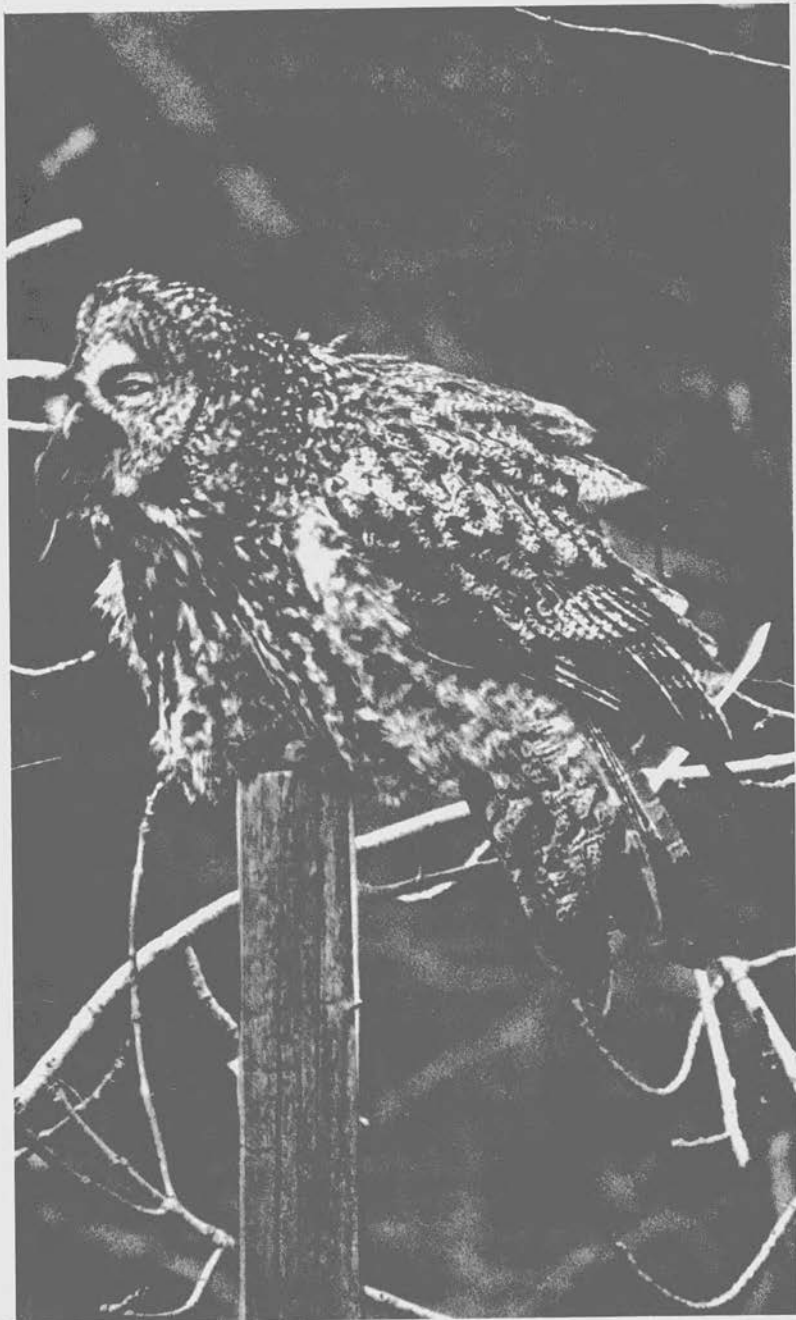
Little Gull:			
11/25	Newburyport	2 ad.	T.Ryan
12/7,23	Monomoy, Newburyport	1, 3(1 ad., 1 sub-ad., 1 imm.)	R.Clem, CBC
1/1	Newburyport	1	BBC
Black-legged Kittiwake:			
11/12,24	Eastham(First Encounter)	4000, 4000+	C.Goodrich, R.Smart#
12/9,10	Rockport, Eastham (F.E.)	800, 5000+	R.Veit#, B.Nikula#
12/17	outer Cape Cod	12,670	CBC
1/13	Provincetown, Rockport	1500(2hr), 1500	B.Nikula, G.Soucy#
1/28	Provincetown	15,000	B.Nikula
2/25	Rockport	4500	R.Veit#
Forster's Tern:			
1/21	Menemsha Pond (M.V.)	1	V.Laux
Common Tern:			
11/5,6	Truro, Winthrop	5,1	SSEC, R.Heil
11/11	Provincetown	3 imm.	R.Veit + M.J.Litchfield
11/22-26,24	Madaket, Wellfleet	4, 4	R.Veit#, B.Nikula#
Razorbill:			
11/12,22	S.N., Provincetown	2, 23	SSEC, R.Heil#
11/23,24	Rockport, Eastham(F.E.)	19, 20	R.A.Forster, B.Nikula#
12/9,17	Rockport, Cape Cod	25, 6	R.Veit#, CBC
12/29,31	Nantucket Sound, Nantucket	6, 12	S.Zendeh, CBC
thr. Jan.	4 localities	10 individuals	v.o.
2/19,25	E. of Cape Cod, Rockport	24, 200	MBO staff, R.Veit + R.Stymest
Common Murre:			
12/9,31	Rockport, Nantucket	2, 1	R.Veit+M.Litchfield, CBC
1/28	Provincetown	1	B.Nikula + P.Trull
2/25	Rockport	1	R.Veit#
Thick-billed Murre:			
11/4,18	S.N.	2,7	R.Pease
11/19,23	Rockport	1,4	SSEC, R.A.Forster
12/9	Rockport	30	R.Veit + M.J.Litchfield
2/16-19,25	M.V., Rockport	1, 300	G.Daniels, R.Veit+R.Stymeist
lg. acid sp.			
11/23	Rockport	33	R.A.Forster
12/9,10	Rockport, Eastham(F.E.)	25, 20	R.Veit#, B.Nikula#
Dovekie:			
11/1,8,13	S.N.	1, 1, 1	R.Pease
11/4,23	Manomet, Rockport	1, 1	MBO staff, R.A.Forster
11/24,12/2	Eastham(F.E.), Georges Bank	2, 32	R.Smart#, MBO staff
12/9	Rockport, N.Scituate	68, 1	BBC, W.R.Petersen
1/20	Nantucket	1	R.Veit#
2/21-23,25	Georges Bank, Rockport	56, 25	MBO staff, G.Soucy#
Black Guillemot:			
11/12-23,23	S.N., Rockport	1-3, 1	v.o., R.A.Forster
12/2,9	N.Scituate, Rockport	6, 10	R.Veit#, C.Leahy#
12/21,30	Nantucket, Provincetown Harbor	4, 18	R.Veit#, S.+R.Higginbotham
thr. Jan.	Cape Ann, P'town Harbor	max. 7, 8+	v.o.
Common Puffin:			
11/4-5	Eastham(First Encounter)	1	C.Goodrich#
12/7,17	Cultivator Shoals, Eastham	1, 2	MBO staff, W.R.Petersen
1/8,12	Cultivator Shoals, Gloucester	1, 1	MBO staff, D.Brown#

Doves through Woodpeckers

The most surprising lingerer of the season was surely the Black-billed Cuckoo found on Nantucket December 24. Although unique to Massachusetts records, it was not completely unprecedented for New England. In 1974 a Black-billed Cuckoo survived on bittersweet berries in Augusta, Maine, until at least December 14. On December 28 a Great Gray Owl was discovered at the IRWS, Topsfield. Little did we realize that it was the local vanguard of the biggest Great Gray Owl incursion ever witnessed in the northeast and the only one since the winter of 1890-91. The main flight, however, did not ensue until the first week of February, but by month's end at least 15 individuals had been located, and there were many reports of "big owls" thought to be Great Grays. In each case the owls were found in open area habitats, particularly at the edges of large grassy fields where small rodents were seen to be taken. Many observers commented that most, if not all, the Great Grays they had seen possessed a considerable amount of buffy, reddish-brown color to the wings, mantle, and breast. That first year immatures in many groups of birds (e.g., shorebirds, hawks) typically display buffy feather edgings is well known. The majority of the local Great Gray Owl flight may have involved immatures. In con-

junction with the Great Gray flight was a modest show of Hawk and Boreal Owls throughout northern New England, one of the latter of which made it to Massachusetts. On December 31 a Boreal Owl was discovered near the Salisbury boat ramp, photographed, and seen by a number of observers; the bird could not be located on the following days. The two most recent state sight records are from Belmont, February 15, 1942, and Topsfield, December 20, 1942.

Mourning Dove:			
12/16,23	Buzzards Bay, Newburyport	478, 231	CBC
1/5,8	Needham, Framingham	85, 131	J.Carey,K.Hamilton#
Black-billed Cuckoo:			
12/24	Nantucket (good details)	1	R.Hall
Barn Owl:			
12/10,31	Quincy (Long I.), Nantucket	1, 1	D.Clapp#, CBC
2/16-19	M.V.	1	V.Laux
Screech Owl:			
12/23,27,30	Newburyport,Plymouth,Concord	24, 5, 24	CBC
1/5	Framingham	7	R.A.Forster#
Great Horned Owl:			
11/8,25	Truro, Beverly	1, 1	M.Perkins, G.Soucy
12/23;30	Quincy,Newburyport; Concord	4, 4; 7	CBC
1/5,28	Framingham, Saugus	3, 1-2	R.Forster#, C.Jackson
Jan. + Feb.	7 other localities	8 individuals	v.o.
Snowy Owl			
11/24-25,15-29	Salisbury, P.I.	1, 1	v.o.
11/6,26-28	Beverly-Danvers, Cohasset	1, 1	B.Cheney,fide Litchfields
12/23	Newburyport area	8	CBC
12/26-1/16,12/29-1/6	S.Boston(Castle I.),Boston	(airport) 1,	1 P.Puchalski, R.Woodward
thr. Jan.	Newburyport-P.I. area	max. 5 (1/1)	v.o.
1/6,20	Rockport, Squantum	1, 1	BBC, D.Skiels
1/14,27-28	Barnstable, Scituate	1, 1	K.Hamilton, W.R.Petersen
2/4-21,22	Salisbury, P.I.	1, 2	v.o., R.Heil
Barred Owl			
11/1	Weston	1	A.Grousbeck
12/23,31	Georgetown, Acton	1, 1	CBC, J.Garngross
1/21	Holbrook-Randolph line	2	G.D'Entremont
thr. Feb.		11 singles	v.o.
Great Gray Owl: (statewide)			
12/28-thr. Feb.	Topsfield (IRWS)	1	R.Scott + v.o.
2/3-7(dead)	Newbury-Newburyport	1	R.Smith + v.o.
2/3-15	Amherst (Hampshire County)	1	v.o.
2/8 on	Hatfield (Hampshire County)	max. 2(2/13 on)	v.o.
2/10	Stockbridge (Berkshire Co.)	1	fide R.A.Forster
2/11-14(dead)	Lexington (Middlesex County)	1	C.Esserian
2/11 on	Marlboro (Middlesex County)	1	B.Byrne#
2/15	Thorndike (Hampden County)	1	fide R.A.Forster
2/19	Magnolia (Essex County)	1	N.Valerius#
2/21	Bernardston (Franklin Co.)	1	fide R.A.Forster
2/23 on	W.Boxford (Essex County)	1	v.o.
2/24	Brookline (Norfolk County)	1	fide O.Komar#
2/25 on	Concord (Middlesex County)	1	Mrs.W.Malcom
2/28	Wayland (Worcester County)	1	B.Blodget
Long-eared Owl:			
11/4,22	P.I., Westwood	1, 4	O.Komar, Genninger
11/25,30	Nantucket, Manomet	1, 1	R.Veit#, MBO staff
12/2,17	E.Lexington, Belmont	1, 1	J.Andrews, CBC
thr. Jan.	Salisbury	max. 4	R.Heil + M.Kasprzyk#
1/?,1	Lexington, Squantum	1, 1	R.Walton,S.+R.Higinbotham
2/4-20,22	Salisbury, M.V.(S.F.)	max. 2, 5	R.Walton#, V.Laux
2/23,27-28	Duxbury, Belmont	2, 1	W.R.Petersen#, M.Dodder
Short-eared Owl:			
11/22-26,30	Nantucket, Salisbury	2, 1	R.Veit#, L.Healy
12/30	Salisbury;Marshfield,Tuckernuck	5; 4, 6	G.Soucy; CBC
12/29,31	Squantum, Nantucket	3, 5	M.Argue#, CBC
thr. Dec.	6 other localities	7 individuals	v.o.
thr. Jan.,6-30	Salisbury, P.I.	max.5, max.2	G.Soucy#, R.Veit#
1/7,10	Squantum, Ipswich	4, 2	BBC, R.Heil#
1/20-28,19-28	S.Duxbury, 3 localities	4, singles	W.R.Petersen, v.o.
thr. Feb.	Salisbury	max.8(2/19)	G.Soucy#
2/23	Marshfield, S.Duxbury	2, 3	W.R.Petersen#



Great Gray Owl swallowing meadow vole, Ipswich River Wildlife Sanctuary, Topsfield, Massachusetts, January 30, 1979. Photograph by Bill Byrne, Courtesy of Massachusetts Division of Fisheries and Wildlife.

2/4-18	5 localities	singles	v.o.
<u>Saw-whet Owl:</u>			
11/2, 7, 10	MFO (all immatures)	1, 2, 1	MBO staff
11/25	Nantucket	1	R.Veit + M.Litchfield
12/16, 31	Millis, Nantucket	1, 1	CBC
2/15	N.Chatham, Burlington	1, 1	B.Nikula, fide M.Litchfield
2/23	Marshfield	1	W.Petersen#
<u>Boreal Owl:</u>			
12/31	Salisbury Beach S.P.	1	F.Atwood + v.o.
<u>Ruby-throated Hummingbird:</u>			
11/6, 17	Nonquitt, Nantucket	1, 1	F.Plowden-Wardlaw, fide E.Andrews
<u>Belted Kingfisher:</u>			
12/16, 17	Buzzards Bay, Cape Cod	36, 23	CBC
1/? thr. Jan.	Framingham, 8 localities	5, 10 individ.	R.Forster#, v.o.
2/4, 16-19	Manchester, M.V.	1, 2	BBC, E.Sears#
<u>Common Flicker:</u>			
12/17, 31	Cape Cod, Nantucket	45, 88	CBC
<u>Pileated Woodpecker:</u>			
11/12, 20 on	Carlisle, Wayland	1, 1	Mrs. Clark, T.Hart
11/21, 12/2	Lincoln, Andover	1, 1	M.Bovey, K.Carpenter
12/6; 16	Wellesley; Hamilton, Millis	1; 1, 2	M.McGee; J.Berry, CBC
1/28, 29	Framingham, IRWS	1, 1	K.Hamilton, R.A.Forster#
2/25	Milton	1	O.Loring
<u>Red-bellied Woodpecker:</u>			
12/31	Swansea	1	N.Hill
<u>Red-headed Woodpecker:</u>			
11/9 thr. Feb.	W.Concord	1 imm.	C.Anderson + v.o.
11/20-1/16	Wayland	1 imm.	T.Hart#
<u>Hairy Woodpecker:</u>			
12/30, 16	Concord, Wilmington	100, 96	CBC
<u>Downy Woodpecker:</u>			
12/17, 30, 16	G.Boston, Concord, Wilmington	88, 260, 193	CBC
<u>Black-backed Three-toed Woodpecker:</u>			
12/29	Lynn Woods	1 female	J.Roderick

Passerines

This was the most disappointing year in recent memory for a number of usually common species as well as a virtually non-existent flight of winter finches. A look at the results of the 1978 Christmas Bird Counts (CBC) will easily confirm this fact. Bird Observer will publish the complete results of all the eastern Massachusetts CBCs. The Concord CBC, for example, usually leads the nation in the number of individual Blue Jays; this year's total of 281 was 1,593 under last year's count.

The following chart compares the counts of usually common winter species on the Concord and Greater Boston CBCs for last year with this year. The results are typical on all the counts.

<u>Species</u>	<u>Concord</u>		<u>Greater Boston</u>	
	<u>1977</u>	<u>1978</u>	<u>1977</u>	<u>1978</u>
Hairy Woodpecker	118	100	30	9
Downy Woodpecker	309	260	143	88
Blue Jay	1874	281	1091	284
White-breasted Nuthatch	325	288	171	74
Red-breasted Nuthatch	142	8	127	3
American Robin	86	18	337	115
Dark-eyed Junco	1424	374	734	232
Tree Sparrow	1130	608	361	121
White-throated Sparrow	242	66	185	67
Song Sparrow	172	127	203	105

Those of us who feed birds were given a big break on the cost for seed this year with so few birds coming to our feeders. Last year we went through three times as much seed with all those hungry siskins and redpolls around.

Winter wasn't all that bleak with several specialities staying around for all of us to see: the Varied Thrushes in Norwell and Chelmsford, the Bohemian Waxwings of Concord, the Lark Bunting of Salisbury and the Harris's Sparrow at Acoaxet.

West Kingbirds were reported in December from S. Wellfleet and in N. Falmouth; other late departures included a Blue-gray Gnatcatcher on December 7, a Black-and-white Warbler on December 3, a Cape May Warbler on November 26, an Ovenbird on November 23, a Redstart on December 6, and a Lincoln's Sparrow on November 17. Especially noteworthy were two reports of Solitary Vireos: on December 16 one was found at N. Falmouth, a first for a New England CBC, and another bird was found on December 30 at Nantucket, one day before the Nantucket CBC. A Wilson's Warbler was found in Chatham on December 12 and again on the 31st.

A Common Crow roost in Waltham was estimated at 2500 birds; Fish Crows were reported from Plum Island and Halifax for the first time. Only one Boreal Chickadee was reported this winter.

Over 1000 American Robins were found in Wellfleet during January, possibly a new high for winter. A maximum of 13 Eastern Bluebirds was reported most of the winter in Eastham. There was an explosion of Northern Shrikes with over 100 reported. A Townsend's Solitaire in Warren, Rhode Island was a special treat for those who went to see it but couldn't scare it the short distance to Massachusetts.

A fantastic total of 2983 Yellow-rumped Warblers was found on the Nantucket CBC, compared to a mere 255 in 1977; also the Nantucket CBC recorded 60 Palm Warblers as compared with just 2 in 1977. An *Oporornis* warbler was found on November 23 at Nantucket; the observers feel confident that this species was a MacGillivray's Warbler, but unfortunately it could not be netted.

The Brewer's Blackbird returned and remained at Katama, Martha's Vineyard for the winter while another adult was present at the chicken farm in Truro in early November. An immature male Black-headed Grosbeak visited a feeder in Lexington during February. A Blue Grosbeak was found in Barnstable and 3 Dickcissels were reported.

The flight of winter finches was almost non-existent; Pine Grosbeaks were few in eastern Massachusetts but were reported in good numbers in the Quabbin area. There was a scattering of Common Redpolls, and Pine Siskins started to appear in February but in very small numbers compared to last year's invasion. Only two reports each for Red and White-winged crossbills came in; the Red Crossbills at the Arnold Arboretum remained for a few days.

The Lark Bunting was still present through November 4 at the campground at Salisbury. A Grasshopper Sparrow was carefully studied at the Danvers State Hospital grounds on January 21; there are a few records for winter Grasshopper Sparrows in recent years. An amazing 13 Chipping Sparrows were noted in N. Falmouth, 11 of them in one flock on December 17. Generally speaking, most sparrow counts were way down this winter; you could spend a day in the field and not see a white-throat or a Tree Sparrow! Snow Buntings were well reported from Plum Island during November and by December 23 only 59 could be found.

Western Kingbird:

11/5-12/3	Truro	3-1	v.o.
11/7, 12	N. Scituate, M.V.	1, 1	M.+B. Litchfield, V. Laux
11/15, 12/7	S. Wellfleet	1, 1	P. Bailey, W. Bailey
12/16	N. Falmouth	1	D. Brown, W. Cornwall#
Horned Lark:			
11/2, 5	Salisbury, Eastham	80+, 75+	M. Kasprzyk, SSBC
12/17, 31	Cape Cod, Nantucket	83, 55	CBC
1/13, 27	Concord, Salisbury	38, 40	R. Walton, BBC
Tree Swallow:			
11/4, 10	P.I.	4, 1	BBC, G. Gove
Barn Swallow:			
11/4; 5	P.I., Eastham; Sharon	6+, 2; 2	R. Veit#, B. Nikula; D. Clapp
11/5, 6, 7	Framingham, Nahant, M.V.	1, 1, 2	R. Forster, R. Heil, V. Laux
11/11, 12	Eastham, S.N.	1, 4	G. Gove, D. Brown#
Blue Jay: (very low population)			
12/17, 30	G. Boston, Concord	284, 281	CBC
1/5	Framingham	76	K. Hamilton, R.A. Forster
Common Crow:			
12/17, 30	G. Boston, Concord	1017, 1357	CBC
thr. Dec.-Jan.	Waltham	1800-2500	R. Stymaist, J. Luck
Fish Crow:			
11/19, 12/10	<u>P.I., Halifax</u>	1, 1+	G. Soucy#+v.o., W. Petersen

12/16,30	Millis, Concord	52, 2	CBC
Black-capped Chickadee:			
12/16,30	Buzzards Bay, Concord	806, 2070	CBC
1/5	Framingham	310	K.Hamilton, R.A.Forster
Boreal Chickadee:			
11/17	Worcester	1	B.Hlodget
Tufted Titmouse:			
12/16, 30	G.Boston, Concord	119, 378	CBC
12/30,1/5	M.V., Framingham	1, 56	CBC, K.Hamilton#
White-breasted Nuthatch:			
12/16,30	G.Boston, Concord	119, 288	CBC
1/5	Framingham	43	K.Hamilton, R.A.Forster
Red-breasted Nuthatch:			
11/21;12/16	M.V.; Buzzards Bay, Worcester	40; 6, 8	V.Laux; CBC
12/16,30	Athol, Concord	22, 8	CBC
	Only 6 reported in January and only 4 reported in February.		
Brown Creeper:			
12/16,30	G.Boston, Concord	13, 13	CBC
1/5	Framingham	3	K.Hamilton, R.A.Forster
	Only 7 reported in February.		
Winter Wren:			
11/28,1/10	Manomet	1, 1 b.	MBO staff
12/16-31	Eastern Mass. CBCs	10	CBC
2/16-19,19	M.V., Bridgewater	1, 1	G.Daniels#, W.R.Petersen
Carolina Wren:			
11/28,12/16	Sharon, Buzzards Bay	1, 12	fide N.Waldron, CBC
12/30,17	M.V., Cape Cod	7, 1	CBC
thr. Jan.-Feb.	Acoaxet, Lakeville	2-3, 1	v.o.. A.Howard + v.o.
1/27,2/10	Woods Hole, Marshfield	2, 1	R.Stymeist#, B.Harrigan
2/10,16-19	Norwell, M.V.	1, 4	J.Marshall, R.Sargent#
Long-billed Marsh Wren:			
11/4,11	GMNWR, Truro	6, 6	
11/30,12/23	Newburyport	1, 2	G.Gove, R.Veit#
12/17,31	Cape Cod, Nantucket	4, 5	R.Heil, W.R.Petersen#
1/29	W.Harwich	1	CBC
			B.Nikula
Mockingbird:			
12/16,17	Buzzards Bay, G.Boston	129, 76	CBC
12/23,20	Quincy, Concord	43, 171	CBC
1/5,2/10	Framingham, Acoaxet	69, 12	K.Hamilton#, R.Stymeist#
Gray Catbird			
11/18,21	Gloucester, Nantucket	1, 1	BBC, S.Perkins#
12/16,17	Buzzards Bay, Cape Cod	8, 2	CBC
12/27,31	Plymouth, Nantucket	1, 6	CBC
thr. Jan.	Acoaxet	1-2	CBC
1/7	Falmouth, Westport	2, 1	v.o.
1/15,16	Plymouth, Littleton	1, 1	BBC, SSEC
2/16-19,23	M.V., S.Duxbury	1, 1	W.Cornwell, Mrs.DeCamillis
			V.Laux#, D.Briggs
Brown Thrasher:			
12/27	Plymouth	2	
Jan., 6	Manomet, Acoaxet	1 b., 1	CBC
1/7,2/10,18	Buzzards Bay, Marshfield, M.V.	1, 1, 2	MBO staff, R.Heil
			SSBC, B.Harrigan, V.Laux#
American Robin:			
12/16,17	Buzzards Bay, Cape Cod	230, 438	
1/4,5	S.Peabody, Framingham	13, 45	CBC
1/7,15	Wellfleet, Acoaxet	1000+, 75	R.Heil, K.Hamilton#
1/19,27	Falmouth, Woods Hole	30, 70	B.Nikula#, W.R.Petersen#
2/4,15	Bridgewater, Manchester	50, 30	P.Garrey, R.Stymeist#
			BBC, Mrs.R.Ayer
Varied Thrush:			
12/25-2/19	Norwell	1	
ca.1/12-2/19	Cnelmsford	1	Mrs.Olsen + v.o.
1/7	Acoaxet	1	E.Cady + v.o.
			P.Arrigo
Hermit Thrush:			
11/13,12/16	Sandwich, Buzzards Bay	4, 8	
1/7,20	Acoaxet, Nantucket	1, 4	R.Pease, CBC
2/8;9 + 17	E.Middleboro; S.O'leans	1, 1	J.Murphy, R.Veit#
2/18	M.V.	2	K.Anderson, C.Goodrich#
			V.Laux#
Eastern Bluebird:			
12/4,17, thr. Jan.	Eastham	13, 10, max.10	C.Goodrich, CBC, v.o.
2/4	Chatham	3	B.Nikula

<u>Blue-gray Gnatcatcher:</u>		
thr. Nov. 12/7	Manomet	3-1 MBO staff
<u>Golden-crowned Kinglet:</u>		
12/16, 27	Buzzards Bay, Plymouth	43, 59 CBC
1/5	Framingham, Lynn	10, 6 K.Hamilton#, R.Heil
Only a total of 4 reported in February.		
<u>Ruby-crowned Kinglet:</u>		
11/30, 12/10	M.V., Nahant	12, 1 V.Laux, BBC
12/27, 31	Plymouth, Falmouth	5, 2 CBC, R.Stymeist
thr. Jan. 1/15	Acoaxet, Norwell	1-2, 1 v.o., B.Litchfield
<u>Water Pipit:</u>		
11/3	Revere, Winthrop	4, 1 S.Zendeh
11/5, 12	Sharon, Bridgewater	1, 65 D.Clapp, BBC
<u>Bohemian Waxwing:</u>		
12/30-1/3	Concord	1-2 R.Forster# + v.o.
<u>Cedar Waxwing:</u>		
11/24	Truro	30 W.R.Petersen
12/15, 17	Brookton; Cape Cod	50, 56 F.O'Brien, CBC
12/23, 27	Newburyport, Plymouth	53, 95 CBC
1/7	Wellfleet, Concord	125+, 80 C.Goodrich, R.Walton
1/13, 23	Brewster, Lakeville	75, 150+ B.Nikula, R.+L.Thatcher
<u>Northern Shrike:</u>		
thr. Nov.	many locations	ca. 20 v.o.
thr. Nov.	outer Cape Cod	6-7 fide B.Nikula
thr. Dec.	Well over 100 individuals reported including	CBC.
thr. Jan.	outer Cape Cod	7-8 fide B.Nikula
thr. Jan.	north shore	10+ v.o.
thr. Jan.	south shore	9+ v.o.
thr. Jan.	west of Boston	10+ v.o.
thr. Feb.	outer Cape Cod	6+ fide B.Nikula
2/16	Sudbury Valley	5 R.Walton
<u>Starling:</u>		
12/17, 23	G.Boston, Quincy	103,000, 110,000 CBC
<u>Solitary Vireo:</u>		
12/16, 30	N.Falmouth, Nantucket	1, 1 CBC(R.Stymeist#), R.Smart
<u>Black-and-white Warbler:</u>		
11/29-12/3	Manomet	1 MBO staff
<u>Orange-crowned Warbler:</u>		
11/17, 12/16	Lynn, Buzzards Bay	1-2, 2 R.Heil, CBC
12/24, 2/12 on	Chatham, Lincoln	1, 1 E.Fuller, W.Harrington+v.o.
<u>Cape May Warbler:</u>		
11/26	Nantucket	1 imm. R.Veit, E.Andrews#
<u>Yellow-rumped Warbler:</u>		
11/11, 19	Ipswich, Crane Beach	60+, 50+ J.Berry
12/16, 17	Buzzards Bay, Cape Cod	551, 397 CBC
12/31	Nantucket	2983 CBC
1/14, 18, 27	Scituate, Scusset, P.I.	50, 18, 4 SSBC, P.Garrey, BBC
2/16-19, 2/17-18	M.V., Nantucket	50, 150 R.Sargent#, C.Jackson
<u>Blackpoll Warbler:</u>		
11/8	Salem, Framingham	1, 3 R.Heil, R.A.Forster
11/13, 18	Lincoln, Lakeville	1, 1 R.A.Forster, W.R.Petersen
<u>Pine Warbler:</u>		
11/25, 12/16	Nantucket, N.Falmouth	1, 1 R.Veit#, CBC
12/17, 2/25	Chatham, Plymouth	1, 2 CBC, T.Lloyd-Evans
<u>Palm Warbler:</u>		
11/22-26, 12/31	Nantucket	20, 60 R.Veit#, CBC(R.Heil#)
12/16, 17	Buzzards Bay, Cape Cod	8, 7 CBC
12/23, 27	Newburyport, Plymouth	1, 1 CBC
1/8	M.V.	8 V.Laux
<u>Ovenbird:</u>		
11/10	Manomet	1 b. MBO staff
<u>Oporornis.sp.</u>		
11/23	Nantucket	1 R.Veit, S.Perkins, M.Litchfield
<u>Common Yellowthroat</u>		
11/21, 29	MNWS, S.Peabody	1, 3 R.Heil
12/3, 30	GMNWR	1, 1 R.Walton
12/23, 30	Newburyport, Tuckernuck	2, 1 CBC
<u>Yellow-breasted Chat:</u>		
11/19, 26	Barnstable	1, 1 R.Pease
11/23, 26	Rockport, Lexington	1, 1 R.A.Forster, P.Stowe

12/16,17,31 1/6	Buzz.Bay, Cape Cod, Nantucket Chatham	3, 2, 1 1	CBC B.Nikula
<u>Wilson's Warbler:</u>			
11/17	Sandwich	1	R.Pease
12/12 + 31	Chatham	1	R.Clem
<u>American Redstart:</u>			
11/25,12/6	Nantucket, Sandwich	1, 1	R.Veit#, R.Pease
<u>House Sparrow:</u>			
12/17,30	G.Boston, Concord	749, 1535	CBC
<u>Eastern Meadowlark:</u>			
12/17	Cape Cod	21	CBC
1/6,15	Bridgewater, S.Dartmouth	30, 40	W.R.Petersen#
1/28, 2/6	Marshfield, M.V.	25, 25	M.+B.Litchfield, V.Laux
<u>Red-winged Blackbird:</u>			
11/5,11	GMNWR	400, 270	BBC
thr. Dec.	Danvers, Woburn	6, 10-1	E.Pyburn, G.Gove
1/28	S.Peabody, Saugus	18, 25	R.Heil, C.Jackson
<u>Northern Oriole:</u>			
11/14,20	Wayland, Barnstable	1, 1	H.Parker, R.Pease
12/3,16	Wellfleet, Buzzards Bay	1, 2	P.Trull#, CBC
12/17	G.Boston, Cape Cod	1, 3	CBC
1/10	Concord	1	R.Walton
<u>Rusty Blackbird:</u>			
11/3,22	Woburn, Middleboro	1, 2	G.Gove, D.Briggs
11/23,25	Concord, Nantucket	2, 1	R.Walton, S.Perkins
12/3,14	Sharon, S.Peabody	1, 24	N.Waldron, R.Heil
12/30	Concord	9	CBC
thr. Jan.,4	Norwell, S.Peabody	1.2, 1	v.o., R.Heil
1/6,13	Middleboro, Concord	1, 1	D.Briggs, R.Walton
1/27	Wayland, N.Falmouth	1, 7	H.Parker, R.Stymeist#
<u>Brewer's Blackbird:</u>			
11/4-5	Truro	1 ad.	B.Nikula# + v.o.
thr. Dec.-Feb.	Katama, M.V.	1 ad.	V.Laux# + v.o.
<u>Common Grackle:</u>			
1/22	N.Falmouth	65-70	R.Stymeist#
<u>Brown-headed Cowbird:</u>			
11/11,21	P.I., S.Peabody	60, 150	BBC, R.Heil
12/26,28,1/2	E.Lexington	48, 81, 50	L.Schimmel
<u>Cardinal:</u>			
12/16,17	Buzzards Bay, Cape Cod	224, 121	CBC
12/17,30	G.Boston, Concord	105, 193	CBC
1/5	Framingham	80	K.Hamilton, R.A.Forster
<u>Rose-breasted Grosbeak:</u>			
11/7,11	WBWS, N.Scituate	1, 1 imm.	P.Bailey, W.Petersen
<u>Black-headed Grosbeak:</u>			
2/2-6	Lexington	1 imm.	M.Smith + v.o.
<u>Blue Grosbeak:</u>			
11/3	Barnstable	1	R.Pease
<u>Dickcissel:</u>			
11/5	Walpole, Truro	1, 1	D.Clapp#, SSBC
12/7	Barnstable	1	R.Pease
<u>Evening Grosbeak:</u>			
11/5,29	E.Weymouth, Beverly	50, 25	S.Burg, G.Soucy
12/16,17	Athol, Westminster	828, 1100+	CBC
thr. Jan. + Feb.	Middleboro	75-150	D.Briggs
<u>Purple Finch:</u>			
12/16	Athol, Buzzards Bay	12, 13	CBC
12/30	Concord	85	CBC
1/5	Framingham	16	K.Hamilton, R.A.Forster
<u>House Finch:</u>			
12/16;17	Buzz.Bay; Cape Cod, G.Boston	561; 221, 228	CBC
1/5	Framingham	294	K.Hamilton, R.A.Forster
<u>Pine Grosbeak:</u>			
12/3,16	Wellfleet, Athol	3+, 17	C.Goodrich#, CBC
12/17,30	Brewster, Tuckernuck	30, 1	CBC
early Jan.	Wellfleet	2-3	C.Goodrich
2/2+14	Littleton	10 + 18	J.Baird
2/11+18	Lincoln	1 + 2	M.Litchfield, C.Roth
2/4,20	Newburyport, Harvard	2, 6	G.d'Entremont, T.Urquhart

<u>Common Redpoll:</u>			
11/24, 12/17	Truro, Winchester	1, 9	W.Petersen, CBC(G.Gove)
12/20, 1/27	Danvers, Millis	2, 3	E.Pyburn, P.Tarrobino
<u>Pine Siskin:</u>			
12/17	Chatham, Winchester	25, 110	CBC, CBC(P.Roberts#)
1/3, 7	Middleboro, Acoaxet	1, 2	D.Briggs, B.Cassie
2/2, 4	Plymouth, Stoneham	1, 7	C.Youngstrom, M.Martinek
2/10	Chelmsford, Concord	6, 7	O.Komar, R.Walton
2/14, 16	Newton, Concord	10, 27	D.Howard, R.Walton
<u>American Goldfinch:</u>			
thr. Nov.	Rockport (Whale Cove)	34 b.	R.Norris
12/17, 23	Cape Cod, Newburyport	169, 162	CBC
1/5, thr. Feb.	Framingham, Middleboro	126, 50+daily	K.Hamilton#, D.Briggs
<u>Red Crossbill:</u>			
12/17, 2/11	Boston, Littleton	3, 9	CBC(H.d'Entremont#+v.o.), J.Nye
<u>White-winged Crossbill:</u>			
11/19, 12/31	Westwood, P.I.	1, 15	R.Vernon, S.Kellogg
<u>Rufous-sided Towhee:</u>			
12/17, 21	Chatham, Manchester	3, 1	CBC, R.Parsons
1/7, 10	Acoaxet, M.V.	2, 4	J.Murphy, V.Laux#
2/17-18, 25	Nantucket, Framingham	3, 1	C.Jackson, R.A.Forster
<u>Lark Bunting:</u>			
11/1-4	Salisbury	1 (from 9/27)	v.o.
<u>Savannah Sparrow:</u>			
11/4	Scituate	7 (Ipswich)	W.R.Petersen
12/17, 27	Cape Cod, Plymouth	13, 4	CBC
1/27, 2/16-19	P.I., M.V.	1, 50	BBC, C.Lincoln#
<u>Grasshopper Sparrow:</u>			
1/21	Danvers (good details)	1	Chrisitielo
<u>Sharp-tailed Sparrow:</u>			
11/12, 12/2	Salisbury, Scituate	1, 1	R.Heil, W.R.Petersen
12/17, 30	Nauset	2, 1	CBC, S.Higginbotham#
1/14, 28	Scituate, Eastham	4, 2	SSBC, W.R.Petersen
<u>Seaside Sparrow:</u>			
11/5, 1/14	Eastham, Scituate	1, 1	SSBC, SSBC
<u>Dark-eyed Junco (Oregon):</u>			
11/29, 2/2	S.Peabody, Lexington	1, 1	R.Heil, M.Smith# + v.o.
<u>Dark-eyed Junco:</u>			
11/11	Salisbury	1 albino	M.Smith
1/5	Framingham	95	K.Hamilton, R.Forster
<u>Tree Sparrow:</u>			
11/17, 19	Belmont-Waltham	45, 30	S.Perkins
12/23, 30	Newburyport, Concord	214, 608	CBC
1/1, 5	Salisbury, Framingham	47, 116	J.Clancy, R.A.Forster#
<u>Chipping Sparrow:</u>			
11/11; 30-12/6	Truro; Danvers, Framingham	1; 3, 1	R.Veit#; E.Pyburn, R.Forster
12/16	N.Falmouth	13	CBC (D.Brown#)
<u>Field Sparrow:</u>			
12/16, 17	Buzzards Bay, Cape Cod	70, 32	CBC
thr. Jan.-Feb.	Middleboro	10-12	D.Briggs
1/5, 6	Framingham, Bridgewater	13, 28	R.Forster#, W.Petersen
<u>Harris' Sparrow:</u>			
12/23-2/28	Acoaxet	1 ad.	CBC + v.o.
<u>White-crowned Sparrow:</u>			
thr. Dec.	Danvers	3 imm., 1 ad.	E.Pyburn
12/16, 17, 22	Buzz.Bay, G.Boston, Lincoln	1, 1, 1	CBC, CBC, R.Walton
thr. Jan., 2/8	Danvers, Lincoln	max. 5, 1	E.Pyburn#, M.Litchfield
<u>White-throated Sparrow:</u>			
12/16, 17	Buzzards Bay, Cape Cod	275, 121	CBC
12/17, 30	G.Boston, Concord	67, 66	CBC
1/7	Acoaxet	65+	v.o.
<u>Fox Sparrow:</u>			
11/4 + 5	Sudbury	18, 12	R.Forster
11/3, 10	Belmont, E.Lexington	10, 9	S.Perkins, L.Schimmel
12/16, 17	Buzzards Bay, Cambridge	2, 2	CBC
thr. Jan.	Only 5 reported all month.		
thr. Feb.	Only 1 reported all month.		
<u>Lincoln's Sparrow:</u>			
11/17	Belmont	1	S.Perkins

Swamp Sparrow:			
12/16,17	Buzzards Bay, Cape Cod	28, 17	CBC
12/30	Marshfield, Concord	44, 17	CBC
1/7-28,13	S.Peabody, GMNWR	2, 3	R.Heil, R.Walton
2/11,23	Acoaxet, Saugus	3, 2	G.Soucy, S.Zendeh
Song Sparrow:			
12/16,17	Buzzards Bay, Cape Cod	346, 143	CBC
1/5,2/10	Frammingham, Acoaxet	12, 28	R.Forster#, R.Stymeist#
Lapland Longspur:			
11/11,25,12/3	P.I.	14, 25+, 65	v.o.
12/17	Cape Cod	250	CBC
thr. Jan.,Feb.	Salisbury	max.35, max.200	v.o.
Snow Bunting:			
11/5,10,11,19,30	P.I.	800, 400, 700, 150, 300+	v.o.
11/11,22,1/13	Provincetown	300, 300+, 200+	v.o.
thr. Nov.	Salisbury	max. 150	v.o.
12/17,23	Cape Cod, Newburyport	281, 99	v.o.
1/16,20	Wilmington, Lanesville	16, 30	S.Garrett, D.+D.Hale

List of Abbreviations

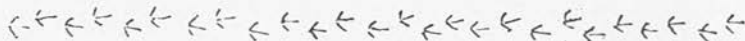
ad.	adult	SSEC	South Shore Bird Club
b.	banded	GMNWR	Great Meadows National Wildlife Refuge
d.	dark phase	IRWS	Ipswich River Wildlife Sanctuary
f.	female	MBO	Manomet Bird Observatory
imm.	immature	MNWS	Marblehead Neck Wildlife Sanctuary
l.	light phase	WBWS	Wellfleet Bay Wildlife Sanctuary
m.	male	WMWS	Wachusett Meadows Wildlife Sanctuary
max.	maximum	AA	Arnold Arboretum
thr.	throughout	A.P.	Andrews Point, Rockport
v.o.	various observers	E.P.	Eastern Point, Gloucester
yg.	young	F.M.	Fowl Meadow, Milton
#	additional observers	M.V.	Martha's Vineyard
ABC	Allen Bird Club	Mt.A.	Mt. Auburn Cemetery, Cambridge
BBC	Brookline Bird Club	P.I.	Plum Island
CBC	Christmas Bird Count	S.N.	Sandy Neck, Barnstable

PLUM ISLAND UPDATE

The Parker River National Wildlife Refuge is currently in the throes of major construction work. Road work began in April, with the intention of widening, elevating, and "surfacing" the island road as far as the Rowley line. If additional funds can be obtained, the project may be extended the length of the refuge; sufficient appropriations might be received as early as this summer. In the vicinity of Stage Island, the roadbed will be shifted westward to permit natural dune development.

Several parking lots have been closed, including #4, north of the salt pans, and #7, east of the Old Pines. Lots #5 (Kettlehole) and #8 (The Pines Trail) have been enlarged to compensate for the loss of parking spaces. This shift will reduce the number of boardwalks to the beach and will enable the refuge personnel to provide better security for parked cars.

In the near future, a new refuge headquarters, including a visitors center and an observation blind, will be constructed on the northern edge of the dike near "the Warden's."



A citizen of the U.S.S.R. was recently sentenced to six years in a labor camp for trying to steal 20 parrots from the Moscow City Zoo. The culprit was discovered hiding in one of the birds' cages with the parrots in his briefcase. (Punch, Dec. 13, 1978)

TIDE CHART

Here is the tide table for Boston Harbor; add one hour for Daylight Savings Time.

1979 MAY - JUNE TIDES 1979

Morning	BOSTON	Afternoon	Morning	BOSTON	Afternoon
High 5:50 Height 9.9 Low — Height 4.18 Savnet 4.78	SUNDAY 20	High 6:27 Height 9.9 Low 12:09 Height -0.4 Savnet 7.04	High — Height 5.56 Low — Height 4.13	SUNDAY 27	High 12:11 Height 9.6 Low 6:07 Height 0.0 Savnet 7.09
High 6:53 Height 9.5 Low 12:41 Height 0.0 Savnet 4.17	MONDAY 21	High 7:26 Height 10.3 Low 1:09 Height -0.5 Savnet 7.04	High 12:11 Height 10.7 Low 6:39 Height 0.9 Savnet 7.10	MONDAY 28	High 12:57 Height 9.4 Low 6:52 Height 0.3 Savnet 7.10
High 7:54 Height 9.9 Low 1:43 Height -0.3 Savnet 4.17	TUESDAY 22	High 8:24 Height 10.6 Low 2:05 Height -0.5 Savnet 7.04	High 1:06 Height 10.3 Low 7:24 Height -0.6 Savnet 7.12	TUESDAY 29	High 1:39 Height 9.1 Low 7:35 Height 0.6 Savnet 7.12
High 8:53 Height 9.9 Low 2:39 Height -0.7 Savnet 4.16	WEDNESDAY 23	High 9:16 Height 10.9 Low 2:50 Height -0.5 Savnet 7.05	High 1:55 Height 10.0 Low 8:09 Height -0.3 Savnet 7.11	WEDNESDAY 30	High 2:25 Height 8.9 Low 8:23 Height 0.9 Savnet 7.11
High 9:45 Height 10.0 Low 3:35 Height -1.0 Savnet 4.16	THURSDAY 24	High 10:05 Height 11.0 Low 3:48 Height -0.6 Savnet 7.06	High 2:37 Height 9.6 Low 8:54 Height -0.5 Savnet 7.13	THURSDAY 31	High 3:12 Height 9.7 Low 9:12 Height 0.2 Savnet 7.13
High 10:37 Height 9.9 Low 4:23 Height -1.2 Savnet 4.16	FRIDAY 25	High 10:53 Height 11.0 Low 4:37 Height -0.4 Savnet 7.07	High 3:25 Height 9.9 Low 9:42 Height -0.5 Savnet 7.14	FRIDAY 1	High 4:00 Height 8.6 Low 10:03 Height 1.4 Savnet 7.14
High 11:25 Height 9.8 Low 5:10 Height -1.3 Savnet 4.14	SATURDAY 26	High 11:38 Height 10.9 Low 5:21 Height -0.1 Savnet 7.08	High 4:15 Height 10.3 Low 10:32 Height -0.8 Savnet 7.15	SATURDAY 2	High 4:51 Height 8.3 Low 10:56 Height 1.3 Savnet 7.15

1979 JUNE TIDES 1979

Morning	BOSTON	Afternoon	Morning	BOSTON	Afternoon
High 5:07 Height 8.4 Low 11:23 Height 0.0 Savnet 4.08	SUNDAY 3	High 5:41 Height 8.4 Low 11:51 Height 1.4 Savnet 7.16	High 10:56 Height 9.7 Low 4:46 Height -0.5 Savnet 4.06	SUNDAY 10	High 11:10 Height 5.00 Low 5:00 Height -0.5 Savnet 7.21
High 5:59 Height 8.9 Low — Height 4.08	MONDAY 4	High 6:30 Height 8.8 Low 12:14 Height 0.9 Savnet 7.16	High 11:44 Height 9.9 Low 5:33 Height -1.4 Savnet 4.06	MONDAY 11	High 11:57 Height 11.3 Low 5:46 Height -0.4 Savnet 7.22
High 6:52 Height 8.5 Low 1:24 Height 1.0 Savnet 4.07	TUESDAY 5	High 7:20 Height 9.1 Low 1:04 Height 0.9 Savnet 7.18	High 12:07 Height 10.0 Low 6:20 Height -1.6 Savnet 7.18	TUESDAY 12	High 12:33 Height 10.0 Low 6:34 Height -0.4 Savnet 7.22
High 7:42 Height 8.9 Low 1:36 Height 0.8 Savnet 4.07	WEDNESDAY 6	High 8:06 Height 9.2 Low 1:52 Height 0.7 Savnet 7.18	High 12:47 Height 11.3 Low 7:10 Height -1.8 Savnet 7.18	WEDNESDAY 13	High 1:23 Height 10.1 Low 7:27 Height -0.4 Savnet 7.22
High 8:34 Height 8.9 Low 2:27 Height 0.3 Savnet 4.07	THURSDAY 7	High 8:53 Height 10.1 Low 2:41 Height 0.5 Savnet 7.18	High 1:40 Height 11.2 Low 8:01 Height -1.5 Savnet 4.06	THURSDAY 14	High 2:17 Height 10.1 Low 8:20 Height -0.3 Savnet 7.22
High 9:22 Height 9.1 Low 3:14 Height -0.2 Savnet 4.06	FRIDAY 8	High 9:38 Height 10.4 Low 3:27 Height 0.1 Savnet 7.20	High 2:33 Height 10.9 Low 8:54 Height -1.3 Savnet 4.06	FRIDAY 15	High 3:13 Height 10.1 Low 9:18 Height -0.2 Savnet 7.23
High 10:09 Height 9.4 Low 4:00 Height -0.7 Savnet 4.06	SATURDAY 9	High 10:33 Height 10.4 Low 4:12 Height 0.0 Savnet 7.21	High 3:31 Height 10.5 Low 9:50 Height -1.0 Savnet 4.06	SATURDAY 16	High 4:10 Height 10.1 Low 10:18 Height 0.0 Savnet 7.23

1979 JUNE TIDES 1979

Morning	BOSTON	Afternoon	Morning	BOSTON	Afternoon
High 4:32 Height 10.2 Low 10:48 Height -0.6 Savnet 4.06	SUNDAY 17	High 5:09 Height 10.1 Low 11:20 Height 0.0 Savnet 7.23	High 11:05 Height 9.3 Low 4:51 Height -0.8 Savnet 4.08	SUNDAY 24	High 11:16 Height 10.5 Low 5:00 Height 0.3 Savnet 7.25
High 5:33 Height 9.8 Low 11:48 Height -0.4 Savnet 4.07	MONDAY 18	High 6:08 Height 10.3 Low 12:04 Height -0.4 Savnet 7.34	High 11:50 Height 9.3 Low 5:35 Height -0.7 Savnet 4.09	MONDAY 25	High 12:00 Height 10.4 Low 5:42 Height 0.3 Savnet 7.25
High 6:35 Height 9.5 Low 12:24 Height -0.1 Savnet 4.07	TUESDAY 19	High 7:07 Height 10.3 Low 12:46 Height -0.2 Savnet 7.34	High 12:00 Height 9.9 Low 6:18 Height -0.6 Savnet 4.09	TUESDAY 26	High 12:32 Height 9.1 Low 6:26 Height 0.5 Savnet 7.25
High 7:36 Height 9.4 Low 1:26 Height -0.2 Savnet 4.07	WEDNESDAY 20	High 8:02 Height 10.5 Low 1:42 Height -0.1 Savnet 7.34	High 12:41 Height 10.2 Low 6:58 Height -0.4 Savnet 4.10	WEDNESDAY 27	High 1:14 Height 9.1 Low 7:10 Height -0.7 Savnet 7.25
High 8:35 Height 9.2 Low 2:24 Height -0.2 Savnet 4.07	THURSDAY 21	High 8:56 Height 10.6 Low 2:37 Height 0.0 Savnet 7.34	High 1:23 Height 10.2 Low 7:40 Height -0.2 Savnet 4.10	THURSDAY 28	High 1:55 Height 9.0 Low 7:53 Height 0.8 Savnet 7.25
High 9:32 Height 9.1 Low 3:17 Height -0.6 Savnet 4.13	FRIDAY 22	High 9:46 Height 10.6 Low 3:28 Height 0.1 Savnet 7.34	High 2:07 Height 10.2 Low 8:23 Height -0.1 Savnet 4.11	FRIDAY 29	High 2:38 Height 8.8 Low 8:38 Height 1.0 Savnet 7.25
High 10:19 Height 9.3 Low 4:05 Height -0.7 Savnet 4.08	SATURDAY 23	High 10:36 Height 10.6 Low 4:15 Height 0.2 Savnet 7.35	High 2:49 Height 9.3 Low 9:07 Height -0.3 Savnet 4.11	SATURDAY 30	High 3:23 Height 8.8 Low 9:22 Height 1.2 Savnet 7.25

1979 JULY TIDES 1979

Morning	BOSTON	Afternoon	Morning	BOSTON	Afternoon
High 3:37 Height 9.0 Low 9:53 Height 0.6 Savnet 4.12	SUNDAY 1	High 4:08 Height 10.16 Low 10:12 Height -0.8 Savnet 4.17	High 9:40 Height 9.4 Low 3:32 Height -0.8 Savnet 4.17	SUNDAY 8	High 9:56 Height 11.1 Low 3:44 Height -0.1 Savnet 7.20
High 4:25 Height 8.9 Low 10:40 Height 0.8 Savnet 4.13	MONDAY 2	High 4:57 Height 11.09 Low 11:02 Height -1.3 Savnet 7.24	High 10:31 Height 9.8 Low 4:21 Height -0.8 Savnet 4.17	MONDAY 9	High 10:48 Height 11.4 Low 4:35 Height -0.5 Savnet 7.20
High 5:16 Height 8.5 Low 11:20 Height 0.8 Savnet 4.13	TUESDAY 3	High 5:46 Height 9.4 Low 11:50 Height 0.9 Savnet 7.24	High 11:22 Height 10.1 Low 5:10 Height -1.7 Savnet 4.18	TUESDAY 10	High 11:39 Height 10.4 Low 5:25 Height -0.9 Savnet 7.20
High 6:09 Height 8.5 Low 12:03 Height 0.9 Savnet 4.13	WEDNESDAY 4	High 6:35 Height 9.3 Low 12:20 Height -1.9 Savnet 7.23	High 11:57 Height 10.0 Low 6:00 Height -1.9 Savnet 4.19	WEDNESDAY 11	High 12:13 Height 10.4 Low 6:16 Height -0.9 Savnet 7.20
High 7:02 Height 8.5 Low 12:57 Height 0.7 Savnet 4.13	THURSDAY 5	High 7:25 Height 9.7 Low 1:12 Height 0.8 Savnet 7.23	High 12:30 Height 11.7 Low 6:50 Height -3.0 Savnet 4.20	THURSDAY 12	High 1:05 Height 10.6 Low 7:08 Height -1.0 Savnet 7.19
High 7:57 Height 8.7 Low 1:49 Height 0.3 Savnet 4.15	FRIDAY 6	High 8:16 Height 10.1 Low 2:03 Height 0.6 Savnet 7.23	High 1:23 Height 11.5 Low 7:42 Height -1.8 Savnet 4.20	FRIDAY 13	High 1:59 Height 10.7 Low 8:03 Height -0.6 Savnet 7.19
High 8:48 Height 9.0 Low 2:41 Height -0.2 Savnet 4.16	SATURDAY 7	High 9:27 Height 10.0 Low 2:53 Height -1.5 Savnet 7.22	High 2:17 Height 11.3 Low 8:35 Height -1.5 Savnet 4.21	SATURDAY 14	High 2:52 Height 10.6 Low 9:00 Height -0.7 Savnet 7.18

Time Differences from Boston High Tide

- Newburyport 31 minutes later
- Scituate 5 minutes earlier
- Plymouth 5 minutes later
- Chatham (outside) 30 minutes later
- Chatham (inside) (1 hr) 54 minutes later
- New Bedford (3 hrs) 15 minutes earlier

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