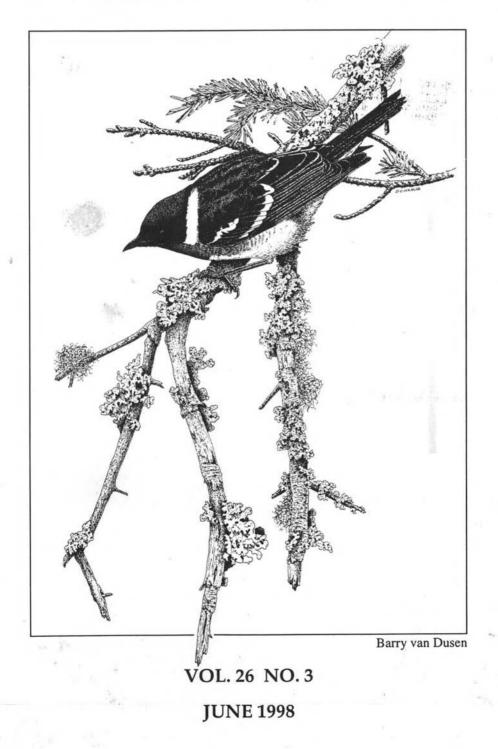
BIRD OBSERVER





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BIRD OBSERVER

• bimonthly journal • To enhance understanding, observation, and enjoyment of birds.

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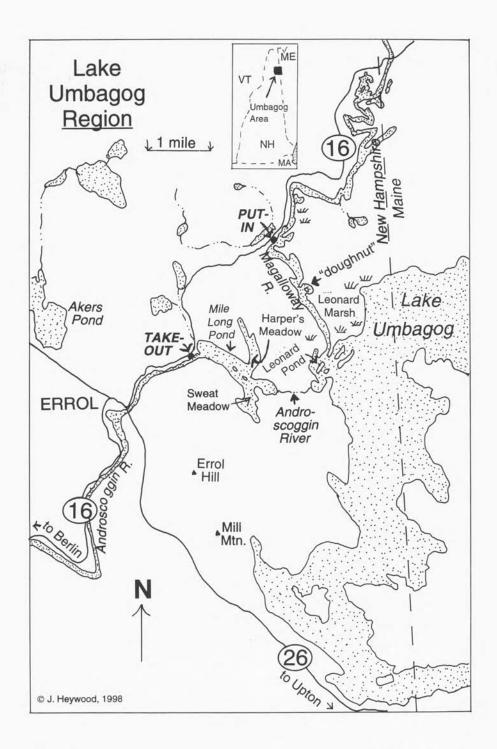
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BIRD OBSERVER

Vol. 26, No. 3, 1998

BIRDING LAKE UMBAGOG

By Tudor Richards and Bob Quinn

In far northeastern New Hampshire lies the richest wildlife area in all of the Granite State — Lake Umbagog. William Brewster (1851-1919), the paragon of 19th-century field ornithologists and one of the founders of the Nuttall Club and the American Ornithologists' Union, felt that the area, ". . .like many a precious stone, has beauty and charm due to the effectiveness of its perfect setting amid the majestic mountains and virgin forests that surround it closely on every hand."

While there is little old-growth forest remaining at Umbagog, it remains one of the wildest areas in northern New England. Thanks to Brewster and another acclaimed Massachusetts ornithologist, Ludlow Griscom, we have the monumental *Birds of the Lake Umbagog Region of Maine* (Brewster was based on the Maine side of the lake but probably did most of his birding in New Hampshire), published in four parts by Harvard's Museum of Comparative Zoology between 1924 and 1938, but long out of print. This study is based on Brewster's field work from 1871 to 1909 at Umbagog. Griscom edited the third part and wrote the fourth part based on the records of Brewster, whom he described as "one of the greatest and naturally gifted field ornithologists America has ever produced."

In this article we will describe a canoe trip for exploring this marvelous area, still a wild place with an abundance of wildlife, touching briefly on some of its more modern charms but focusing mainly on a canoe trip down the Magalloway River, through the wetlands, and out the Androscoggin River. This trip can be an easy day trip, or you can camp at the lake and spend several days thoroughly exploring all the nooks and crannies of the coves, bays, and wetlands. It is all flat water with no strong currents. (A word of caution: the wind can come up quickly and make the lake, especially, a dangerous place to be in an open boat. Keep your eyes on the weather as well as the birds. Be prepared for thunderstorms, and biting insects, too.) For the purposes of the bird life, we will assume you will follow this route during the breeding season. For notes on the birds of other seasons, see the end of the article.

The best route for canoeing depends upon how much time you have and whether you have one or two vehicles. If you are limited to one car, you can still make a nice trip by starting and ending at either point mentioned in the loop trip. If you really want to get the full Umbagog experience, I strongly recommend you stay in the area at least one night.

Assuming you have two vehicles, drive north from Errol and drop one on the right side of Route 16 1.6 miles north of the junction of Routes 16 and 26 at Errol village. There is a small gravel boat launch on the right and parking for a number of cars a couple hundred feet farther north. Next, drive 3.0 miles farther north on Route 16, over a modest ridge, to where you see water again (on the right). This is the Magalloway River, which flows into Umbagog. The put-in is 100 yards or so beyond your first view of the river. At birding speed it is about six to eight hours from here down the Magalloway to the lake, and out the Androscoggin to the take-out spot. Obviously, the earlier in the day you start the better the birding will be, and also the more time you will have before the wind comes up (an almost daily event).

Paddle to the right to go downstream; the current is not usually noticeable. The Magalloway immediately leaves the road and the minor traffic noise behind. Calm descends as you gently float along, surrounded by bird song (at the proper season). Birding can be good anywhere, but the best spots are the frequent backwaters (called "logans" by the locals) on either side of the river.

If you have time, every one of these backwaters is worth exploring, all the way to the far reaches of them (and some are quite long). As you paddle into them, they narrow, and the habitat becomes quite marshy. Most of the waterbirds will be back in these marshy areas though some, like loons and a few ducks, will be in more open water. The surrounding woods can be good, especially for warblers; boreal residents like Gray Jay and Black-backed Woodpecker are always a possibility. Be alert for crossbills flying over.

As you head downstream, the first backwater is almost immediately on your left, after the first bend in the river, but the entrance to it is about a quarter-mile farther downstream near a large boulder. The next backwater is on the right and is very long (if you explore the full length of all these backwaters you will almost double your total paddling distance!). The third one is different in that it is what I call the "Doughnut." It is circular with a small island in the middle and is an obvious example of the old Magalloway River channel that was flooded when the dam on the Androscoggin River was built.

Just downstream from the "Doughnut" you might become aware of a large wetland just through the thin fringe of trees along the left-hand shore. This wetland, called Leonard Pond, is accessible farther down the river, and you will explore that later, but your next stop should be the last backwater on the right. As you approach this backwater, note a channel cutting through the woods on the left side of the river. I call this the "Hole in the Wall," and it is the access to the Leonard Pond wetland. But for now continue into the last backwater on the right, and take your time exploring its nooks and crannies.

Backtrack to the river and the "Hole in the Wall." Proceed as slowly and quietly as possible into the Leonard Pond area. This complex of wetlands (not a separate pond) at the edge of the lake is the site of the Bald Eagle nest tree; the birds are around anytime there is open water. The story of the eagles is fascinating. In 1949 a pair of Bald Eagles nested in a large white pine — the last known nest in the area for forty years. Then in 1989, a pair of Bald Eagles returned to the same tree, and they have been there almost every year since. Bald Eagles are an endangered species, so please be very careful and respect the signs

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and buoys that might be at the nest site. Keeping your distance from any nesting species (such as loons and Ospreys) is especially important at Umbagog.

Leonard Pond is one of the better places for a variety of waterbirds, especially ducks and shorebirds (best at lower water levels). Likely species during the warmer months (or weeks in some years in this northern clime!) include Common Loon, Great Blue Heron, American Bittern, Common Snipe, Canada Goose, Ring-necked Duck, Black Duck, Mallard, either teal, Wood Duck, Common Goldeneye, Common and Hooded mergansers, Osprey, Northern Harrier, Spotted Sandpiper, and Ring-billed Gull. During migration almost anything is possible (Brewster had Eskimo Curlew and Ruff), with likely species including Killdeer, Greater and Lesser yellowlegs, Solitary Sandpiper, Least Sandpiper, Pectoral Sandpiper (fall only), and all the regular grebes and ducks. Rare, but probably regular, are Semipalmated Plover, Black-bellied Plover, Short-billed Dowitcher, Semipalmated Sandpiper, Sanderling, Red and Red-necked phalarope, Bonaparte's Gull, Common Tern, and Black Tern. A sample of the rarities and large numbers seen in recent years includes such finds as a Yellow-headed Blackbird, a Wilson's Phalarope, 400 Short-billed Dowitchers, and up to 2,000 Common Mergansers just before the lake froze in 1997.

From Leonard Pond, paddle north a mile or so along a huge boggy wetland known as Leonard Marsh (a.k.a. Moose Point). If you are camping at the lake, you might want to set up your site before exploring. Either way, this large wetland is an excellent place for American Bittern, ducks, rails, snipe, and moose. During migration it can swarm with swallows. If it is calm and you have plenty of time, check out the lake itself for loons, grebes, scoters, gulls, terns, and other open-water birds.

Eventually you will head back to the Magalloway River area. The river actually empties into the Androscoggin River (rather than the lake) just downstream from where the Androscoggin leaves Umbagog. When the water is high, there is another smaller but intriguing wetland on the far (right) side of the Magalloway just before the Androscoggin. It is worth exploring if the water is high enough to get your boat in.

If you are short on time, it is only about an hour down the Androscoggin River to your car at Route 16. But with foresight and luck, you have will planned for plenty of time and the weather will be good, because some of the best and birdiest wetlands are still to be found as you descend the Androscoggin. The river itself usually has ducks, and the boreal woods along the edge can hold a lot, even Spruce Grouse. Approximately one mile down the Androscoggin (just past a towering white pine known as the "Landmark Pine"), a small channel on the right leads into Harper's Meadow (this channel is not on the U.S. Geological Survey topographic maps). If you use this channel, make sure you note its location after you have entered the meadow, since it can be hard to find the way out, especially when the marsh grass is high. Here is another large wetland complex to explore. It is more open marsh than Leonard Pond and includes the Floating Island Bog. Floating Island is approximately 100 acres of sphagnum moss, tamaracks, and black spruce that is home to Lincoln's Sparrows and is one of the few sites for nesting Palm Warblers in New Hampshire. Access to the bog is problematic and depends on the water level, but for the intrepid naturalist is a marvelous north-country experience. One approach is to come from the open water in the meadow and work your way as far into the edge of the floating bog mat as possible and then hop out and walk in. You are almost guaranteed to get your feet wet this way, and if you are not experienced at bog-trotting, you might feel more comfortable carrying your canoe paddle with you as a support.

As you stagger around this wet and unstable landscape, watch and listen for the gurgling warble of the Lincoln's Sparrow and the weak junco-like trill of the Palm Warbler. Many other species are likely, such as Savannah Sparrow and Nashville Warbler. Other boreal birds are possible, such as Gray Jay, Spruce Grouse (in the more thickly wooded sections), Merlin, Osprey, and crossbills. Floating Island is mostly unchanged since Brewster's day and includes fascinating bog plants such as orchids, andromeda, and pitcher plants; it also has a healthy moose population.

If you prefer the relative stability and dryness of the canoe, there is still much to explore along the marshy edges of Harper's Meadow. Teal, rails, bitterns, snipe, Marsh Wrens, and Northern Harriers are especially likely. As with all the other sites, the woods are usually full of birds, and the unexpected should always be anticipated. For example, Jim Berry hooted up two Barred Owls here on a still June day in 1997, and Sedge Wrens have been recorded here too.

To exit Harper's Meadow, you can retrace your route to the small channel out to the Androscoggin River, or stay in the meadow but parallel the direction of flow of the river. The water is usually high enough so that you can make it through into another meadow/pond area known as Mile Long Pond (but not labeled with any name on the USGS topo map). This spot has more open water and usually fewer birds, but loons and Ospreys are common. Ultimately you want to enter the Androscoggin River again and watch for an entrance to another large meadow on the other (left) side of the river. This is Sweat Meadow, and as with Harper's Meadow you can easily spend an hour or two poking around in it.

From the entrance to Sweat Meadow it is only a few minutes down the river to your car and the small (and somewhat obscure) take-out on the right. If you notice the road next to the river, you have gone too far.

This covers the prime birding areas by canoe, but if you have time and are camping on the lake itself, by all means explore as much of its shoreline as possible. One of the thrills of Umbagog is to paddle out into the middle of the lake on a calm evening and to be serenaded by up to a dozen Common Loons. (Try counting them!) The star show is great, too.

Other Sites

The woods surrounding Umbagog have miles of trails and roads that can be explored. Keep in mind that most of this land is privately owned and some areas may be posted. Please obey and respect the wishes of the landowners. On the way up to Errol along Route 16, you can bird at several interesting sites. The most prominent of these are Pontook Reservoir and Thirteen Mile Woods. Pontook is a reservoir and associated wetlands along Route 16 about fifteen miles south of Errol. Most of the open water and the large marsh can be birded from the road (Route 16), but it is better to canoe it. Common birds are Common Loon, Osprey, Great Blue Heron, Ring-necked Duck, Wood Duck, Black Duck, Virginia Rail, and Marsh Wren. Anything can turn up, such as Common Moorhen and King Rail (very rare). When the water level is low, it can be good for shorebirds.

Thirteen Mile Woods is a stretch of boreal woodland along Route 16 and the Androscoggin River between Pontook and Errol. During the summer it is identified by large wooden state-park-type signs at either end. This stretch of woodland is protected from cutting and therefore has a lot of spruce-firtamarack habitat and its associated birds. During most summers there is at least one Black-backed Woodpecker nest right along this stretch of road. For most of the length of this woodland, the Androscoggin River is right next to the road and adds the possibility of loons, Ospreys, ducks, and other waterbirds.

Route 26 to Dixville Notch, northwest of Errol, passes through a mixture of farmland and boreal woodlands. Birding is good along this road and can include Lincoln's Sparrows and Wilson's Warblers in the shrubby wetlands, and any of the boreal species in appropriate habitat. At Dixville Notch (about nine miles from Errol), Route 26 climbs steeply between jagged cliffs and tops out at an elevation of about 2,000 feet. Bicknell's Thrush formerly could be heard during the summer from the height of land in Dixville Notch and should be listened for, but not expected. During migration the Notch can have a good variety of land birds, and there are even some waterbird records of note, though Peregrine Falcons and Swainson's Thrushes are more typical of this mountain cleft.

Upton, Maine: The main attraction here is a good view of the lake. Take Route 26 south from Errol about 7.5 miles. At the southern end of the lake there is a boat ramp from which you can scan that part of the lake. From here, continue on Route 26 past Umbagog Lake Campground and up the hill into Upton. You get your best view of the lake from the village.

Other Seasons

Lake Umbagog can be exciting any time of the year, especially from ice-out (late April to mid-May) through freeze-up (November). Spring can be a long time coming in this cold northern land, with snow in May being fairly common,

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but the rush of waterbird migrants as the lake opens up, and land bird migrants as the insects finally emerge, can provide great birding. Sample spring records from 1991 and 1995 included 14 Horned Grebes, 8 Red-necked Grebes, 22 Wood Ducks, 30 Green-winged Teals, 3 Northern Pintails, 7 American Wigeons, 80 Ring-necked Ducks, 1 Northern Shoveler, 2 Gadwalls, 5 Oldsquaws, 15 Black Scoters, 18 Surf Scoters, 85 White-winged Scoters, 32 Common Goldeneyes, a Barrow's Goldeneye, 2 Red-breasted Mergansers, a Common Moorhen, a Black-bellied Plover, 40 Semipalmated Plovers, a Red Knot, 25 Semipalmated Sandpipers, 10 Least Sandpipers, 5 Dunlins, 400 Short-billed Dowitchers, a Wilson's Phalarope, and a Black Tern.

After Labor Day Umbagog is mostly a deserted lake except during duckhunting season, and yet you can sometimes find a host of birds such as Brewster recorded. A small sample from September 29, 1990, includes 20 or more Common Loons, several Double-crested Cormorants, several Ruddy Ducks, Osprey, Bald Eagle, Greater Yellowlegs, Solitary Sandpiper, a dozen Pectoral Sandpipers, and numerous Common Snipe.

Since few birders get to Umbagog, we would appreciate any sightings you might record. Please send them to Robert A. Quinn, 53 Baptist Hill Road, Canterbury, NH 03224.

Logistics

There are several camping options, one motel, two restaurants, and a couple of small stores in the Errol area. A pleasant campground operated by the State of New Hampshire is located beside Route 16, and along the Androscoggin River, several miles south of Errol. It is known as the Mollidgewock Campground and has a large brown sign on the right side of the road as you drive north. The other nearby camping option is at Umbagog Lake Camps (cottages available too) at the south end of the lake on Route 26, 7.5 miles south from the center of Errol. This is also where you have to register to use the lakeside campsites that are reachable only by boat. Camping on the lake itself is the best option of all.

For more information, contact: State of New Hampshire, Parks Department, 172 Pembroke Road, Concord, NH 03301 (603) 271-3556. Umbagog Lake Camps, P.O Box 181, Errol, NH 03579, (603) 482-7795.

The only motel in Errol is the Errol Motel on Main Street, (603) 482-3256. Since it has only about twenty rooms, you should make reservations in advance.

The two restaurants in town are directly across the street from each other and serve plain fare at reasonable prices with plenty of local flavor. The pies at the Errol Restaurant are especially noteworthy. The small convenience stores in town can also provide sandwiches.

THE BIRDS OF LAKE UMBAGOG

by Tudor Richards and Bob Quinn (and William Brewster)

Umbagog is the most southerly of the Rangeley Lakes (of Maine), with about 60 percent of its area actually in New Hampshire. It is roughly twelve miles long, north to south, by one mile wide, but with many indentations, peninsulas, and coves. Lying in the Androscoggin Valley at an elevation of around 1,250 feet, it is the source of the Androscoggin River. The river is the outlet for the lake and leaves it about two-thirds of the way up its west side. A dam, originally built in 1852 several miles down the Androscoggin near Errol, raised Umbagog's level nearly ten feet, increasing its size considerably. This dam also flooded several "meadows" along the Androscoggin as well as several oxbow ponds of the Magalloway River, which joins the former very near its start. This complex of wetlands is the heart of the birding at Umbagog.

The land around Umbagog is mostly hilly to mountainous and covered with second- and third-growth forests interspersed with recently cutover patches. white pine, eastern hemlock, red spruce, white spruce, balsam fir, maples, birches, and american beech are the predominant trees, with tamarack and black spruce in bogs and northern white cedar in some swamps. Some open areas and farmlands exist near the small villages of Errol, New Hampshire, and Upton, Maine. Moose (please drive carefully at night), deer, black bears, coyotes, beavers, many smaller mammals, and an unusual variety of birds abound.

About 4,000 acres along the western (New Hampshire) shore of Umbagog, along with most of the wetlands of the Androscoggin and Magalloway Rivers, have recently been set aside as the Lake Umbagog National Wildlife Refuge. Additionally, New Hampshire has protected more than 3,500 acres in the southern part of the lake as the Lake Umbagog State Park. For more information about both sites, contact the refuge at PO Box 280, Errol, NH 03579 or call them at (603) 482-3415. Or stop by the office on Route 16 in Wentworth's Location, 5.6 miles north of the junction with Route 26 in Errol. At this time only limited lands on the Maine side have been protected.

Changing Bird Life

William Brewster studied the bird life of the region intensively during a long period — 1871 to 1909 — so we have a wonderful picture of the changes that occurred during *his* years there, as well as the changes that have been recorded by other observers since his time. Brewster loosely included outlying areas such as Dixville Notch (New Hampshire), Grafton Notch (Maine), and possibly Pontook Reservoir (Dummer, New Hampshire) in the Umbagog Region. Brewster noted many subtle changes in the region's land birds, and obtained the first Umbagog breeding record for Pine Grosbeak.

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Other changes witnessed by Brewster were larger in scale. On one of his earliest visits, Brewster learned that the Passenger Pigeon had been abundant at Umbagog until around 1850. He found them still common summer residents through 1874, but they disappeared for good shortly afterward. During the late 1800s there was a horrific period of market hunting, with a lack of game laws resulting in the wholesale slaughter of many species. Brewster saw dramatic declines in species that were once common to abundant, such as Common Loon, Great Blue Heron, American Bittern, Wood Duck, Black Duck, Blue-winged Teal (fall migrant), Hooded Merganser, and (American) Golden-Plover (fall migrant).

Shorebirds did not escape the gunners' aim, but the water level of the lake was frequently lower in Brewster's day than today, so that shorebirds were more evident, as this entry of his shows:

"I have known days in autumn when there must have been nearly, if not quite, one thousand scoters swimming in the Lake at once, or when the mudflats and marshes at its outlet (the Androscoggin) were so thronged with Golden, Black-breasted, and Semipalmated Plover, Greater and Lesser Yellow-legs, Pectoral Sandpipers, Dunlin, and Least and Semipalmated Sandpipers, that they rose in clouds like swarming flies whenever a gun was fired. Indeed I have had better luck in shooting limicolines, the so called shore-birds, in these marshes than anywhere on Cape Cod."

Between Brewster's last visit to Umbagog in 1909 and an increase in coverage in the second half of the century, we have only a few records of its bird life. George L. Perry made a few visits in the summer and fall from 1930 to 1936, adding Double-crested Cormorant, European Starling, and Sedge Wren to the all-time list and, perhaps more importantly, established the Ruby-crowned Kinglet as a summer resident. In 1935 Richards and a stalwart partner made a canoe trip from the south end of the lake to the north end and back. They saw an empty Bald Eagle nest at Leonard Pond and several Common Goldeneye families on the Magalloway River. A year or so later another observer reported seeing a Black Tern in late June. Then came another hiatus of eleven years during which no one seems to have visited the lake for birds.

Since 1947 we have had a half-century of more or less continuous records from many observers. Some of the most significant changes in status among breeding species are listed in the following table; we include some of the changes *during* Brewster's time as well as more recent ones. The recovery of most of the waterbirds from the lows of the market hunting days has been dramatic and is most gratifying. In many cases this recovery continues with the work of the Endangered Species Program, jointly sponsored by the Audubon Society of New Hampshire and the New Hampshire Fish and Game Department.

Species	1871-1909 Status	20th C. Status
Common Loon	dramatic decline	nice recovery
Pied-billed Grebe	migrant	breeding
Great Blue Heron	dramatic decline	nice recovery
American Bittern	dramatic decline	nice recovery
Canada Goose	almost nonexistent	spectacular recovery
Wood Duck	dramatic decline	nice recovery
Black Duck	dramatic decline	nice recovery
Blue-winged Teal	dramatic decline	nice recovery
Green-winged Teal	migrant	rare breeder
Ring-necked Duck	rare fall migrant	common breeder
Common Goldeneye	common breeder	rare breeder
Common Merganser	dramatic decline	common breeder
Hooded Merganser	dramatic decline	nice recovery
Golden Eagle	rare breeder	rare migrant
Bald Eagle	visitor	rare breeder
Osprey	decline	nice recovery
Merlin	Migrant	now nesting (1st nest in 1992)
(American) Golden-Plover	common fall migrant	rare
Killdeer	only one record!	fairly common
Common Snipe	migrant only	common breeder
Ring-billed Gull	possibly one record	regular in small numbers
Mourning Dove	one record	common
Common Nighthawk	abundant breeder; Br	ewster saw in decline absent
Purple Martin	common breeder	absent
Marsh Wren	rare or unknown	uncommon breeder
Wood Thrush	rare or unknown	fairly common breeder
Ruby-crowned Kinglet	migrant	common breeder
Palm Warbler	migrant	uncommon breeder (bogs)
Pine Grosbeak	breeding	winter visitor
Evening Grosbeak	unknown	fairly common breeder

Tudor Richards was President and Executive Director of the Audubon Society of New Hampshire for over thirty-five years, during which time he was directly responsible for many conservation advances. Tudor Richards provides a living link with the William Brewster era in that Ludlow Griscom was his education advisor at Harvard University. When not in the field, Tudor lives with his wife in Hopkinton, New Hampshire.

Bob Quinn is a native of New Hampshire with a degree in Zoology from the University of New Hampshire. He was the first staff ornithologist for the Audubon Society of New Hampshire, and continues as an active volunteer for Audubon. He edits nesting season records for *New Hampshire Bird Records*, serves as a member of the New Hampshire Rare Bird Committee, and has a keen interest in the breeding status of birds in New Hampshire. He is proprietor of a natural history services business, Merlin Enterprises.



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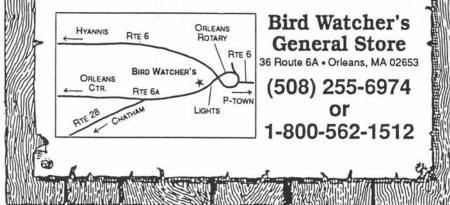
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THE HISTORY OF THE PARKER RIVER NATIONAL WILDLIFE REFUGE

By Thomas R. Hamilton

The Parker River National Wildlife Refuge, located thirty-five miles north of Boston and six miles east of Newburyport, Massachusetts, is a popular area visited by over 250,000 birders, swimmers, and saltwater anglers each year. The refuge consists of over 4,000 acres of salt marsh and seven miles of sand dunes and barrier beach. As part of the National Wildlife Refuge System, the area is a major resting and feeding area for migrating ducks and geese; over 300 bird species have been seen in the refuge in the last twenty years. In this article I will describe some of the geological processes that formed the island, the various ways in which the land and adjacent salt marsh have been and are being used, and the political process which formed the current boundaries of the refuge.

Building a Barrier Beach and Salt Marsh

About 12,000 years ago, when New England was covered by the last glacier, the coastline was several hundred miles to the east of what is now Plum Island. As the glacier retreated and the sea rose, the shoreline became a compromise between the sea and the rebounding land. At what is now the southern end of Plum Island, the glacier left behind five low hills consisting of a mixture of loose boulders, gravel, and sand. Three of these hills (Bar Head, Stage Island, Cross Farm Hill) are part of the island, and another (Grape Hill) exists as a slight rise in the salt marsh. The fifth hill, Emerson's Rocks, has severely eroded and is a now reduced to a strand of rocks that are visible on the ocean side of the southern end of the island during low tides (Ryan 1982). These landmarks can be located with a map available at the refuge headquarters. Over the years silt from the Merrimack River and sand from the glacial deposits on the coast of New Hampshire were transported by ocean currents that move in a southerly direction and deposit their loads around the drumlins. When Plum Island became established, it formed a barrier against powerful ocean waves, causing the development of a protected area between the island and the mainland. This quiet area accumulated silt transported by the Merrimack, Rowley, and Ipswich Rivers and developed into the 3,000 acres of salt marsh that are visible from the refuge road. The nutrient-rich waters of the marsh provide productive habitat for ducks, geese, wading birds, and fish.

Early Land Use

Before the arrival of English colonists, Native Americans traveled down the Merrimack River in the spring to establish seasonal fishing camps on Plum Island. In the 19th century, archaeologists excavated these sites and found many

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stone and flint tools, fragments of pottery, and several middens consisting of large piles of shells. The sites of three camps were discovered in what are now the Newbury and Ipswich sections of the island (Moorehead 1931). The first recorded sighting of Plum Island by a European was by Samuel de Champlain in 1605. In 1614, Captain John Smith mapped Plum Island and described it as an area "fit for pastures, with many faire high groves of mulberrie trees and gardens; and there is also Pines and other wood to make this place an excellent habitation . . ." (quoted in Mulliken 1951). There is no evidence that mulberry trees ever grew on Plum Island; probably Smith was describing the beach plums from which the island's modern name is derived.

The early English colonists valued salt marsh grass (Spartina) because it is an excellent, nutritious fodder for cattle. In 1637 the newly incorporated town of Newbury petitioned the General Court of Massachusetts to have Plum Island and the adjacent salt marsh annexed by the town. Since the settlers in neighboring Rowley and Ipswich also valued the salt marsh grass, they were not about to give up their right to what was viewed as common land. Therefore, in 1646 the General Court, with the wisdom of a Puritan Solomon, divided the island and marsh among the three towns. Later, a portion of Newbury's share was transferred to Newburyport after that city was founded. In a few years the towns divided their portions into small parcels that were allotted to their respective residents; unfortunately, this started a period of uncontrolled grazing by horses, pigs, and cattle. Since fences were nonexistent, the animals were simply turned loose on the island and marsh, destroying much of the original vegetation and starting a period of serious erosion. In 1739 an attempt was made to save the remaining vegetation and reduce erosion by curtailing the freeroaming cattle and prohibiting the cutting of trees under six inches in diameter. Probably by this time, however, few large trees remained (Currier 1906, Coffin 1971).

Salt marsh grass is still harvested in some areas of the marsh outside the refuge. In the past, the cut grass was stacked on platforms built on two-foot-high posts to hold the drying grass well above the high-tide mark. The stacks of marsh grass were collected in the winter, when it was possible to drive horse-drawn wagons or sleds onto the marsh. Remnants of these platforms can still be seen in the marsh, especially in the area near the gatehouse. Another marsh grass, cordgrass, was used for roofing and as bedding for cattle. This coarse plant, which grows along the banks of the Ipswich and Parker rivers, was harvested by hand from shallow-draft boats during low tides.

By the beginning of the 19th century, many of the small holdings at the southern end of Plum Island had been consolidated into farms of approximately 100 acres. Two of these farms are remembered today in the place-names of Emerson's Rocks and Cross Farm Hill. At the northern end of the island, transport to the mainland was made easier when a toll road was built through the

marsh and a small bridge was built over the Plum Island River. This was soon followed by the construction of a small hotel. By the end of the 19th century, many summer cottages, some quite large, had been built, several hotels and business were operating, and public transportation along a horse-car railway (later replaced by an electric trolley) from Newburyport made Plum Island a popular destination for summer day trippers (Weare 1996).

In the early 20th century the Plum Island Beach Company secured title to most of the northern end of the island and quickly developed plans to create hundreds of small house lots to be offered for sale to the public. The paving of the Plum Island Turnpike and Northern Boulevard made the northern end of the island easily accessible by automobile. Although the southern end of Plum Island was most easily visited by boat, the Bar Island Reality Company, which owned approximately 400 acres on Sandy Point, had elaborate plans for creating roads and numerous small house lots (Weare 1996). Clearly, by the late 1930s rapid development on Plum Island was occurring. If development had been allowed to continue unchecked, in a few years the entire island would have been covered with small, seasonal dwellings, and the character of the island would have changed forever.

Creating a Wildlife Refuge

Plum Island and the adjacent salt marsh have long been famous as a gathering place for migratory birds. By the start of the 20th century, the area's importance was recognized by prominent ornithologists such as Charles W. Townsend and Edward Howe Forbush, who urged that Plum Island be secured as a bird sanctuary (Carson 1947). In 1928 Annie H. Brown, a long-time member of Massachusetts Audubon Society, bequeathed to The Federation of the Bird Clubs of New England a large part of her estate (\$25,000) for the establishment and maintenance of a wildlife sanctuary. After several months of negotiations, the executors of the estate and the officers of the Federation wisely selected a parcel of 300 acres of beach, dunes and salt marsh near the southern end of Plum Island as the core of the new bird sanctuary. Soon after the initial purchase two more tracts were added, bringing the total protected area to approximately 600 acres (Fletcher 1931). The officers of the Federation also secured options to purchase an additional contiguous 800 acres and immediately initiated plans to raise the necessary funds totaling \$10,000 (Floyd 1928). The Federation later merged with the Massachusetts Audubon Society, and by 1938 the Society had consolidated numerous small pieces of property to form the Annie H. Brown Sanctuary, which consisted of 1,115 acres. Part of Brown's bequest supported two wardens who patrolled the sanctuary to prevent trespassing by hunters.

Evidently, the presence of a bird sanctuary that set aside some prime hunting areas for the preservation of wildlife was not appreciated by local

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hunters. The Essex County Sportsmen's Association protested the granting of tax-exempt status to the Massachusetts Audubon Society. In an article in the September 10, 1937, issue of the *Lawrence Tribune*, the Sportsmen's Association objected to the Society's "vast holdings . . . allowing vermin to get out of control besides limiting the land on which hunting may be done" (Anon. 1937a, Anon. 1937b). Judge Robert Walcott, president of Massachusetts Audubon Society, defended the expansion of the sanctuary by stating that it was established to provide "a safe resting, feeding and breeding ground for game and non-game species . . ." (Walcott 1938). To both professional and amateur ornithologists it was obvious that Plum Island and the adjacent marsh were critical parts of the Atlantic flyway, allowing waterfowl a chance to rest and find food along their migration route. In the 1940s there was anecdotal evidence that Black Ducks, much prized by hunters, were in a serious population decline (Carson 1947).

The U.S. Fish and Wildlife Service sought to purchase the Brown Sanctuary in 1940 so that it could be a core part of a federal wildlife sanctuary. Initially the offer was declined; however, in 1942 the Society, under threat of the land being taken by eminent domain, sold their holdings on Plum Island for \$35,000 and the Parker River National Wildlife Refuge was established (Anon, 1942a). Funds from the sale of the Brown Sanctuary were later used to help establish the Ipswich River Audubon Sanctuary in 1951 (MacDougall 1993). The Society agreed to the sale only if the Brown Sanctuary were to become part of a substantially larger wildlife refuge and members of the Massachusetts Audubon Society were to have access to the refuge for the purpose of bird study (Anon.. 1942a). Members of the Essex County Sportsmen's Association opposed the sale of the Brown Sanctuary because they believed that it would lead to the acquisition of even more of the island and salt marsh for the establishment of a much larger federal wildlife refuge (Anon. 1942b). Over the protests of local hunters, the U.S. Fish and Wildlife Service was authorized by Congress to acquire a total of 12,000 acres of marsh as well as all of Plum Island. Local opposition was very strong (1946a), resulting in a bill passed by Congress to eliminate the refuge; although President Truman pocket vetoed this bill (Anon. 1946b), vigorous opposition to the establishment of the refuge remained (1946c). Political pressure in Washington continued for two more years until a compromise bill was finally passed by Congress and signed by the President on June 4, 1948 (Anon. 1948a, Anon. 1948b). Most of the land that had been taken by eminent domain was returned to the previous owners. However, the heart of the original refuge was saved; and most of Plum Island, as well as a large area of marsh, survived as the Parker River National Wildlife Refuge.

Over the years since the passage of the compromise legislation in 1948, the Fish and Wildlife Service has, with revenue generated by the sale of Duck Stamps, regained some of the land that had been given up and all but one of the

private camps within the refuge boundaries have been acquired. Today the total area of the refuge is 4,662 acres — less than half of the size originally authorized by Congress in 1941. Hunters and landowners who wanted to regain their right to freely use the marsh and beaches regained much of what had been taken by the federal government. In the process, however, a large area which could have been preserved as a resting place for migratory birds was lost.

Goals of the Refuge

The refuge clearly means many things to many people, and the U.S. Fish and Wildlife Service has tried hard to accommodate as many demands as possible while also meeting their legal mandate to maintain a wildlife refuge. Shell-fishing in designated areas is permitted, as well as surf fishing between July 1 and October 31, provided the areas are not closed for nesting birds. Although it may seem contradictory, in some areas of the refuge waterfowl hunting for geese, ducks, American Coot, and sea ducks is permitted in accordance with refuge, state, and federal regulations. In 1997 a two-day deer hunt was permitted on December 1 and 2. And between Labor Day and the end of October, Beach Plum collecting occurs on the east side of the refuge road (Haydock, pers. comm.).

Other than banding waterfowl, refuge personnel are not directly involved in ongoing scientific research. However, the refuge is the site of several research studies that include the banding and surveying of land birds (Massachusetts Audubon Society), a survey of the Brown-tailed Moth (Massachusetts Department of Environmental Protection), an annual hawk survey (Eastern Hawk Watch Association), a survey of mammals and vegetation (University of Vermont), a study of the genetics of beach plums (University of Vermont), and the tagging of migratory monarch butterflies (University of Toronto) (Haydock, pers. comm.).

A large number of visitors to the refuge come to use the wide, beautiful beaches for swimming and sunbathing. In 1987, however, a large area of the beach was closed to protect the nesting area of a lone pair of Piping Plovers, an endangered species. Subsequently, following the federal mandate of the Endangered Species Act, the entire beach within the refuge boundary has been closed to all recreational activity from the first of April to early August. In 1995, twenty-one pairs of Piping Plovers nested on the beach and produced forty-four chicks; however, in 1997 the number of nesting plover pairs was down to sixteen, and only twenty chicks were produced. During the nesting season the refuge staff of eight employees, with the help of approximately forty-five volunteer "plover wardens," patrol the beach and access points. Often much of their time is spent patiently explaining to would-be beachgoers the necessity of keeping off the beach while the plovers are nesting (Haydock, pers. comm.).

Interestingly, 80 percent of the visitors between June, 1993, and May, 1994, supported the beach closure (Gilbert 1994).

The refuge staff have worked hard to protect the Piping Plovers, but they have had to work against many obstacles: severe erosion to the widest areas of beach destroyed some of the best plover nesting areas, uncontrolled dogs come into the refuge from homes in the residential part of the island and from Sandy Point State Reservation, predators such as foxes, skunks, and raccoons are difficult to control because of new live-trap regulations and, sadly, wanton vandalism resulted in the destruction of one nest in 1997 (Haydock, pers. comm.).

Since the establishment of the refuge, the dunes and salt marsh have gradually started to return to a more "primitive" condition, while the surrounding countryside has gone through a tremendous house-building boom, putting a higher premium on the remaining open spaces. Although people come to the refuge for many reasons, a survey of visitors suggests that 39 percent come for the purpose of wildlife observation (Gilbert 1994), helping to support the notion that Plum Island is the most heavily birded area in Massachusetts. Many visitor come simply to see the flocks of migrating geese or the astounding numbers of tree swallows that gather in late August. In the winter Snowy Owls, Rough-legged Hawks, and Northern Harriers are often seen flying over the marsh. In late November, Canada Geese and Black Ducks gather in large numbers in open water, and other migrants from the north such as Snow Buntings, Lapland Longspurs, and Horned Larks are often found in large flocks among the dunes.

The refuge checklist (available at the gatehouse) identifies 303 species that have been recorded on or near the refuge during the past ten years. Since the Parker River Refuge is thoroughly birded throughout the year, any unusual vagrants that visits the area are probably going to be sighted by someone. Using records published in *Bird Observer* and other sources (Steele 1993, Petersen 1993, 1997), I was able to compile the following brief list of interesting rarities sighted on or from Plum Island during the last ten years: "Eurasian" Green-Winged Teal (1988), Little Egret (1989), Terek Sandpiper (1990), Lark Bunting (1990), Gull-billed Tern (1991), Sandhill Crane (1992), Eurasian Wigeon (1993), Black-necked Stilt (1995), Ruff (1995), Vermilion Flycatcher (1995), Gyrfalcon (1996), Say's Phoebe (1996), Swainson's Hawk (1996), Long-billed Curlew (1996), Forster's Tern (1997), and American White Pelican (1997).

In 1985 the Fish and Wildlife Service took possession of a 12-acre parcel of land off Plum Island for the purpose of building a new headquarters and visitors' center. The Trust for Public Land purchased the property for \$526,000 and sold it to the Fish and Wildlife Service for \$430,000; the deficit was made up by a coalition consisting of the New England Chapter of the Sierra Club, The Conservation Law Foundation, and Massachusetts Audubon Society. At present,

the Fish and Wildlife Service and the State of Massachusetts have budgeted approximately \$2.1 million for construction on the site; however, the design of the facility is still in the early stage and construction may not start before the year 2000 (Connor 1985; Anon. 1985; Peach, pers. comm.).

The Parker River National Wildlife Refuge is a mosaic of compromises and uses. The U.S. Fish and Wildlife Service has had to balance the demands of the public for access to the refuge for recreational purposes against the service's mandate to maximize wildfowl management. Any human activity within the refuge can only be permitted if it is compatible with the overall mission of the refuge. In the words of John L. Fillio, Refuge Manager, "Our first objective is wildlife, not people. This is a wildlife refuge, not a park." As the population of northeastern Massachusetts continues to grow and open spaces become fewer, the value of the refuge as a place of sanctuary for wildlife will continue to increase. This beautiful and fragile environment must be protected.

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BAIT-FISHING BY BIRDS: A FASCINATING EXAMPLE OF TOOL USE

by William E. Davis, Jr. and Julie Zickefoose

Bait-fishing, or baiting (Kushlan 1978), where a bird places natural or artificial lures on the water to attract fish, is a rare and fascinating example of tool use by birds (Beck 1980; for a review of tool-use in birds see Boswall 1977, 1978, 1983). Using bait has been reported in the Great Egret (*Casmerodius albus*) Squacco Heron (*Ardeola ralloides*), Green Heron (*Butorides virescens*), Striated Heron (*B. striatus*), Black-crowned Night-Heron (*Nycticorax nycticorax*), Great Blue Heron (*Ardea herodias*), Black Kite (*Milvus migrans*), Sun Bittern (*Eurypyga helias*), and Pied Kingfisher (*Ceryle rudis*).

Bait-fishing has most commonly been observed in the Green Heron and its sibling species the Striated Heron. Lovell (1958) described a Green Heron in Florida that placed bread fragments thrown to it in the water and then captured fish which came to the bread. It also drove away American Coots that swam to the bread.

In the same paper Lovell describes an American Egret that walked over to a piece of bread thrown to it and, although not touching it, waited beside the bread and captured a fish attracted to the bread. Lovell suggested that this passive use of bait represented a stage in the development of the more manipulative bait-fishing evident in the Green Heron and other species.

This incipient bait-fishing behavior, in which the egret did not place the bait in the water but passively utilized the bread as bait, is similar to the use of bait recently reported for a Great Blue Heron (Zickefoose and Davis in press). In this case, a Great Blue Heron, in Richmond, Virginia, walked into a pond and over to pieces of bread tossed to it and drove away Mallards and Canada Geese that approached the bread. In the succeeding twenty minutes the heron captured three fish that were attracted to the bread. The Great Blue Heron's protectiveness of its bait suggests recognition of the bread as a fish attractant.

Sisson (1974) reported that a Green Heron at the Miami Seaquarium baitfished using pellets of fish food, and included a convincing series of photographs. The article includes a suggestion that bait-fishing is learned behavior. In contrast, Norris (1975a, 1975b) reported on an immature Green Heron placing a feather on the water surface of a Florida ditch as bait, and since the bird was immature, suggested that the behavior must be deeply ingrained in the species. Two reports of Green Herons bait-fishing with bread at other locations in Florida were given by G. Cashin and V. Newell, and J. Hancock reported a wild Green Heron bait-fishing with a food item at the Havana Zoo in Cuba, all cited by Boswall (1983, pp. 96-97). Higuchi (1988b) reported a Green Heron bait-fishing with bread and popcorn at a Florida location. Keenan (1981)

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reported on a South Carolina Green Heron repeatedly using mayflies it had captured as bait. Preston et al. (1986) reported at least one Green Heron catching and using live mayflies for bait in Arkansas.

H. Shrives in a 1976 letter (in Boswall 1983, p. 94) reported a Striated Heron in Kenya bait-fishing with boiled maize. The following year at the same location, W. J. Eggeling (in Boswall 1983, pp. 94-95) reported a Striated Heron bait-fishing with a short piece of white synthetic straw, and several days later one bait-fishing with pieces of bread. At the same location A. Root reported (in Boswall 1983, p. 97) a Pied Kingfisher using pieces of dried bread to bait fish, dropping them from a perch and diving on fish attracted to the bait. Striated Herons have been reported using small insects or spiders for bait-fishing in Botswana (Crous 1990, Jones 1991, Oake 1992). Additional reports of Striated Herons bait-fishing come from west Africa (Walsh et al. 1985) and southern Africa (Wood 1986). Robinson (1994) reported at least three individual Striated Herons bait-fishing in Manu National Park, Peru, using seeds, flowers, and a twig as bait. The heron that used a twig broke it off from a hanging branch.

Higuchi (1986, 1987) reported the use of bait-fishing by numerous individual Striated Herons at a single location in Japan. They used bait that included flies, other adult insects, insect larvae, earthworms, twigs, leaves, berries, feathers, plastic foam, and crackers. The herons dug up earthworms from muddy ground and used them for bait. On two occasions, an adult heron broke a 6-7 cm twig into two pieces, and used one fragment for bait. This behavior characterizes the Striated Heron as one of the very few tool-making birds. Adult herons were significantly more successful at bait-fishing than immature birds. Higuchi (1988a) reported observations of three different individual Striated Herons bait-fishing. One individual spent 83.5 percent of its foraging time bait-fishing, and was significantly more successful when bait-fishing than when using other foraging tactics. Higuchi concluded that differences in the percentage of time spent bait-fishing were related to foraging habitat quality.

R. J. Prytherch reported (in Boswall 1977, p. 95) watching a vagrant Squacco Heron in England place sixteen insects on calm water in twenty minutes, and capture one fish. L. P. Alder reported (in Boswall 1977, p. 95) a captive Sun Bittern in England bait-fishing with maggots put out as food for passerine birds.

Roberts (1982) reported a Black Kite that picked up scraps of bread from the ground, carried them to a perch over water, dropped them, and dove on fish and crayfish attracted to the bread. In an ironic reversal, one of us (WED) in 1995 watched a crocodile at Kakadu National Park, Northern Territory, Australia, apparently bait-fish (bait-bird?) for Black Kites with fish! The crocodile dismembered a large catfish by slapping it against the water surface, and then ate the large fragments, leaving several smaller fragments floating. The crocodile then submerged among the floating fragments until only its eyes remained above the surface, and it appeared to watch intently as several Black Kites circled above it and approached the floating pieces of catfish. The kites had been circling for some time, and although they made close approaches they did not attempt to snatch fish fragments from the surface, and did not become a feathered dessert for the crocodile. Baiting for birds with fish by crocodiles has been previously observed (Nick Mooney, unpubl. data.).

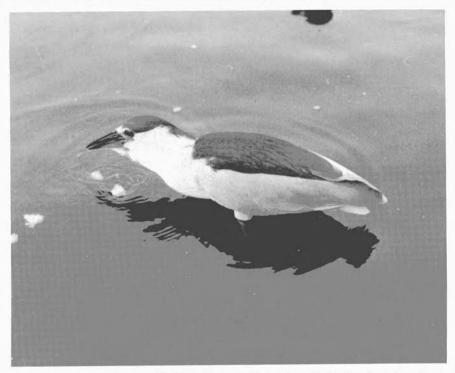


Figure 1. Previously unpublished photograph by Ronald K. Beasley showing a Black-crowned Night-Heron using bread as a lure while bait-fishing. In published photographs (McCullough and Beasley 1996) the heron is shown breaking up the bread into smaller pieces and catching a fish attracted to the bait.

Beasley reported bait-fishing by a Black-crowned Night-Heron at Heritage Park, Irvine, California (McCullough and Beasley 1996). The latter is the first published report of bait-fishing by a Black-crowned Night-Heron, although Drinkwater (1958) described them luring fish by bill vibrating (bill opened and closed rapidly in water). Beasley included four photographs of the heron performing bait-fishing. Figure 1 consists of a previously unpublished photograph by Beasley. The Black-crowned Night-Heron flew over to where Beasley was feeding bread to ducks and began bait-fishing with fragments of

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bread that landed near it. The heron would move the bread fragment to within its range, break it into smaller fragments with its bill and then attack fish attracted to the bait. The heron caught more than two dozen small fish. From the success of this procedure and the fact that ducks gave the heron a wide berth, Beasley surmised that the heron had practiced bait-fishing previously. The fact that the heron moved and manipulated the bread bait suggests an innate component in its bait-fishing, analogous to that of *Butorides*. Since much of the Black-crowned Night-Heron's foraging takes place at night, and is rarely observed, bait-fishing could be more common in this species than indicated by this single example.

Are these bait-fishing behaviors instinctive or examples of learned behavior? The preponderance of examples of bait-fishing are from members of the Green-Striated Heron superspecies, and this suggests that these closely related birds may be genetically predisposed to acquire bait-fishing behavior. The manipulation and repositioning of bait may indicate an innate perception of bait items that is lacking in the opportunistic bait fishers (Great Egret and Great Blue Heron) which merely wait near bait provided. However, several factors suggest a strong learned component to bait-fishing behavior: (1) the behavior is rare, even when taking into consideration the cryptic behavior of Green, Striated, and Black-crowned Night-Herons, and its distribution is restricted to a few areas in a vast distribution (Higuchi 1986); (2) many of the observations involve bait-fishing with human-provided bait (e.g., bread) which suggests the possibility that since fish are often attracted to bread, humans may be providing a model for bait-fishing to observant herons, thus facilitating learning; (3) where bait-fishing occurs, several individuals often are involved (e.g. Higuchi 1986, 1988), suggesting that herons may be learning the behavior through imitation. We conclude that there is a strong learned, opportunistic component to the origin for bait-fishing behavior.

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BOOK REVIEW: Red-Tails in Love

by Alden Clayton

Red-Tails in Love, by Marie Winn. New York: Pantheon Books, 1998. 305 pages. \$24.00, hardbound.

Boston has its Peregrines on the Custom House tower. New York has Redtailed Hawks nesting in Central Park. The courtship, family activities, and fledging success of our Custom House Peregrines have been well documented by the local media. Equivalent histories of the Central Park Red-tails are scarce. Now, the recently published *Red-Tails in Love* tells their story. And even the most die-hard BoSox fans (among whom I am numbered) will have to admit that the hawkwatchers from Yankee-land have a good story.

The story-teller is unusually well qualified. Marie Winn is a member of the Central Park "regulars" and writes a nature column for *The Wall Street Journal*.

Her tale is more than a simple narrative of events. She describes the characteristics of Central Park birding — the places where birds and people congregate, the seasons and the year-round sightings, the onlookers and the passers-by, the Gold Coast apartments abutting the birding areas. She evokes the culture of birding in Central Park - the history, the legends, and the enormously varied and colorful individuals who find and watch birds: the "regulars," who bird virtually every day throughout the year; the "early birds," always first in the field; the "feeding group," who risk cold and ice in winter to maintain the feeding stations; and the "big guns," recognized as ultimate authorities because of their seniority, publications, or status among ornithologists (the American Museum of Natural History and the Central Park Zoo are neighboring resources). In this respect, this book is reminiscent of Jack Connor's Season at the Point, a similar account of birds and birding life at Cape May, New Jersey (reviewed in Bird Observer in October 1991). The story line of Red-Tails in Love (as the title implies) follows the arrival, courtship, nestbuilding, and ultimately successful rearing of young Red-tails in Central Park a first-ever event.

The obstacles along the way were both natural and man-made. Author Winn describes them with empathy and a nature writer's sharp eye for details. The central thread of the love story (actually, love stories) is the relationship of Pale Male and the female Red-tails with whom he mated. Pale Male first showed up one autumn as an innocent juvenile: a bird exceptionally light all over, his head almost white and his belly band almost absent — not an albino but certainly pale. Early the following March, a fully mature female appeared in the park and took an instant fancy to the young male resident. After a brief courtship, their relationship was established. The marital consequences are described by the author:

They made an odd couple, a mature female who had hooked up with a young and inexperienced male. His lack of savoir faire was evident: on March 23, as the female was perched on a stanchion in front of the Delacourte Theater below Belvedere Castle, the lightcolored Red-tail was observed as he landed on top of her and tried to consummate their union. But he was doing it at the wrong end.

Subsequently, true love and improved technique did prevail, but the initial attempts at nest building also suffered from inexperience. The first nest was poorly built in a tree and fell apart in a strong wind. The second attempt was in another tree, where crows had previously nested, and the "tails" were harassed to distraction. The female crashed into a nearby building and was rushed to rehabilitation emergency. The male also crashed. Fortunately for his story, he recovered quickly and was back in four days, but nesting was over for the season. A single, broken egg was discovered at the base of the nest tree. Hawkwatchers despaired.

But during the following winter, on New Year's Day, Pale Male, now fully mature with a rich red tail, was observed sitting on a limb with a female Redtail. Could it be his original mate (now referred to as "First Love")? No: First Love was banded during her recovery from rehab, and the new female did not wear a band. A new name was needed. Because of her dark brown color, "Chocolate" was chosen.

The nest site selected by the newly formed pair was unprecedented: atop an ornate twelfth-floor window on one of Fifth Avenue's most exclusive apartment buildings! Dean Amadon, coauthor of the classic book on hawks known simply as "Amadon and Brown," was "stunned" when told. "There have been reports of Red-tails trying to nest on trees in towns — but never on the ledge of a building. I find it amazing." The reaction of Charles Preston, curator of ornithology at the Denver Museum of Natural History and a specialist on Red-tails, was similar. "Are you sure they aren't Peregrine Falcons? I don't know of any other incident where Red-tails have used the side of a building for nesting."

The history-making site created an entirely new set of problems: apartment occupants, apartment managers, and apartment owners. Woody Allen's apartment was above the nest. Did he know? What would be his reaction? Not known as a nature lover, Mr. Allen had in fact been quoted as saying, "I am two with nature." Mary Tyler Moore also lived in the strategically important apartment building. How to ensure their support if a crisis arose about Red-tail nesting rights? Media personalities of their magnitude are normally inaccessible. The challenge for the hawkwatchers was to be sure that these two stars were personally informed about the status and importance of a Red-tail nest on the side of their building.

Contacts were made, via a friend of Mary Tyler Moore's dog-walker and a contractor known to be working on Woody Allen's apartment. In both cases, the results were favorable. Mary Tyler Moore actually wrote a friendly and reassuring note, and Woody Allen was pleased because he had noticed that the messy pigeons on his balcony had disappeared.

The building managers (at various levels of authority) and the building owner were not as supportive. In fact, the nest was saved only through the intervention of the U.S. Fish and Wildlife Service, in the form of a strongly worded letter to the building owner pointing out that removal of the nest would be a violation of the Migratory Bird Treaty Act and would be subject to a hefty fine — up to \$10,000. There was no further threat.

Two more years of nervous watching and waiting with cycles of excited anticipation and painful disappointment were endured before success was finally achieved. Pale Male and Chocolate had done it! They were the parents of the first Red-tails (three of them) ever to hatch in Central Park.

The story does not end here. Chocolate ("Mom" to her many hawkwatching admirers) was a highway victim in the fall following her successful brood. And who replaced her? None other than First Love! Released four years earlier after successful rehabilitation, she had returned to Central Park for a romantic reunion with Pale Male. (Where had she been in the meantime?)

First Love and Pale Male produced a second successful nesting. But one more twist of the Central Park story remained. First Love perished after eating a poisoned pigeon. Two days after her death, a new female arrived and was soon soaring above the Park with Pale Male. The Queen is dead, long live the Queen!

Red-Tails in Love is full of interesting information and delightful to read. When the spring migration has ebbed and your thoughts turn to a day at the beach, be sure to pack a copy with your picnic lunch.

Alden Clayton is an enthusiastic hawkwatcher. He is familiar with Plum Island, Wachusett Mountain, and Cape May hawking, but not Central Park. This book has inspired him to check it out.

FIELD NOTES FROM HERE AND THERE_

Editor's note: the Ross's Gull report described in the following account has not yet been evaluated by the Massachusetts Avian Records Committee; details and a field sketch, however, have been submitted to the MARC. We felt that the significance of the report, combined with the nature of the details provided by the observer, warranted the publication of this account in advance of MARC review.

ROSS'S GULL ON CAPE COD

Since May 9, conditions for migrant land bird finding on Cape Cod had been disheartening. The days had been cloudy and rainy, with temperatures never much above 50 degrees and stiff northeasterly breezes of 20 to 30 knots. On May 12, the sun finally came out as high pressure over Maine asserted itself. However, by afternoon the low pressure that was never far to our east resumed control, and the clouds, cool temperatures, and northeast winds returned.

I awoke May 13 thinking I was going to look for warblers no matter what. But on going outside to fill the bird feeders and feeling the cheerlessness of the morning, I ditched that plan and decided to go to Sandy Neck. Maybe, I thought I might get lucky and see a phalarope fly by.

I pulled into Sandy Neck parking lot at 7:15 A.M. and parked at the west end lookout. I was at first discouraged to see that the tide was low, but then noticed some winter Bonaparte's Gulls in the close-in surf and decided maybe I should walk the beach a little. Even this required some fortitude, as there was a cold wind and I had failed to bring gloves.

I walked down the new handicapped ramp, walked west a short way and had a very close look at the Bonaparte's. Seeing some birds in the other direction, I turned and walked east. To my delight, I immediately saw three alternate-plumaged Red-Necked Phalaropes standing in a shallow pool at the ocean edge. These were my first on terra firma on Cape Cod.

I then noticed a group of five or so small gulls standing on a sand bar, and a quick binocular scan revealed one with a rosy breast and thin black necklace. It couldn't be! A Ross's Gull on Cape Cod?! I moved closer and saw the bird very well. It was with winter Bonaparte's Gulls and was indeed a Ross's Gull, in full breeding plumage.

At this point I didn't know what to do. All I could think was "how do I document it? how do I contact all the people that want to see it? why don't I have the camera in the car?" — that sort of thing. I returned to my car, moved it to the center of the parking lot, got out a scope and walked down the center stairway, which the gull was right in front of. I watched the gull through the scope for several minutes from no further than thirty-five feet, made a sketch,

wrote down some notes, and tried to enjoy the moment. I was simultaneously warmed by my good fortune and chilled by the weather.

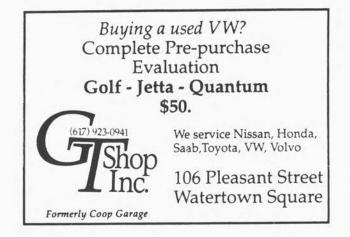
Thrilled as I was with the gull, I also wanted to enjoy the phalaropes. I was like a king not knowing which of his riches to fondle. Accordingly, I turned the scope head to watch the phalaropes for a minute or so, and on turning it again saw that the gull, like a wraith, had vanished.

The field notes I made on the gull were that the legs were red, the breast was suffused with a rosy pink color, the mantle was all gray, the eye and bill black; a thin black necklace curled around the nape and sides of the neck. The bird was always slightly facing away, so that I could not see the underside of the neck and therefore the continuation and completion of the necklace. The bird was standing next to winter Bonaparte's Gulls, and I could see that it was distinctly shorter-legged and possibly slightly smaller.

I had forgotten that the necklace is not a collar but rather sits well up on the nape, then drops almost straight downward to assume a more lateral course as it crosses the sides of the neck. I never saw the gull in flight. The interval from my first setting foot on the beach till the departure of the gull was no more than fifteen minutes.

As a historical note, this was not my first Ross's Gull. My wife Ellie and I were on a Massachusetts Audubon trip to Churchill, Manitoba, in 1978 led by Jim Lane and an exuberant teenager named Simon Perkins. We had just gotten to Churchill when a nearly hysterical birder, the late Tom Davis of New York, intercepted our caravan to exclaim that there was a Ross's Gull at the harbor. We tore off after him, got to see it, and in fact enjoyed it for all of our week's stay. We have a copy of a photograph of it taken by Dick Lowell. Neither Ellie nor I saw the 1977 Newburyport Ross's.

--Stauffer Miller



BIRD OBSERVER

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BIRD SIGHTINGS JANUARY/FEBRUARY 1998 SUMMARY

By Marjorie W. Rines, Simon A. Perkins, and Robert H. Stymeist

January and February were both unseasonally mild. In January the temperature averaged 33.9°, 5.3° above normal, ranking the month as the seventeenth mildest in 128 years of official records for Boston. The temperature in February averaged 35.3°, a full 5° above normal, and tied for the eighth warmest February of record. January 1 was awful, the coldest and windiest day of the month, and so the start of the new year for birders was rough, but full of good birds. Rainfall for both months exceeded the norm, with 4.76 inches in January (1.17 inches above average), and 5.54 inches in February (1.92 inches above normal). Snowfall totaled 9.8 inches in January, 2.9 inches less than normal. In February, snowfall was barely measurable at 0.3 inch, 11.2 inches less than average. The Blue Hills Observatory in Canton recorded the warmest winter of record, going back to 1886.

LOONS THROUGH ALCIDS

Four different loons reported as **Pacifics** were found during the period. Until Pacific Loon has been added to the state list by the MARC, Bird Observer will publish all loons reported as Pacific as **Arctic/Pacifics**. The relatively mild temperatures this winter resulted in Quabbin Reservoir remaining largely ice-free throughout the period. Consequently, Common Loons, Ring-necked Ducks, and Common Goldeneye were able to linger there later than usual. The **Eared Grebe** that returned to East Gloucester last fall remained there through the period. While Northern Fulmar was reported in above-average numbers in February (though, curiously, it was unreported in January), the real standout among tubenoses was a Sooty Shearwater seen from First Encounter Beach in Eastham on January 17. This represented the fifth winter record for this species in the state. Food for thought: an astonishing first Atlantic Ocean occurrence of Short-tailed Shearwater was reported off North Carolina several months earlier. Following reports in November of a Brown Booby in Nantucket came word of an immature **Brown Pelican** that was observed fishing in the surf on the south shore of Nantucket on two consecutive days in January. Not surprisingly, this bird represented the first winter record for the species in the species in the state. Boobies, shearwaters, and pelicans? Somehow, El Nino must fit into the equation somewhere.

Sightings of **Black Vultures** are becoming increasingly frequent in Massachusetts. Assuming that two reports six weeks apart in different towns on Martha's Vineyard involved the same bird, three different individuals were present during the period.

The only report of **Greater White-fronted Goose** came from West Bridgewater. The aforementioned mild conditions also allowed above-average numbers of certain species of waterfowl to remain north of Boston late into the winter season: Gadwall, Northern Pintail, Green-winged Teal, Ring-necked Duck, Lesser Scaup, Hooded Merganser, and American Coot. Most of the state's wintering Eurasian Wigeons occur in southeastern Massachusetts, so a drake in Newburyport was noteworthy. The recent and apparently inexplicable increase in the numbers of **Tufted Ducks** in southern New England, resulted this winter in reports of at least three different individuals, including a female in Westport. Another recent trend in local duck numbers has involved a range extension (or shift) of wintering Common Eider from the waters around the Cape and Islands, westward toward Rhode Island. A count of roughly 10,000 eiders in Westport was indicative of this pattern. Wintering Harlequin Ducks continue to increase in numbers, as evidenced by a count of 59 around Rockport, a high total for that locale.

Twelve Northern Harriers at one site in Marshfield represented a very high total. Fifteen to twenty years ago, Cooper's Hawk was very scarce in New England. But, now it is nearly as common as Sharp-shinned Hawk in winter and, as a nesting species, it has become more common than Sharp-shinned. In late February, two adult Northern Goshawks were observed in nuptial flight in Lincoln, and Merlins were well reported throughout the period. A **Gyrfalcon**, first found at Logan Airport January 10, remained through the rest of the period (and beyond). During its prolonged stay, birders had numerous opportunities to study this elusive arctic visitor. Another (?) Gyr put in a more typical one-day appearance in Marshfield.

Despite numerous failed attempts dating back several decades, the Wild Turkey reintroduction program has recently gathered tremendous momentum in eastern Massachusetts and has become a smashing success.

Among shorebirds, other apparent by-products of the mild winter were a Semipalmated Plover in Eastham, the continued presence from December (see previous summary) of Whimbrel, **Bar-tailed Godwit**, Marbled Godwit, Least Sandpiper, and early displaying American Woodcocks.

The best gull show in the state is often at the southeast corner of Nantucket, and this year was no exception. Found among the throng early in January were 7 Little Gulls, 3 Black-headed Gulls, (very) roughly 10,000 Bonaparte's Gulls, 40 Iceland Gulls, and at least two Lesser Black-backed Gulls. Large numbers of Black-legged Kittiwakes were reported from Rockport and various points around Cape Cod.

In most years, Dovekies are very scarce after December. But this year they were found in above-average numbers throughout the winter. Also, Thick-billed Murres were much more numerous than in any year since the anomalous winter of 1976-77. In winters during which sandlance are abundant off the outer shores of Cape Cod, Razorbill numbers can be impressive. A tally of 3,000 in early January this year was one of at least five counts that involved a thousand or more birds. Atlantic Puffins are rarely seen from land in Massachusetts because most of them typically winter far at sea in the waters over the margins of the continental shelf. Therefore, two off Rockport in February were especially noteworthy. Yet the puffins paled in comparison to the Ancient Murrelet that was observed January 4 off Race Point in Provincetown. This most recent sighting followed by a mere six years the observation of another Ancient Murrelet off Rockport, a bird that represented the first record for the Atlantic Seaboard. S. A. P.

Ohcervers

Date	Location	Numbe	or Observers
Red-thro	ated Loon		
1/4	Eastham	5	D. Larson#
1/11	Boston H.	20	TASL (M. Hall)
		8	M Lunch#
1/19 2/7	Westport P'town (R.P.)	10	M. Lynch#
2/8	Boston H.	7	G. Wood
			TASL (M. Hall)
	acific Loon (detai		
1/11	Hull	1	D. Oliver#
1/17	P'town	1 a	
1/18	Nantucket	1	F. Gallo
2/7	Gay Head	1	B. Zuzavich#
Common			
1/3	Salisbury B.	12	J. Berry
1/4	Nant. Sound	43	G. d'Entremont
1/11	Boston H.	10	TASL (M. Hall)
1/19	Cape Ann	41	R. Heil
1/22	P.I.	39	R. Heil
2/1	Quabbin (G 43)	8	R. Heil
2/8	Boston H.	8	TASL (M. Hall)
2/16	Plymouth	15	M. Lynch#
Pied-bille		15	WI. Lynch#
1/2	Plymouth	1.1	. + D. Lounsbury
1/2	Wareham	1	K. Anderson
1/3	Marstons Mills		
		4	E. Salmela#
1/12	P.I.		W. Drew#
1/30	Oak Bluffs	1	M. Pelikan
2/7	Falmouth	2	F. Bouchard#
Horned C			1221 2021 2021
1/4	Brockton	1	S. Arena
1/11	Boston H.	170	TASL (M. Hall)
1/19	Cape Ann	44	R. Heil
1/22	P.I.	23	R. Heil
2/8	Boston H.	149	TASL (M. Hall)
2/14	Newbypt/P.I.	30	T. Maloney#
2/16	Plymouth	38	M. Lynch#
2/22	Wellfleet	20	D. F. Oliver#
	ed Grebe	20	D.T. Onton
1/3	Salisbury B.	10	J. Berry
1/4	P'town (R.P.)	40+	B. Nikula#
		57	
1/11	Boston H.		TASL (M. Hall)
1/15	Cape Ann	12	J. Brown#
1/17	Winthrop B.	105	F. Bouchard
1/19	Cape Ann	36	R. Heil
2/8	Boston H.	21	TASL (M. Hall)
2/16	Plymouth	15	M. Lynch#
Eared G	rebe		
thr	E. Gloucester	1	J. Soucy + v.o.
Northern	Fulmar		
2/5	Barnstable (S.N	.) 2	A. Strauss

Date

Location

Number

Date	Location	Number	observers
2/5	Rockport (A.P.) 4	R. Heil
2/6	Eastham (F.E.)	7+	B. Nikula
2/13	M.V.	1	R. Kelley
2/18	Rockport (A.P.) 78	R. Heil
2/24	Rockport (A.P.		R. Heil
2/25	Eastham (F.E.)	8	A. Strauss
Sooty Sh		0	A. Suduss
1/17	Eastham (F.E.)	1	B. Nikula
Northern			
1/1	Truro-P'town	500+	M. Lynch#
2/5	Rockport (A.P.		R. Heil
2/22	P'town	86	D. F. Oliver#
2/25	Eastham (F.E.)	25	A. Strauss
Brown P		20	A. Suduss
	13 Nantucket 1 ir	nm E	Andrews R Veit
Great Co			andrews, it. ven
1/1	Quabbin (G35)	1	D. Small
1/4	Sharon	2	S. Arena
1/11	Boston H.	16	TASL (M. Hall)
1/19	Cape Ann	95+	R. Heil
1/19	Newbypt	27	J. Berry
2/1		34	
2/16	Amesbury		D. F. Oliver#
2/10	Plymouth	61	M. Lynch#
	Boston H.	50	S. Zendeh
	rested Cormorant		a
1/1	Plymouth		G. d'Entremont#
1/1	Cambridge	6	R. Stymeist
1/2	Marlboro	1	S. + L. Hennin
1/10	Woods Hole	1	B. Nikula#
2/13	Medford	4	M. Rines
American			
1/11	Eastham (F.H.)	2	J. Trimble #
1/22	Nantucket	1	E. Ray
1/25	Rowley	1	J. Berry
Great Blu	le Heron		
1/11	Boston H.	7	TASL (M. Hall)
1/19	Westport	9	M. Lynch#
Black-cro	wned Night-Hero	n	20000 - 000-000
1/2	Nantucket		G. d'Entremont#
1/2	Lynn	2	J. MacDougall
1/14	Newton	6	H. Miller
1/29	Boston	1	L. Kaplan
1/30	Oak Bluffs	2	M. Pelikan
Black Vi		2	WI. I Olikali
thr	Randolph	1	N. Smith
1/1	Edgartown	î	A. Keith $+$ v.o.
1/13	Groton	2	T. Pirro
2/18	W. Tisbury	1	G. Daniels
2/18		1	
2125	Westwood	1	J. Clancy

Sightings for January/February 1998

Turkey Vi	ltura		
1/14	Worcester	1	J. Liller
1/24			BBC (R. Stymeist)
1/31	Quincy	2	N. Smith
2/3	Winchester	ĩ	D. + I. Jewell
2/10	Wayland	2	N. Patterson
2/16	Attleboro	2 2	K. Meyer
2/17	Osterville	2	S. Miller#
2/20	Needham	3	J. Samelson
	White-fronted Ge		
1/11	W. Bridgewater		S. Arena
Snow Goo	ise		
thr	P.I.	7	W. Drew $+$ v.o.
1/1	New Bedford	1	M. Boucher
1/5	Chilmark	12	M. Pelikan
1/10	W. Bridgewater		M. Faherty
1/29	Nantucket	3	fide E. Ray
2/8	Boston H.	1	TASL (M. Hall)
Canada Go		1000	I.D.
1/4	Newbypt W Bridgewater	1000+	
1/10	W. Bridgewater	580	S. Arena
1/11 2/1	Boston H.	1305	TASL (M. Hall)
2/9	Westport P.I.	1685	M. Boucher W. Drew#
Brant	F.I.	1065	W. Diew#
1/11	Boston H.	1334	TASL (M. Hall)
2/8	Boston H.	1070	TASL (M. Hall)
2/14	Newbypt H.	6	T. Maloney
2/16	Plymouth	859	M. Lynch#
2/28	Essex	53	$P_{i} + F_{i}$ Vale
2/28	Salisbury	25	P. + F. Vale D. Hill
Mute Swa			2.1111
1/3	Wareham	43	K. Anderson
2/7	Lakeville	14	BBC (R. Finch)
2/8	Boston H.	16	TASL (M. Hall)
Whooper 3	Swan		
thr	Ipswich	1-	5 J. Berry
2/1	P.I.	4	J. Berry
Wood Duo	al.		
		10.20	
1/31	Boston	3	M. Faherty#
1/31 2/9	Boston Woburn	32	D. + I. Jewell
1/31 2/9 2/14	Boston Woburn Wakefield	2 2	D. + I. Jewell I. Giriunas
1/31 2/9 2/14 2/18	Boston Woburn Wakefield Lakeville	2 2 1	D. + I. Jewell I. Giriunas K. Holmes
1/31 2/9 2/14 2/18 2/28	Boston Woburn Wakefield Lakeville W. Bridgewater	2 2 1 4	D. + I. Jewell I. Giriunas K. Holmes M. Maurer#
1/31 2/9 2/14 2/18 2/28 2/28	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR	2 2 1 4 8	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins#
1/31 2/9 2/14 2/18 2/28 2/28 2/28	Boston Woburn Wakefield Lakeville W. Bridgewater	2 2 1 4 8	D. + I. Jewell I. Giriunas K. Holmes M. Maurer#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 2/28 Gadwall	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC)	2 2 1 4 8 9	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 2/28 Gadwall thr	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington	2 2 1 4 8 9 2-	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills	2 2 1 4 8 9 2 28 2- 28	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I.	2 2 1 4 8 9 2- 28 22	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth	2 2 1 4 8 9 22 28 22 45	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester	2 2 1 4 8 9 2- 28 22 45 51	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody	2 2 1 4 8 9 2- 28 22 45 51 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester	2 2 1 4 8 9 2- 28 22 45 51	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk	2 2 1 4 8 9 22 28 51 22 45 51 1 12	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/6 2/12	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy	2 2 1 4 8 9 22 45 51 1 12 2	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish
1/31 2/9 2/14 2/18 2/28 2/28 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/6	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester	2 2 1 4 8 9 22 45 51 1 12 26	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester	2 2 1 4 8 9 22 45 51 1 12 2 26 45 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven	2 2 1 4 8 9 22 45 51 1 12 26 45 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs	2 2 1 4 8 9 22 45 51 1 12 2 26 45 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher M. Boucher M. Boucher M. Boucher
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/6 2/12 2/14 Eurasian 1/2 1/12-2/1 2/1	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills	2 2 2 1 1 4 4 8 9 9 2-28 5 22 2 45 5 1 1 12 2 2 26 45 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher m G. Daniels S. Miller#
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/6 2/12 2/14 Eurasian 1/2 1/12/11/2/1 2/1 2/8	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham	2 2 2 1 1 4 4 8 9 9 2-5 22 25 51 1 1 1 2 2 26 45 51 1 1 1 1 1 1 1 1 1 3 3	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher G. Daniels S. Miller# m E. Banks#
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/1 2/16 2/12 2/14 2/28 2/14 2/28 2/28 2/28 2/28 2/28 2/28 2/28 2/2	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham 3Carver	2 2 2 1 1 4 4 8 9 9 2-28 5 22 2 45 5 1 1 12 2 2 26 45 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher m G. Daniels S. Miller# m E. Banks#
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/8 2/19-22 American	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham SCarver Wigeon	2 2 2 1 1 4 4 8 9 9 2-5 51 1 1 2 2 2 6 6 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher m G. Daniels S. Miller# m E. Banks# m M. Sylvia
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/6 2/12 2/14 Eurasian 1/2 1/1-2/1 2/18 2/19-22 American thr	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham 3Carver Wigeon Arlington	2 2 2 1 1 4 4 8 9 9 2 - 2 2 8 5 5 1 1 1 2 2 2 2 6 5 5 1 1 1 1 2 1 1 3 3 1 1 1 1 1 1 1 1 2 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher m G. Daniels S. Miller# m E. Banks# m M. Sylvia max K. Hartel
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/1 2/1 2/1 2/1 2/1 2/1 2/14 Eurasian 1/2 1/12-2/1 2/1 2/14 2/15 2/28 2/28 2/28 2/28 2/28 2/28 2/28 2/2	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham SCarver Wigeon Arlington Wareham	2 2 2 1 1 4 4 8 9 9 2-28 5 51 1 1 12 2 2 26 4 5 51 1 1 11 1 1 1 1 1 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin m M. Boucher m G. Daniels S. Miller# m E. Banks# m M. Sylvia max K. Hartel M. Boucher
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/11 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/1 2/18 2/19-21 American thr 1/3	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham 3Carver Wigeon Arlington Wareham Newbypt	2 2 2 2 1 1 4 4 8 9 9 2 - 2 2 8 5 2 2 2 4 5 5 1 1 1 2 2 2 6 6 4 5 1 1 1 1 3 3 1 1 1 1 2 3 6 8 8	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Turner R. Stymeist# R. Heil M. Boucher B. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher M. Boucher M. Sylvia max K. Hartel M. Boucher J. Brown#
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/8 2/19-21 American thr 1/3 1/4	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham SCarver Wigeon Arlington Wareham Newbypt Eastham	2 2 2 1 1 4 4 8 9 9 2 - 2 2 2 2 4 5 5 1 1 1 1 2 2 2 6 6 4 5 1 1 1 1 1 1 3 3 1 1 1 1 1 1 2 3 6 6 8 2 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher G. Daniels S. Miller# m E. Banks# m M. Sylvia max K. Hartel M. Boucher J. Brown# D. Ludlow
1/31 2/9 2/14 2/18 2/28 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/8 2/19-22 American thr 1/3 1/4 1/9	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham 8Carver Wigeon Arlington Wareham Newbypt Eastham Plymouth	2 2 2 1 1 4 8 9 9 2-28 5 51 1 1 2 2 2 2 6 5 51 1 1 1 2 2 6 4 5 51 1 1 1 1 3 3 1 1 1 1 1 1 2 3 6 6 8 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 2 5 1 1 2 5 1 2 5 1 1 2 5 1 1 2 5 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel 5. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher M. Boucher M. Boucher M. Boucher M. Sylvia max M. Sylvia max M. Hartel M. Boucher J. Brown# D. Ludlow M. Faherty
1/31 2/9 2/14 2/18 2/28 2/28 Gadwall thr 1/9 1/12 1/14 1/17 1/20 2/1 2/16 2/12 2/14 Eurasian 1/2 1/12 1/1-2/1 2/8 2/19-21 American thr 1/3 1/4	Boston Woburn Wakefield Lakeville W. Bridgewater GMNWR Concord (NAC) Arlington Marstons Mills P.I. N. Plymouth Gloucester Peabody Seekonk Quincy DWWS Gloucester Wigeon Newbypt Fairhaven 9 Oak Bluffs Marstons Mills Chatham SCarver Wigeon Arlington Wareham Newbypt Eastham	2 2 2 1 1 4 4 8 9 9 2 - 2 2 2 2 4 5 5 1 1 1 1 2 2 2 6 6 4 5 1 1 1 1 1 1 3 3 1 1 1 1 1 1 2 3 6 6 8 2 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 2 2 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	D. + I. Jewell I. Giriunas K. Holmes M. Maurer# S. Perkins# S. Perkins# S. Perkins# 8 K. Hartel S. Smolen-Morton M. Lynch# R. Turner R. Stymeist# R. Heil M. Boucher R. Parsons Dan Furbish G. d'Entremont# J. McLaughlin M. Boucher G. Daniels S. Miller# m E. Banks# m M. Sylvia max K. Hartel M. Boucher J. Brown# D. Ludlow

1/18		8	S. + L. Hennin
1/30	P.I.	6	R. Lockwood#
2/7	Lakeville	44	BBC (R. Finch)
	Black Duck		
1/1	Plymouth	800+	M. Lynch#
1/11, 2	/8 Boston H. 128	\$6, 967	TASL (M. Hall)
	/23 P.I. 160	50, 560	W. Drew#
1/19	Westport	760	M. Lynch#
2/8 2/16	Rowley	500 580+	J. Berry
2/10	Plymouth Newbypt H.	600	M. Lynch#
Northern		000	S. Perkins#
1/1	Boston	1 m	R. Stymeist
1/3	Marston's Mill	3	BBC (R. Finch)
1/31	Worcester	1 f	S. + L. Hennin
1/4-8	Kingston	1 m	D. Ludlow
2/1	Seekonk	1 m	
2/1	Boston	1	D. F. Oliver#
Northern 1	Pintail		
1/2	Marlboro	2	S. + L. Hennin
1/6	P.I.	25	R. Heil
1/19	W. Newbury	3 m	M. Rines
2/1	Seekonk	9	M. Boucher
2/8	Rowley	2	J. Berry
2/8	Halifax	14	R. Finch
2/11	Brookline	2	N. Miller
2/23	P.I.	20	W. Drew#
2/26	W. Bridgewater	6	M. Faherty
2/28	Concord (NAC)		S. Perkins#
2/8,14		2	E. Taylor
Green-wir thr	Cambridge	11 m	av I Comphall
1/1	Marstons Mills	13	
1/1	Ipswich	1 m	M. Lynch# J. Berry
1/2	Marlboro	2	S. + L. Hennin
1/31	Boston	2	M. Faherty#
2/8	Chatham	30	E. Banks #
2/16	Newbypt	1 m	
2/21	Wakefield	1	P. + F. Vale
2/26	W. Bridgewater	4	M. Faherty
2/26	Newbury	2	S. Perkins#
2/28	Concord (NAC)	5	S. Perkins#
Canvasba			
1/3	Wareham	24	K. Anderson#
1/3	Falmouth	72	BBC (R. Finch)
1/4	Braintree	1	S. Carey
1/9	Plymouth	4	M. Faherty
1/10	Braintree	1	C Comme
		1 250 P	S. Carey
1/10	Nantucket	250 B	BC (H. Cramer)
1/11	Nantucket Boston H.	250 B	BC (H. Cramer) TASL (M. Hall)
1/11 1/12	Nantucket Boston H. Wareham	250 B 2 122	BC (H. Cramer) TASL (M. Hall) R. Turner
1/11 1/12 1/18	Nantucket Boston H. Wareham Falmouth	250 B 2 122 38	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch#
1/11 1/12 1/18 2/3	Nantucket Boston H. Wareham Falmouth Westport	250 B 2 122 38 265	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher
1/11 1/12 1/18 2/3 2/16	Nantucket Boston H. Wareham Falmouth	250 B 2 122 38	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch#
1/11 1/12 1/18 2/3 2/16 Redhead	Nantucket Boston H. Wareham Falmouth Westport Lakeville	250 B 2 122 38 265 50	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2	Nantucket Boston H. Wareham Falmouth Westport Lakeville ? Plymouth	250 B 2 122 38 265 50 1	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3	Nantucket Boston H. Wareham Falmouth Westport Lakeville	250 B 2 122 38 265 50 1 1	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch)
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth	250 B 2 122 38 265 50 1	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket	250 B 2 122 38 265 50 1 1 22	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16	Nantucket Boston H. Wareham Falmouth Westport Lakeville 2 Plymouth Falmouth Nantucket Edgartown Lakeville	250 B 2 122 38 265 50 1 1 22 12	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16	Nantucket Boston H. Wareham Falmouth Westport Lakeville 2 Plymouth Falmouth Nantucket Edgartown Lakeville	250 B 2 122 38 265 50 1 1 22 12	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 2/16 Ring-neck 1/1 1/1	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck	250 B 2 122 38 265 50 1 1 22 12 4 6 2	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 Ring-neck 1/1 1/1 1/3	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35)	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson#
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 Ring-neck 1/1 1/1 1/3 1/10	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 Ring-neck 1/1 1/1 1/3 1/10 1/10	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22 6	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 2/16 2/16 2/16 1/1 1/1 1/3 1/10 1/10 1/18	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham Falmouth	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22 6 6 6	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor S. + L. Hennin
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 2/16 2/16 Ring-neck 1/1 1/1 1/3 1/10 1/18 1/23	Nantucket Boston H. Wareham Falmouth Westport Lakeville 2 Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham Falmouth Easton	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22 6 6 4	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor S. + L. Hennin S. Arena
1/11 1/12 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 Ring-neck 1/1 1/1 1/3 1/10 1/10 1/18 1/23 1/26	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham Falmouth Easton Medford	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22 6 6 4 8	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor S. + L. Hennin S. Arena M. Rines
1/11 1/12 1/18 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 Ring-neck 1/1 1/1 1/3 1/10 1/10 1/18 1/23 1/26 2/7	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham Falmouth Easton Medford Lakeville	250 B 2 122 38 265 50 1 1 22 12 4 6 6 2 4 22 6 6 6 4 8 45	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor S. + L. Hennin S. Arena M. Rines BBC (R. Finch)
1/11 1/12 2/3 2/16 Redhead 1/1-2/2 1/3 2/15 2/16 2/16 Ring-neck 1/1 1/1 1/3 1/10 1/10 1/18 1/23 1/26	Nantucket Boston H. Wareham Falmouth Westport Lakeville Plymouth Falmouth Nantucket Edgartown Lakeville ed Duck Quabbin (G35) Plymouth S. Carver Peabody Framingham Falmouth Easton Medford	250 B 2 122 38 265 50 1 1 22 12 4 6 2 4 22 6 6 4 8	BC (H. Cramer) TASL (M. Hall) R. Turner M. Lynch# M. Boucher H. Coolidge# v.o. BBC (R. Finch) E. Ray A. Keith# H. Coolidge# D. Small R. Lockwood# K. Anderson# D. + I. Jewell E. Taylor S. + L. Hennin S. Arena M. Rines BBC (R. Finch) S. Arena

BIRD OBSERVER

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Sightings for January/February 1998

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Tufted D	uck		
1/1-2/	7 Bourne		N. Paulson + v.o.
1/3	Wachusett Res		
2/3	Westport	1 f	M. Boucher
Greater S			
1/1	Plymouth	20	R. Lockwood#
1/11	Boston H.	167	TASL (M. Hall)
1/18	Falmouth	600+	M. Lynch#
2/3	Westport	25	M. Boucher
2/7	Falmouth	500	F. Bouchard#
2/8	Boston H.	365	TASL (M. Hall)
2/16	Edgartown	300+	A. Keith
2/16	Lakeville	250	H. Coolidge#
Lesser Sc			
1/1	Hingham	20	J. Melithoniotes
1/3	Plymouth	2	P. + F. Vale
1/11	P.I.	3	N. Paulsen
1/11	Waltham	1 m	
1/18	Falmouth	5+	M. Lynch#
2/4	Lynn	2	R. Heil
King Eide			
	Ipswich	2	J. Berry
	20 Nahant	1 m	
1/3	Sandwich	1 f	
1/4	P.I.	1	J. Brown#
1/11	Boston H.	1	TASL (M. Hall)
1/11	Orleans		nm mB. Nikula#
1/11	Nahant	1 f	
1/19-2	2/7 Gloucester	1 m, 2	
	22 Winthrop	1 f	
2/28	Orleans	5	J. Trimble
Common			
1/1	Plymouth	1000 +	N. Paulson
1/11	Boston H.	12494	TASL (M. Hall)
2/1	Westport	10,000+	M. Boucher
2/8	Boston H.	9199	TASL (M. Hall)
2/16	Ipswich	500	BBC (J. Berry)
2/16	Plymouth	4445	M. Lynch#
2/20	Newbypt	850	R. Heil
Harlequir			
thr	Rockport	59	v.o.
1/3	P'town	1 f	
1/4	N. Scituate	5	D. Oliver#
1/5	M.V.	2 п	
1/19	Westport	1	M. Lynch#
1/30	Oak Bluffs	3	M. Pelikan
2/22	P'town H.	1 f	B. Nikula
2/28	Orleans	3	J. Trimble
Surf Scot			
1/11	Boston H.	155	TASL (M. Hall)
1/19	Westport	25	M. Lynch#
2/8	Boston H.	55	TASL (M. Hall)
2/16	Plymouth	153	M. Lynch#
	nged Scoter		
1/11	Boston H.	1477	TASL (M. Hall)
1/19	P.I.	20	P. + F. Vale
1/31	Rockport	30+	J. Berry
2/8	Boston H.	504	TASL (M. Hall)
2/16	Plymouth	265	M. Lynch#
2/20	Newbypt	65	R. Heil
Black Sco			2
1/11	Boston H.	12	TASL (M. Hall)
1/19	Westport	60+	M. Lynch#
2/5	Rockport (A.F		R. Heil
2/7	Gay Head	9	F. Bouchard#
2/8	Boston H.	4	TASL (M. Hall)
2/16	Plymouth	51	M. Lynch#
2/28	Gloucester	4	R. Lockwood#
Oldsquav			
1/10	Rockport (A.F	P.) 8	P. + F. Vale
1/11	Boston H.	19	TASL (M. Hall)
1/11	Duxbury	35	E. Neumuth

2/5	Barnstable (S.N	.) 3	A. Strauss
2/8	Boston H.	34	TASL (M. Hall)
2/21	P.I.	26	R. Lockwood#
2/28	Rockport	5	R. Lockwood#
Bufflehea		199	
1/11	Boston H.	1573	TASL (M. Hall)
1/19	Westport	355	M. Lynch#
1/22	Newbypt	235	R. Heil
2/8	Boston H.	1080	TASL (M. Hall)
2/11 2/16	M.V.	200+ 470	M. Pelikan
	Plymouth Goldeneye	470	M. Lynch#
1/1	Quabbin (G35)	10	D. Small
1/10	Braintree	15+	S. Carey
1/11	Boston H.	933	TASL (M. Hall)
1/19	Westport	165	M. Lynch#
2/8	Framingham	8	E. Ťaylor
2/8	Boston H.	627	TASL (M. Hall)
2/9	P.I.	35	W. Drew#
2/11	M.V.	30	M. Pelikan
2/16	Plymouth	234	M. Lynch#
2/20	Newbypt	650	R. Heil
2/27	W. Bridgewater		S. Arena
2/28	GMNWR	8	S. Perkins#
	Goldeneye	1	
thr	Winthrop	1 n	
thr 1/1	Gloucester Ipswich	1 n	nax v.o.
1/1	Salisbury	1	n J. Berry J. McLaughlin
1/10	Nantucket		BBC (H. Cramer)
	7Salem	2	L. Healey
1/18	Rowley	1	R. Cech
1/19	Centerville	1 f	
1/29	Essex	1 n	n R. Heil
2/1	P.I.	1 r	n J. Berry
2/4	Barnstable	1 r	n B. Good
2/15	M.V.	2	S. Moore#
2/28	Westboro	1 r	n E. Taylor
Hooded N			
1/1	Boston	28	R. Stymeist
1/1	Bourne	25+	
1/3	Plymouth	10 30	P. + F. Vale
1/3 1/3	Wareham S. Carver	26	K. Anderson# K. Anderson#
1/31	Worcester	13	S. + L. Hennin
2/3	Brookline	20+	
2/7	Lakeville	18	BBC (R. Finch)
2/8	Winchester	11	M. Rines
2/22	Melrose	13	D. + I. Jewell
Red-breas	sted Merganser		
1/11	Boston H.	745	TASL (M. Hall)
1/19	Westport	130	M. Lynch#
2/7	P'town (R.P.)	500	G. Wood
2/8	Boston H.	662	TASL (M. Hall)
2/16	Plymouth	328	M. Lynch#
Common	Merganser	200	
1/1	Plymouth	200	M. Faherty#
1/1	Bourne	50+	
1/9	Lakeville	450	K. Anderson
1/20	Lynn	29 120 r	R. Heil nax S. Arena
2/1-28 2/7	Sharon Lakeville	130	BBC (R. Finch)
2/8		271	M. Rines
2/13	Arlington Andover	80	E. Stromsted
2/13	Pepperell	130	E. Stromsted
2/25	Wayland	61	N. Patterson
2/23	Brewster	50+	
2/28	Peabody	43	P. + F. Vale
2/28	W. Boxford	96	T. Walker
Ruddy Du		100050	124100.0900.0000
1/4	Eastham	58	D. Ludlow
1/4	Peabody	8	P. + F. Vale
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Sightings for January/February 1998

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Ruddy D	uck (continued)	
1/4	Cambridge	13 L. Kaplan
1/10	Peabody	27 D. + I. Jewell
1/14	Lynn	4 I. Lynch
1/15	Arlington	19 M. Rines
1/19	Boston	29 P. Fitzgerald
1/20	Lynn	6 R. Heil
1/4-5	Cambridge	13 L. Kaplan
2/15	Brookline	17 G. d'Entremont
2/15	Nantucket	4 E. Ray
2/19	Andover	4 E. Stromsted
Bald Eag		4 E. Suomsted
1/9	Lakeville	3 K. Anderson
1/10	Newbypt	4 S. + S. Grinley
1/11	Quabbin (G37)	4-5 E. Nielsen#
1/17	S. Middleboro	1 ad S. Arena
1/18	Amesbury	2 P. + F. Vale
1/21	Roslindale	1 K. Ryan
1/21	Westwood	
1/23		1 imm T. Raymond
	Lawrence	1 ad J. Hogan
1/26	W. Newbury	2 R. Dennett
1/29	Methuen	2 ad A. Kaminsky
2/3	Waltham	1 imm L. Harvey
2/6	Chilmark	1 ad T. Rich
2/9	Lowell	2 R. Letender
2/13	Tyngsboro	1 D. Pile
2/15	Plymouth	1 R. Holmes
2/20	Groton	1 ad T. Pirro
2/21	Wayland	1 ad N. Patterson
2/28	W. Bridgewater	1 imm M. Maurer#
1/25	Wrentham	1 E. Swanson
1/27	Uxbridge	1 G. Bronnes
1/28	Newbypt H.	2 B. Gette
1/30	P.I.	1 P. Roberts
Northern		
thr	DWWS	12 max D. Furbish
thr	Cumb. Farms	4 max K. Anderson
thr	P.I.	4 max R. Heil
thr	W. Bridgewater	4 max S. Arena
1/17	P'town	2 M. Sylvia
1/22	Wareham	5 M. Sylvia
2/16	Ipswich	2 BBC (J. Berry)
1/31	Barnstable (SN)	4 H. Ferguson
Sharp-shi	inned Hawk	Print -
thr	Reports of indiv.	from 26 locations
1/19	Salisbury B.	2 J. Berry
1/22	Newbypt	3 R. Heil
2/20	Woburn	2 M. Rines
2/26	Newbury	2 S. Perkins#
Cooper's	Hawk	
thr	Reports of indiv.	from 20 locations.
1/10-1	11Hanover	2 S. Katz
Northern	Goshawk	
1/11	Quabbin (G37)	2 ad E Nielsen#
1/16	Princeton	1 ad T. Mongeon
1/28	Plymouth	1 D. Peacock
2/1	Groton	1 D. Fischi
2/7	HRWMA	1 ad T. Pirro
2/12	Fitchburg	1 immT. Brownrigg
2/18	Halifax	1 K. Holmes
2/20	Carlisle	1 J. Innella
2/21	Salisbury	1 ad R. Lockwood#
2/27	E. Boxford	1 J. Brown#
2/28	Lincoln	2 ad R. Walton
	ldered Hawk	2 ud R. Wulton
thr	Gardner	1 T. Pirro
thr	E. Middleboro	2 K. Anderson
thr	Easton	
1/17	S. Middleboro	1 ABNC (S. Arena)
1/22	Wareham	1 M. Sylvia
2/1	Westport	1 M. Boucher
2/4	Westminster	1 ad J. Kricher

2/7	Lakeville	2 B	BC (R. Finch)
2/13	Mattapoisett		M. LaBossiere
2/14		1	
	Winthrop		M. Lynch#
2/17	Arlington	1 imm	
2/20	Pembroke	pr	D. Ludlow#
2/21	Plympton	1	K. Anderson
2/21	DWWS	1	D. Furbish
2/22	Sharon	1	S. Arena
2/28	Holliston	1	M. Rines
2/28	W. Bridgewater	2	M. Maurer#
2/28	Lincoln	2	R. Walton
Red-taile		2	R. waiton
		1	M. T
1/19	Westport	6	M. Lynch#
2/7	Cumb. Farms	8	M. Maurer
2/16	Ipswich	5 E	BBC (J. Berry)
2/28	W. Newbury-Ips	. 22	R. Heil
2/thr	DWWS m	nax 9	v.o.
Rough-le	gged Hawk		1045 824
thr	DWWS	1 dk	D. Furbish#
1/4	Wakefield	1 lt	
1/4			D. + I. Jewell
	W. Bridgewater	1	R. Finch
1/10	Newbypt/P.I.	2 lt	P. Roberts#
1/11	Salisbury		Kuivenhoven#
1/22	Nantucket	1	E. Ray
1/26	Gloucester	1	D. Jacques
1/28	Wayland	1	N. Patterson
2/1	Maynard	1 lt	L. Nachtrab
2/1	P.I.	3	J. Soucy
2/14		2	
775, 77, 10	W. Bridgewater	2	S. Arena
Golden E			
thr	Quabbin (G37)		fide D. Small
1/3	Quabbin (G43)	1 imm	R.Lockwood
American	n Kestrel		
1/3	Salisbury	1 ad	D. Larson#
1/4	Dedham	1	T. Maloney
1/5	Brockton	1	M. Faherty
1/15	E. Middleboro	1	K. Anderson
1/26		î	
	Concord		M. Rines
1/27	P.I.	3	N. Claflin
1/30	Cambridge	1	M. Rines
1/31	Cumb. Farms	1	R. Finch
2/22	Boston (Logan)	4	P. Roberts#
Merlin			
thr	Reports of indiv.	from 16	coastal loc.
1/17	Wakefield	1	P. + F. Vale
1/19	GMNWR	i	K. Dorsey
1/21	Waltham	î	C. Ralph
2/11	Brockton	1	M. Faherty
2/20	Nantucket	2	E. Ray
Peregrine			
1/12-2	2/1 Gloucester	1 ad	V.O.
1/3	Wollaston	1	E. Cutler
1/3	P.I.	1 ad	D. Larson#
1/11	Eastham 1		la, J. Trimble
1/13	Nauset M.	1	M. Halloran
1/19	Salisbury		ide S. Grinley
1/25	Worcester		. + L. Hennin
2/2	Wareham		A. LaBossiere
2/3	Boston	2	M. Rines#
2/20	Nantucket	1	E. Ray
Gyrfalco	n (details submitte	d)	-
	2/28 Boston (Logan		. Smith + v.o.
1/26	Marshfield	1	F. Zurif
	ked Pheasant	1.75	
		2	M Dines
1/27	W. Newbury	2	M. Rines
2/27	Lexington	3	M. Rines
Ruffed G		5.20	10.000 Con 201000
1/3	Templeton	1	T. Pirro
1/4	Gardner	1	P. + F. Vale
2/7	Bolton		R. Lockwood
2/16	Saugus	1	P. + F. Vale
2/23	Carlisle		T. Brownrigg
4140	Sumste		1. Drowningg

Ruffed Gr 2/28	rouse (continued) Hardwick	2	G. d'Entremont#
2/28	Millville	1	M. Rines
Wild Turl			
1/3	N. Beverly	12	M. Barry
1/6 1/12	Bridgewater Carver	7	R. Finch M. Boucher
1/12	Plympton	8	J. Shaw
1/19	Athol	36	R. Hodson
1/25	Templeton	50	T. Pirro
1/31	Ipswich	33	J. Berry
2/4	Danvers	9	D. Hill
2/5	Wellesley	6	B. Weinig
2/10	W. Newbury	8	R. Heil
2/15	Petersham	33	E. Giles#
2/19	Easton	10	G. d'Entremont
2/23	Middleboro	100	R. Turner
	Bobwhite	-	D. D. W.L
1/3 Vincinia I	WBWS	5	P. + F. Vale
Virginia I 1/4		6	R. Heil
	Nantucket 2 Newbypt	12	R. Heil
American		1,2	K. Hen
thr	Arlington	66 1	max K. Hartel
thr	Medford		max M. Rines
1/9	Plymouth	15	M. Faherty
1/14	Lynn	13	I. Lynch
1/23	Easton	13	S. Arena
2/3	Brookline	10	B. Mayer
Black-bel	lied Plover		
1/2	Nantucket		G. d'Entremont#
1/11	Duxbury	2	E. Neumuth
1/11	Edgartown	30+	- R. Heil
Semipain 1/18	Eastham (F.E.)	1	S. Cronenweth
Killdeer	Eustrain (1.E.)	÷.	o. cronon wour
1/11	Cumb. Farms	2	D. Larson#
1/17	Plymouth		ABNC (S. Arena)
1/19	Westport	3	M. Lynch#
2/14	Newbury	1	D. Davis
2/14	Easton	2	S. Arena
2/15	Nantucket	4 3 3 2	E. Ray
2/16	Plymouth	3	M. Lynch#
2/26	Newbury	3	N. Soulette#
2/27	W. Newbury	2	R. Heil
	ellowlegs Chatham	5	J. Trimble
2/14	Hyannis	1	B. Nikula
	l (hudsonicus)		D. THRUIU
1/1-2/	1 W. Yarmouth	1	fide B. Nikula
	d Godwit		
	12 Plymouth	1	J. Sones + v.o.
Marbled (Godwit		
1/1-31	Eastham	1	S. Carroll + v.o.
Ruddy Tu	irnstone		
1/4	Nantucket	35	G. d'Entremont#
1/15	N. Scituate	12	K. Anderson
Sanderlin			
1/3	Plymouth	45	P. + F. Vale
1/3	Salisbury	100	D. Larson#
1/11	P'town (R.P.)	50	M. Resch
1/11	Boston H.	30	TASL (M. Hall)
1/18	Barnstable Boston H	250	S. + L. Hennin
2/8	Boston H. Dennis	30 30	TASL (M. Hall)
2/8	P.I.	30 8	R. Hodson J. Berry
2/16		0	J. Derly
2/16 Least San	i apipoi		ph R. Heil
Least San		1.13	
Least San 1/9	Yarmouth	1	
Least San 1/9 Purple Sa	Yarmouth indpiper		
Least San 1/9	Yarmouth	1 25 12	J. Berry D.Oliver#

1/11	D	110 70	
1/11	Boston H.		ASL (M. Hall)
1/17 1/18	Gloucester Nantucket	26 20	M. Rines# F. Gallo
1/18	P.I.	86	R. Heil
1/30	Salisbury		R. Lockwood#
2/4	Rockport	24	R. Hodson
2/8	Boston H.		ASL (M. Hall)
2/9	Westport	8	D. Ludlow
1/28	Salisbury	35	B. Gette
Dunlin	a sanaran manana s		
1/3	Plymouth	125	P. + F. Vale
1/11	Boston H.		ASL (M. Hall)
1/11	Duxbury	65	E. Neumuth
1/18 1/19	Barnstable	300 S 100	L Hennin
2/1	Salisbury B. Westport	89	J. Berry M. Boucher
2/1	P.I.	48	J. Berry
2/8	Boston H.		ASL (M. Hall)
) Newbypt	200+	R. Heil
Common			
1/3	Buzzards Bay		K. Anderson
1/4	Athol	1	M. Lynch#
1/17	Salisbury	1	J. Berry
	7 Newbypt	1	R. Heil
1/28	DWWS	1	D. Furbish
	Woodcock	2 00	Cromer)
1/10	Nantucket 9DWWS	2 BBC 4-11	C (H. Cramer) Dan Furbish
2/15-2	IRWS	1	C. Decker
		5 max 2/27	N. Patterson
2/22	Marshfield	2	D. F. Oliver#
2/22	Carlisle	1D. +	T. Brownrigg
2/27	Easton	5	S. Arena
2/27	Cumb. Farms	4-5	M. Faherty
Little Gul			
1/2-4 Block box	Nantucket	7	R. Heil
Black-hea thr	Newbypt	1 ad	R. Heil + v.o.
thr	Plymouth	1 40	N. Hen + V.O. V.O.
1/2	Nantucket	3	S. Perkins#
1/3	Chilmark	1 ad	A. Keith
1/16-3	OS. Boston	3 ad	R. Donovan#
1/17	E. Gloucester	1	R. Cech
2/8	Revere	1	N. Shore
	Winthrop	5	M. Rines
	OBelmont	1 ad	W. Bishop
Bonapart		97	M Roucher
1/1	Westport Boston H.		M. Boucher ASL (M. Hall)
1/2-4	Nantucket	10,000+	R. Heil
	Lynn	26	R. Heil
2/8	Boston H.		ASL (M. Hall)
2/26	Newbypt	6	S. Perkins#
	I (details submi		
	2/27 S. Boston		Donovan + v.o
2/7-22	Winthrop	1 ph N. 3	Samson + v.o.
Herring (Gull	2500	D 11-11
2/3	Newbypt	2500+	R. Heil
Iceland C		4 ad	J. Berry
1/3 1/2	Salisbury B. Nantucket	40	S. Perkins#
1/3	Easton	1	S. Arena
1/10	Gloucester (E		D. Larson#
	2/27 S. Boston	1 1W	R. Donovan
1/21-2	2Newbypt	13	R. Heil
	2/21 Gardner	1 ad	T. Pirro
2/5	Framingham	1 ad	A. Reposa
2/6	Brockton	1 1W	S. Arena
2/20	M.V.	2	M. Pelikan
2/20	Nantucket	9	E. Ray
2/21	Newbypt	8	J. Brown#
2/28	P'town (R.P.)	30+	B. Nikula

Lesser Bl	ack-backed Gull			Thick-bill	ed Murre		
1/3	Chilmark	1	A. Keith	1/1	P'town	1	R. Lockwood#
2/3	Newbypt	ĩ	R. Heil	1/18	Rockport	1	J. Berry
2/20	Nantucket	2	E. Ray	1/18	Sandwich	1	S. + L. Hennin
2/21	Plymouth	1 ad	M. Lynch#	1/21	Wellfleet H.	1	G. Martin
2/22	P'town	1 2W	B. Nikula	2/5	Rockport (A.P.) 63	R. Heil
Glaucous		120	D. Tukulu	2/7	Barnstable (S.N		J. Trimble
1/1	Ipswich	1 1W	J. Berry	2/7	Essex	1	M. Jordan
1/3	Truro	1	R. Stymeist	2/8	Boston H.	î	TASL (M. Hall)
1/4		1	K. Cole	2/8	Rockport (A.P.		E. Nielsen
210,000,000	Newbypt	1 ad	M. Lynch#	2/14-1			Maloney $\#$ + v.o.
1/12	Gloucester	2	F. Gallo	2/14-1	Rockport (A.P.		R. Heil
1/18	Nantucket	1	S. Arena	2/18	P'town	11	M. Lynch#
1/23	Easton	1 2W			8Gloucester	4-5	
1/31	Rockport		J. Berry	2/22-2	Barnstable (S.N		M. Partridge
2/8	Newbypt	2-3	D. Larson#	2/24	Rockport (A.P.		R. Heil
2/21	Newbypt		R. Lockwood#	2/24		3+	B. Nikula
2/22	P'town	1 ad	D. F. Oliver#	Razorbill	P'town (R.P.)	3+	D. INIKUIA
2/23	Gloucester	2 1W	M. Rines#		P'town	3000	R. Lockwood#
2/27	Brewster	1	J. Sones	1/1			
	ged Kittiwake		D 1111 1	1/1	Truro-P'town	220+ 8	M. Lynch#
1/17	Eastham (F.E.)		B. Nikula	1/3	Salisbury B.		J. Berry
1/17	P'town	725	M. Sylvia	1/4	Marconi		G. Levandoski#
2/3	Vineyard Sound	d 200+	V. Laux#	1/4	Eastham	30	D. Larson#
2/5	Rockport (A.P.		R. Heil	1/4	Scusset B.	5	D.Oliver#
2/6	Eastham (F.E.)		B. Nikula) P'town (R.P.)		
2/8	Boston H.	36 T/	ASL (M. Hall)	1/10	Rockport (A.P.		D. Larson#
2/15	P'town-Easthar	n1800	D. Ludlow#	1/19	Nantucket	140	F. Gallo
2/24	Rockport (A.P.) 315	R. Heil	2/3	Vineyard Soun		
Dovekie				2/5	Barnstable (S.N		A. Strauss
1/2	Scusset B.	1	L. de la Flor#	2/5	Rockport (A.P.		R. Heil
1/10	P'town (R.P.)	1	B. Nikula	2/7	P'town	1000	C. Leahy
1/12-	13Nantucket	1	E. Andrews#	2/8	Rockport (A.P.		E. Nielsen
1/15	Rockport	1	D. + I. Jewell	2/15	P'town-Eastha		D. Ludlow#
1/17	Gloucester	1	R. Stymeist#	2/21	Truro	450+	
1/17	P'town	1	M. Sylvia	2/28	P'town (R.P.)	30+	B. Nikula
1/18,		.P.) 1	J. Soucy	Black Gu	illemot		
2/5	Rockport (A.P.		R. Heil	1/10	Rockport (A.P.	.) 1	P. + F. Vale
2/5	Barnstable (S.N	5 N N N N N N N N N N N N N N N N N N N	A. Strauss	1/11	P'town (R.P.)	1	M. Resch
2/8	Rockport (A.P.		E. Nielsen	1/11	Boston H.	1	TASL (M. Hall)
2/22	E. Gloucester		E. DeBellevue	1/19	Gloucester	38	R. Heil
2/23	P'town		. D'Entremont	2/15	Rockport (A.P	.) 3	M. Rines#
Common				2/21	Boston H.		S. Zendeh (MDC
	0 P'town (R.P.)	1, 3	B. Nikula#	2/28	P'town (R.P.)	8	B. Nikula
2/5	Rockport (A.P.		R. Heil	Ancient N	Murrelet (details	s submit	ted) *
2/8	Boston H.		ASL (M. Hall)	1/4	P'town (R.P.)	1 B.N	Vikula, J. Trimble
2/11	P.I.	1	B. Stevens#	Atlantic			99962511459 * 268*01175511181293454
2/11	M.V.		E. DeBellevue	2/5	Rockport (A.P	.) 2	R. Heil
2/13	Rockport	1	S. Moore#	Large alc			
2/21	Gloucester	1	M. Rines#	2/5	Rockport (A.P	.) 146	R. Heil
2/28		2	B. Nikula	2/28	P'town (R.P.)	200	B. Nikula
2128	P'town (R.P.)	2	D. IAKula	2120			and a constitut

OWLS THROUGH GROSBEAKS

A small group of Long-eared Owls spent the winter at the Daniel Webster Wildlife Sanctuary in Marshfield, roosting together by day and hunting the fields by night. Just before sunset, birders at the observation platform were treated to the spectacular sight of these birds cruising the meadows - or were they Short-ears? Seeing these two species together underscores the difficulty of field identification when these birds are in flight. A Whip-poor-will was reported singing in Edgartown. There are no previous January records. This report followed closely on the heels of an unidentified nightjar seen on Nantucket in November. Red-headed Woodpeckers have become a real rarity in Massachusetts, so five individuals in four locations was a bonanza.

The mild winter and the lack of any significant snowfall was a bonus for land birds (are you tired yet of hearing of El Nino?). On a few mild days in February, insects could be seen in significant numbers and were doubtless welcome food for the numerous overwintering semi-hardies. Yellow-bellied Sapsuckers, Eastern Phoebes, Tree Swallows, House Wrens, Winter Wrens, Ruby-crowned Kinglets, Hermit Thrushes, and Eastern Meadowlarks are sometimes reported in eastern Massachusetts in the winter, but seldom do we see all these species, and usually reports come from the southeastern part of the state. A review of these reports show many coming from north of Boston, and, even more unusual, from the north-central part of the state. Other signs of the mild winter included reports of unusually high numbers of Eastern Bluebirds, American Robins, and -especially - Cedar Waxwings.

Northern Shrikes were well reported from a wide area, although certainly not as many as in the invasion of two years ago. This was a great winter for other northern species. While Red-breasted Nuthatches were generally difficult to find, a large flock in Bedford foraging in white pine lingered from December. **Bohemian Waxwings** were reported from a variety of locations. Several flocks of Pine Grosbeaks in Worcester County foraged in heavily fruited areas and were enjoyed by many birders. Both crossbill species were reported in good numbers, and flocks at Salisbury Beach State Park were easy to find and a delight to Essex County aficionados. Common Redpolls were nearly as plentiful as they were in the bonanza year of 1994. Pine Siskins were harder to find, but nice flocks of Evening Grosbeaks were reported from several locations in Worcester County.

The list of very unusual birds seen during the period was amazing. A Varied Thrush spent the month at a feeder in Oakham. Warblers included typical overwintering birds such as Yellow-rumped, Pine, and Palm warblers, but others were more surprising. An Orange-crowned Warbler and Common Yellowthroat were unusual, but not unheard-of for winter, but an Ovenbird and Northern Waterthrush were exceptional. Seven Yellow-breasted Chats is an extraordinary number, especially when it includes individuals in Salem and Byfield in the northeastern part of the state. The birds of the winter, however, continued to be the Hermit Warbler which spent the winter in a small section of the State Forest in Edgartown on Martha's Vineyard.

A Lark Sparrow spent over a week at the Marconi area of Wellfleet, and several other sparrow species were unusual in winter, including several sharp-tailed, Seaside, Fox, and White-crowned sparrows. A Painted Bunting was reported coming to a feeder in Seekonk. A male Bullock's Oriole was well fed at a feeder in Wakefield until the homeowner had to leave town for a week. A week later, undoubtedly the same individual found its way to a similarly hospitable feeder in Reading, only five miles away.

It was an extraordinary winter all in all. Blame it on El Nino? We'll probably never know.

Barn Owl

Barn Owl			
2/9	M.V.	3	M. Pelikan
Eastern So	creech-Owl		
thr	Reports of ind	iv. from	12 locations
thr	Winchester	2	D. + I. Jewell
1/1	Wakefield	2	P. + F. Vale
2/9	M.V.	2	M. Pelikan
2/13	Middleboro	3	K. Holmes
2/15	Marshfield	2 3 3	D. Peacock#
Great Hor		5	D. I Cacocki
thr	Reports of ind	iv from	23 locations
thr	DWWS		max D. Furbish
1/1	N. Dartmouth	2	M. Boucher
2/3	S. Middleboro		
2/15	E. Middleboro		K. Anderson
Snowy Ov		5	R. Anderson
thr	P.I.	1	2 I Source Luco
	Newbypt	1-	3 J. Soucy + v.o.
			J. Berry $+$ v.o.
1/10 1/19	Boston (Logar		N. Smith
	Salisbury		imm T. Raymond
1/22	Nantucket	1	E. Ray
	Chappaquiddie		M. Pelikan#
2/8	Boston (Logar	n) 2	N. Smith
Barred Ov			10000
1/4	Royalston	2	M. Lynch#
1/26	Lanesville	1	D. Jacques
1/27	Melrose	1	D. + I. Jewell
	DWWS	2	V.O.
2/22	IRWS	2	G. d'Entremont#
2/26	Hamilton	1	N. Nash
2/28	Easton	2	S. Arena
Long-eare			
thr	DWWS	6 max	D. Furbish + v.o.
1/29	Nantucket	1	fide E. Ray
Short-eare	d Owl		
thr	DWWS	4 max	D. Furbish $+ v.o.$
1/5	Halifax	1	R. Finch
	22 P.I.	1	J. Gawienowski
2/13	Cumb. Farms	2	M. Maurer
2/14	W. Bridgewate		S. Arena
	Saw-Whet Owl		0. / Hona
1/1	DWWS	5	N. Smith
1/4	Royalston	1	M. Lynch#
			IVI. LYIICII#
		1	
1/22	Dedham	1	E. Cutler
1/22 2/11		1 3 1	

2/19	HRWMA	1		T. Pirro
Whip-poo				
1/4	Edgartown	11	neard	C. Morano
Belted Kin				
thr	Reports of indiv. f	rom	13 lo	cations
	ed Woodpecker			
1/5-2/2	28 W. Brookfield	2	M. L	ynch# + v.o.
1/24	Sutton	1		N. Sawtelle
2/2	Dennis	1 i	mm	S. Miller#
2/3	Auburn	1		B. Walker
Red-bellie	d Woodpecker			
thr	Lincoln	4		S. Perkins#
1/6	Medford	5		M. Rines
1/13	Lakeville	5 2	G.	Levandoski
1/25		4		R. Stymeist#
1/27-2	28 W. Newbury	6		R. Heil
2/7	M.V.	2		D. Small
2/28	Blackstone	3		M. Rines
2/28	W. Brookfield	3	G. d'	Entremont#
Yellow-be	llied Sapsucker			
1/27	Marshfield	1		D. Peacock
1/28	Mt.A.	1		M. Rines
Hairy Wo	odpecker	2		
	W. Newbury	8		R. Heil
1/thr	Mattapoisett	4		F. Smith
Northern I				
thr	Reports of indiv. fi	rom	13 lo	cations
1/24	Westport	3B	BC (R. Stymeist)
1/30	Oak Bluffs	3	22.20	M. Pelikan
2/16	E. Middleboro	3	F	K. Anderson
2/28	Millville	2		M. Rines
	oodpecker	~		in runos
1/2	Westford	1 r	n	S. Selesky
1/2	Petersham		n	D. Larson#
1/3	Templeton	1		T. Pirro
1/18	Westminster	i		T. Pirro
1/18	W. Brookfield	i		M. Lynch#
1/31	Pepperell	3	F	E. Stromsted
1/31	Wayland	3		N. Patterson
2/1	Quabbin (G 43)	4		R. Heil
2/8	Gloucester	1	D	Chickering
2/8	W. Andover	1 f	D.	M. Timko
2/12	Lincoln	1		R. Zaring
2/12	IRWS	1	- 3	P. + F. Vale
2/14	W. Newbury	1		R. Heil
	Boxford	1		J. Weldon
2/0-10	BOXIOIO	1		J. weidon

Sightings for January/February 1998

-			
Eastern Ph			A Walah
	Chilmark	1	A. Keith
	23 HRWMA	1	T. Pirro R. Finch
	Cumb. Farms	1	K. Finch
Northern S	P.I.	3 ma	x 2/1 J. Soucy
thr		5 ma	C. Leahy
1/3	Hamilton	1	D. + I. Jewell
1/4	Lynnfield Wellfleet		m D. Larson#
		1	S. Ells
1/4	Concord	1	N. Patterson
1/6	Wayland W. Nawhury	1	R. Heil
1/20	W. Newbury Salem		m R. Heil
1/20		1	R. Lockwood
	8 GMNWR	100 100	
1/27	Ashburnham	1 ad	T. Pirro A. Keith#
2/1	Chilmark	1	J. Kricher
2/4	Royalston		
2/14	Salisbury	1	T. Maloney#
2/16	Cumb. Farms	1	M. Maurer
2/21	S. Carver	1 im	m K. Anderson
2/21	Pepperell	1	E. Stromsted
2/21	Truro	1 im	m M. Lynch#
American		200	x x 111
1/27	Worc. (BMB) 1		J. Liller
1/30-3	Lawrence 15	,000	J. Hogan#
1/1-31	Framingham 13	,000+	E. Taylor
2/13		000	D. Koski
Fish Crow			
1/3	Watertown	32	R. Stymeist
1/4	Belmont		C (R. Petersen)
1/18	W. Brookfield	1	M. Lynch#
2/13	Worcester	1	M. Lynch#
2/21	Middleboro	15	K. Anderson
2/25	Brookline	3	A. Lear
Common	Raven		
1/4	Royalston	1	P. + F. Vale
1/11	Quabbin (G37)	1	E. Nielsen#
2/1	Hardwick	3	R. Heil
2/21	Gardner	1	T. Pirro
Horned La	ark		
1/1-27	Hanscom AFB	43 ma	ax R. Lockwood
1/11	Duxbury	14	E. Neumuth
1/17	Cumb. Farms	175 Al	BNC (S. Arena)
1/19	Newbury	129	M. Rines
1/28	Salisbury	40 N	IAS (B. Gette#)
2/9	Dartmouth	125	D. Ludlow
2/20	Halifax	65	D. Ludlow#
Tree Swal	low		
1/2-2/3	3 Chilmark	4	v.o.
Red-breas	ted Nuthatch		
	Bedford	30	M. Rines
1/27	W. Newbury	6	R. Heil
2/20	Groton	2 m	T. Pirro
2/27	W. Newbury	6	R. Heil
Brown Cr			
1/23	IRWS	1	K. Dorsey
1/27	Marshfield	î	D. Peacock
1/30	GMNWR	2	K. Dorsey
1/30	Mattapoisett	1	F. Smith
2/15	Lincoln	î	S. Perkins#
2/18	Middleboro	î	K. Holmes
2/27	W. Newbury	3	R. Heil
Carolina V		5	R. Hell
thr	Reports of indiv.	from 1	8 locations
1/4			3. d'Entremont#
1/4	Nantucket Hudson	2	R. Stymeist#
		2	
1/10	Leicester	4	R. Stymeist#
1/11	Worc. (BMB)		J. Liller
1/11	Falmouth	11	R. Heil
1/17	Rockport (A.P.)	2	fide J. Soucy
1/18	Falmouth	22	M. Lynch#
1/24	Westport	28BB	C (R. Stymeist)

1/25	Chilmark	8	R. Stymeist#
2/7	Lakeville		BBC (R. Finch)
2/21	Barnstable	5	M. Rines
2/28	Millville	2 m	M. Rines
House Wr			
2/21	Edgartown	1	M. Pelikan
Winter Wi			a
1/2	Nantucket		G. d'Entremont
1/11	Nahant Daufand (C.D.)	1	M. Rines#
1/18	Boxford (C.P.)	1	P. + F. Vale M. Sylvia
1/22 1/26	Wareham E. Middleboro	1	K. Anderson
Marsh Wr		1	K. Anderson
thr	Newbypt	2	R. Heil
1/4	Nantucket	4	R. Heil
the second second second second second	owned Kinglet		
1/24	Westport	15BB	C (R. Stymeist)
1/30	Oak Bluffs	7	M. Pelikan
2/16	Boxford	3	M. Rines
2/21	Barnstable	6	M. Rines
	wned Kinglet		
1/18	Bourne	2	R. Stymeist#
1/19	W. Newbury	1	M. Rines
1/30	Oak Bluffs	1-2	m M. Pelikan
Eastern B			
1/1	Hingham	8	J. Melithoniotes
1/1	Wellfleet	5	M. Lynch#
1/10	Bolton	3 5	S. + L. Hennin D. Furbish
1/12	DWWS	3	G. Bullock
1/14 1/18	Acton	8	M. Hatfield
1/18	Taunton GMNWR	5	K. Dorsey
1/29	Essex	3	R. Heil
1/30	Mattapoisett	4	F. Smith
2/6	Lincoln	3	S. Perkins#
2/7	Cumb. Farms	10	M. Maurer
2/9	Quincy	12	N. Smith
2/22	Carlisle	4	T. Brownrigg
2/26	Groton	8	M. Rines
2/28	Blackstone	3	M. Rines
2/28	Holliston	10	M. Rines
Hermit Th	nrush		
1/3	P.I.	1	K. Haley
1/17	Gardner	1	T. Pirro
1/18	Bourne	4	R. Stymeist#
1/18	Falmouth	1	S. + L. Hennin
1/22	Nantucket	1	E. Ray
1/23	IRWS	1	K. Dorsey
1/23	Mattapoisett	1	M. LaBossiere
1/24 1/31	Westport DWWS	1	BC (R. Stymeist) D. Furbish
1/31	Plymouth	i	D. Ludlow
2/14	Rockport (H.P.)		J. Melithoniotes
2/21	Barnstable	1	M. Rines
American			m. runos
1/15	Newbury	250	R. Heil
1/16	Groton	150+	T. Pirro
1/18	Wellfleet	225	R. Stymeist#
1/19	Newbypt	350	J. Berry
1/24	Westport		BC (R. Stymeist)
1/26		1065	R. Heil
2/1	Salem	100 +	J. McLaughlin
2/7	HRWMA	125	T. Pirro
2/9	Wayland	100	D. Vanderberg
2/22	Boston	320	K. Hudson
Varied T	hrush		224624 B
	3 Oakham	1 f	C. Graham
Gray Catl		1.20	
1/5	Edgartown	1	M. Pelikan
1/11	Falmouth	4	R. Heil
1/20	Salem	1	R. Heil
1/24	Westport	4 BI	BC (R. Stymeist)

	bird (continued)		N/ OFF
1/27	Gloucester	1	M. Officer
2/15	P.I.	1	A. Binns
2/16	IRWS	1	B. Speare
2/21	Barnstable	1	M. Rines
Brown Th			DDC (D Elect)
1/3	Falmouth	1	BBC (R. Finch)
2/15	DWWS	1	M. Rines
	n Waxwing	~	1.0
		21 max	J. Sones $+$ v.o.
1/23	Rockport	1	J. Soucy
1/24	Dennis	9	E. Giles
1/26	W. Newbury	2	D. + I. Jewell
1/29	Nantucket	9	fide E. Ray
1/30	Royalston	1	M. Taylor#
1/30-2	/15 P.I.	4	V.O.
1/31-2			ax D. Peacock#
2/2	Cummaquid	1	S. Miller
2/25	Groton	10	A. Neilson
Cedar Wa			
1/1	Marion	86	M. Boucher
1/3	Quabbin (G40)	60+	M. Lynch#
1/10	Pepperell	120	E. Stromsted
1/15	Newbury	65+	R. Heil
1/16	Athol	750	D. Small
1/17	Templeton	300+	T. Pirro
1/17	Gardner	150	T. Pirro
1/18	Westminster	150 +	T. Pirro
1/31	Easton	80	S. Arena
2/1	Eastham	200	B. Nikula#
2/11	Maynard	70	L. Nachtrab
2/20	Amesbury	95	M. Rines
1/25	Acton	150	A. Duncan
Orange-cr	owned Warbler		
1/20	Cohasset	1	S. Avery
Yellow-ru	imped Warbler		
1/1	Rowley	1	P. + F. Vale
1/9	Westport	34	M. Lynch#
1/17	Lakeville	3 A	BNC (S. Árena)
1/24	Westport	25BE	BC (R. Stymeist)
1/29	Essex	6	R. Heil
1/30	P.I.	7	R. Lockwood#
2/14	Rowley	1	P. + F. Vale
2/26	Brockton	2	M. Faherty
1/20	Ipswich	1	D. Cassidy
Hermit W			
thr	Edgartown	1 N	 Pelikan + v.o.
Pine Wart			
1/3	Marstons Mills	1	M. Partridge
1/3	Kingston	1	D. Ludlow#
1/4	Eastham	3	D. Larson#
1/17	S. Middleboro	1 A	BNC (S. Arena)
1/20	Cohasset	1	S. Avery
2/20	Westford	1	S. Selesky
2/27	Brewster	1	J. Sones #
Palm War			
	Eastham	1	J. Eddy $+$ v.o.
2/8	E. Gloucester	ĩ	P. Knowlton
2/17	Hyannis	1	S. Miller#
2/27	Brewster	1	J. Sones #
Ovenbird	Dienster	•	U. Doneo a
1/1-31	Athol	1	D. Small#
	Waterthrush		D. oman
1/11	Woods Hole	1	R. Heil#
	Yellowthroat	*	R. Honn
2/11	Middleboro	1	M Sylvia
	reasted Chat	1	M. Sylvia
1/3		1	M. Pelikan
1/3	Edgartown /3 Falmouth	1-2	
	Salem	1-2	R. Heil + v.o. R. Heil
1/20 1/20	Pembroke	1	R. Groves
1/20	Westport		BC (R. Stymeist)
1/24	restport	TDL	(it. orymeist)

1/25	Centerville	1	P. Trimble
	/22 Byfield	1	J. Soucy+ v.o.
Eastern T			
1/12	Falmouth	3	D. Peacock
1/16	Acton	1 n	
1/24	Westport		BC (R. Stymeist)
1/25	Chilmark	9	R. Stymeist#
2/27	Medford	1	M. Rines
	Tree Sparrow		D. OII
1/3	Everett	13	D. Oliver
1/4	Wakefield	30	D. + I. Jewell
1/11 1/19	Cumb. Farms	60 18	M. Faherty
2/1	Salisbury W. Bridgewater	45	D. Williams S. Arena
2/11	Saugus	16	D. + I. Jewell
Chipping		10	D. + I. Jewen
	Chilmark	3+	A. Keith#
	Brewster	14 n	
Field Span			in the stang
1/1	S. Wellfleet	20	M. Lynch#
1/18	Falmouth	2	S. + L. Hennin
1/19	Newbury	4	T. Raymond
1/24	Westport	7B	BC (R. Stymeist)
2/1-16	Chilmark	2	A. Keith#
2/5	M.V.	6	M. Pelikan
2/14	Plymouth	3	D. Ludlow#
2/20	Pembroke	14	D. Ludlow#
2/21	Barnstable	4	M. Rines
Vesper Sp		1.44	
1/2	Cumb. Farms	3	R. Finch
1/11, 2		1	V. Laux#
1/12	Middleboro	3	M. Boucher
2/14	Edgartown	1	A. Keith#
Lark Spa			
1/1-9	Wellfleet	1	S. Carroll + v.o.
Savannah		10	V. Laure
1/11	M.V.	10	V. Laux#
1/19	Newbury	3	M. Rines
1/27 2/1	S. Dart. (A. Pd) Cumb. Farms	1	LCES(J. Hill) K. Anderson
2/16	P.I.	1	J. Berry
"Ipswich"		1	J. Derry
1/1	Bourne	1	R. Stymeist#
1/11	Edgartown	î	R. Heil
1/17	P.I.	2	J. Berry
1/17	Salisbury	2	S. + L. Hennin
1/27	S. Dart. (A. Pd)	1	LCES(J. Hill)
sharp-taile	ed sparrow species		
1/11	Eastham (F.H.)	3+	B. Nikula#
Saltmarsh	Sharp-tailed Spari	wor	
1/31	Eastham	1	D. Ludlow
Nelson's S	Sharp-tailed Sparro	w	
1/31	Eastham	1	D. Ludlow
Seaside Sp	parrow		
thr	Newbypt	1	R. Heil
1/11	Eastham (F.H.)	4+	J. Trimble #
Fox Sparr		100	100 N 100 N
1/2	Nantucket	1	E. Andrews#
1/3	Everett	1	C. Jackson
1/1-2/2		1	D. Ludlow
1/23	Mattapoisett	2	M. LaBossiere
1/25	Essex	1	J. Simpson
1/26	E. Middleboro	1	K. Anderson
Swamp Sp			
1/5	Topsfield	1	J. MacDougall
1/11	Cumb. Farms	2	M. Faherty
1/18	Marshfield		G. d'Entremont#
1/18	Falmouth	1	S. + L. Hennin
1/19	Westport	6	M. Lynch#
1/28	GMNWR	5	R. Lockwood
	wned Sparrow	1	d E Androwett
1/2	Nantucket	1 a	d E. Andrews#

White-cro	wned Sparrow (co	ntinue	4)
1/12	Middleboro	3	M. Boucher
2/21	Sandwich	2	M. Rines
Oregon Ju		100	5 (25 Sec. 2
thr	Maynard	1 m	L. Nachtrab
Lapland L		40 m	ave Darking L v o
thr 1/31	Newbury Cumb. Farms	40 m	axS. Perkins + v.o. R. Finch
Snow Bun		5	K. Fillen
thr	Newbury	100 m	axJ. Berry + v.o.
1/11	Cumb. Farms	25	M. Faherty
1/17	Gloucester	20	M. Rines#
1/17	P'town	400	M. Sylvia
1/19	Salisbury	60	D. Williams
1/22	Wareham	32	M. Sylvia
1/24	Sharon	17	S. Arena
2/1	Bedford	45	M. Rines# B. Gette
2/4 Painted B	P.I.	150	B. Gette
1/10	Seekonk	1 m	R. Leonard
Dickcissel			R. Deonard
1/9-17		2	D. Peacock
Red-wing	ed Blackbird		
1/3	Templeton	1	T. Pirro
1/3	WBWS	6	P. + F. Vale
1/10	W. Bridgewater	30	S. Arena
1/10	Salisbury	2	P. + F. Vale
1/11	Wakefield	10 127	D. + I. Jewell
1/22	DWWS 8Wayland max	127	D. Furbish N. Patterson
2/12-2	Ashland	6	D. Cole
2/13	Newbury	20	D. Davis
2/15	Royalston	16	R. Lockwood#
2/16	Ipswich	50	C. Leahy
2/27	W. Bridgewater	400	S. Arena
2/27	W. Newbury	350+	R. Heil
10 million (1997)	leadowlark	070	T
thr			in Furbish + v.o.
1/1 1/19	Cumb. Farms P.I.	10 4	K. Anderson P. + F. Vale
1/24	Westport		BC (R. Stymeist)
1/27	S. Dart. (A. Pd)		LCES(J. Hill)
2/1	Bedford	2	M. Rines#
2/8	Rowley	2	J. Berry
2/16	Attleboro	2	K. Meyer
2/21	Eastham	4	M. Lynch#
1/31	Barnstable (S.N.)) 5	H. Ferguson
Rusty Bla		24	D . D Wale
1/10	Wakefield	24 12	P. + F. Vale
1/29 2/15	Saugus M.V.	12	D. + I. Jewell S. Moore#
2/15	Woburn	5	P. + F. Vale
Common		1.0	
1/2	Nantucket	10	G. d'Entremont
1/19	Westport	42	M. Lynch#
	/22 DWWS	9-29	D. Furbish
2/13	Brookline	1	J. Kuivenhoven
2/13	Ipswich	1	D. Cassidy
2/14	Easton	1	S. Arena
2/15 2/20	Woburn IRWS	20 1	P. + F. Vale
2/20	Wakefield	1	D. Hill P. + F. Vale
2/21	GMNWR	2	S. Perkins#
2/22	WMWS	1	S. Moore#
2/26	Easton	80	S. Arena
2/27	W. Newbury	125	R. Heil
2/27	W. Bridgewater		S. Arena
	aded Cowbird		
1/1	S. Dartmouth	80	M. Boucher
1/19	Westport	675	M. Lynch#
1/19	Lincoln	7	S. Perkins#
1/31	Middleboro	50	S. + L. Hennin

NOVER	operate sources	127317	
	Lexington	20	M. Rines
2/18	Halifax	15	K. Holmes
2/26	Easton	20	S. Arena
2/27	W. INCWDURY	20	R. Heil
2/27	W. Bridgewater	60	S. Arena
2/28	Harvard	27	R. Lockwood
Baltimore		- 7.5	
	Franklin	1 m	D. Briggs
Bullock's			D. D11665
		1 m	P. Stark#
2/26-2			hromm $+$ v.o.
		TIM D. S	momm + v.o.
Pine Gros		10	T D
thr	Gardner	40 max	T. Pirro
thr	HRWMA	11 max	
1/4	Winchendon	4	$P_{.} + F_{.}$ Vale
1/19	Athol	2	D. Small
1/19	Peabody	30	P. Roberts
1/27	S. Dart. (A. Pd)	1	LCES(J. Hill)
1/29	Westminster	17	T. Pirro
1/30-2	/25 Royalston	80+ D	. Small + v.o.
2/1	Westport	2	M. Boucher
2/6	Harvard		ide G. Marley
2/25	Rowley	3	R. Heil
Purple Fi			
1/1	Hingham		Melithoniotes
1/4	Nantucket		. d'Entremont
1/8	Maynard	3 f	L. Nachtrab
1/12	P.I.	1	M. Lynch#
1/26	Petersham	1 5	S. + L. Hennin
2/28	Millville	6	M. Rines
	Mattapoisett		M. LaBossiere
Red Cros		2 1	. Labossiere
		0	Debarte
thr			\therefore Roberts + v.
1/4	Gay Head	2	A. Keith
1/11	Chilmark	2	A. Goldman
1/22	Nantucket	14	E. Ray
		1.1	and a court
		1 m	R. Heil
1/26-2	9W. Newbury		R. Heil
1/26-2 2/15	9W. Newbury W. Boylston	1 m 2	R. Heil M. Lynch#
1/26-2 2/15 2/27	9W. Newbury W. Boylston Dorchester	1 m	R. Heil
1/26-2 2/15 2/27 White-wi	9W. Newbury W. Boylston Dorchester nged Crossbill	1 m 2 2	R. Heil M. Lynch# R. Donovan
1/26-2 2/15 2/27 White-wi thr	9W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B.	1 m 2 2 50 max	R. Heil M. Lynch# R. Donovan R. Heil + v.o.
1/26-2 2/15 2/27 White-wi thr 1/4	9W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton	1 m 2 2 50 max 3	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena
1/26-2 2/15 2/27 White-wi thr 1/4 1/11	9W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V.	1 m 2 2 50 max 3 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury	1 m 2 2 50 max 3 1 3	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester	1 m 2 2 50 max 3 1 3 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol	1 m 2 2 50 max 3 1 3 1 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester	1 m 2 2 50 max 3 1 3 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol	1 m 2 2 50 max 3 1 3 1 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A.	1 m 2 2 50 max 3 1 3 1 3 1 3	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston	1 m 2 2 50 max 3 1 3 1 1 3 10 4	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA	1 m 2 2 50 max 3 1 3 1 3 10 4 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick	1 m 2 2 50 max 3 1 3 1 1 3 10 4 1 1 F	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro S. Lockwood#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont	1 m 2 2 50 max 3 1 3 1 3 10 4 1	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll	1 m 2 2 50 max 3 1 3 1 1 3 1 1 3 10 4 1 1 5 0 8 10 4 1 1 5 0 8 10 10 10 10 10 10 10 10 10 10 10 10 10	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro S. Lockwood# P. Wicks
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton	1 m 2 2 50 max 3 1 3 1 1 3 10 4 1 1 F 10 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro R. Lockwood# P. Wicks T. Pirro
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner	1 m 2 50 max 3 1 1 3 10 4 1 1 50 33 10 50 33	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro S. Lockwood# P. Wicks T. Pirro M. Lynch#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton	1 m 2 50 max 3 1 3 1 1 1 3 10 4 1 1 50 33 3 50 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin S. + L. Hennin
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro R. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin K. Heinin M. Resch
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.)	1 m 2 50 max 3 1 3 1 1 1 3 10 4 1 1 50 33 3 50 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin S. + L. Hennin M. Resch E. Nielsen#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/11	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37)	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5 100 5 50 33 30 5 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin S. + L. Hennin M. Resch E. Nielsen#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/10 1/11 1/11	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37) Barre	1 m 2 50 max 3 1 1 3 1 1 3 10 4 1 1 50 33 30 5 50 33 50 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin M. Resch E. Nielsen# E. Salmela#
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/11 1/11 1/18 1/19	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37) Barre Salisbury	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 3 10 4 1 1 50 33 3 10 4 1 1 50 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin M. Resch E. Nielsen# P. + F. Vale
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/11 1/11 1/11 1/11 1/11	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37) Barre Salisbury Athol	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5 60-70 100+ 30+ 18	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro S. Lockwood# P. Wicks T. Pirro M. Lynch# E. + L. Hennin S. + L. Hennin M. Resch E. Nielsen# P. + F. Vale D. Small
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/11 1/11 1/11 1/11 1/19 1/27	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37) Barre Salisbury Athol Worc. (BMB)	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5 60-70 100+ 305 60-70 100+ 35 60-70 18 35 18 35 100 100 100 100 100 100 100 10	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro R. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin M. Resch E. Nielsen# E. Salmela# P. + F. Vale D. Small J. Liller
1/26-2 2/15 2/27 White-wi thr 1/4 1/11 1/15 1/17 1/24 1/29 1/31 2/5 2/7 2/15 1/30 Common 1/3 1/4 1/10 1/10 1/10 1/11 1/11 1/11 1/11	99W. Newbury W. Boylston Dorchester nged Crossbill Salisbury B. Easton M.V. Newbury Dorchester Athol Essex Mt.A. Weston HRWMA Hardwick Belmont Redpoll Templeton Gardner Harvard Bolton P'town (R.P.) Quabbin (G37) Barre Salisbury Athol Worc. (BMB) Westboro	1 m 2 50 max 3 1 3 1 1 3 10 4 1 1 50 33 30 5 50 33 50 50 50 50 50 50 50 50 50 50	R. Heil M. Lynch# R. Donovan R. Heil + v.o. S. Arena V. Laux# R. Heil R. Donovan D. Small R. Heil P. Perry# J. Mulvrey T. Pirro 8. Lockwood# P. Wicks T. Pirro M. Lynch# S. + L. Hennin M. Resch E. Nielsen# E. Salmela# P. + F. Vale D. Small J. Liller A. Boover
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Pine Sisk	in			1/3	Templeton	20	T. Pirro
1/1, 1	6 Athol	2,35	D. Small	1/4	Royalston	85+	P. + F. Vale
1/4	Royalston	1	P. + F. Vale	1/12	Gardner	40	M. Rines
1/10	Spencer	1	R. Stymeist#	1/18	Petersham	18	D. Peacock#
1/18	E. Boxford	1	J. Brown#	1/18	Westminster	10+	T. Pirro
1/18	Petersham	1	D. Peacock#	2/7	HRWMA	20-25	T. Pirro
Evening	Grosbeak			2/22	Royalston	50	R. Lockwood

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

This publication prints monthly compilations of reports of birds seen in the ten counties of eastern Massachusetts (Worcester County and east) and offshore waters. Space does not permit the inclusion of all material submitted. However, bird sightings sent to Bird Observer are archived at the Massachusetts Audubon Society. Our compilers select and summarize for publication sightings that provide a snapshot of birdlife during the reporting period. These sightings include early and late dates for migratory species, maximum counts of migrants and some common birds, and species found beyond their normal ranges.

Sightings for any given month must be reported in writing by the eighth of the following month. Send to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. Please organize reports by month and by species in current A.O.U. checklist order. Include name and phone number of observer, common name of species, date of sighting, location, number of birds, number of observers, and information relevant to age, sex, morph, etc.

Species on the Review List of the Massachusetts Avian Records Committee (Bird Observer Vol. 25, #4, page 195), as well as species unusual as to place, time, or known nesting status in Massachusetts should be reported promptly to the Massachusetts Avian Records Committee, c/o Wayne Petersen, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773. Include, in addition to the above information, time of day and light available, weather conditions, the optics used and approximate distance from the bird, length of observation, observer's prior experience with the species, and field guide or other references used. Provide a description of the bird based solely on personal observation. Comment on the distinguishing field marks (observed and unobserved), vocalizations, activity, general behavior, habitat, and other birds present. Include with your report copies of any field notes and sketches.

LIST OF ABBREVIATIONS

* Indicates a species on the review list of the Massachusetts Avian Records Committee (MARC). Because these sightings are generally published before the MARC votes, they normally have not been approved by the MARC. The editors publish records which are supported by details, multiple observers, or both.

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

ABOUT THE COVER: BAY-BREASTED WARBLER

For many birders, the spring migration is highlighted by the appearance of the Bay-breasted Warbler (*Dendroica castanea*). In spring the male is striking, with black face and chestnut crown, throat, and sides, set off by light buff on his belly and neck. Two white wing bars further highlight this gorgeous bird. The female lacks the black face and patches of dark chestnut, but has a flush of chestnut on her breast and flanks. By fall the birds have molted and joined flocks of other "confusing fall warblers." Bay-breasted Warblers resemble Blackpoll and Pine Warblers, but can be distinguished from the latter by their greener, striped backs, and from the former by darker legs and less streaking below. Most fall male Bay-breasted Warblers show a hint of chestnut on their flanks.

The species is monotypic with little geographic variation. Their breeding range extends across Canada from northeastern British Columbia to southern Newfoundland, wherever there are extensive forests of spruce and balsam fir. Bay-breasted Warblers are found in the United States in the Great Lakes region and in the east in New York State and northern New England. They are Neotropical migrants, wintering in Costa Rica, Panama, and northern South America.

They are late migrants, perhaps reflecting the late season on their northern breeding grounds, arriving in Massachusetts in peak numbers during the third week of May. The numbers reported vary substantially from year to year, a reflection, perhaps, of population fluctuations associated with food abundance during spruce budworm outbreaks. In fall Bay-breasted Warbler numbers peak during the last week of August and the first week of September.

The breeding biology of Bay-breasted Warblers is poorly known, but they are thought to be seasonally monogamous and usually produce a single brood. On the breeding grounds they are highly territorial and aggressive. They prefer boreal spruce-fir forests, but are also found in pine and hemlock forests and in swamps and bogs. The male does most of the singing, usually from a perch high in a tree. Their song is very high pitched and has been described as thin "squeaking" notes and sequences of *seetzy*, *seetzy*, *seetzy* or *see-atzee-atzee-atzee*, often with two-note syllables.

The nest is a rather unruly cup of twigs, bark strips, grass, and spiderwebs, built by the female and usually perched on a branch in dense spruce or fir. The usual clutch is five bluish- or greenish-white eggs, spotted brown. However, clutches average slightly larger during spruce budworm outbreaks. Incubation and brooding is done by the female, and eggs hatch in 12-13 days. Ten or eleven days later, the young are ready to leave the nest. Females will give distraction displays with wings fluttering when nests are approached. Both parents feed the young, and when food is abundant this warbler may consume prodigious

amounts. One estimate of spruce budworms eaten by Bay-breasted Warblers during an outbreak was nearly 5,500 per acre during a nesting season.

During the breeding season, Bay-breasted Warblers forage mostly by gleaning insects from foliage (mostly evergreen needles) and flowers, but sometimes they hawk or hover. They eat mostly insects and spiders in the boreal forests; on their tropical wintering grounds they consume mostly insects in wet season, shifting to mostly fruit during dry season. Although they are territorial and dispersed on the breeding grounds, they are often non-territorial on the wintering grounds when food is abundant, and join interspecific foraging flocks. These flocks often include other North American wood warblers and are led by Neotropical resident species such as antbirds and tanagers.

Bay-breasted Warblers are rarely parasitized by cowbirds, but their populations have probably been diminished by annual pesticide spraying of boreal forests to prevent Spruce Budworm outbreaks. Shortened forest-cutting cycles have further degraded their nesting habitat, and in general, anthropogenic factors are the major threat to this species. Mortality during migration from collisions with television and radio towers is becoming an increasing threat due to the proliferation of communication towers associated with cellular phones.

Many consider the Bay-breasted Warbler the most beautiful of our wood warblers, and we can hope that control of habitat destruction in both North America and in the forests of Latin America will ensure the continued presence of these magnificent birds to brighten our days during spring migration.

--William E. Davis, Jr.



ABOUT THE COVER ARTIST

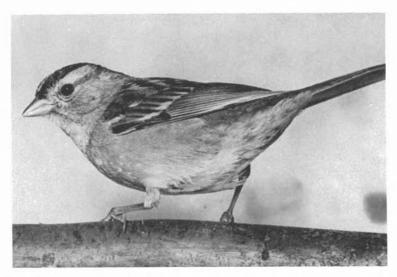
Paul Donahue's artwork has appeared frequently on *Bird Observer's* cover. Some of our readers may also have enjoyed the experience of visiting the rain forest canopy walkway at the Amazon Center for Environmental Education and Research (ACEER) off the Rio Napo in the Department of Loreto in northeastern Peru. This canopy walkway, the world's longest, is the creation of Mr. Donahue and Teresa Wood. Mr. Donahue has also recently begun publishing a free newsletter called *Maine Environmental News*. He can be reached at P.O. Box 554, Machias, ME 04654.

Bird Observer gratefully acknowledges the permission of Victor Emanuel Nature Tours for use of this issue's cover drawing. Founded by Victor Emanuel in 1975, VENT is one of the oldest, largest, and best natural history tour organizers: their 1998-1999 schedule includes nearly 140 tours to over 100 U.S. and foreign destinations, all led by expert birders and organizers. Always innovative, VENT was the first tour company to run birding camps for young birders and to offer brief, intensive workshops on bird I.D. and natural history. The company is committed to supporting local conservation organizations and using local drivers and guides at tour destinations. For more information, call VENT at 800-328-VENT or write to P.O. Box 33008, Austin, TX, 78764.



BIRD OBSERVER

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Photograph by M. G. Smith

Little brown birds with conical bills! Much like gulls, perched hawks, and sandpipers, birds displaying these characteristics often initiate a form of low-level birding paralysis in beginning birders — and sometimes in more experienced observers, as well.

When one of these conical-billed brown jobs is more or less streaked below and has a relatively short, notched tail, it could be the female or immature of the otherwise familiar Indigo Bunting. It is especially heavy-billed and streaked below, female or immature Purple Finch or House Finch are possibilities, and if the bird has a sharply pointed conical bill and yellow wing bars, then Pine Siskin would be a good bet. Unfortunately, the conical-billed mystery bird in the photograph shows none of these helpful characteristics.

Having ruled out finch and bunting possibilities, we are left with the probability that the bird in the picture is a sparrow of some sort, especially since sparrows represent the largest and most diverse group of conical-billed species regularly occurring in Massachusetts. Operating on the assumption that the bird is a sparrow, it makes sense to notice the pattern of the bird's head, underparts, and wings, as well as the overall shape of the bird.

A first cut when examining sparrows is to determine whether or not they possess obvious wing bars and whether they have plain or distinctly streaked underparts. April's mystery bird clearly has unmarked underparts and two distinct wing bars. The absence of breast streaking at once removes all of the streak-breasted sparrows (for example, Vesper, Savannah, Song, or Lincoln's). The combination of clearly defined wing bars and plain underparts further reduces the possibilities to sparrows such as American Tree, Chipping, Claycolored, Field, White-throated, and White-crowned. The female House Sparrow could be a possibility, but its shorter tail, chunkier appearance, and more obvious single wing bar serve to eliminate it.

Now that the possibilities have been limited to only six likely species, we need to examine the head more carefully. Most obvious is the plain, lightcolored bill. Chipping Sparrows tend to have dark bills, or bills with only a pale lower mandible. Plain-breasted adult Chipping Sparrows also have a solid rusty cap, a prominent white stripe over the eye, and a black line through the eye. Clay-colored Sparrows are slim and pale with a finely striped crown and a white median crown stripe, and a brownish cheek patch outlined with thin blackish lines. American Tree Sparrows also resemble the mystery bird, but they have a decidedly black upper mandible, a distinct dark spot in the middle of an otherwise plain breast, and a rusty cap. Note the barely visible pale area immediately above the bill on the mystery sparrow. Field Sparrows possess a well-defined white eye-ring and a pale gray face, both of which are lacking in the mystery photograph.

This reduces the choice to one between White-throated Sparrow and Whitecrowned Sparrow. White-throated Sparrows, as their name implies, have a distinct white throat patch, as well as variable amounts of dusky streaking on the mid-breast or flanks; adults also exhibit yellow lores (a yellow patch between the eye and the bill). Since the mystery bird seems to lack all of these features, and because it has a plain pale (in real life, it would be pink) bill, it would seem that the bird is a White-crowned Sparrow (*Zonotrichia leucophrys*). But why doesn't it have a striking black-and-white head pattern? The answer is that immature White-crowned Sparrows in their first-winter plumage have a tan-andbrown head pattern that shows much less contrast than does the black-and-white pattern of adult birds.

Although they don't nest in the eastern United States, White-crowned Sparrows are uncommon spring and variably common fall migrants in Massachusetts. They are uncommon or rare in weedy fields or at feeders in the winter.

AT A GLANCE





Can you identify this bird? Identification will be discussed in next issue's AT A GLANCE.

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