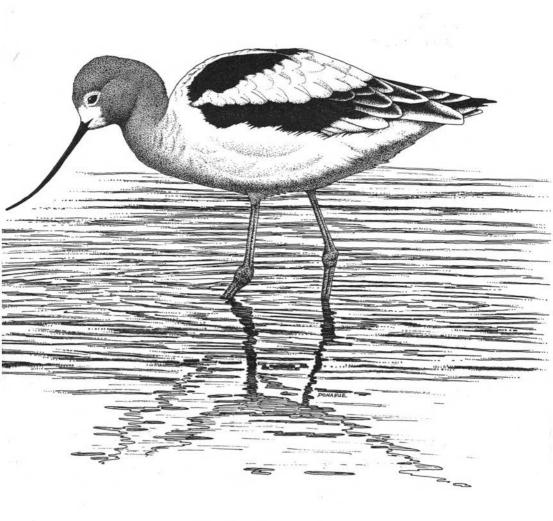
BIRD OBSERVER



VOL. 27 NO. 4 AUGUST 1999



BIRD OBSERVER

· a bimonthly journal ·

To enhance understanding, observation, and enjoyment of birds.

VOL. 27, NO. 4 AUGUST 1999

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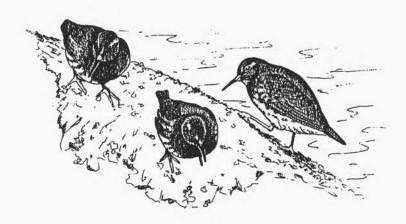
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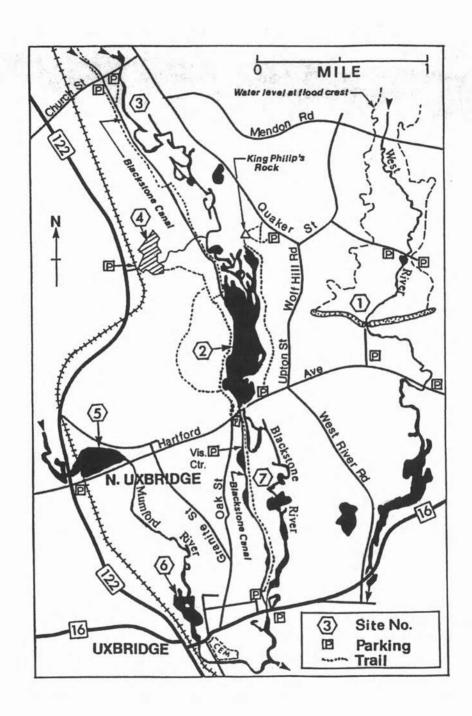
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BIRDING THE BLACKSTONE VALLEY: UXBRIDGE-NORTHBRIDGE, MASSACHUSETTS

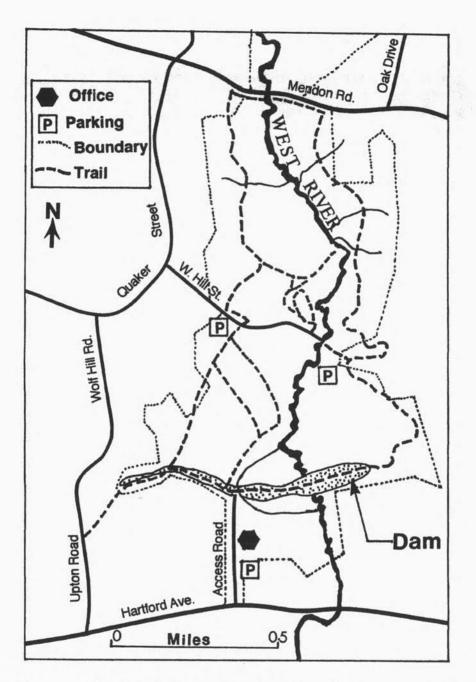
by Richard W. Hildreth and Strickland Wheelock

The Blackstone River begins near Worcester, Massachusetts, flows south along a fairly straight course and down quite a steep gradient, and empties into the sea near Providence, Rhode Island. In the vicinity of Uxbridge and Northbridge, in southern Worcester County, Massachusetts, two major tributaries join the Blackstone: the West River and the Mumford River. In this "tri-river" area, the coincidence of an interesting variety of habitats, an abundance of easily accessible public land, and an impressive history of birding activity combine to produce a destination for excellent inland birding at all seasons.

Besides being a productive birding destination, the region features historical sites associated with the Blackstone Canal, which operated from 1828 through 1847, as well as with other activities of the early days of the industrial revolution. The area also offers excellent opportunities for recreational activities such as hiking, biking, and canoeing. The area around Rice City Pond features some outstanding scenic views; this is an especially beautiful place to visit during the autumn foliage season.

The Uxbridge area is the destination for annual spring and fall field trips by the Forbush Bird Club. This area is also the heart of the Uxbridge Christmas Bird Count, which has been conducted continuously for 16 years, during which 118 species have been found. One of us (Strickland Wheelock) has birded the area since childhood, amassing many observations and records; in conjunction with others, he has operated a bird-banding station in the area since 1988, netting, over the years, roughly 9500 birds representing about 105 species. Highlights of the bird banding operation include the capture of twenty-eight species of warblers, including Orange-crowned and Hooded, as well as "Brewster's" warblers. Other interesting species netted include Grasshopper Sparrow and Acadian Flycatcher. The other author (Richard Hildreth) has birded the area for about twenty-five years in all seasons.

We describe, in some detail, seven easily accessible sites. Visiting all these sites could easily occupy an entire day. All these sites are shown and identified by number on the accompanying map (page 176.). Several of the sites are contained within the Blackstone River and Canal Heritage State Park. Stop in at the state park visitor center at 287 Oak Street in Uxbridge and pick up a copy of the excellent, detailed trail map. All the sites are inside the federally designated Blackstone River Valley National Heritage Corridor. The National Park Service has produced an excellent map/brochure regarding the corridor, which is usually also available at the state park visitor center. One cautionary note: most of the



sites mentioned are multiple-use areas that allow hunting during the legal seasons. Only rarely do hunting and birding come into any conflict. During the fall waterfowl season, the ducks leave Rice City Pond and seek sanctuary at Whiten Pond in North Uxbridge. Sometimes, on a few Saturdays during the fall,

upland game-bird (mainly pheasant) hunting becomes so intense that it makes birding impossible. Hunting is not allowed on Sundays, and weekday hunting pressure is usually not great.

(1) West Hill Dam

Severe floods along the lower Blackstone River in 1955 prompted the U.S. Army Corps of Engineers to carry out several flood control projects in the region. One of these projects was the construction of the West Hill Dam, completed in 1961, on the West River. The philosophy behind these flood control dams is that under normal conditions, the flood gates at the dam are left open and the reservoir behind the dam is empty. When conditions occur that threaten to produce flooding, the flood gates are closed, and water collects behind the dam. During a serious flood event, this retained water does not contribute to flooding conditions downstream. When the flood threat has passed, the water stored behind the dam is slowly and safely released.

At full capacity, the reservoir at West Hill Dam holds 12,400 acre-feet of water and covers 985 acres. Most of the time this large, mostly forested area serves as a recreation area, managed by the Corps of Engineers, and a wildlife management area. The great variety of habitats (coniferous and deciduous forest, overgrown fields, a variety of wetlands) makes it a very good birding site at all seasons. During a four-year period, Strickland Wheelock found more than 215 species of birds at this site and the nearby Rice City Pond site. This is also a very good site for other natural history pursuits; for example, in a single year Tom and Cathy Dodd found fifty-one species of butterflies, including a Sachem (the fifth Massachusetts record for this southern skipper) and a colony of the rare and very local Hessel's Hairstreak, an obligate resident of white cedar swamps.

The West Hill Dam site may by easily approached from two directions (see map on p. 176). There is an access road to the dam from Hartford Avenue in Uxbridge. At times this road is closed; park in the lot just before the gate and walk in. Stop at the office, not far north of the gate, for a trail map and brochure. When the gate is open, you can drive to the dam and park. The vista from the dam is good for searching for swallows and hawks aloft. Red-shouldered Hawk, Northern Goshawk, Cooper's Hawk, Red-tailed Hawk, and American Kestrel all breed in the area and might be seen. In winter, Northern Rough-legged Hawk and Bald Eagle have been noted. Right at the dam is a colony of Northern Rough-winged Swallows along with one or more pairs of nesting Eastern Phoebes. In the woods and wood edges near the dam, the following breeding birds have been found: Great Crested Flycatcher, Blue-gray Gnatcatcher, Blackthroated Green Warbler, Northern Waterthrush, and Scarlet Tanager. If you follow the road north from the dam a short distance, you will reach a small parking lot in the pines. If you follow the "log boom" to the west from this lot,

you may find a nesting Northern Goshawk (if you do so in the nesting season in May, please don't approach too closely or disturb the birds unduly). In the vicinity of this lot you may find the following species: Great Horned and Barred owls, both nuthatches, Brown Creeper, Pine Warbler, and Blue-headed Vireo.

A short walk east from this lot is the river; look for Solitary and Spotted sandpipers. In the trees along the river, look for Warbling Vireo, Baltimore Oriole, Rose-breasted Grosbeak, and Scarlet Tanager. Follow the river a short way north for a good vantage onto the wetlands, which may provide a view of Wood Duck, Mallard, American Black Duck, Green Heron, Belted Kingfisher, Eastern Wood-Pewee, Great Crested Flycatcher, and Least Flycatcher. Hooded Mergansers nest here. To the north of this lot is an area of overgrown fields. Several trails allow easy exploration. Along the east and northeast borders of the field area, many fine views out into the wetlands can be obtained. Breeding birds to be expected in the fields include Blue-winged and Prairie warblers and Indigo Bunting. You may possibly find Purple Finches or an Orchard Oriole in the pines bordering the marsh. During migration, this area is a good place to look for Olive-sided Flycatcher and Palm Warbler. Connecticut and Mourning Warbler have been found here. Overlooks into the wetlands here may produce Hooded Merganser, American Bittern, occasionally Sora, Eastern Bluebird, Swamp Sparrow, and Rusty Blackbird. Summer Tanager and Red-headed Woodpecker have been found here, as well.

In winter, during "finch years," the field area and wood edges are good places to find both species of crossbills, Pine Siskin, Common Redpoll, and Evening Grosbeak. Wild apples along the west side of the field area often attract overwintering robins. Each winter five species of owls are regularly found: Great Horned, Barred, Eastern Screech, Northern Saw-whet, and Long-eared.

To bird the northern part of the West Hill Dam site, it is probably best to enter the area from Quaker Street. Turn east from Quaker Street on West Hill Street (there are Corps of Engineers signs to West Hill Park). On the south side of West Hill Street, there is a large field worth scanning for raptors, Ringnecked Pheasant, Eastern Bluebird, and Bobolink. As soon as you enter the reservation, look for a parking lot on the right. From this lot you can follow the trail south to reach all the areas mentioned in the previous section. Walk east along the paved road to the recreation area. This road crosses the West River and allows access to many trails and interesting sites on the east side of the river. The swimming area, which can be viewed from the bridge, sometimes has a variety of shorebirds. Just to the east of the bridge is a picnic area under the tall white pines. This area is a small peninsula extending southward into the wetlands and offering some fine overlooks. It's a great spot to find Brown Creeper, Pine Warbler, Green Heron, and flycatchers. The West Hill Dam site has many trails and birding possibilities not mentioned; exploring with the trail map as your guide may bring you to some exciting finds.

(2) Rice City Pond

One of the best birding sites in southern Worcester County is Rice City Pond in Uxbridge. This large impoundment on the Blackstone River/Blackstone Canal is entirely within the Blackstone River and Canal Heritage State Park. This pond can vary greatly in appearance and size, depending on the water level and recent flood history of the Blackstone River. It can be one great expanse of water or a mosaic of mudflats and marsh. The Blackstone is a river which rises very quickly to flood stage after a storm and falls just as quickly afterwards; conditions can change rapidly in the pond.

During spring and fall migration (and in winter, if there is open water), the pond is a good site to search for waterfowl. Two first Worcester County waterfowl records occurred here: Fulvous Whistling-Duck in 1979 and Eurasian Wigeon in 1992. Mallard, American Black Duck, Wood Duck, and Hooded Merganser sometimes breed there.

When water levels are low, substantial mudflats are exposed. When the flats are exposed during spring and fall, a good variety of shorebirds can be expected. Common Snipe is abundant in the spring. This is a good site to find Semipalmated Plover in the spring. Killdeers are present during the warmer months and occasionally during the winter. Spotted Sandpipers breed here in good numbers (twelve or more pairs). In the warmer months, during periods of low water, a luxuriant marsh grows in the shallows. One of the most significant plants in this marsh is wild rice (*Zizania aquatica*); the pond derives its name from this plant. In the fall, when the wild rice is fruiting, great numbers of birds come to feed on it. Sometimes hundreds of blackbirds, Common Grackles, and Bobolinks (in the "Reed Bird" plumage) descend on the marsh and, within a week or two, consume most of the seeds. Many sparrows, as well as rails and ducks, also feed on the seeds.

The marsh, especially later in the summer, sometimes hosts Soras and Virginia and King rails. Green Herons, Great Blue Herons, and occasionally American Bitterns can be found. Late in the summer, this marsh is a good inland site to find "white" herons. Red-tailed Hawks are always present. During migration, Turkey Vultures, Ospreys, and Merlins pass along the valley and over the pond in good numbers. The pond is a good site to look for swallows, especially in the spring, when six species can sometimes be found. Bank Swallows from nearby colonies are over the pond all summer. The historic Blackstone Canal passes south out of the pond under Hartford Avenue via a beautiful keystone-arch stone bridge; a colony of Northern Rough-winged Swallows nests there.

The pond is accessible on both the east and west sides. To bird the east side, park at the state park lot on Hartford Avenue. At the edge of the lot there is a kiosk with a detailed map of the area. Just north of the lot is an open, grassy area. This area is well worth checking for birds at all seasons. Bird boxes along

the edge of this area often host Tree Swallows and Eastern Bluebirds. King Philip's Trail (blue markers) begins here and can be followed for about 1.7 miles north to King Philip's Rock. Shortly after you leave the first grassy area, you will come to a second open area. This somewhat weedy area is great for sparrows in the fall. Several times Snow Buntings have been found here. During spring and fall migration, the trees around this clearing are a productive place to look for warblers and other landbirds. Orchard Oriole can sometimes be found here. When you reach this opening, head west to view the pond. At the northwest corner of this clearing, an unmarked trail leads out onto a small peninsula. The tip of this peninsula is the best spot on the eastern shore to view the pond. With a careful approach, you can often get fine, close views of waterfowl, marsh birds, and shorebirds.

Return to the open area and continue following the trail north into the white pine woods. Pine Warblers breed here and often arrive quite early in the spring. Great Horned Owls often breed here. Just after the trail leaves the pines, it crosses a small stream. This is a good spot to look for Winter Wren (both breeding and overwintering). The next spot along the trail which is productive for birding is an abandoned gravel pit that is overgrown with autumn olive. In the fall many birds gather here to feed on the autumn olive fruits. From the old pit, the trail passes though the deciduous woods to King Philip's Rock. Look for Winter Wren and thrushes along this stretch of the trail.

A trip all the way to King Philip's Rock is well worth the effort. The view from the rock is spectacular. It is a good spot to watch raptors passing along the valley during migration. In May, if the warblers are about, the rock offers a great opportunity to view them in the treetops below you. Worm-eating Warbler, Eastern Wood-Pewee, Scarlet Tanager, and Baltimore Oriole breed in the area. If you don't have time or inclination to hike the trail north from Hartford Avenue, you can park in the lot on Quaker Street and hike the very short distance to the rock.

To bird the west side of the pond, park in the lot on the south side of Hartford Avenue, just west of the canal. The Goat Hill Trail heads north from there along the west side of the pond. The trail passes along the steep hillside of Goat Hill, giving you a sort of aerial view of the pond. This is the best overlook for a quick look at the pond. If water levels are low, some flats are exposed quite close to this trail and it is possible to get good views of shorebirds. During spring migration, a hike along this trail may yield a impressive list of warblers and other landbirds.

(3) North of Rice City Pond

Along the Blackstone River and Blackstone Canal between Church Street in Northbridge and the north end of Rice City Pond are some excellent birding areas. Just north of the pond, the river meanders through a broad floodplain. The

precise nature of this area at any given time depends on the recent flood history. Severe floods remove most of the larger woody vegetation. Long periods without significant flooding allow some growth of small aspens, willows, and birches. Most of this floodplain is usually covered with herbaceous vegetation. One of the most significant herbaceous plants for attracting birds is ragweed, Ambrosia artemisiifolia. During years with significant flooding, this plant grows vigorously in the flood-deposited silt. In years without floods and silt deposition. the ragweed grows less vigorously, and if there are several years without siltdepositing floods, the ragweed is largely overwhelmed by other herbaceous species. During the years in which ragweed is abundant, its seeds attract many species of birds, sometimes in great numbers, during fall and winter. Sparrows of many species, American Goldfinches, House Finches, and sometimes Common Redpolls can be found here in large flocks. Stands of common reed along the river in this area are overnight roosting sites for sparrows and blackbirds in winter. This floodplain area is a good spot to look for Northern Harriers (five were found during the 1998 Uxbridge CBC) and Northern Shrikes. Short-eared and Snowy owls have been seen here in winter. American Kestrels have nested here, and accipiters often hunt over the floodplain.

If the water level is not too high, you can reach this area from the "blue trail" that follows the east side of Rice City Pond north to King Philip's Rock. This floodplain can also be reached from the trail on the west side, from the Goat Hill Lock site. Another way to explore the area is by canoe. An early-morning canoe trip from the launching site on Church Street all the way south to Rice City Pond can be great for birding and other wildlife-watching. As you silently drift along, mink, muskrat, otter, red fox, and white-tailed deer are frequently seen. Since the Blackstone River seldom freezes, this stretch can be run by canoe on calm, mild days even in the winter.

Another very accessible and interesting birding area is found in Northbridge, just south of Church Street, west of the river/canal. There are areas of forest along the river and canal, an area of overgrown fields, and an open "barrens" area (the topsoil was stripped off some years ago), all easily reached via the trail which leads south from the two Heritage State Park lots on Church Street; one of these, Larkin Recreation Area, is just west of the canal, and the other (for canoe launching) is between the canal and river. The trails from the two lots join and can be followed along the canal all the way south to Hartford Avenue in Uxbridge. Look for kingfishers and sometimes Green Herons along the canal. Northern Goshawk has nested several times in the area; this species is most frequently seen just south of the point where the two trails join.

A walk along this canal-side trail during spring or fall migration can be very productive. About one-half mile south of the parking lots, the trail emerges into a large, somewhat overgrown field (it is "brush-hogged" periodically). Bird boxes here attract Tree Swallows and Eastern Bluebirds. Sometimes there are

breeding kestrels. This is a great place to look for sparrows in the fall. Along the main trail, between the parking lots and the field, you will see several westward-trending trails. All these trails to the west lead to the "barrens" area, now overgrown with stunted white pines and various "pioneer species" of woody plants. One interesting plant that occurs in this "barrens" area is the bayberry (Myrica pensylvanica); its waxy berries provide food for many birds. In years when there is a good crop of the berries, Yellow-rumped ("Myrtle") Warblers and Eastern Bluebirds can be found wintering here. Look (and listen) for Northern Bobwhite. Prairie and Blue-winged warblers, and Field Sparrows are usual here. The Common Roadside Skipper butterfly (which despite its name is anything but common in Massachusetts) is regularly found in these "barrens."

(4) Northbridge Sewage Beds

About 1.5 miles north of the junction of Hartford Avenue and Route 122, on the east side of Route 122, are the Northbridge Sewage beds. By the highway is a conspicuous bright yellow sign with black letters ("Town of Northbridge, Department of Public Works, Sewer Office, Wastewater Treatment Plant"), which identifies the site. The site is normally closed to vehicular traffic; visiting birders should park beside the access road just before it crosses the railroad and enters the site. The large property has an office building, several structures containing various sorts of wastewater treatment equipment, and a large number of filter beds. It is these "old-style" filter beds that make the site a worthwhile birding destination. The beds are diked structures, lined with a carefully raked layer of gravel. The beds are periodically flooded with wastewater, which forms a shallow pool. The water slowly drains away through the gravel and sand, cleaning the water before it flows away into the nearby Blackstone River. These filter beds attract shorebirds at all seasons.

During the summer, Killdeer and Spotted Sandpiper are always present and are presumed to breed. In the summer of 1998, Least Sandpipers were present during every month from May through September. During spring and fall migration, the following species are regular: Killdeer, Common Snipe, Greater Yellowlegs, Lesser Yellowlegs, Solitary Sandpiper, Spotted Sandpiper, and Least Sandpiper. During the fall migration, Pectoral Sandpiper is often present; two were seen as late as October 26 in 1998. Other species occasionally found here are Semipalmated and White-rumped sandpipers and Black-bellied Plover. In winter, Common Snipes are nearly always present. Killdeers also sometimes overwinter. On January 2, 1999, during the Uxbridge CBC, a remarkable three Virginia Rails were found (called out with a tape) at the place where the processed wastewater flows out into the marsh. Since the filter beds are mostly small, it is possible (with a cautious approach) to get quite close to the feeding shorebirds for some fine, close views and photographs.

The small "peeps" can be hard to spot because the gravel in the beds is about the same color and size as the birds, so it sometimes takes some careful searching to find all the birds. The cycle of filter bed usage governs where the birds will be; birds are usually not found in completely flooded beds or in beds that have been totally dry for any significant time. To bird the area, walk all the roads and look into all the filter beds. In winter it may be necessary to hike all the dikes to find the few, elusive birds. In the summer, one caution when you are hiking along the dikes: the dikes are usually overgrown with rank herbaceous vegetation, most of which is stinging nettle, *Urtica* sp. If your bare skin comes in contact with this plant, you will have a very unpleasant and memorable experience. This nettle is the larval food plant of the Red Admiral butterfly, and often this very colorful butterfly is present in large numbers during the summer.

In the fall, Merlins are frequently seen here, and Peregrine Falcons sometimes occur, hunting the shorebirds. Red-tailed Hawks are usually aloft over the site at all seasons. Turkey Vultures are regular in the warmer months, and may even be seen in winter: two were present on February 14, 1999.

During spring and fall migration, large numbers of swallows (Tree, Barn, Bank, Northern Rough-winged, and sometimes Cliff) can be seen aloft over the filter beds. Bank Swallows nest nearby and can be seen here all summer. One of the most interesting sights (for RWH) occurred on a May day when both Least Sandpipers and Bank Swallows were feeding on the ground in one of the filter beds — two species of "little brown birds" busily feeding and jostling each other among the little brown stones. Another species that can be found among the stones during fall migration is American Pipit (pipits occasionally turn up during spring migration, as well). During the fall, another regular migrant is the Rusty Blackbird, usually found just to the east of the office building, in the red maple swamp.

In fall and winter, this site is a great place to look for sparrows. Large numbers and a good variety of species (including an occasional Clay-colored Sparrow) gather to eat the abundant weed seeds. Many of these sparrows overwinter, making the site a key stop during the Uxbridge CBC. One other migrant once seen at this site was the red bat (*Lasiurus borealis*), flying in the daytime during spring migration. During summer, common breeding birds include Eastern Bluebird, Pine Warbler, Savannah Sparrow, Chipping Sparrow, and Indigo Bunting.

(5) North Uxbridge Pond

In North Uxbridge, just north of Hartford Avenue, the Mumford River passes under Route 122 and the railroad and flows east into Whitin Pond. This small, impounded pond is a good site for waterfowl from fall through early spring. As soon as the duck-hunting season begins in the fall, most of the waterfowl in the area find haven here (it is a no-hunting zone). The Mumford

River and part of the pond seldom freeze solid, so this is one of the key winter waterfowl sites in the region. Birds that can be found here include Pied-billed Grebe (spring and fall, in passage), Mute Swan (occasional in the spring), Canada Goose (sometimes several hundred in fall and winter), Snow Goose (occasional with the Canada Geese), Mallard and American Black Duck (numerous), Ring-necked Duck, Common Merganser, and Hooded Merganser. Ducks found in smaller numbers and possibly overwintering include Gadwall, Northern Pintail, Green-winged Teal, American Wigeon, Wood Duck, Greater Scaup, Lesser Scaup, Common Goldeneye, Bufflehead, and Ruddy Duck.

In winter, along the river near the railroad bridge, American Coot, Belted Kingfisher, and Great Blue Heron can sometimes be found. The thickets and weedy area west of the railroad and behind the church may yield a good variety of sparrow species, Carolina Wren, and Northern Mockingbird during the fall and winter. A large population of Rock Doves (forty or more) nearly always perches on the church roof, sometimes attracting raptors: a Peregrine Falcon and a Northern Goshawk have been observed attacking Rock Doves. Bald Eagle and Gyrfalcon have been seen here, as well.

To bird the area, park in the large lot south of Hartford Avenue, across from the Baptist Church. Walk north along the railroad; the pond and nearby river can be easily scanned from the embankment near the railroad bridge over the river. The nearby bridge on Route 122 that crosses the river should also be visited; look from the bridge west along the river. In really cold weather, the only open water will be here, and the ducks will be quite concentrated. This is a great place in winter to see American Black Duck, one place where the Blacks normally outnumber the Mallards.

(6) Capron's Pond

Another small impounded pond along the Mumford River is Capron's Pond, right in downtown Uxbridge. This pond, just east of the railroad and just north of Route 16, is often partly ice-free in winter, making it a worthwhile place to look for overwintering waterfowl. Multiflora rose thickets just north of the parking lot sometimes harbor overwintering thrushes or other "semihardy" species. The somewhat overgrown trail that heads north between the railroad and the pond is well worth checking during spring and fall for migrants. Among the alders along this trail is a good place to look for the Harvester butterfly, which has quite limited distribution in Massachusetts. To bird this site, park in the lot just east of the railroad on Route 16 (this is a private commercial lot, so park in the back, well out of the commercial use area). A trail at the north end of the lot leads to the pond and beyond.

(7) Flood Plain South of Rice City Pond

From Hartford Avenue in Uxbridge all the way to Route 16, the Blackstone Canal and River offer easy access to fine birding at all seasons. A trail follows the east side of the Blackstone Canal from Hartford Avenue south to a state park parking lot behind the Stanley Woolen Mill (just off Route 16). Along this trail are thickets and forested areas that are very productive, especially during migration. A large section of river floodplain, which is easily reached and very productive, is just east of the Heritage State Park Visitor Center (on Oak Street). The canal area, near the visitor center, is the most reliable place in Worcester County to find breeding Orchard Orioles. In the pond, on the canal just behind the visitor center, a Common Merganser with very small young birds was found, indicating probable breeding in the area.

To bird the floodplain area, park at the visitor center parking lot on Oak Street. Hike east across the bridge over the canal into a large field on the floodplain. This field was "maintained" for many years by cows from the Voss Farm (the barn has been restored and is used as the visitor center) and is now maintained by periodic mowing and "brush-hogging." The field itself and the Blackstone River to the east can be explored for birds profitably at any season. In winter, Great Blue Heron linger along the river. The field and environs is a good place to look for Northern Shrike. In winter, the river (which never freezes) is a good place to find Common Merganser. The field and the unmanaged flood plain to the south are places to look for big flocks of sparrows, House Finches, and sometimes redpolls in winter. Fox and Savannah sparrows are possible in winter. As with the case of the floodplain north of Rice City Pond, the status of the ragweed seed crop is a significant factor. Eastern Bluebirds and Tree Swallows nest in the boxes in the field, and Eastern Meadowlarks often breed in the field. Always check the big swamp white oak trees in the center of the field for perching raptors; at night, this is a great spot to see a Great Horned Owl silhouetted against the sky. The field is a good place to see (and hear) Ring-necked Pheasants. Always check the canal pond just behind the visitor center for ducks, shorebirds, Great Blue Heron, and other waterbirds.

To bird the trail along the canal, you can begin at the south end, from the lot behind the Stanley Woolen Mill (just off Route 16) and walk north. The thickets along the canal, near the parking lot, can be very productive. In Winter, Carolina Wren, Northern Cardinal, Tufted Titmouse, Gray Catbird, Eastern Towhee, Northern Mockingbird, and several species of sparrows can often be called out. During spring and fall migration, a walk along this trail will often produce a good list of warblers and other land birds. Wood Duck and Hooded Merganser may be found along the canal. This trail can also be explored by walking south from the lot near the health center on Hartford Avenue or from the visitor center lot.

While the coastal counties of Massachusetts have long been the ones best known to birders, more and more observers from throughout southern New England are beginning to discover what inland birders have known all along: interior portions of the Bay State offer excellent and varied habitats for birds, contain significant migration corridors, and yield their fair share of both rarities and large concentrations of common birds. The Uxbridge-Northbridge portion of the Blackstone River Valley illustrates the density and diversity of birds (and other wildlife) that can be found in the central portion of the state. This southern Worcester County region offers some of the best birding to be found in Massachusetts, and it offers an exciting destination at any time of year.

Richard W. Hildreth is a resident of Holliston, Massachusetts, with a lifelong interest in many natural history subjects. Now retired after more than thirty years as a scientist in the rare-metals business, he has (in theory) more time to spend on birds and butterflies. He is compiler of the Uxbridge CBC and is currently president of the Forbush Bird Club and the Massachusetts Butterfly Club.

Strickland Wheelock, a resident of Uxbridge, has been actively birding and banding in the Uxbridge area for over 40 years. Besides being a long-time member of the Forbush Bird Club, Strickland has been a leader of national and international birding trips for Massachusetts Audubon.

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BIRD BANDING STATION AT THE PARKER RIVER NATIONAL WILDLIFE REFUGE

by Bill Gette

In April 1998, Massachusetts Audubon's Joppa Flats Education Center opened a bird-banding station on Plum Island, Newbury, in cooperation with the United States Fish and Wildlife Service at the Parker River National Wildlife Refuge. This new station was established utilizing the Master Bird Banding Permit issued to the author by the Bird Banding Laboratory in Laurel, Maryland. I was first issued my banding license in 1962 and have participated in banding operations in Georgia, Massachusetts, Maine, and New Jersey. The station is administered under a Special Use Permit issued annually by the Parker River National Wildlife Refuge, and access to the station is limited to the staff of Joppa Flats, volunteers who have been trained and registered, and participants in educational programs. Under the refuge permit, Joppa Flats makes available to the Parker River staff all banding records and other pertinent information. The station is funded through private monetary contributions and gifts of equipment.

The goal for the 1998 spring banding season was a modest one: to test the feasibility of operating a station on Parker River National Wildlife Refuge, and, if it was found to be feasible, to begin developing the infrastructure required to sustain this ambitious project over the long term. To launch the new station, we had to consider all elements of the operation, including site selection, volunteer training, collection of reference materials and identification aids, and establishment of banding procedures.

Working with Jack Fillio (Refuge Manager at Parker River), Deborah Melvin (a wildlife biologist at the refuge), and Simon Perkins and Wayne Petersen of Massachusetts Audubon, we selected a banding site near the Maintenance Subheadquarters on Plum Island. Site selection criteria included the presence of suitable habitat for migratory passerines, knowledge that concentrations of birds had been observed in the area in the past, protection from wind, adequate space for banding operations and educational programs, and minimal impact on other refuge activities.

After site selection, the next step in developing the station was to clear lanes in which to erect mist nets. In planning our lanes, we chose areas that provided protection from both the sun and wind. Protection from the sun is important to avoid exposing captured birds to excessive heat while they are in the nets and to make the nets more difficult for the birds to see (nets placed in the direct sunlight tend to shine). Mist nets tend to billow in the wind, which makes them less effective, so it is also important to locate the lanes behind dunes and vegetation that serve to minimize wind speeds.

The mist nets that we use are 12 meters long and 2.6 meters high and are constructed of black nylon thread. The nets have a mesh of 36 millimeters and are suspended from five cords, called trammels, that run the length of the net. Besides supporting the mesh, the trammels also create "pockets" of net that absorb the impact of the birds flying into the net and serve to capture the birds. The first mist nets we installed were attached to temporary poles that had been driven into the ground and stabilized with guide wires.

Once the lanes had been established and the nets installed, I began banding on April 26. I invited Nancy Soulette and Brooke Stevens to assist with the project. Nancy and Brooke, both very active volunteers and field trip leaders at Joppa Flats, were invited to participate since they had expressed an interest in our banding program and had excellent bird identification skills. Besides gaining hands-on experience at the Joppa Flats station, Nancy, Brooke, and I traveled to the Manomet Center for Conservation Sciences to visit their nationally known banding operation in Plymouth, Massachusetts, and observe banding activities.

Trevor Lloyd-Evans, leader of the bird banding program at Manomet, and his staff have developed a comprehensive library of literature for identifying, aging, sexing, and evaluating passerines. Moreover, based on many years of experience, they have developed a proven set of banding protocols and procedures that reflect the most recent studies of banding ethics, research techniques, and bander training. Due to the success of the Manomet operation, we decided to follow the Manomet banding model and adopted most of Trevor's procedures for our Plum Island station. The staff members at Manomet were extremely generous with their time and provided a significant amount of their banding information and interpretive materials. Manomet's support in the early development stages of our station was critical to our success.

Our spring 1998 banding activities were limited to twelve banding days in April and May. While of limited duration, the operation did confirm that a banding station on the Parker River National Wildlife Refuge was feasible. Further, it demonstrated that a banding station could achieve two important goals for the Massachusetts Audubon Society and the United States Fish and Wildlife Service. First, the station could serve as a research facility to increase our understanding of how passerines utilize Plum Island during spring and fall migration, and it could serve as an important educational facility for school and adult programs. For example, our banding studies could provide insight into the length of stay of migrants on Plum Island, changes in fat content and body mass, and differential timing of age and sex cohorts during migration. Long-term studies could also help clarify population trends and alert us to needed conservation actions while species are still fairly common. Second, the station could serve as an important educational facility for both school and adult programs. Participants on field trips to the station could gain a greater

understanding of birds, scientific research procedures, migration strategies, and the need for bird conservation.

During April and May 1998, we banded a total of 176 birds representing thirty species. The three species with the highest number of individuals banded were Gray Catbird (38), Yellow-rumped Warbler (19), and American Redstart (12). In all, we banded thirteen species of warblers. The bird that generated the most interest among our volunteers was a Bicknell's Thrush, captured and banded on May 29: Trevor Lloyd-Evans reports that Manomet has banded only two Bicknell's Thrushes in the past thirty years.

Following our banding protocol, we closed the banding station at the end of May so as not to interfere with nesting activities of the breeding birds on Plum Island

We reopened the station on August 31, 1998, and operated it through October 23. The Joppa Flats Education Center hired Jeff Farrington, an experienced bander who had worked at both Manomet and at the Vermont Institute of Natural Sciences, as the Lead Bander and Station Manager. Jeff's primary goal for the fall banding season was to continue developing the infrastructure for the station. Key tasks besides banding included computerizing banding records, developing and organizing interpretive materials, improving existing net lanes and adding new ones, training volunteers, and developing educational programs for school groups and teacher workshops.

During the fall season, we operated the station for thirty-six days. During this time period, we banded 772 birds representing forty-nine species. The three species with the highest individual counts were Yellow-rumped Warbler (272), Gray Catbird (98), and White-throated Sparrow (79). We banded sixteen species of warblers including Orange-crowned (3), Mourning (2), and Yellow-breasted Chat (1). Other captures of interest included Philadelphia Vireo (4) and Yellowbellied Sapsucker (4). For each bird captured, we determined and recorded the following information:

- · species
- · age
- · sex
- status of: skull pneumaticization (the development of the skull) cloacal protuberance

brood patch

fat

molt

- · wing cord measurement (the length of the wing from the carpal joint to the end of the longest primary)
- · weight
- · net in which captured
- · capture date and time

Of the 772 birds captured and analyzed during the fall program, 626 (81 percent) of the birds were determined by plumage characteristics, the extent of skull pneumaticization, or other factors to be Hatching Year birds — birds that had hatched that summer. Eighty-one of the birds (11 percent) were classified as After Hatching Year, indicating that these birds were at least one full year old. The age of the remaining 65 birds (eight percent) could not be determined with certainty. In addition to the initial captures, we also processed 59 recaptures of fifteen species. (Recaptures are birds that we had previously caught and banded at our station.) Gray Catbirds (25) represented the species with the highest recapture rate. The high Gray Catbird recapture rate is attributed to the fact that many of the catbirds were hatching-year birds that had stayed within a relatively small area around our net lanes. This increased the probability of recapturing these individuals. The majority of recaptured birds of all species demonstrated increased mass between captures.

Throughout the first year of the station's operation, we ran the banding station from the trunk of a car and an improvised banding table exposed to the weather. The process of building the station's infrastructure was relatively slow due to limited resources and time. In the spring of 1999, however, we made significant progress. First, Dan McHugh of Rowley donated a custom-built banding shed. This shed, measuring 10 x 12 feet, has two banding areas and space for interpretive programs. It is also accessible to participants in wheelchairs. Further, Jeff Farrington and volunteers upgraded all nine of our net lanes with permanent poles and added additional demonstration areas for interpretive programs. We also received several donations of money and equipment from individuals and foundations to support the operation. With the significant improvements we made, we now have a state-of-the-art facility.

We opened the spring 1999 banding season on April 14 and operated it through May 26. We had a total of thirty-two banding dates. All together, we banded 645 individual birds of fifty-four species. The species with the highest counts included Gray Catbird (92), Yellow-rumped Warbler (65), and Ruby-crowned Kinglet (51). The relatively high number of Ruby-crowned Kinglets at Joppa Flats was paralleled in banding data compiled at Manomet. Manomet banded over twice as many Ruby-crowned Kinglets in the spring of 1999 as they did in the spring of 1998. In addition to the initial captures, we also processed 89 recaptures of sixteen species. Of these birds, 21 individuals had been banded at the station the previous year. Two American Redstarts that we banded on May 17 and 18, 1998, were recaptured at the same site on May 11 and 15, 1999, respectively. Seven Gray Catbirds that we banded in May 1998 were recaptured in May 1999. Three additional Gray Catbirds that we banded in the fall of 1998 were recaptured in May. Two Yellow Warblers captured on May 15 and 26, 1998, were recaptured on May 11 and 18, 1999, respectively. To date, we have

not captured any birds banded by another banding station nor have any of our birds been recovered by other stations.

We reopened the banding station on August 30, 1999, and operate it through mid-November. Since we have completed development of the infrastructure for the banding station, we are now focusing attention on ways to enhance the station's role in education and research. While we have already conducted school field trips, adult programs, and banding workshops at the station, we plan to expand these programs. We feel that a visit to the station, where students and teachers can observe banding procedures and participate in record-keeping and other tasks, represents a very important educational experience. Exposure to the birds will spark the students' interest in birds and their conservation.

In the longer term, we plan to develop relationships with colleges and universities so that ongoing research can be conducted at our Plum Island site. From this research, we hope to learn more about how migratory passerines utilize the Parker River National Wildlife Refuge. The findings may help bring about refuge management practices that will enhance the value of the reserve for passerines.

If you would like to know more about programs at the Joppa Flats Bird Banding Station on the Parker River National Wildlife Refuge or could help support this operation, please contact Sanctuary Director Bill Gette at (978) 462-9998 or write to the Joppa Flats Education Center, PO Box 1558, Newburyport, MA 01950.

Bill Gette is Sanctuary Director at Massachusetts Audubon's Joppa Flats Education Center in Newburyport, Massachusetts.



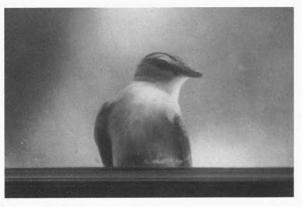
RED-EYED VIREOS ATTACK THEIR IMAGES

by William E. Davis, Jr.

I have long been accustomed to the springtime tapping at my library window, as our resident male Northern Cardinal hovers and strikes at my windows with his beak — apparently "fighting" with his refection, a spectral interloper into his territory.

Hence, I was not surprised when on May 31, 1997, at about 8 a.m., my wife told me that a bird had been banging into the window of our library repeatedly during the previous morning, and was doing it again today. When I went into the library, I could hear the bird striking the glass of the rear windows of the library, and when I peeked behind the curtain that covers the window on the inside, I saw a Red-eyed Vireo perched on the sill. My wife said that the bird had been so active at the front window that she opened the curtains to discourage the bird. (The curtains are black facing outside, and when I went out and looked at my reflection, it was obvious that the reflection backed by the black curtain was vastly more clear than the reflection in the window when the curtain was open; in the latter case the reflection was confused by objects visible inside the library). The bird's preference for targeting closed curtains was the usual case — if one pane out of six had closed curtains behind it, the bird almost always attacked that sixth pane.

At about 1 p.m., I heard the bird striking the front window where the curtains were open, providing me with an excellent view of the Red-eyed Vireo. The attack bouts lasted for several minutes, after which the bird flew off, presumably to a different part of its territory. Typically the bird perched on a maple



Red-eyed Vireo at the window. Photograph by the author.

tree limb, 6-9 feet from the window. Its feathers were sleek but it did not fan its tail or show any of the other behavior typical of aggressive displays. It would then fly horizontally to the window, flutter or hover in front of it, and then make from one to three strikes at the window before returning to the branch or perching on the window sill. The windows in the library are Anderson-type with three vertical panes, each eighteen inches wide by forty inches tall. I went

outside and looked to see if a reflection was obvious, and found this to be the case. To test whether the bird was actually attacking its reflection, rather than, for example, simply seeing something inside the library and attempting to gain entrance, I placed a 54 x 14-inch mirror behind one of the panes. The bird first attacked the window adjacent to the mirror, but in the next attack bout attacked the pane directly in front of the mirror.

I went out and found that the although reflection from the mirror was more intense than the reflection from the adjacent window panes, significant reflections were obvious from all three window panes. So I took the mirror outside and stood it up on the ground beneath the central window pane. Subsequently the vireo perched on the limb level with the central window pane and attacked that pane. It then flew off and landed on a branch below the level of the window, and then attacked the mirror. In one bout it attacked a window pane four times from the branch at the same horizontal level, and attacked the mirror three times from the lower branch. This suggests that the bird was in fact attacking its image (it couldn't see objects through the mirror), and that it attacked whichever image was horizontally adjacent to its perch.

From June 1-5, a Red-eyed Vireo beat the windows of the library intermittently. On the morning of June 6, I was in the library at about 5:45 a.m. when I heard repeated raps at the windows. I peeked and found *two* vireos attacking their images simultaneously. I also witnessed this again from outside the house. Apparently a mated pair was defending their territory against the image pair.

A single Red-eyed Vireo, presumably one of the previous year's pair, attacked both front and rear library windows on May 22 and 23, 1998, at which time I was able to take the accompanying photograph of the vireo perching on the window sill following a bout of image-attacking.

The aggressive behavior of image-attacking has been documented in many bird species and has been reported for both males and females, but gender responses are unclear in monomorphic species. Terres (1980), in an entry entitled "Window-fighting, shadow-boxing, or reflection-fighting," cites reports from California (in separate incidents) of a pair of Bushtits and a male Brown Towhee attacking their images in windows; an American Robin attacking its reflection in an automobile hub cap; John Burroughs's 1894 report of a male Eastern Bluebird attacking a window image; and Frank M. Chapman's determination of a male Northern Cardinal's territorial boundaries by noting where the bird ceased attacking its image in a mirror. George Miksch Sutton (1947) reported on a pair of Northern Cardinals in which the female vigorously and repeatedly attacked her image while the accompanying male did not. Since the Red-eyed Vireo is a monomorphic species, it is unclear what proportion of the image-attacks I witnessed in 1997 were by a single individual, and whether the attacks were by the male, female, or both birds.

References

Sutton, G.M. 1947. A Female Cardinal and Her Reflection. Bird-Banding 18:151-154.

Terres, J.K. 1980. The Audubon Society Encyclopedia of North American Birds. New York: Alfred A. Knopf.

William E. Davis, Jr. is a professor at Boston University and a member of the *Bird Observer* editorial board.

Summer in Winter

Where can you see more than fifteen species of hummingbirds this fall without leaving Boston?

The Museum of Fine Arts at 465 Huntington Avenue, Boston, has organized an exhibition of the paintings of Martin Johnson Heade, a nineteenth-century American painter (1819-1904). Heade was a hummingbird and orchid painter who made three trips to Latin America "to depict the richest and most brilliant of the hummingbird family," according to the Boston Transcript. Heade had a vision to produce The Gems of Brazil, a book of hand-colored lithographs of hummingbirds, to be derived from specimens rather than from life. He attempted to have his paintings chromolithographed for the book, but this process couldn't replicate the delicate colors of his subjects, and the project failed. You can see sixteen of the forty-five known "Gems of Brazil" at this exhibit, which runs from September 29th through January 17, 2000, at the Torf Gallery of the Museum.

One other aspect of Heade's painting career was his fondness for salt marshes with hay stacks; one room in the exhibit is filled with marsh scenes of North Shore locations that will be familiar to Massachusetts birders. Go see this exhibit! For more information, call the Museum of Fine Arts at (617) 267-3302.

Write for Bird Observer

Bird Observer gladly considers for publication manuscripts or article proposals from any member of the birding community—local or foreign, professional ornithologist or backyard birder. We are happy to hear from first-time authors and beginning birders, as well as from established experts. The only requirement is that material be relevant to New England birds and birders.

Among the types of material we'd like to see:

- · Articles presenting original scientific research
- Documentation of significant records
- · Field notes describing interesting encounters with birds
- · Biographies of ornithologists or birders with regional ties
- · Results of surveys and censuses
- "Where to Go" articles describing good birding locales
- Articles on birding equipment or methods
- · Notices and news items
- · "Point of View" articles on birding-related issues

In addition, the magazine is always in need of book reviewers and qualified peer-reviewers for scientific and technical articles.

Bird Observer tries to provide a mix of lively, informative writing in each issue. Why not contribute your insights and experiences to help us achieve this goal? Send manuscripts or proposals to Bird Observer at P.O. Box 236, Arlington, MA 02476-0003, or e-mail the editor at winging@aba.org.



ABOUT BOOKS: Looking Back

(Bird Observer continues its series celebrating some of the books that have inspired, delighted, or enlightened some of our regular book reviewers.)

My Favorite Bird Books

By Brian Cassie

Louis Halle wrote, "The appreciation of birds, indeed the appreciation of all phenomena of spring, cannot be dissociated from the accumulations of memory. The appearance of a familiar bird immediately awakens a train of forgotten associations, and this makes each spring transcend its predecessor . . . The bird, or the event, must have a background to be appreciated, but not necessarily the background of one's individual memory alone, important as this is. It is the great function of nature, literature and art to teach us to see these things, for the beauty of an object, a song, or a dance can never be altogether intrinsic, independent of old associations and acquired understanding." It was these words, and similar sentiments expressed by Charlton Ogburn, that inspired me to experience as many birds as I can in nature and through the literature.

My real interest in birds developed when I was home recuperating from mononucleosis, during the winter of my freshman year in college. From the kitchen window of our home near the center of Orleans, I made my first acquaintance with the Tufted Titmouse, Downy Woodpecker, Evening Grosbeak, Song Sparrow, and a good many other birds that I had managed to overlook for the first eighteen years of my life. I identified those Cape Cod yard birds with John James Audubon's *Birds of America*, with text notes by Ludlow Griscom. In a house full of books of all kinds, it was the only bird book we owned. I am sure many of you are familiar with this book, with its covers decorated with bird feathers. I can honestly say I have no great sentimental attachment to this volume, and I more or less shelved it in short order in favor of the then-current field guides by Peterson, Robbins, and Pough. In time, my passion for birds grew, as did my library, and now, some 3000 birds and a few thousand books later, I have been asked to pick out the books that inspired me to spend the last twenty-seven years watching birds. I think I can do it.

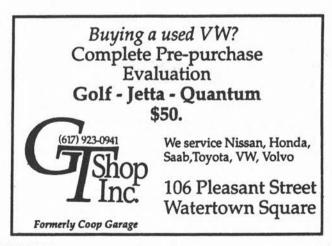
If you have ever seen my library, I am quite sure you would deduce that my favorite books are Roger Tory Peterson's bird guides. I have a rather complete collection of editions and printings of the various titles, in English and a number of other languages. I am enormously grateful to Mr. Peterson for all he did for the cause of conservation — of birds, butterflies, and all living things — and I have had a fun time collecting his field guides (although my wife, Sarah Jane, says fifty copies of a single title, A Field Guide to the Birds, is enough). But you

would have to look on the shelf beneath these field guides to find the two titles that take pride of place in my collection: the books that inspired me to make nature and birds part of my life and soul. I present them together, for they are written by two men with remarkably similar backgrounds and remarkable literary abilities.

In the 1930s, two fellows graduated from Harvard University and went on to careers in the State Department. Along the way, Louis J. Halle spent time in the Coast Guard, while Charlton Ogburn, Jr. was an officer in combat in World War II. I have no idea if they ever met. Mr. Halle eventually took a professorship at the University of Virginia. Among his books is Birds Against Men, for which he won the John Burroughs Medal for the best American nature writing of the year. Mr. Ogburn also took up writing, and he, too, won the John Burroughs medal, for The Winter Beach. These are fabulous books, to be sure, but the titles they wrote that stoked the fires within me were Spring in Washington and The Adventure of Birds, by Halle and Ogburn, respectively. Spring in Washington is eloquent; The Adventure of Birds is delightful. The only thing I can meaningfully say about them is that reading them changed my life. I came across each by chance and I pass them on to you by choice. There are none better.

The Adventure of Birds, by Charlton Ogburn, Jr. New York, NY. William Morrow. 1975. The Winter Beach, by Charlton Ogburn, Jr. New York, NY. William Morrow. 1966. Spring in Washington, by Louis J. Halle. New York, NY. Harper and Brothers. 1947. Birds Against Men, by Louis J. Halle. New York, NY. 1938.

Brian Cassie has long been a prominent member of the Massachusetts natural-history community. A Foxboro resident, Brian is a past president of the Massachusetts Butterfly Club and serves on the Board of Directors of the North American Butterfly Association.



FIELD NOTES FROM HERE AND THERE_

A MURDER OF CROWS

By Marjorie W. Rines

On April 1, 1999, I was taking an early spring walk though Mount Auburn Cemetery in Cambridge when the social chatter of the crows escalated to the shrieking that indicates the mobbing of a raptor. The tone was an hysterical pitch that almost invariably means a Great Horned Owl, a species for which crows seem to hold a special animosity. Only twice have I been fooled by this sound, and in both instances the mobbing victim was a Red-tailed Hawk that had killed a crow.

As I got closer, I saw over a hundred crows in the trees, and at least a dozen others on the ground, but no owl and no hawk was present. In the center of the controversy were two crows with their claws locked together, apparently engaged in conflict. The nearest crows were sporadically engaging in the fray, pecking at both combatants, and occasionally actually trying to pull out wing feathers. The two combatants themselves engaged in only sporadic skirmishing and appeared to be tired.

A fight between two crows would not have surprised me, but the involvement of well over one hundred other individuals as spectators was reminiscent of a schoolyard brawl, not behavior I had seen before in crows.

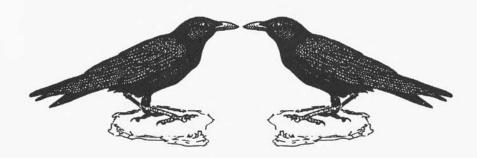
I watched for about five minutes, but when I moved closer for a better view, the group disbanded, and flew off. The two fighters did not appear to have sustained serious damage, and they both flew off in a normal manner. I puzzled over this behavior for about ten minutes, at which point the crows regrouped and began the shrieking again. When I approached, there was only a single crow on the ground, with an injured foot and wing. There were several small feathers in its bill, and I suspected it was one of the original combatants. Many of the other crows had neared the injured bird, but none were molesting it, and their intention was unclear. It is possible that they had been molesting it, but had flushed at my approach.

I watched for a minute or so, and was surprised when a Red-tailed Hawk flew in and perched in a tree containing no fewer than thirty crows. There was no change in the din that the crows were making, nor did any of them appear interested in mobbing the hawk. The Red-tail was definitely interested in the injured bird, though, and after a few moments flew in to a closer tree.

At this point, another birder arrived to see what the commotion was about, and when I explained the situation, we flushed the crow under a bush, and as we were doing so, the crows and hawk disbanded.

It was a puzzling experience. The "schoolyard brawl," with the crows forming a mob to watch two other crows fighting, could be explained, perhaps, by their wish to be on hand should one of the combatants die (crows are particularly fond of a free lunch, and it is not uncommon to see living crows picking over one of their road-killed brethren). Their disregard of the hawk is also strange, but crows do occasionally ignore hawks; in this case, it seems that their fascination with the combatants outweighed their instinctive dislike for birds of prey.

The most puzzling aspect of this experience was why a Red-tailed Hawk would choose to join a flock of crows engaging in what appeared to be mobbing behavior. Could the hawk have suspected the presence of a Great Horned Owl, as I had? Did it recognize the sounds of crows watching an injured bird and hope for easy pickings? In either case, it would appear that this hawk was able to recognize and respond to the language of crows — in the same manner in which human birdwatchers do.



100th CHRISTMAS BIRD COUNT

Birders of all skill levels are encouraged to participate in the 100th CHRISTMAS BIRD COUNT, sponsored by the National Audubon Society and Cornell Laboratory of Ornithology. Thirty-three count circles are located entirely or partly within Massachusetts. Dates for some counts were not available for inclusion in this list. If you want to participate in a count, please make contact with the compilers at least one week before it takes place.

Andover (Sat. 12/18/99)

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Athol (Sat. 12/18/99)

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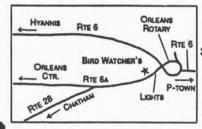
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BIRD SIGHTINGS MARCH/APRIL 1999 SUMMARY



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

March in Massachusetts was warm, sunny, and snowy. The temperature averaged 39.4° in Boston, just 0.8° above normal. The month started out quite warm, with temperatures averaging seven degrees above the normal. Then there was a ten-day stretch of unseasonably cold weather, with an average temperature 14° lower than normal on March 8. The heat returned on St. Patrick's Day; temperatures reached 70° on the 18th; and the month's high was 72° on the last day of the month. The low was 10° in Boston on March 13.

The officially recorded rainfall in March totaled 2.52 inches in Boston, which is probably appreciably less than what actually fell. According to climatologist Robert Lautzenheiser, precipitation figures may be as little as 60 percent of what they should be. Precipitation data are now acquired from an automatic station (ASOS) and are generally well under the actual yields, especially figures for snowfall. Accurate weather information is important, and not just for birders; Mr. Lautzenheiser urges us to write to Congress with our protests. The official snowfall reported from Boston was 11.4 inches, 3.3 inches over the average. On March 22, a gust of 92 mph was reported in New Bedford, and on that same day a 77 mph gust was noted at the Blue Hill Weather Observatory. Many trees and limbs were downed and 27 windshields were reported broken by flying stones from a New Bedford parking lot.

All Fool's Day began as a mild and pleasant day, a big contrast to the April 1, 1997 blizzard; the month's high in Boston was 76° on the 8th and the low was 32° on the 5th. April was the fifth month in a row with above-normal temperatures. Rainfall in Boston totaled 0.83 of an inch, a new record for the least ever in April; snowfall was not an issue in April, and the season total in Boston was 35.8 inches, 6.5 inches less than the normal.

RHS

LOONS THROUGH WOODPECKERS

A **Pacific Loon** at Race Point in Provincetown, almost certainly the same individual that was seen in January/February, was present there for most of March. Race Point is currently the most reliable place in the state for finding over-wintering Pacific Loons.

An above-average number of Horned and Red-necked Grebes were found on inland lakes, some notably early. Most noteworthy of these were two Red-necked Grebes in Southwick, March 22. This record may have been another reflection of the mild weather that prevailed throughout the winter. Seven Red-necks were at Wachusett Reservoir in early April, and ten were in Southwick by mid-April.

A Manx Shearwater off Oak Bluffs was a bit early, and an adult Yellow-crowned Night-Heron was seen in Chatham nearly daily during the latter half of April. Yellow-crowneds, unlike Black-crowneds, do not nest colonially. Because of this, and because they are much less common here than Black-crowneds, they are rarely found nesting locally. However, the prolonged presence of birds such as the Chatham individual supports the assumption that small numbers of Yellow-crowns probably breed in the state on a regular basis.

The **Pink-footed Goose** that was found in Dennis in December 1998 was last seen April 11. For a discussion of this and other occurrences of Pink-foots in North America, see this space in the April 1999 issue of *Bird Observer*. The only **Greater White-fronted**

Goose seen during the reporting period was in Amherst. This individual represented only the third record for western Massachusetts, the first not having come until just fourteen years ago.

A Canada Goose belonging to the race *hutchinsii* spent nearly two weeks in Marshfield. No doubt these small geese will continue to attract attention as long as rumors persist that they might be elevated to full species status. Another small Canada Goose, in Newbury, may have been *parvipes*. It was described by the observer as being much smaller than the accompanying "Giant" Canadas, but was similar in proportions and lacked the very stubby bill typical of other small forms such as *hutchinsii* and *minima*.

As Mute Swans continue to slowly expand their range northward along the coast, more wanderers appear away from the coast. Sightings from four towns inland included up to eight individuals on the Connecticut River, in Northampton. Meanwhile, the small (but slowly increasing) numbers of feral Whooper Swans in the state are rarely seen outside Essex County, so a sighting in Marlboro was noteworthy.

A count of 8 Northern Shovelers in Turner's Falls represented a high count for the Connecticut River Valley. Eurasian ("Common") Green-winged Teal are nearly annual in the state in early spring. This year, reports of single "Common" teal came from Newburyport and West Harwich. An apparent intergrade teal seen in Newburyport in early May possessed both the vertical stripe at the side of the breast typical of greenwinged, and the white stripe along the scapulars typical of the Eurasian race. Two Canvasbacks and two different (?) Redheads were noteworthy in the Connecticut River Valley, and over-wintering **Tufted Ducks** were reported from two sites that are becoming traditional for this now-annual Old World visitor, in Westport and Worcester County. The latter individual, the same bird that has spent the past several winters in Worcester County, moved from the Wachusett Reservoir in Clinton to Westminster in late March. Each year, a few sea ducks drop in on large inland water bodies during their overland flights toward breeding grounds in Canada. Noted this year were White-winged Scoters at Wachusett Reservoir, and more White-wings, plus Oldsquaws and Redbreasted Mergansers, on the Connecticut River.

Record-high numbers of migrating American Kestrels passed Plum Island in April, the biggest one-day counts coming on the 7th and 8th, 18th, and 26th. Other high counts in April at this site included 29 Northern Harriers on the 18th, and 23 Merlins on the 26th.

A King Rail was seen and heard vocalizing over an 11-day period at Bolton Flats. This species is annual but very uncommon in Massachusetts, where it reaches the northern limit of its breeding range. In Spring, virtually all American Golden-Plovers pass to the west of New England, so a Golden at Martha's Vineyard was notable. A Ruff in Ipswich in late March was very early. A total of 343 Common Snipe in two fields in West Bridgewater represented the second-highest count ever recorded in the state. The record-dry conditions throughout the Northeast probably accounted for this unusually high concentration of migrants. Typically small numbers of Little and Black-headed gulls were noted at various coastal locales, and a Bonaparte's Gull in Gardner was a rare find for Worcester County. The first Caspian Tern of the spring season was on schedule in Wareham.

Following a winter that brought unusually high numbers of oceanic alcids to inshore waters, murres especially were found lingering into March. Counts of Thick-bills included 30-plus at Provincetown and 85 at Cape Ann, and ten Commons were also at Provincetown. In recent years, Razorbills have been found more regularly in waters west of their more traditional fishing grounds east of Cape Cod; a count of 300 in Vineyard Sound was indicative of this trend. Higher tallies of Razorbills off Provincetown and Cape Ann were somewhat more expected.

Monk Parakeets survived another winter at two localities in southeastern Massachusetts, and a Yellow-billed Cuckoo in Framingham in mid April arrived nearly a month early. Long-eared Owl, among the most nocturnal and secretive of our local owl

species and the most difficult to locate, was reported from three different localities, while the more crepuscular Short-eared Owl was found at at least seven coastal sites.

Red-headed Woodpeckers are scarce throughout the state, though a few surface each year. Among three Red-headeds noted during the reporting period, one in Westfield was known to over-winter, while two others at the coast were more itinerant.

S. A. P.

Red-throat	ed Loon			4/1	Pittsfield	5	W. Lafley
3/21	P'town (R.P.)	40+	B. Nikula	4/3	Wachusett Res.	1	R. Lockwood
3/21	Westport	31	M. Boucher	4/9	Cape Ann	197	R. Heil
4/25	Duxbury B.	7	D. Furbish#	4/17	Sharon	258	R. Titus
Pacific Lo				4/17	Granville	60	S. Kellogg
3/6-20	P'town (R.P.)	1 B	. Nikula + v.o.	American		00	o. Renogg
Common L		7		3/20	Eastham	1	J. Hoye#
3/3	P.I.	25	R. Heil	4/3	GMNWR	i	S. Perkins
	24 Cape Ann	51. 26	R. Heil	4/3	P.I.	1	I. Giriunas#
3/14	New Salem	1	W. Lafley	4/4	Bolton Flats	i	
4/3	Lakeville	î	K. Anderson	4/8, 15		1	M. Lynch# D. Furbish
4/4	Holyoke	î	T. Gagnon	4/18		i	
4/14	Waltham	î			Washington		E Neumuth
4/23	S. Carver	i	M. Rines	4/19	Granville	1	S. Kellogg
		500	J. Shaw	4/20	Worc. (BMB)	1	J. Liller
Pied-billed		2.0	11T	4/21	Mt.A.		. Rathbun + v.o.
3/6	Plymouth		d'Entremont#	4/25	Westminster	1	T. Pirro
3/20	GMNWR	2	M. Rines	4/28	Westport	1	R. Farrell
3/24	Southwick	1	S. Kellogg	Great Blue			
4/2	Arlington Res.	2	M. Rines		Boxboro		2 R. Lockwood
4/3	Wakefield	2 3	D. + I. Jewell		9W. Boxford	6, 4	5+ J. Berry#
4/16	Stow	3	R. Lockwood	3/18	Acton	12	S. Baker
4/17	W. Newbury	4	R. Heil	3/20	Hadley	1	H. Allen
4/26	P.I.	2	W. Drew#	4/3	Westboro	11	E. Taylor
4/28	Belchertown	1	H. Allen	Great Egre			
Horned Gr	ebe			3/20	Dartmouth	1	E. Nielsen#
3/3	P.I.	44	R. Heil	3/21	Ipswich	1	D. Peterson
3/11	Cape Ann	78	R. Heil	3/21	Newbypt	i	S. Grinley
4/1	Quincy	83	R. Titus	3/24	Fairhaven		M. Laboissiere#
4/3	Wachusett Res.		R. Lockwood	3/25	Westport	2	R. Farrell
4/9	Rockport	26	R. Heil	4/4	Essex/Ipswich	16	R. Heil
4/11	P.I.	60	M. Lynch#	4/9	Hingham	11	R. Titus
4/12	Southwick	1	S. Kellogg	4/21	Chilmark	5	
4/14	New Salem	2				2	T. Rivers
4/19		80+	W. Lafley	Snowy Eg		1	D 1
	Manchester Sharon		D. Jacques	3/27	Rockport		D. Jacques
4/20		2	R. Titus	3/31	Ipswich	1	R. Heil
Red-necked		10	D NEL 1.4	4/1	N. Andover	1	D. Wilkinson
3/6	P'town (R.P.)	12	B. Nikula#	4/1	Quincy	1	R. Titus
3/11	Cape Ann	38	R. Heil	4/4	Essex/Ipswich	55	R. Heil
3/11	Cohasset	26	R. Titus#	4/17	Milton		G. d'Entremont
3/21	Winthrop	55	J. Young	4/21	Chilmark	3	T. Rivers
3/22	Southwick	2	S. Kellogg	Little Blue			
4/3	Wachusett Res.		R. Lockwood	4/19	DWWS	1	D. Furbish
4/9, 24		45, 9	R. Heil	4/26	Essex	1 I.	+ M. Romanov
4/9, 30	N. Scituate	59, 2	R. Titus	4/28	Manchester	2	S. Hedman
4/11	New Salem	1	W. Lafley	4/30	Nantucket	1	A. Charder
4/12	Southwick	10	S. Kellogg	Tricolored	Heron		
4/20	Sharon	2	R. Titus	4/26	Nantucket	1	K. Blackshaw
Manx Shea	rwater			Cattle Egre	et		
4/23	off Oak Bluffs	1	V. Laux	4/18	Ipswich	3	C. Corley#
Northern G				4/18	W. Harwich	1	B. Good#
3/2	P'town (R.P.)	50	M. Faherty#	Green Her		7	D. Cood.
3/6	Rockport	4	M. Resch#	4/17	M.V.	1	V. Laux#
3/31	Magnolia	25 ad	R. Heil	4/18	Melrose	î	D. + I. Jewell
4/25	Nantucket	87	A. Charder	4/25	Westport	i	M. Boucher
Great Corn		07	A. Charder	4/30	Marion	2	
		=	I Cham				M. Maurer
3/3	S. Carver	5	J. Shaw	4/28	Amherst	1	H. Allen
3/5	Haverhill	17	J. Hogan#		vned Night-Heron	100	DO CE OIN III
3/6	Manomet		d'Entremont#	3/14	E. Boston		BC (T. O'Neil)
	Cape Ann	108, 51	R. Heil	3/14	Orleans	2	D. Furbish
3/13	Newbypt		C (S. Grinley)	3/23	MNWS	1 ac	
4/10	Newbypt	7	R. Heil	3/24	Brookline	1	S. Katz#
	Sharon	2	R. Titus	4/10	Wakefield	1	P. + F. Vale
4/17		_					
Double-cre	sted Cormorant			4/12	E. Boston (B.I.)	9	G. Wood
		2	J. Shaw	4/12 4/18	E. Boston (B.I.) Beverly	5	G. Wood G. Leet

							- Links
	wned Night-He			3/31	P.I.	3	R. Hodson
	Chatham	l ad B.	Nikula +v.o.	Wood Du			
Glossy Ibis				3/3	Hadley	1	R. Packard
4/11	Ipswich	15	M. Lynch#	3/7	Byfield	5	S. Haydock
4/11	DWWS	3	S. Carey	3/10	Haverhill	5	R. Heil
4/18	Rowley	22	S. Moore#	3/13	Bolton	6 m	D. Malone
4/18	Hingham	25	S. Carey	3/18-3	Wrentham	7	A. Bottomley
4/19	Northboro	1	S. Moore	3/20	Oxford	8	P. Meleski
4/25	Marblehead	55 J.	McLaughlin#	3/20	Winchester	6 m	A. Golden
4/25	W. Bridgewater		M. Maurer	3/21	Medfield	8	E. Nielsen#
4/29	Stoughton	10	R. Titus	3/23	Groton	6	T. Pirro
4/30	Easton		d'Entremont	3/27	Saugus	8	P. + F. Vale
Turkey Vul		7 0	d Littlemont	3/27	Athol	10	D. Small
3/14	Oxford	5	P. Meleski	4/1		11	K. Hamilton
		5			Wayland		
3/17	GMNWR		M. Rines	4/3	W. Newbury	12	S. Grinley#
3/20	Milton	6	A. Joslin	4/5	GMNWR	14	R. Lockwood
3/26	Boxford		D. + I. Jewell	4/6	Stoneham	5	D. + I. Jewell
3/31	Ipswich, Essex	5, 5	R. Heil	4/9	Boxford	12	J. Berry
4/2	Hardwick	14	M. Lynch#	4/24	Southwick	30	S. Kellogg
4/5	Wayland	5	K. Hamilton	Gadwall			707
4/7	P.I.	5	T. Carrolan	3/4	Newbypt	43	R. Heil
4/8	Sharon	17	S. Arena#	3/11	Gloucester	32	R. Heil
4/9	W. Gloucester	6	R. Heil	3/14	DWWS		d'Entremont#
4/18	Barre F.D.	8	M. Lynch#	3/14	Swansea	36	R. Farrell
4/18	Randolph	5+	A. Joslin	3/14	Pittsfield	1	T. Collins
		9				2	
4/18	W. Newbury	9	R. Heil	3/26	Agawam		S. Kellogg
4/20	Ipswich	7	J. Berry	4/1	DWWS	92	D. Furbish
4/20	Wakefield	7	F. Vale	4/4	Northampton	2	T. Gagnon
	hite-fronted Go		102000	4/4, 22		12, 3	M. Rines
3/2-4	Amherst	1	H. Allen	4/7	Ipswich	18	R. Hodson
Snow Goos	se			4/26	Southwick	2	H. Allen
3/1-5	Hadley	1	W. Lafley	Eurasian	Wigeon		
3/20-23	Amherst	1-4	H. Allen	3/1-5	Tisbury	1 m	fide A. Keith
3/25	Newbury	4	G. Leet	3/14	Swansea	1	R. Farrell
3/27	W. Newbury	6	J. Brown#	3/18	Plymouth	1 m	R. Titus#
3/31	Groton	175	T. Pirro	4/1	Cambr. (F.P.)	1 m	J. Barton
	Southwick		S. Kellogg	4/10		1 m	R. Heil
			E. Stromsted		Newbypt		M. Rines
4/3	Pepperell	210		4/14-13	Arlington Res.	1 m	W. Rines
4/4	Northampton	210	T. Gagnon	American		•	14 D:
4/8-18	Wayland	8	N. Patterson	3/2	Winchester	2	M. Rines
4/10	Newbypt	190	R. Heil		2 Chicopee	4, 2	H. Allen
4/15	P.I.		D. + I. Jewell	3/18	Southwick	3	S. Kellogg
4/16	DWWS	1	S. Katz#		/23 Hadley	5,4	H. Allen
4/18	Barre F.D.	8 mig	r M. Lynch#	3/24	Granby	1	H. Allen
4/20	Ipswich	1 im	J. Berry	3/28	Newbypt	10	R. Heil
4/21	Hadley	3	T. Gagnon	4/3	Gill	12 H	I. Allen + v.o.
4/27	Holyoke	1	H. Allen	4/9	Montague	6	W. Lafley
	n's" Canada Goo			4/10	Newbypt	18	R. Heil
	Marshfield		Furbish + v.o.	4/19	Arlington Res.	3	M. Rines#
	DWWS		Furbish + v.o.	4/20		4 m	J. Berry
					Ipswich		
	ose (unidentified			4/21	Northampton	3	T. Gagnon
	Newbury		alloran + v.o.	4/27	Holyoke	2	H. Allen
4/4	Newbury	1	R. Heil	Blue-wing		2	22.2
Pink-foote				3/27	Newbypt	5	J. Berry
4/11 D	ennis 1	E. Fisher f	ide B. Nikula	3/31	P.I.	2	W. Drew#
Brant				4/1	Marlboro	1	E. Taylor
3/11	Scituate	112	R. Titus#	4/2, 17		1 m,	
3/23	Marblehead	36	K. Haley	4/4	Bolton Flats	3	R. Lockwood
3/24	Salisbury	64	B. Volkle	4/6	Wakefield	2 m	P. + F. Vale
4/3, 17	Quincy	1000, 250		4/19	DWWS	7	D. Furbish
		56	G. Leet	4/25	Westport	4	M. Boucher
4/18	Beverly					2	
4/22	Newbypt	372	R. Heil	4/26	Longmeadow	2	H. Allen
4/24	Winthrop H.	58	P. + F. Vale	Northern !			1.0
4/25	Duxbury B.	740	D. Furbish#	3/25	Newbypt	1	J. Soucy
4/28	Rowley	125	J. Berry	4/2	P.I.	l m	P. + F. Vale
Mute Swar				4/3	Worcester	2 m	M. Lynch#
3/10	Chicopee	2	H. Allen	4/3	Turner's Falls	8 I	d. Allen + v.o.
3/23-4/2	25 Northampton	3-8	v.o.	4/6	Southwick	2	S. Kellogg
4/6	Southwick	1	S. Kellogg	4/6	Arlington Res.	1 m	D. Arvidson
	Wayland	2, 4	K. Hamilton	4/11	P.I.	8	J. Hoye#
Whooper S		2, 4	million		DWWS		Carey + v.o.
3/14	Marlborough	1 ad P C	issman + v.o.	4/20	Ipswich	4	J. Berry
3/31			R. Heil	4/20	i pa wieli	7	J. Delly
3/31	Ipswich	5	K. Hell				

Northern Pintail			4/21	Hadley	1	T. Gagnon
3/2 Arlington Re	s. 1	M. Rines	Lesser Sca	up		
3/2 Cumb. Farm		K. Anderson	3/1	Pembroke	45	W. Petersen
3/3 P.I.	37	R. Heil	3/5	Salisbury	11	J. Berry
3/4 Newbypt	50	R. Heil	3/6, 4/3	Randolph	3. 10 C	d'Entremont#
3/6 W. Bridgewa		W. Petersen	3/13	Clinton	2	R. Lockwood
3/9 Amherst	2	H. Allen	3/17	Turner's Falls	6	H. Allen
3/13 Pittsfield	ĩ	T. Collins	3/22	Southwick	6	
	18				1	S. Kellogg
3/20 Hadley		H. Allen	3/25	Gill		W. Lafley
3/21 Newbypt	70+	P. + F. Vale	3/27	Westport	26	E. Nielsen#
4/11 P.I.	16	M. Lynch#		9Andover		E. Stromsted
4/16 Amherst	1	R. Packard	4/3	Pepperell	8	E. Stromsted
4/20 Northampton	1 6	T. Gagnon	4/3	Turner's Falls	1	H. Allen + v.o.
Green-winged Teal			4/28	W. Newbury	4	R. Heil
3/3 GMNWR	2	S. Perkins	4/28	Southwick	1	S. Kellogg
3/14 Pittsfield	6	T. Collins	Scaup spec			0. 11011088
3/26 W. Bridgewa	15 VO. 750	S. Arena	4/11	Marshfield	500 0	d'Entremont#
	128	R. Heil			300 0	. u Entremont#
			King Eider			4 77 14 11
3/31 P.I.	233	W. Drew#	4/4	Gay Head	1 11	nm m A. Keith#
4/1 Quincy	24	R. Titus	Common I		20220	2277227272
4/2 Ipswich	135	J. Berry	3/3	P.I.	1100+	R. Heil
4/3 W. Harwich	30	B. Nikula#	4/9	Rockport	310	R. Heil
4/4 Bolton Flats	157	M. Lynch#	Harlequin	Duck		
4/6 Arlington Re	s. 21	M. Rines	3/6	Manomet	4	W. Petersen
4/11 P.I.	445	M. Lynch#		24 Rockport	66, 3	R. Heil
4/17 E. Sandwich	40	D. Wiehe	4/9	N. Scituate	14	R. Titus
					14	K. Titus
4/19 Hadley	50	H. Allen	Surf Scote		100	D 11 11
4/27 Hatfield	30	T. Gagnon	3/31	Manchester	106	R. Heil
"Eurasian" Green-winge	d Teal		4/11	Marshfield		d'Entremont#
3/27 Newbury	I m D	. + T. Donsker	4/24	Rockport	117	R. Heil
4/3 W. Harwich	1	B. Nikula#	White-win	ged Scoter		
Canvasback			3/11	Cape Ann	221	R. Heil
3/1 Lakeville	30	F. Smith	4/3	Wachusett Res.		R. Lockwood
3/2, 22 Arlington Re		M. Rines	4/3	Gill	2	H. Allen + v.o.
3/5 GMNWR		R. Lockwood	4/25	Duxbury B.	16	D. Furbish#
					10	D. Pulbisii#
3/14 Westport	88	R. Farrell	Black Scot			
3/17 GMNWR	2	R. Lockwood	4/11	Marshfield		d'Entremont#
3/20 Westport	63	E. Nielsen#	4/25	Duxbury B.	1	D. Furbish#
3/25-26 Gill	2	W. Lafley	Oldsquaw			
4/1 Lakeville	4	M. Boucher	3/3	P.I.	390	R. Heil
4/3, 10 Wakefield	1 f	P. + F. Vale	4/3	Nahant	30 I	BBC (G. Wood)
Redhead			4/4	Ludlow	7	H. Allen
3/13 Plymouth	1	S. Moore#		2 Newbypt	1400, 30	
		H. Allen	Bufflehead		1400, 5	Joo It. Hell
3/16 Northampton				The state of the s	1	W I - flan
4/3 Turner's Fall	s 1	H. Allen + v.o.	3/4	S. Egremont	1	W. Lafley
Ring-necked Duck			3/6	Manomet		d'Entremont#
3/2 Springfield	1	W. Lafley	3/6	Randolph		d'Entremont#
3/2, 4/2 Arlington Re	s. 15, 79	M. Rines	3/20	Wakefield	58	P. + F. Vale
3/5 Wayland	28	K. Hamilton	4/3	Wachusett Res.	84	R. Lockwood
3/6, 13 S. Hanson	14, 60	W. Petersen	4/3	Turner's Falls	9	H. Allen + v.o.
3/13 W. Bridgew	ter 75 C	G. d'Entremont	4/25	Duxbury B.	335	D. Furbish#
3/22-28 Southwick	90	S. Kellogg	4/30	N. Scituate	51	R. Titus
3/26 Turner's Fall	1000	R. Packard	Common (200.27770
			3/1	Andover	36	E. Stromsted
		J Zepko			130	
4/2 New Salem	64	W. Lafley	3/5	Newbypt		J. Berry
4/3 Gill		H. Allen + v.o.	3/10	Haverhill	170	R. Heil
4/10 Wakefield	28	P. + F. Vale	3/11	Cape Ann	158	R. Heil
4/10, 28 W. Newbury	22, 2	R. Heil	3/14	New Salem	45	W. Lafley
4/26 Holyoke	2	H. Allen	4/1	Quincy	94	R. Titus
Tufted Duck			4/4	Petersham	22	M. Lynch#
3/14, 27 Westport	1f R	. Farrell + v.o.	4/16	Turner's Falls	3	R. Packard
3/25-26 Clinton		Quimby + v.o.	4/22	Newbypt	30	R. Heil
3/30-4/4 Westminster		T. Pirro + v.o.	Barrow's C		50	14. 11011
	1 m	1. FIII0 + v.o.			3	D Uail
Greater Scaup			3/3	Newbypt		R. Heil
3/5 Salisbury	15	J. Berry	4/1	Quincy	4	R. Titus
3/6 Plymouth		d'Entremont#	Hooded M		,	
3/13, 4/3Clinton	16	R. Lockwood	3/1	Southwick	2	S. Kellogg
3/14, 4/28 Westport	90, 7	R. Farrell	3/3	GMNWR	12	S. Perkins
3/22 Southwick			3/3	N. Medfield	3	E. Morrier
	2	9. Vellogo				
	18	S. Kellogg R. Heil				
3/28 Newbypt	18	R. Heil	3/6	Stow	12	R. Lockwood
3/28 Newbypt 4/2 New Salem	18 2	R. Heil W. Lafley	3/6 3/13	Stow Wakefield	12 4	R. Lockwood P. + F. Vale
3/28 Newbypt 4/2 New Salem 4/3 Gill	18 2 3	R. Heil W. Lafley H. Allen + v.o.	3/6 3/13 3/2, 28	Stow Wakefield Pepperell	12 4 20, 4	R. Lockwood P. + F. Vale E. Stromsted
3/28 Newbypt 4/2 New Salem	18 2 3	R. Heil W. Lafley	3/6 3/13	Stow Wakefield	12 4	R. Lockwood P. + F. Vale

	erganser (continu				W. Newbury	3, 3 m	nigr R. Heil
3/23	Orange	12	B Coyle	4/19	W. Newbury	3	R. Heil
4/19	Sharon	7	R. Titus	4/19, 26		10, 9 m	nigrT. Carrolan
4/24	Rockport	1	R. Heil		W. Bridgewater	1	J. Carlisle
	ed Merganser			Sharp-shin			
3/6	P'town (R.P.)	500+	M. Gonsalo	4/3	Templeton	3	T. Pirro
3/25	Gill	1	W. Lafley	4/4	Newbury	3	R. Heil
4/3	Squantum		G. d'Entremont	4/7, 18	P.I.		gr T. Carrolan
	Holyoke	1, 2	T. Gagnon	4/8	Sharon	5	S. Arena#
4/25	Duxbury B.	82	D. Furbish#	4/10	Worcester	3	M. Lynch#
4/28	Westport	48	R. Farrell	4/17	Gardner	4	T. Pirro
Common M		160.50	F 6	4/18	Barre F.D.	12	M. Lynch#
		160,50	E. Stromsted	4/18	W. Newbury	34	R. Heil
	Andover	135, 30		4/19, 26			gr T. Carrolan
3/5	Wayland	48	K. Hamilton	4/19	Granville	10	S. Kellogg
3/5	Northampton	60	H. Allen	4/19	W. Newbury	9	R. Heil
3/13	W. Bridgewater		d'Entremont	4/26	Southwick	10	S. Kellogg
3/24	Ludlow	60	H. Allen	4/28	W. Newbury	3	R. Heil
3/26	Turner's Falls	93	R. Packard	thr	Reports of 1-2 ir	idividuals	from 17 loc.
3/27	W. Newbury	110	J. Brown#	Cooper's I			
4/10	Pontoosuc	49	R. Packard	4/8	Sharon	9	S. Arena#
4/28	W. Newbury	16	R. Heil	4/18	W. Newbury	4	R. Heil
Ruddy Dud			14 D		Stoughton	2	R. Titus
3/2	Winchester	1	M. Rines	4/25			A (P. Roberts)
3/13	Melrose	5	P. + F. Vale	thr	Reports of indivi	duals from	n 25 loc.
3/13	Randolph		. d'Entremont	Northern C		e-girmong)	V 4 4 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
4/1-29		nax 25	D. + I. Jewell	3/3	Lincoln	1 ad	M. Rines
4/2	Arlington Res.	23	M. Rines	3/20	Georgetown		C (I. Giriunas)
4/4	Waltham	65	M. Rines	3/27	Mansfield	1 ad	S. Arena#
4/4	Ludlow	2	H. Allen	3/27	W. Newbury	1	J. Brown#
4/11	W. Newbury	33	J. Hoye#	4/2	N. Dartmouth	1	M. Boucher
4/28	Rowley	4	J. Berry	4/2	Boxford (C.P.)	1 ad	P. + F. Vale
Osprey	177			4/3	Beverly	1	J. Paluzzi#
3/14	Westport	1	F. Thurber	4/9	Groton	3	T. Pirro
3/18	M.V.	15	V.O.	4/24	Rockport (H.P.)	1 m	D. Jacques
3/18	Athol	1	B Coyle		dered Hawk	20	122 237 533
3/19	Berkley	2	A. Bottomley	3/5	Sudbury	2 ad	K. Hamilton
3/20	Marshfield	1	D. Furbish	3/13	Marshfield	2	W. Petersen
3/27	Westport	27	E. Nielsen#	3/17	W. Newbury	2	R. Heil
3/31	Falmouth	3	B. Good#	3/21	Easton	4	S. Arena
4/3	Westboro	pr n	E. Taylor	3/21	N. Middleboro	2 2	K. Holmes
4/3-04	Dighton	3	F. Morrison	3/26	Hawley	2	R. Rancatti
4/17	Granville	10	S. Kellogg	3/27	Mansfield	2	S. Arena#
4/18	P.I.	. 8	T. Carrolan	4/2	W. Bridgewater	3	R. Titus
4/18	W. Newbury	11	R. Heil	4/4	P.I.	3 ad	T. Carrolan
4/19	Groton	. 3	T. Pirro	4/10	Oxford	2	P. Meleski
4/19	Granville	16	S. Kellogg	4/25	Westport	2	M. Boucher
Bald Eagle				thr	Reports of indiv.	from 16 l	ocations
3/1	Framingham		K. Hamilton	Broad-win			
3/1	Pembroke		n.W. Petersen	4/7	E. Middleboro	1	K. Anderson
3/1-6	Arlington	1	M. Rines	4/7	W. Bridgewater	1	S. Arena#
3/3	Newbypt	3	B. Gette	4/14	New Salem	1	W. Lafley
3/5	Gay Head	1	C. Witham	4/17	Granville	104	S. Kellogg
3/5	N. Andover		D. Wilkinson	4/17	Gardner	19	T. Pirro
3/6	Wayland	1 ad	N. Patterson	4/18	Barre F.D.	111	M. Lynch#
3/8	So. Carver	1 im		4/18	W. Newbury	103	R. Heil
3/17	Groton	1 ad	T. Pirro	4/19	Groton	34	T. Pirro
3/21	Amesbury		n S. Moore#	4/19	Granville	152	S. Kellogg
3/27	Athol	1 ad	D. Small	4/25	Granville	58	S. Kellogg
3/27	Quabbin	5	S. Hedman#	4/25	N. Middleboro	6	K. Holmes
3/27	Haverhill	1 ad	J. Berry	4/26	Groton	22	T. Pirro
4/13	Quabbin (G37)	2	B. Lafley	4/26	Southwick	54	S. Kellogg
4/18	W. Newbury	1 im		4/28	Groton	20	T. Pirro
4/18	P.I.	3	T. Carrolan	Red-tailed			
4/26	P.I.	1	T. Carrolan	4/7	P.I.	18	T. Carrolan
Northern H				4/8	Sharon	19	S. Arena#
3/5	Northampton	1	H. Allen	4/18	W. Newbury	15	R. Heil
3/14	P.I.	5	R. Heil	Rough-leg			
3/29	Nantucket	5	A. Charder	3/1	Milton	1 lt	D. Larson
4/2	Newbypt	5 5 2 7	P. + F. Vale	3/3-13	Newbypt	2 lt	v.o.
4/7	P.I.		T. Carrolan	3/14	Rowley	1 lt	J. Berry
4/11	Cumb. Farms	3	K. Anderson	3/9-4/2	Belchertown	1	H. Allen
4/17, 18	P.I.	8, 29	migrT. Carrolan	4/8	Middleboro	1 (lig	ht) J. Carlisle

American Kestrel	4/10 11
4/2 Barre F.D. 3 M. Lynch	4/18 Hatchville 1 B. Good#
4/2 Hardwick 6 M. Lynch	1110 01 70 1 77
4/4 Hingham 4 BBC (N. Swirka	
4/4, 7 P.I. 16, 297 migr T. Carrola	
4/8 P.I., 17 170, 42 migr T. Carrola	
4/9 Bedford 6 M. Rine	and the second s
4/9 Rockport (H.P.) 10 R. Hei	
4/18 Barre F.D. 8 M. Lynch	
4/18 Cumb. Farms 36 M. Bouche	
4/18, 19 P.I. 257, 23 migr T. Carrola	
4/18 DWWS 17 S. Care	4/15 Bolton Flats 4 M. Lynch#
4/18, 19 W. Newbury 17, 7 R. Hei	4/18 Barre F.D. 2 M. Lynch#
4/23 Ipswich 5 S. Grinle	4/18 Ipswich 3 J. Berry
4/25 Granville 11 S. Kellog	
4/26 P.I. 193 T. Carrola	
Merlin	American Coot
3/31 P.I. 3 L. Ferraress	
4/7, 17 P.I. 9, 3 migr T. Carrola	
4/18, 26 P.I. 12, 23 migr T. Carrola 4/25 S. Wellfleet 2 B. Nikul	
4/25 S. Wellfleet 2 B. Nikul thr Reports of individuals from 25 loc.	
Peregrine Falcon	4/22 Woburn 1 M. Rines Black-bellied Plover
3/3 P.I. 1 ad R. Hei	
3/13 Wrentham 1 A. Bottomle	
3/17-18 Boston 1 pr R. Anton	
3/25 Nantucket 1 f K. Blackshaw	
4/11 Springfield 1 T. Gagnot	
4/16 W. Bridgewater 1 imm S. Arena	
4/18 Barre F.D. 1 ad M. Lynch	
4/18 P.I. 1 m ad T. Carrola	3/21 Fairhaven 3 M. Laboissiere#
4/25 E. Wareham 1 J. Mason	3/25 Nantucket 5 K. Blackshaw#
4/25 Nantucket 1 A. Charde	3/27 S. Dartmouth 2 E. Nielsen#
4/26 Chatham 1 S. Mille	
4/26 Worcester 1 ad M. Lynch	4/7 Ipswich 7 R. Hodson
Ruffed Grouse	4/11 S. Dartmouth 11 M. Boucher
3/13 Milton (F.M.) 2 A. Joslii 3/14 Lancaster 6 R. Lockwood	
3/27 Milton 1 A. Joslii 3/30 Brookline 1 F. Bouchard	
3/30 Worc. (BMB) 1 J. Lille	
3/30-31 Ipswich 1 m J. Berr	
4/1 N. Andover 2 D. Wilkinson	
4/2 Hardwick 1 M. Lynch	
4/3 Concord 1 R. Lockwood	
4/10 Oxford 1 P. Melesk	
4/10 W Newbury 3 R. Hei	4/11 Topsfield 10 P. + F. Vale
4/11 Stoughton 2 D. +S. Larson	
4/11 Boxford (C.P.) 2 J. Hoyer	
4/17 Worcester 1 M. Lynchi	
4/18 IRWS 1 BBC (P. + F. Vale	
4/19, 22 W. Newbury 1 S. Grinley	
4/21 Stoughton 1 R. Titu	
Wild Turkey	3/24 Newbypt 2 MAS (N. Soulette#)
3/1 Middleboro 46 M. Maure	
3/3 Worc. (BMB) 8 m J. Lille 3/21 Ware 7 D. + S. Larson	
3/23 Newton 3 m E. + A. Scot 3/24 W. Boylston 7 D. Gauthie	
3/25-31 Westford 3-8 S. Selesky	
3/26 Natick 6 E. Taylo	
3/28 New Salem 38 W. Lafler	
3/29 Beverly 12 M. Barry	
3/31 Taunton 6 G. d'Entremon	
4/7 Ipswich 16 J. Berry	
4/13 Petersham 4 B. Lafle	4/8 Duxbury 6 L. Cleveland
4/13 Worc. (BMB) 7 J. Lille	4/22 Newbypt 2 R. Heil
4/15-30 Wayland 1-7 N. Patterson	
4/19 Newbury 5 T. Carrola	
4/22 Harvard 2 R. Lockwood	4/25 Newbury 1 P. + F. Vale
Northern Bobwhite 3/25 N. Middleboro 1 K. Holme	4/28 Southwick 2 S. Kellogg

Willet				2/24	Duelington	9	14 D'
4/14	P.I.	2	W. Drew#	3/24 3/28	Burlington	3	M. Rines
4/30	Marion	3			Hardwick		C. Buelow
Spotted Sa		3	M. Maurer	3/31	Wrentham	5-6	J. Moffett
4/23	DWWS		D P. 414	4/3	Gardner	.5	T. Pirro
4/24		1	D. Furbish	4/12	Truro	12	J. Young
	Arlington Res.	1	M. Rines	4/15	Bolton Flats	10	M. Lynch#
4/27	Hadley	2	R. Packard	4/30	DWWS	19+	D. Furbish
Upland Sa				Wilson's			
4/24	W. Bridgewater	2	S. Arena	4/30	Rowley	1 f	M. L. Barnett
4/25	P.I.	1	P. + F. Vale	Laughing	Gull		
4/28	Bedford	2	R. Lockwood	4/6	Plymouth B.	3	M. Faherty
4/29	Ipswich	3	R. Heil	4/17	Scituate	1	E. Taylor
Sanderling				Little Gull			
3/2	P'town (R.P.)	200	M. Faherty#	3/23	Oak Bluffs	1 ad	V. Laux
3/27	S. Dartmouth	20	E. Nielsen#	4/11-13	Nahant	1 L.	Pivacek + v.o.
4/11	Nahant	92	L. Pivacek	Black-hea	ded Gull		
Pectoral S	andpiper				2 Newbypt	3-4	R. Heil
3/20	W. Bridgewater	1	M. Faherty	3/6	Plymouth	1 ad	
3/26	Newbury	1	D. Jacques	3/11	Gloucester	1 1V	
3/31	P.I.	9	W. Drew#	3/27	Lynn B.	3	D. Crockett#
4/1	Quincy	3	R. Titus	4/6	Plymouth B.	3	M. Faherty
4/1	W. Bridgewater	15	J. Carlisle	Bonaparte		3	IVI. I allerty
4/1	Ipswich	3	C. Buelow	3/27		40	D. Crockett#
4/4	Newbury	11		4/3	Lynn B.		
4/7			R. Heil		Gardner	1 ad	W T. Pirro
	Easton	- con-	S. Arena#	Iceland G			
4/11			(D. Furbish#)		2Newbypt	14, 2	R. Heil
4/14, 20		10, 26	W. Drew#		20ak Bluffs	1, 1	M. Pelikan
4/15	Woburn	1	M. Rines	3/13	Scusset B.		SNC (S. Arena)
4/22	Newbypt	27	R. Heil	3/16	Acton	l ad	
Purple San				3/20	Dartmouth	1	E. Nielsen#
3/6	Gloucester (E.P.)		M. Resch#	3/21	P'town (R.P.)	10	B. Nikula
3/13	Scusset B.	25AB1	NC (S. Arena)	4/3	GMNWR	1 ad	S. Perkins
3/16	Lynn B.	2	J. Barber	4/13	Nantucket	29	K. Blackshaw
3/20	Westport	40	R. Hodson	4/16	Easton	1 1 V	
3/20		BBC (W	. Drummond)	4/24	Gloucester	1	R. Heil
3/27	Acoaxet	12	E. Salmela		ck-backed Gull		
4/9	N. Scituate	62	R. Titus	3/11	Cohasset	1 ad	R. Titus#
4/9	Rockport	20	R. Heil	3/11	Gloucester	1 1 1 1	
4/11	Swampscott	4	L. Pivacek	3/20	Westport	1	F. Bouchard#
4/24	Rockport	90	R. Heil	3/27	Chilmark	1	M. Pelikan
4/28		5	R. Farrell	4/9		1700000	
	Westport	3	K. Fairen		Nantucket	2 111	m A. Charder
Dunlin	D'4 (D. D.)	200	N C	Glaucous		1.50	W D.
3/6	P'town (R.P.)	200	M. Gonsalo	3/6	Plymouth		m.W. Petersen
3/27	S. Dartmouth	105	E. Nielsen#	3/11	P'town (R.P.)	1	R. Farrell#
4/11	Nahant	160	L. Pivacek	3/13	Scusset B.		NC (S. Arena)
4/13	Duxbury B.	400+	L. Cleveland	3/20	Westport	1	R. Hodson
4/22	Newbypt	97	R. Heil	3/27	Salisbury	2	D. Crockett#
Ruff				3/27	Easton	1 1 1 1	V S. Arena#
3/31	Ipswich	1 m	R. Heil	4/4	P.I.	1	T. Carrolan
Short-bille	ed Dowitcher			Black-legs	ged Kittiwake		
4/28	GMNWR	4	R. Hodson	3/2	P'town (R.P.)	5	M. Faherty#
Common S	Snipe			3/15	Rockport (A.P	.) 31	R. Heil
3/3	Newbury	2	D. Davis	Caspian T		98 SH	
3/5	N. Medfield	1	E. Morrier	4/23	Wareham	1	M. LaBossiere
3/25	Hadley	8	R. Packard	Common '			
3/28	Bolton	10	C. Buelow	3/27	Newbypt	1 ml	D. + T. Donsker
4/2, 20		40, 20	J. Berry	4/23	Oak Bluffs	8	V. Laux
4/2-30	Arlington Res.	20 max		4/27	Marion	6	M. Maurer
4/4				4/28		150	K. Blackshaw
4/4	Bolton Flats	16	M. Lynch#	Dovekie	Nantucket	130	K. Blacksnaw
	Newbury	77	R. Heil		Deslaces (III D		M D
4/6	Hadley	34	H. Allen	3/6	Rockport (H.P		M. Resch#
4/7, 16		343, 62	S. Arena#	3/6	P'town (R.P.)	2	J. Trimble#
4/8	Topsfield	10	D. + I. Jewell	Common			
4/10	Southwick	18	S. Kellogg	3/6, 21		10, 1	B. Nikula#
4/11	Rowley	14	J. Hoye#	Thick-bill		,	
4/12	Easton	14	S. Arena#	3/2	P'town (R.P.)	30+	M. Faherty#
4/17	Newbury		F. + M. Paine	3/3	P.I.	16	R. Heil
4/23	GMNWR	21	S. Perkins	3/3	Salisbury	1	B. Gette
	Woodcock				9Cape Ann	85, 4	R. Heil
thr	Wayland	6 may	x N. Patterson		ed Murre (contin		
3/13	E. Middleboro	20+	K. Holmes	3/11	P'town (R.P.)	18	R. Farrell#
3/16	Hamilton	4 m	J. Berry	3/21	P'town (R.P.)	6+	B. Nikula
3/21	Milton (F.M.)	10+	A. Joslin#	2121		0.	art a tantant
57401	(1 .171.)	101	ri. Joanna				

Razorbill				4/17	DWWS	2	J. Young
3/3	P.I.	2	R. Heil	4/24	Gloucester	1	R. Heil
3/3	Gay Head	200+ E	. Comwell#	Northern S	Saw-whet Owl		
3/6, 21		200, 25	B. Nikula#	3/24	Gardner	1	T. Pirro
3/1-2	Vineyard Sound		V. Laux#	3/27	Easton	i	S. Arena#
				4/1		1	
	9Cape Ann	725, 10	R. Heil		Washington		E Neumuth
3/13	Manomet Pt.	IDABN	C (S. Arena)	4/8	Hatchville	1	B. Good
Black Gui				4/17	Windsor	1	R. Rancatti
3/2	P'town (R.P.)	3	M. Faherty#	4/17	Hinsdale	2	R. Packard
3/2	Rockport	11	J. Berry	4/19	Savoy	2	R. Rancatti
3/11	Cape Ann	92	R. Heil	Whip-poo		_	Tt. Ttunoutti
3/13		ī		4/24		2	V Dlaskakan
	Manomet Pt.		S. Moore#		Nantucket		K. Blackshaw
3/18	Rockport (A.P.)	2	J. Soucy	4/26	ONWR	1	E. Salmela
3/20	P'town (R.P.)	1	J. Hoye#	4/28	Chilmark	1	K. Jones
3/31	Magnolia	2	R. Heil	4/28	Hatchville	1	J. Eddy
4/9	Cape Ann	52	R. Heil	4/29	New Salem	2	W. Lafley
4/11	Marshfield 2		D. Furbish#)	4/30	Southwick	2	S. Kellogg
4/24		16		Chimney S		2	S. Kenogg
	Cape Ann	10	R. Heil				m 0 !!!
Atlantic I				4/8	Pittsfield	1	T. Collins
3/6	Rockport (H.P.)	1	M. Resch#	4/24	GMNWR	4	G. d'Entremont
3/19	P'town (R.P.)	2	R. Titus#	4/25	Winchester	1	M. Rines
3/31	Barnstable (S.N.)	2	B. Good#	4/26	Southwick	2	S. Kellogg
Monk Par				4/27	Arlington Res.	4	M. Rines
	/28 Marion	4, 3	M. Maurer	4/29		25	R. Heil
					W. Newbury		
	/28 Dartmouth	3, 2	v.o.	4/29	Stoughton	2	R. Titus
	lled Cuckoo			Ruby-thro	ated Hummingbird		
4/12	Framingham	1	K. Hamilton	4/29	Mattapoisett	1	M. Sylvia
Barn Owl				Red-heade	ed Woodpecker		PARAMETER CONT.
3/13	M.V.	1	E. Giles#		0 Westfield	1	J Hutchison
	reech-Owl		D. Oncon		19 Swampscott 1		
		1 1	P				
3/3	Mt.A.		Ferraresso	4/1-4	M.V.	1 a	d V. Laux#
3/9	Stoneham		. + I. Jewell		d Woodpecker	100	visco processor record
3/13	Swampscott	2 J.	McLaughlin	thr	Bolton	2	R. Lockwood
3/20-4/	21 S Hadley	1	H. Allen	3/6	Dover	2 2 2	I. Lynch
4/2	Lexington	1 gray	M. Rines#	3/1-31	Wrentham	2	A. Bottomley
4/22	Arlington	1 gray	J. Rathbun	4/3	Pepperell	2	E. Stromsted
		1	J. Katilouli			4	
Great Hor			m m .	4/3	Westport	4 2 2 3 4	E. Salmela#
3/13	Westboro	pr n	E. Taylor	4/3	Milton	2	G. d'Entremont
3/13	Cumb. Farms	3+	E. Giles#	4/11	Concord	2	R. Lockwood
3/21	DWWS	1 pr	D. Furbish	4/17	Boxford (C.P.)	3	S. Peacock#
3/27	W. Boxford	l n	J. Berry#	4/20	Medford	4	M. Rines
4/9	Boxford	3	J. Berry	4/20	Ipswich	2	J. Berry
		3				2	J. Delly
4/12	Truro		J. Young		llied Sapsucker	•	D C
4/20	Ipswich	pr n	J. Berry	3/14	Mt.A	1	R. Stymeist#
4/29	Gardner	1 ad, 2	yg T. Pirro	3/31	Dartmouth		nW. + E. Lackey
4/29	Petersham	1 yg	D. Chapman	4/2	Washington	2	E Neumuth
Barred Ov	vl			4/6	Worcester	2	M. Lynch#
3/5	Dover	1	I. Lynch	4/25	Westminster	3	T. Pirro
3/11	Hamilton	î		4/1-30			
			J. Berry			uais II	10111 20 10C.
3/13	Cumb. Farms	2	E. Giles#	Hairy Woo		_	
3/18	Lincoln	2	M. Rines	3/5	Melrose	2	D. + I. Jewell
3/20, 4	22 HRWMA	2	T. Pirro	3/26	Medford	2	M. Rines
3/27	Easton	2 2	S. Arena#	4/18	Barre F.D.	2	M. Lynch#
4/4	Pepperell	1 pr	D. Deifik#	4/25	Concord	5	R. Lockwood
4/5	Worcester	i	M. Lynch#	4/11	Stoneham	4	D. + I. Jewell
		7.0		Dilected V	/oodpecker	-	D. TI. JOWCII
	Ipswich	1	J. Berry	Pileated w	oodpecker		E 14 .
4/13	Boxford (C.P.)	1 H. I)'Entremont	3/3	N. Medfield	1	E. Morrier
4/20	Gardner	1	T. Pirro	3/6	Athol	2	F. Bouchard#
Long-eare	d Owl			3/7	Lincoln	pr	R. Stymeist#
3/13	E. Middleboro	2 K	. Anderson#	3/20	Milton	1	A. Joslin
3/13	DWWS	4	E. Giles#	3/20	Hamilton	1	G. Leet
						i	
	Rowley 4, 1		ook, J. Berry	3/21	W. Groton		J. Duprey
4/17	DWWS	1	J. Young	3/27	Medford	1	R. LaFontaine
Short-eare				3/31	Pepperell	2	E. Stromsted
3/3	Salisbury	2	B. Gette	4/2	Hardwick	3	M. Lynch#
3/10	P.I.	4	G. Leet	4/4	Lynnfield	1	D. + S. Larson
3/13	Cumb. Farms		C (S. Arena)	4/10	Boxford (C.P.)	2	S. Moore#
						1	
3/20	DWWS	6	D. Furbish	4/14	Mt.A.		D. + S. Larson
3/21	Salisbury		delaFlor#)	4/15	Wayland	1 p	
3/31, 4/	3E. Boston (B.I)	1	G. Wood#	4/17	Worcester	1	M. Lynch#
4/6	Edgartown	3	J. Cressy	4/19	Manchester	1	D. Jacques
4/14	P.I.	1	W. Drew#	4/25	Concord	2	R. Lockwood
12000000	(1000000)	1177	100 mm (100 mm)	17,000,000	8757777 E E T	100	

FLYCATCHERS THROUGH GROSBEAKS

Songbird migration begins in earnest in March and April. Eastern Phoebes and Eastern Kingbirds arrived very much on schedule in the final days of March and April, respectively.

Common Ravens have not been confirmed as breeders in Essex County, but scattered reports there over the past two years continue to fuel speculation. A Purple Martin at the Daniel Webster Wildlife Sanctuary in Marshfield on April 1 was exceptionally early.

Red-breasted Nuthatches have been reported in very poor numbers since last fall's migration, and the only significant count came from Barre Falls Dam. Following the mild winter, Carolina Wrens continued to spread, with reports from throughout the state. A House Wren in Wellesley on March 29 was nearly three weeks earlier than the general arrival for this species. Winter Wrens, never a common bird, were reported in good numbers from throughout the state. Two reports of Marsh Wren were undoubtedly overwinterers.

The last week in April typically brings in the first big push of warbler arrivals. A **Prothonotary Warbler** in Petersham and a **Hooded Warbler** at Marblehead Neck Wildlife Sanctuary were noteworthy.

A Lark Sparrow visiting a feeder in Salisbury was reported during several weeks earlier in the winter, but went unreported from February 4 until March 18. It may well have continued there, but simply gone unreported. A Seaside Sparrow on March 14 in Newburyport had undoubtedly overwintered, as migrant birds do not typically arrive until May. April nearly always brings a handful of sightings of Scarlet Tanagers, Blue Grosbeaks, and Indigo Buntings, most of them from Cape Cod and the Islands. This year, the first two went unreported in the month, and only a single Indigo Bunting was noted. A Yellow-headed Blackbird that spent part of the winter on Nantucket continued to visit a feeder there throughout March.

Single reports of Common Redpoll and Pine Siskin were noteworthy following a winter during which winter finches were extremely difficult to find.

M.W.R.

Least Flyc	atcher			3/5	Maynard	1	K. Hamilton
4/30	Bolton Flats	1	R. Lockwood	3/10	Gay Head	1	J. Bryant
4/30	Amherst	1	H. Allen	3/25	Cheshire	1	R. Rancatti
Eastern Ph	noebe			4/2	Groton	1	E. Stromsted
3/21	Quabbin	1	D. + S. Larson	White-eye	d Vireo		
3/23	Melrose	1	D. + I. Jewell	4/25	Westport	1	W. Harrington#
3/23	Mt.A	1 1	J. Mittermeier#	Blue-head	ed Vireo		•
3/24	Groton	3	T. Pirro	4/4	Boxford (C. P.)	1	D. + S. Larson
3/24	Ipswich	2	G. Leet#	4/16	Southwick	2	S. Kellogg
3/24	Marshfield	1	D. Furbish	4/17	E. Sandwich	1	D. Wiehe
3/25	Amherst	1	H. Allen	4/18	Barre F.D.	1	M. Lynch#
3/25	Gardner	1	D. Addison	4/23	Nantucket	2	E. Ray#
3/25	Belchertown	2	R. Packard	4/23	Mattapoisett	12+	
4/2	Hardwick	14	M. Lynch#	4/25	Westminster	3	T. Pirro
4/2	Barre F.D.	14	M. Lynch#	4/25	Carlisle	4 BBC	(T. Brownrigg)
4/4	Medford	9	P. + F. Vale	4/27, 30) Medford	3, 4	
4/9	Rockport	11	R. Heil	4/30	Wakefield	3	F. Vale
4/10	Marshfield	12	K. Vespaziani	4/30	Mt.A.	3B	BC (P.+ F. Vale)
4/10	Weston	9	M. Rines	Warbling '	Vireo		
4/17	E. Sandwich	12+	D. Wiehe	4/26	Arlington Res.	1	C. Floyd
Great Cres	sted Flycatcher			4/28	Southwick	1	S. Kellogg
4/29	Amherst	1	H. Allen	4/29	N. Middleboro	1	K. Holmes
4/30	W. Groton	1	J. Duprey	4/30	Randolph	1	G. d'Entremont
4/30	Medford	1	M. Rines	4/30	Woburn	1	M. Rines
Eastern Ki	ngbird			American	Crow		
4/25, 29	Arlington Res.	1, 2	M. Rines#	3/1, 20	Framingham900	00.2680	E. Taylor
4/27	Worcester	1	M. Lynch#	3/10	Haverhill	295	R. Heil
4/29	Stoughton	1	R. Titus	4/18, 30	Framingham215	50,1500	E. Taylor
4/30	Northampton	1	T. Gagnon	Fish Crow	•	BIT & STATE OF A	
Northern S				3/6	Sharon	1	D. + S. Larson
3/1, 25	Windsor	1	W. Lafley	3/10	Lawrence	6+	R. Heil
3/3-27	P.I.	1 ad		3/17	Pittsfield	1	T. Collins

Fish Crov	w (continued)			4/8, 24	Arlington Res.	1,6	M. Rines
3/24	Southwick	5	S. Kellogg	4/9	Rockport (H.P.)	1	R. Heil
3/27	Sharon	7	S. Arena#	4/11	Bolton Flats	1	M. Lynch#
4/5	Byfield	2	R. Heil	4/12	W. Bridgewater	1	S. Arena#
4/6	Pittsfield	1	R. Laubach	4/17	Southwick	1	S. Kellogg
4/9	Medford	4	M. Rines	4/24	GMNWR	20	E. Taylor
4/13	Northampton	2	T. Gagnon	Cliff Swa		20	L. Taylor
4/16	Worcester	ī	M. Lynch#	4/24	W. Newbury	1	R. Heil
4/19	DWWS	8	D. Furbish	4/25	GMNWR		D. + S. Larson
4/22	N. Middleboro	1	K. Holmes	4/28			
4/24		3			Avon	1	R. Titus
	Rockport	2	R. Heil		sted Nuthatch	•	
4/27	Stoughton		R. Titus	3/1-31		3	A. Bottomley
4/31	Northampton	4	T. Gagnon	3/13	Malden	1	P. + F. Vale
Common					1/23 Weston	1, 2	M. Rines
3/27	Athol	3	D. Small	3/27	Oxford	1	P. Meleski
4/2	Oxford	1	P. Meleski	3/27	Saugus	3	P. + F. Vale
4/6	Lunenburg	1	T. Pirro	3/31	E. Middleboro	3	K. Anderson
4/10	Boxford (C.P.)	2	S. Moore#	3/31.4	/18 Boxford	5, 4	J. Berry
4/18	Barre F.D.	pr n	M. Lynch#	4/8	Sharon	4	S. Arena#
4/27	Gardner	1	T. Pirro	4/10	W. Newbury	2	R. Heil
Horned L			1.11110	4/17	N. Middleboro	1	K. Holmes
3/2	Bedford	10	R. Lockwood	4/18		18	
					Barre F.D.		M. Lynch#
3/7	Eastham (F.E.)	200	M. Gonsalo	4/18	Lexington	1	M. Rines
3/17	Groton	2	T. Pirro	4/21	Newbypt	5	J. Berry
3/19	Northampton	200	W. Lafley	4/22	Concord	1	R. Lockwood
3/26	Deerfield	100	R. Packard	Brown Cr	reeper		
3/27	Sharon	18	S. Arena#	3/20	Oxford	7	P. Meleski
3/28	Newbury	27	R. Heil	3/21	Medfield	8	E. Nielsen#
4/29	Gardner	1	T. Pirro	4/3	Milton		G. d'Entremont
Purple Ma	artin			4/15	Wakefield	5	F. Vale
4/1	DWWS	1 n	D. Ludlow	4/18	Lancaster	3	R. Lockwood
4/17	W. Newbury		nigr R. Heil	4/18	Boxford	4 m	J. Berry
4/18	Rochester	7	M. Boucher	4/18	Barre F.D.	18	
		3					M. Lynch# F. Vale
4/18	Hanson		W. Petersen	4/22	Medford	2	
4/18	P'town	2	B. Nikula	4/24	Lexington	2	M. Rines
4/24	P.I.	2	BBC (J.Center)	4/25	Concord		R. Lockwood
Tree Swa			POSTER AND STREET	4/29	Weston	3	M. Rines
3/3, 18	8 Wayland	1, 5	0+ N. Patterson	Carolina '	Wren		
3/6	Concord	2	G. Wood	3/6	Dover	2 2	 Lynch
3/18	Groton	2	T. Pirro	3/17	Newton	2	L. Ferraresso
3/18	N. Dartmouth	1	M. Boucher	3/19-4/	/21 Amherst	1	H. Allen
3/20	Lexington	8	J. Young	3/20	Weston	3	M. Rines
3/23	Northampton	2	S. Kellogg	3/20	Westport	12	E. Nielsen#
3/25	DWWS	10+	D. Furbish	3/22	Lexington	2	M. Rines
3/26	W. Newbury	11	R. Heil	3/27	Hingham		D. + S. Larson
	Westboro	30	S. Moore#	3/31	Southwick	1	
3/27							S. Kellogg
3/27	W. Bridgewater	30	S. Arena#	4/1	Brookline	2 pr	S. Katz
4/3	Stow	350	R. Lockwood	4/3	Westport	14	E. Salmela#
4/10	IRWS	50	P. + F. Vale	4/9	Rockport	4	R. Heil
4/18	Pepperell	150	E. Stromsted	4/10	Worcester	3	M. Lynch#
4/19	DWWS	50	D. Furbish	4/10	Weston	3	M. Rines
4/24	Arlington Res.	50	M. Rines	4/16	W. Bridgewater	13	S. Arena#
4/29	W. Newbury	250	R. Heil	4/18	Longmeadow	1	N Eaton
Northern	Rough-winged Swa			4/24	Lexington	5	M. Rines
3/30	Wayland	2	K. Hamilton	4/26	Holyoke	1	H. Allen
4/3	Worcester	1	M. Lynch#	4/28	Southwick	î	S. Kellogg
4/3, 13		1, 3		4/28		î	
				House Wi	Longmeadow	1	S. Kellogg
4/7	Northampton	2	T. Gagnon				C March
4/7	W. Bridgewater	1	S. Arena#	3/29	Wellesley	1	C. Marsh
4/10	Wakefield	2	P. + F. Vale	4/19	Manchester	1	D. Jacques
4/11	Stoughton	2 3 4	D. + S. Larson	4/26	N. Dartmouth	1	M. Boucher
4/18	Maynard		J. Young	4/27	Hadley	1	R. Packard
4/18	Lakeville	6	M. Boucher	4/27	Southwick	1	S. Kellogg
4/21	Uxbridge	6	J. + D. Moffett	4/27	Medford	3	M. Rines
4/24		11	R. Heil	4/28	W. Newbury	1	R. Heil
	Cape Ann			4/29	Weston	2	M. Rines
	Cape Ann Brookline		A Joslin				
4/25	Brookline	5	A. Joslin R. Titus				
4/25 4/29	Brookline Stoughton		R. Titus	4/29	N. Middleboro	2	K. Holmes
4/25 4/29 Bank Swa	Brookline Stoughton allow	5	R. Titus	4/29 Winter W	N. Middleboro ren	2	K. Holmes
4/25 4/29 Bank Swa 4/25	Brookline Stoughton allow GMNWR	5 8	R. Titus D. + S. Larson	4/29 Winter W 3/29, 4	N. Middleboro ren /15 Medford	2 2 m	K. Holmes M. Rines
4/25 4/29 Bank Swa 4/25 4/27	Brookline Stoughton allow GMNWR Arlington Res.	5 8 1 1	R. Titus D. + S. Larson M. Rines	4/29 Winter W 3/29, 4 3/30	N. Middleboro ren /15 Medford Southwick	2 2 m 1	M. Rines S. Kellogg
4/25 4/29 Bank Swa 4/25 4/27 4/30	Brookline Stoughton allow GMNWR Arlington Res. Southwick	5 8	R. Titus D. + S. Larson	4/29 Winter W 3/29, 4 3/30 4/17	N. Middleboro ren /15 Medford Southwick Boxford (C.P.)	2 2 m 1 5	M. Rines S. Kellogg S. Peacock#
4/25 4/29 Bank Swa 4/25 4/27 4/30 Barn Swa	Brookline Stoughton allow GMNWR Arlington Res. Southwick	5 8 1 1 20	R. Titus D. + S. Larson M. Rines S. Kellogg	4/29 Winter W 3/29, 4 3/30 4/17 4/18	N. Middleboro ren /15 Medford Southwick Boxford (C.P.) Lancaster	2 m 1 5 2	M. Rines S. Kellogg S. Peacock# R. Lockwood
4/25 4/29 Bank Swa 4/25 4/27 4/30	Brookline Stoughton allow GMNWR Arlington Res. Southwick	5 8 1 1	R. Titus D. + S. Larson M. Rines	4/29 Winter W 3/29, 4 3/30 4/17	N. Middleboro ren /15 Medford Southwick Boxford (C.P.)	2 2 m 1 5	M. Rines S. Kellogg S. Peacock#

Winter We	on (continued)			4/22	Montuelest	2	F D #
4/18	en (continued) Bolton	3	R. Lockwood	4/23 Hermit T	Nantucket	3	E. Ray#
4/18	Barre F.D.	4	M. Lynch#	3/20	Medford	1	R. LaFontaine
4/19	Burlington	2	M. Rines	3/21	Westwood	2	E. Nielsen#
4/23	Weston	5	M. Rines	3/25	N. Middleboro	2	K. Holmes
4/25	Concord	7	R. Lockwood	3/27	W. Bridgewater		S. Arena#
4/28	Ipswich	3	J. Berry	3/27	W. Newbury	1	J. Brown#
thr	Reports of indiv			4/4	Holyoke	3	T. Gagnon
Marsh Wre		. Hom I) locations	4/10	Milton	5	A. Joslin
	E. Boston (B.I.)	1	G. Wood	4/17	Stoughton	5	D. + S. Larson
4/10	P.I.	2	S. Moore#	4/18	Barre F.D.	16	M. Lynch#
	Gnatcatcher	~	o. Mooren	4/23	P.I.	5	R. Heil
4/8	Winchester	1 r	n M. Rines	4/25	Milton	6	A. Joslin
4/9	Rockport	î.	R. Heil	4/25	Worcester	8	M. Lynch#
4/9	Mt.A.	i	B. Chiasson#	4/26	Wakefield	5	F. Vale
4/11	DWWS		BC (D. Furbish#)	4/26	MNWS	10	K. Haley
4/13	Quabbin (G37)	1	B. Lafley	4/26			(D. Wilkinson)
4/13	Wayland	3	N. Patterson	4/27	Medford	13	M. Rines
4/14	Boxford	2	R. Hodson	4/28	W. Newbury	7	R. Heil
4/18	Barre F.D.	2	M. Lynch#	4/28	Ipswich	8	J. Berry
4/20	W. Newbury	2	R. Heil	Wood Th			J. Delly
4/23	Boxford (C.P.)	4	S. Grinley	4/24	Chilmark	1	T. Rivers
4/27	Sandwich	5	D. Wiehe	4/27	Hadley	i	R. Packard
4/28	GMNWR	4	R. Hodson	American		*	IV. I dekard
4/29	Medford	2	M. Rines	3/18	Amesbury	245	R. Heil
	owned Kinglet	-	W. Killes	4/4	Bolton Flats	220	M. Lynch#
3/2	Hadley	1	H. Allen	4/4	Newbury	250	R. Heil
3/3	Saugus	4	D. + I. Jewell	Gray Catl		250	K. Hen
3/14	Oxford	9	P. Meleski	3/20	Westport	2	E. Nielsen#
3/14	New Salem	5	W. Lafley	3/27	W. Bridgewater		S. Arena#
4/2	Ipswich	10	J. Berry	4/8	Sharon	i	S. Arena#
4/3	Boxford	6	J. Berry	4/18	Mattapoisett	i	M. Sylvia
4/3	Worcester	17	M. Lynch#	4/22	MNWS	i	K. Haley
4/4	Petersham	16	M. Lynch#	4/24	Ipswich	3	M. Lynch#
4/8	Mt.A.	30+		4/27	Southwick	1	S. Kellogg
4/9	Rockport	9	R. Heil	4/27	Medford	i	M. Rines
4/9	Clarksburg	5	R. Rancatti	4/29	Arlington Res.	2	M. Rines
4/9	Medford	15	M. Rines	Brown Ti		-	III. ruines
4/10	W. Newbury	11	R. Heil	4/23	Adams	1	R. Rancatti
4/15	Wakefield	10	F. Vale	4/23	P.I.	3	R. Heil
4/23	P.I.	32	R. Heil	4/25	Lexington	1	D. + S. Larson
	ned Kinglet		111 11011	4/25	Woburn	1	J. Wright
3/31	E. Middleboro	1	K. Anderson	4/27	Medford	4	M. Rines
4/2	Pepperell	î	M. Resch	4/27	Worcester	3	M. Lynch#
4/3, 27	Worcester	1, 2		4/29	Oxford	1	P. Meleski
4/4	Becket	1	R. Laubach	4/30	Hingham	1	K. Vespaziani
4/7	MNWS	1	K. Haley	Americar		-	
4/8	Woburn	1	M. Rines		27 Easton	2	S. Arena
4/8	Brookline	2	S. Katz#	3/28	Newbury	1	R. Heil
4/9	Rockport	9	R. Heil	3/30	Groton	2	T. Pirro
4/9, 27	Medford	1.1		4/3	Ipswich	2	J. Hoye#
4/23	P.I.	35	R. Heil	4/8	Topsfield	1	J. Soucy#
4/23	Nantucket	100+		4/11	Bolton Flats	8	M. Lynch#
4/26			C (D. Wilkinson)	4/13	GMNWR	4	M. Rines
4/27	Boston	25	S. Katz	4/15	P.I.	10+	D. + I. Jewell
4/27	Hadley	10	R. Packard	4/24	W. Bridgewater	1	R. Titus
4/27	MNWS	40	R. Heil	4/30	Groton	20	Т. Рігго
4/28	Longmeadow	10	S. Kellogg	Cedar Wa			
4/28	W. Newbury	15	R. Heil	3/13	Clinton	20	R. Lockwood
Eastern Bl				3/21	Salisbury	47	P. + F. Vale
3/6	Lincoln	5	R. Stymeist#	3/8-4/	21 Taunton 5	50 max	G. d'Entremont
3/13	DWWS	6	S. Moore#	4/20		stone25	+J. + D. Moffett
3/18	Hamilton	7	J. Berry	Orange-c	rowned Warbler		
3/21	N. Middleboro	4	K. Holmes	4/30	MNWS	1	S. Hedman
3/21	Medfield	7	E. Nielsen#	Nashville	Warbler		
3/25	Ipswich	7	G. Leet	4/27	Amherst	1	R. Packard
	Pepperell	4	E. Stromsted	Northern			
3/31			K. Holmes	4/26	Mt.A.	1 BBC	(D. Wilkinson)
4/2	N. Middleboro						AND THE STREET, SALES
	N. Middleboro Hingham	6	S. Carev	Yellow V	varbier		
4/2	N. Middleboro Hingham IRWS	6	S. Carey SC (P. + F. Vale)	4/26	Holyoke	1	H. Allen
4/2 4/4	Hingham	6	BC (P. + F. Vale)			1	H. Allen S. Haydock
4/2 4/4 4/18	Hingham IRWS	8 BE		4/26	Holyoke		

Yellow W	arbler (continued)			4/23	Nantucket	3	E. Ray#
4/30	Bolton Flats	3	R. Lockwood	4/26	Boston	2	S. Katz
4/30	Woburn	7	M. Rines	4/26	Mt.A.		D. Wilkinson)
Yellow-ru	mped Warbler			4/27	E. Middleboro	1 m	K. Anderson
3/14	P.I.	20	P. + F. Vale	4/27	Gardner	1	T. Pirro
3/17	W. Newbury	5	R. Heil	4/27	Hadley	1	R. Packard
4/2	Williamsburg	1	R. Packard	4/27	Medford	2	M. Rines
4/3	Wakefield	2	P. + F. Vale	4/28	W. Newbury	1	R. Heil
4/6	Woburn	2	M. Rines	4/29	Sharon	2	R. Titus
4/7	Melrose	3	D. + I. Jewell	4/29	Petersham	1	D. Chapman
4/10	Worcester	22	M. Lynch#	4/29	Wakefield	1	F. Vale
4/16	W. Bridgewater	35	S. Arena#	4/29	Oxford	1	P. Meleski
4/22, 2	7 Arlington Res.	20, 11		4/30	Boxford	2 m	J. Berry
4/22	Woburn	32	M. Rines		tary Warbler		
4/26			(D. Wilkinson)	4/18	Petersham	1	D. Caldwell
4/27	Worcester	90	M. Lynch#		Waterthrush		
4/27	New Salem	35	W. Lafley	4/20	Amherst	- 1	H. Allen
4/30	200000000000000000000000000000000000000		C (P.+ F. Vale)	4/20	N. Middleboro	1	K. Holmes
4/30	Medford	46	M. Rines	4/25	N. Dartmouth	1	M. Boucher
	oated Green Warble		2.727.5	4/25	Concord	1	R. Lockwood
4/23	Boxford (C.P.)	2	S. Grinley	4/27	Gardner	1	T. Pirro
4/25	Oxford	1	P. Meleski	4/28	Charlton	1	P. Meleski
4/26	Mt.A.		(D. Wilkinson)	4/28	Brookline	1	A. Joslin
4/28	Adams	1	R. Rancatti	4/29	Oxford	1	P. Meleski
4/28	Granville	1	N Eaton	4/30	Boxford	4 m	J. Berry
4/28	Mt.A.	1	L. Ferraresso		Waterthrush	4.5	
4/28	Lenox	1	R. Laubach	4/13	Southwick	1	S. Kellogg
4/29	Petersham	1	D. Chapman	4/17	Worcester	1	M. Lynch#
Pine Warb		-		4/17	Boxford (C.P.)	6	S. Peacock#
3/15	Westport	1	M. Boucher	4/18	Oxford	1	P. Meleski
3/24	Hatchville	1+	B. Good#	4/18	Lancaster	1	R. Lockwood
3/31	E. Middleboro	1	K. Anderson	Hooded '			
4/1	Worcester	1	M. Lynch#	4/30	MNWS	1 mK	Haley + v.o.
4/2	Savoy	1	R. Rancatti	Eastern T			F 0 14
4/2	Oxford	2	P. Meleski	3/4	Mattapoisett	3	F. Smith
4/6	Quabbin (G40)	6	J. Bartos#	3/20	Westport	2	E. Nielsen#
4/8	Sharon	5	S. Arena#	3/20	Truro	1	R. Stymeist#
4/9	Newbury	6	D. Davis	4/10	Weston	1	M. Rines
4/9, 30			E. Stromsted	4/11	Ipswich	1 m	M. Lynch#
4/10	Weston	5	M. Rines	4/15	Woburn	1	M. Rines
4/11	Stoughton	7	D. +S. Larson	4/16	Hingham		K. Vespaziani
4/11	Holyoke	18	T. Gagnon	4/17	Stoughton		D. + S. Larson
4/11	Concord	9	R. Lockwood	4/19	Washington	1 22	E Neumuth
4/18	Barre F.D.	42	M. Lynch#		0 Medford	1, 22	M. Rines
4/18	Oxford	10	P. Meleski	4/19	Northampton	6	R. Packard
4/24	Lancaster	10 10	R. Lockwood	4/25	P.I.	0	P. + F. Vale
4/25 Prairie Wa	Concord	10	R. Lockwood		Tree Sparrow	27 G	. d'Entremont
	N. Middleboro	1	V Uolmaa	3/13	W. Bridgewater DWWS		. d'Entremont
4/29 Palm War		1	K. Holmes	3/14 4/17		2	K. Hartel
		1	C. Buelow	4/17	Arlington Res. Milton		d'Entremont
4/1 4/4, 11	Ipswich Holyoke	1 2, 13		4/17	Medford	1	M. Rines
4/4, 11	Woburn	1	M. Rines	4/21	Bolton Flats	2	R. Lockwood
4/6	Stoneham	1	D. + I. Jewell	4/24	W. Bridgewater	1	R. Titus
4/7	Melrose	4	D. + I. Jewell	4/25	N. Dartmouth	3	M. Boucher
4/8, 27		2, 22		4/26	Williamsburg	1	R. Packard
4/8, 27		4, 34		Chipping			IV. I dekard
4/8, 26		2, 15		3/14	Mt.A	1	R. Stymeist#
4/10	IRWS	20	P. + F. Vale	4/7	W. Bridgewater	i	S. Arena#
4/10	Oxford	13	P. Meleski	4/7	Worcester	î	M. Lynch#
4/15	MNWS	20+	K. Haley	4/7	Amherst	î	H. Allen
4/15	Longmeadow	12	N Eaton	4/8	Winchester	2	M. Rines
4/17	Granville	10	S. Kellogg	4/9	Charlton	ĩ	P. Meleski
4/17	Boxford (C.P.)	15	P. + F. Vale	4/12	Mt.A.	10+	L. Ferraresso
4/20	W. Newbury	15	R. Heil	4/27	Stoughton	21	R. Titus
4/20	Wakefield	17+	F. Vale	Field Spa			11. 11143
4/26	Worcester	12	M. Lynch#	3/14	Oxford	3	P. Meleski
4/27	Amherst	10	R. Packard	3/14	Easton	1	S. Arena#
4/28	Ipswich	21	J. Berry	3/28	Bolton	3	C. Buelow
	' Palm Warbler	21	J. Delly	4/3	Westport	1	E. Salmela#
4/27	Arlington Res.	1	M. Rines#	4/5	Washington	1	E Neumuth
	-white Warbler		IVI. KIIICS#	4/5	P.I.	1	K. Disney
Hlack-and				413			as. Diancy
Black-and	Mattapoisett	2	M. Sylvia	4/8	Salisbury	1	S. Grinley

Field Spa	rrow (continued)			1/25	N Doutmouth	,	M.D
4/8	Woburn	2	M. Rines	4/25	N. Dartmouth	1	M. Boucher
4/9	Lexington	1		4/26	Stoughton	1	R. Titus
	18 Oxford		M. Rines	4/30	Saugus	2	D. + I. Jewell
4/19		1, 7		4/30	Bolton Flats	1	R. Lockwood
	Bedford	3	R. Lockwood	Lapland l		- 2	
4/20	Worc. (BMB)	6	J. Liller	4/6	Northampton	1	T. Gagnon
4/25	P.I.	3	P. + F. Vale	Snow Bu			
Vesper S		7 7 W		3/6	P'town (R.P.)	40+	J. Trimble#
3/13	Cumb. Farms		BNC (S. Arena)	3/11	Northampton	20	H. Allen
4/4	New Braintree	1	M. Lynch#	3/17	GMNWR	20	R. Hodson
4/16	Southwick	1	S. Kellogg	3/21	Northampton	1	H. Allen
4/25	S. Wellfleet	3	B. Nikula	4/5	P.I.	2	K. Disney
4/29	Ipswich	1	R. Heil	4/6	Northampton	150	T. Gagnon
Lark Span	rrow				asted Grosbeak	150	1. Gagnon
	/3 Salisbury	1M	. Halloran + v.o.	4/17	N. Tisbury	1 m	J. Powell
Savannah		****		4/18	Nantucket		K. Blackshaw
3/20	W. Bridgewater	6	M. Faherty	4/24	Falmouth	1 f	
4/3	Wakefield	1	P. + F. Vale	4/29	Berlin	7.7	B. Good
4/3	Westport	5	E. Salmela#			1 10	M. + F. Howes
4/4				Indigo Bu			
	Lincoln	.1	M. Rines	4/17	Edgartown	1 m	N. Ambrose
4/7	Easton	12	S. Arena#	Bobolink			
4/7	W. Bridgewater		S. Arena#	4/29	Wayland	3	N. Patterson
4/9	Bedford	16	M. Rines	Red-wing	ged Blackbird		
4/10	Southwick	3	S. Kellogg	3/18	Amesbury	900+	R. Heil
4/17	Rowley	20+	P. + F. Vale	3/18	Salisbury	1500+	R. Heil
4/19	DWWS	40	D. Furbish	4/25		10,000	T. Gagnon
4/20	Wayland	20+	N. Patterson		1eadowlark	10,000	1. Oagnon
	80 Bolton Flats		R. Lockwood	3/2	Orleans	2	M Echartuff
4/24	Newton		G. d'Entremont#	3/14	DWWS		M. Faherty#
4/28	Bedford	40					G. d'Entremont
		40	R. Lockwood	3/18	Salisbury	2	R. Heil
Ipswich S		DDG (3/20	Dartmouth	6	E. Nielsen#
3/27	Salisbury 1		W. Drummond)	3/24	Cheshire	1	R. Rancatti
4/10	P.I.	1	S. Moore#	3/28, 4	1/23 Newbypt	3, 2	R. Heil
Seaside S	parrow			3/31	E. Boston (B.I)	2	G. Wood#
3/14	Newbypt	1	R. Heil	3/31	Pepperell	3	E. Stromsted
Fox Spari	row			4/3	Worcester	1	M. Lynch#
3/2	Williamsburg	1	R. Packard	4/4	Essex	î	R. Heil
3/4	Mattapoisett	2	F. Smith	4/7	W. Bridgewater		S. Arena#
3/18	Salem	3	L. Healey	4/9	Rockport (H.P.)		R. Heil
3/18	Boston	4	B. Mayer	4/10		1	
3/19		4			W. Newbury		R. Heil
	Mattapoisett		M. LaBossiere	4/15	P.I.	2	D. + I. Jewell
3/20	Malden	4	P. + F. Vale	4/20	Ipswich	7 m	
3/21	Wayland	3	N. Patterson	4/28	Bedford	8	R. Lockwood
3/21	Brookline	3	R. Hamburger		eaded Blackbird		
3/25	ONWR	4	J. Hoye#	3/1-31	Nantucket	1 m	E. Andrews
3/31	MNWS	4	K. Haley	Rusty Bla	ckbird		
3/31	P.I.	4 MAS	S (N. Soulette#)	3/6	Royalston	2	F. Bouchard#
4/2	Hardwick	9	M. Lynch#	3/19	Amherst	1	H. Allen
4/4	Nahant	6	L. Pivacek	3/21	Newbypt		W. Drummond
4/10	Newton		d'Entremont#	3/21	Westport	3	M. Boucher
4/21	Northampton	2	T. Gagnon		/10 ONWR	2, 1	
		-	1. Gagnon	4/9			J. Hoye#
Swamp S 3/14	P.I.	2	p usi		W. Bridgewater	12	J. Carlisle
3/14			R. Heil	4/9	Concord	3	M. Rines
	Burlington	2	M. Rines	4/10	Oxford	12	P. Meleski
3/27	Oxford	1	P. Meleski	4/11	Phillipston	3	T. Pirro
3/30	Medford	2	M. Rines	4/11	Barre F.D.	3	M. Lynch#
4/9	GMNWR	12	R. Lockwood	4/17	DWWS	20	J. Young
4/30	Bolton Flats	15	R. Lockwood	4/18	Shirley	5	J. Young
White-thr	oated Sparrow			4/18	Westminster	2	T. Pirro
4/18	Hingham	25+	S. Carey	4/19	Topsfield	4	D. + S. Larson
4/23	Nantucket	75+	E. Ray#	4/21	Bolton Flats	2	R. Lockwood
4/27	Worcester	30	M. Lynch#	4/26	Wayland	12	N. Patterson
	wned Sparrow	50	III. Dynoin	Common		12	14. I attersor
3/1	Chilmark	3	T Divorc			2500 40	O E Tester
			T. Rivers		/30 Framingham		
3/13	Cumb. Farms		BNC (S. Arena)	3/18	Amesbury	1700+	R. Heil
4/1	Boston	1 in		3/20		00,000	J. Hogan#
4/4	Middleboro	3	J. Carlisle	3/26	Wakefield	200+	P. + F. Vale
4/5	Hingham	1	K. Vespaziani	4/24	W. Bridgewater	754	R. Titus
4/21	Bolton Flats	1	R. Lockwood	Brown-he	aded Cowbird	2004/201	
Dark-eye		16.		3/18	Salisbury	450	R. Heil
3/14	Mt.A.	88	R. Stymeist	3/21	Boxford (C.P.)	5	P. + F. Vale
4/2	Hardwick	168	M. Lynch#	3/27	Pepperell	30	E. Stromsted
4/25	Winchester	1	M. Rines	3121	1 opporen	30	E. Subilisted
7123	W IIICHOSCOI	1	IVI. PUHES				

Orchard O	riole			4/15-30	Bolton	2	R. Lockwood
4/27	Newbury	1	J. Soucy	4/18	Barre F.D.	10	M. Lynch#
4/28	Boston	1	J. Damian	4/18	Westport	3	M. Boucher
4/29	Stoughton	1	R. Titus	4/20	Easton	ĭ	R. Titus
Baltimore				4/23	Weston	î	M. Rines
3/1	Plymouth	1	R. Holmes	4/25	P.I.	3	P. + F. Vale
4/25	Newton	1 J.	Zanichkowsky	4/25	Westminster	3	T. Pirro
4/26	Oak Bluffs	1 m	V. Laux	4/30	Arlington	1 m	J. Young
4/30	Lexington	1	C. Floyd	Common I			J. Touris
Purple Fine				3/10	Ipswich	1	J. Berry
3/4	Windsor	6	W. Lafley	Pine Siskii			J. Delly
3/29	Lakeville	1	M. Boucher		5 Hawley	2, 4	R. Rancatti
3/thr	Wrentham	2	A. Bottomley	Evening G		-, .	rt. rtuneutu
4/2	Pepperell	1	M. Resch		5 Hawley	2,3	R. Rancatti
4/5	Byfield	2	R. Heil	3/23	Lenox	3	R. Laubach
4/6, 27	Ipswich	2, 2	J. Berry	3/23	Byfield	1 m	S. Haydock
4/6	Mendon	1 f	D Moffett	4/2	Shutesbury	2	W. Lafley
4/7	W. Bridgewater	2	S. Arena#	4/2	Savoy	2	R. Rancatti
4/9	Boxford	2 m	J. Berry	4/8-21	Washington	1-2	E Neumuth
4/1-30	E. Middleboro	2	K. Anderson	4/18	Barre F.D.	3 pr	
4/10	P.I.	1 m	I. Johnson#	4/19	Gardner	1 m	Т. Рігго
4/10, 18	Oxford	1	P. Meleski	4/30	Monroe	2	R. Rancatti
4/15	P.I.	5	D. + I. Jewell				

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

This publication prints monthly compilations of reports of birds seen in Massachusetts 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, 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 Marjorie W. Rines, Secretary, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773.

Addenda: Nov. and Dec. 1998, Jan. and Feb. 1999

A Canada Goose of the *minima* race ("Cackling Goose") was observed in West Newbury in December 1998. This race of Canada Goose is seen primarily on the west coast. An Empidonax flycatcher found in Carlisle in December was strongly suspected of being a Hammond's, based on plumage features such as a very small bill, a relatively dark gray face and throat, and relatively long primary extension. This latter feature, especially, is useful for differentiating Hammond's from the very similar Dusky Flycatcher.

"Cackling" Canada Goose			Razorbill		
12/26-27 W. Newbury	1	R. Heil	2/25 Rockport (A.P.)	82	R. Heil
Empidonax species			Atlantic Puffin		
12/27-28 Carlisle	1	D. Brownrigg#	2/5, 25 Rockport (A.P.)	2, 2	R. Heil
Dovekie					
2/8 P I	31	R Heil			

Corrigenda:

In the write-up for December 1998, it stated that "All but one of ... MacGillivray's Warbler reports for Massachusetts have occurred in November and December." In fact, there have been a total of four October records for this species to date. It was also stated that the previous late date for Yellow Warbler was November 19, while in fact the previous late date was December 1, in 1979.

LIST OF ABBREVIATIONS

ad	adult	H.	Harbor
alt	alternate	I.	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	iuvenile	P'town	Provincetown
loc	location	Ouab.	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
	plumage	Worc.	Worcester
pl			
pr S	pair		Barre Falls Dam, Barre, Rutland, Oakham
75.0	summer (1S = first summer)	BBC	Brookline Bird Club
thr	throughout	BMB	Broad Meadow Brook, Worcester
vid	videotaped	CCBC	Cape Cod Bird Club
V.O.	various observers	DFWS	Drumlin Farm Wildlife Sanctuary
W _,	winter (2W = second winter)	DWMA	Delaney Wildlife Management Area
w/	with	D.11.01.10	Stowe, Bolton, Harvard
yg	young	DWWS	Daniel Webster Wildlife Sanctuary
#	additional observers	EMHW	Eastern Massachusetts Hawk Watch
A.A.	Arnold Arboretum, Boston		Great Meadows National Wildlife Refuge
A.P.	Andrews Point, Rockport	HRWMA	High Ridge Wildlife Management Area,
A.Pd	Allens Pond, S. Dartmouth	10.000	Gardner-Westminster
Arl.	Arlington	IRWS	Ipswich River Wildlife Sanctuary
B.	Beach	LBS	Local Bird Survey
B.I.	Belle Isle, E. Boston	LCES	Lloyd Center for Environmental Studies
B.R.	Bass Rocks, Gloucester	MARC	Massachusetts Avian Records Committee
Cambr.	Cambridge	MAS	Massachusetts Audubon Society
C.B.	Crane Beach, Ipswich	MBO	Manomet Observatory
Corp. B.	Corporation Beach, Dennis	MBWMA	Martin Burns Wildlife Management Area,
C.P.	Crooked Pond, Boxford		Newbury
Cumb. Fa	rms Cumberland Farms,	MDFW	MA Division of Fisheries and Wildlife
	Middleboro-Halifax	MNWS	Marblehead Neck Wildlife Sanctuary
E.P.	Eastern Point, Gloucester	MSSF	Myles Standish State Forest
F.E.	First Encounter Beach,	NAC	Nine Acre Corner, Concord
	Eastham	NBC	Needham Bird Club
F.H.	Fort Hill, Eastham	NEHW	New England Hawk Watch
F.M.	Fowl Meadow, Milton	ONWR	Oxbow National Wildlife Refuge
F.P.	Fresh Pond, Cambridge	SRV	Sudbury River Valley
F.Pk	Franklin Park, Boston	SSBC	South Shore Bird Club
G40	Gate 40, Quabbin	TASL	Take A Second Look Harbor Census
G45	Gate 45, Quabbin	USFWS	US Fish and Wildlife Service
H.P.	Halibut Point, Rockport	WBWS	Wellfleet Bay Wildlife Sanctuary
5.00		WMWS	Wachusett Meadow Wildlife Sanctuary

^{*} 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.

ABOUT THE COVER: AMERICAN AVOCET

The American Avocet (Recurvirostra americana) is one of our most striking shorebirds. This large, long-legged wader is white below; the striking black-and-white pattern of the back and wings is especially impressive when the bird is in flight. During the breeding season, avocets have rusty-orange necks and heads, but American Avocets are the only avocets in the world that change colors with the seasons — the orange plumage is replaced by gray in winter. Bluish-gray legs give the avocet its folknames "bluestockings" or "blueshanks." The genus name, Recurvirostra, means "the bill is bent back on itself" and describes the sharply upturned bill of this beautiful shorebird. The sexes are similar in plumage, but females have shorter, more strongly curved beaks.

The American Avocet is largely a bird of western North America, breeding locally where suitable habitat occurs along the coast in California and inland as far north as Washington state; in Canada, avocets are widespread in Alberta and Saskatchewan. The breeding range extends south to New Mexico and Texas. Most breeding populations are migratory, although there are year-round populations in coastal California, on the Texas gulf coast, and in central Mexico. Migrants winter primarily in Mexico, and in the United States along the Gulf Coast and Florida and along the Atlantic Coast as far north as North Carolina. The breeding habitat is largely restricted to shallow alkaline wetlands like those associated with Great Salt Lake. In winter, American Avocets inhabit intertidal mudflats, brackish water impoundments, shallow lagoons, and saltmarshes. In Massachusetts, avocets are very rare spring migrants in late April or early May and rare but fairly regular fall visitors along the coast and on the islands.

American Avocets are monogamous and may nest with the same partner in successive seasons. They are semicolonial breeders wherever suitable breeding habitat occurs: temporally unpredictable wetlands, including potholes, salt ponds, evaporation ponds, impoundments, and alkaline salt-grass areas of the arid west. They sometimes nest together with Common and Forster's terns, and will nest on islands if they are available.

Avocet males perform pre-mating displays in which they preen and splash water on their breast feathers with increasing vigor. In post-mating displays the pair intertwine their long necks and run together through shallow water. During the egg-laying period, a newly arrived pair may be confronted by a resident pair in a bizarre "group-circle" display, in which the four birds face each other, bills lowered to the water; uttering trumpeting sounds, the four birds circle together in one direction or the other. Avocets have an aggressive display described as a "crouch-run," with neck retracted and feathers ruffled. An aggressive "upright" display involves stretching the neck vertically with wings folded or extended. Elaborate responses to predators include false incubation, in which a bird crouches as though incubating and then moves away and repeats the

performance. In the "tightrope display" a bird approaches the predator with its neck retracted and tips its extended wings from side to side. Many distraction displays are communal, including dive-bombing predators while uttering loud "yelping" notes. During diversionary displays, alarm calls have been described as "melodic" and include various *kleet*, *wheat*, and *click* notes, as well as softer *oo-oos*, *whicks*, and *whucks*.

Both parents select the nest site, often with ritualized scraping displays. The nest is a simple scrape lined with feathers, shells, and vegetation, which may be added throughout incubation. If water levels rise, the nest may be elevated by putting vegetation under the lining. The usual clutch is four buffy, brownish eggs, mottled with darker shades of brown. Avocets respond to high temperatures by panting and may wet their breast feathers to provide evaporative cooling. Incubation lasts about four weeks, brooding up to a week. The chicks are precocial, feed themselves, and during their first day are led by their parents to "nursery" areas, up to 1000 meters away and featuring shallow water with vegetation for cover. The young can fly after about four weeks.

American Avocets forage for invertebrates in open water up to twenty centimeters in depth. They swim well with their partially webbed feet, and forage while swimming in deeper water. They often forage in groups. They feed visually by pecking at the substrate, plunging their heads underwater, or snatching flying insects from the air. They feed tactilely by running forward opening and closing their bills in the water, by filtering prey items from the mud, or in their most impressive maneuver, "scything," sweeping their bills back and forth through the water. A group of a dozen or more avocets all scything is a sight to behold. They take mostly aquatic invertebrates such as fairy and brine shrimp, amphipods, and polychaete worms, but may take small fish, as well.

As ground-nesting birds that often breed in the open, avocets are harassed by a wide variety of mammalian predators, including foxes, badgers, and skunks, and avian nest predators such as gulls and ravens. Adults are often taken by Peregrine and Prairie falcons. Avocets were shot by market gunners during the nineteenth century, and extirpated as breeding birds from the Atlantic Coast. In this century, the major threats to this species have come from loss of habitat through competition for water with agricultural projects, and selenium contamination resulting from irrigation drainage. Effects of selenium include reduced hatching success and deformed embryos. Because of the nature of their breeding habitat, botulism can be a problem for avocets. However, despite these threats the population of this distinctive shorebird is currently stable; it is to be hoped that wetlands conservation and restoration will increase the numbers of this unusual bird and bring more avocets to Massachusetts for birders to enjoy.

- William E. Davis, Jr.

ABOUT THE COVER ARTIST

The work of noted wildlife artist Paul Donahue has appeared many times on the cover of *Bird Observer*. 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 off the Rio Napo in the Department of Loreto in northeastern Peru. This canopy walkway, the world's longest, is the creation of Paul Donahue and Teresa Wood. Paul can be reached at PO Box 554, Machias, Maine.

The avocet drawing on our cover first appeared in a catalog of Victor Emanuel Nature Tours, Inc. (VENT). Bird Observer is grateful for permission from VENT to use this drawing. Founded in 1975, VENT is one of the largest and oldest natural-history tour companies, visiting over a hundred United States and foreign destinations annually. VENT is committed to supporting local conservation organizations and using local drivers and guides at tour destinations. For more information, write VENT at PO Box 33008, Austin, TX 78764 or call (800) 328-VENT.

MASSBIRD.ORG: Massachusetts Birding On-Line

Bird Observer is the sponsor of a statewide birding web page, Massbird.Org (pronounced "Massbird Dot Org"). While the home page itself is primarily a series of links to existing web sites of interest to Massachusetts birders, Bird Observer has also made web space (and even web page design) available at no charge to all bird clubs in the state. Massbird.Org is also host to the Massachusetts Avian Records Committee home page. Please visit us at:

http://Massbird.Org/

If you are a bird club, and would like to post a web site at Massbird.Org, please e-mail us at Webmaster@Massbird.Org.



This month's photo quiz features an obvious shorebird as an identification puzzler. A quick assessment of the bird's uniformly slender, tapered, and finetipped bill by itself indicates that the shorebird is a sandpiper in the family Scolopacidae, rather than a plover in the family Charadriidae. Plover bills are stubby and blunt, often with a slight median constriction and a visibly bulbous tip.



Photograph by W.H. Drury

The mystery shorebird's bill also provides additional clues about its specific identity. Perhaps most important to notice about the pictured sandpiper's bill is the fact that it is almost perfectly straight, exhibiting little overall curvature and no droop at the tip. When viewed from the side (as in the photo), the length of the bill is barely equal to the depth of the sandpiper's head from front to back. This bill-to-head ratio eliminates as possibilities all of the longer-billed scolopacids, such as Whimbrel, the godwits, both yellowlegs, Willet, Stilt Sandpiper, the dowitchers, Common Snipe, and American Woodcock. The straight and finely tapered bill further removes Ruddy Turnstone (short, recurved bill), Red Knot and Spotted and Purple sandpipers (blunt-tipped bills, usually showing a yellow base in the case of the latter species), and Dunlin (decurved bill) as identification candidates. Although Red-necked and Wilson's phalaropes have straight, fine-tipped bills, they are also distinctively enough patterned that they should not be considered as possibilities.

With so many species potentially eliminated, what viable candidates remain? Well, there's Solitary Sandpiper, which has an eye-ring and spectacles (and also nests in trees!); Upland Sandpiper, which is finely streaked and has a longish neck and a light-colored bill; and Buff-breasted Sandpiper, which has a round-headed look and no streaks on its upper breast. And so we find our choices narrowed down to Sanderling, Pectoral Sandpiper, and the "peeps" (e.g., Semipalmated, Western, Least, White-rumped, and Baird's sandpipers).

Because it appears that the pictured sandpiper is on a nest, we can reasonably assume that the bird is in alternate (i.e., breeding) plumage. Considering plumage allows us to remove any remaining doubts about Spotted Sandpiper and Red Knot, since both species have unmistakable underparts in alternate plumage. Moreover, Sanderling would not be a good choice, since a nesting Sanderling would normally show a decidedly dark, hooded aspect resulting from its rusty-headed alternate plumage; also, Sanderlings have stout, blunt-tipped bills, not fine and attenuated like the mystery sandpiper's. While the bill on a Pectoral Sandpiper would normally be somewhat heavier than that of the mystery bird, this species varies somewhat in size and structure; fortunately, Pectorals always show a heavily and extensively streaked breast, with the dark breast sharply delineated from the white belly — quite unlike the pattern created by the fine streaking on the mystery bird, which is limited in extent.

This leaves only the five peep species as candidates. It is well known that Western Sandpipers possess broad-based, droopy-tipped bills, and when in alternate plumage, have extensive and well-defined arrow-shaped markings along their lower breast, sides, and flanks. White-rumped Sandpipers, which have a distinct curvature to their bill, also have a heavy necklace of breast streaks in breeding plumage, as well as prominent streaking running down the sides toward the flanks. The pictured bird's breast streaks appear to be fine and give little indication of extending onto the sides.

The possibilities are now reduced to Semipalmated, Least, and Baird's sandpiper. Although the bill on the pictured sandpiper is fine enough to belong to a Least Sandpiper, it is too long and uniformly straight and not dropped at the tip. Furthermore, Least Sandpipers in alternate plumage are particularly heavily streaked on the breast, which often gives them a rather uniform, dusky appearance across the upper breast. Distinguishing between the remaining possibilities is now quite straightforward.

Semipalmated Sandpipers typically have decidedly stout, tubular bills, often with at least a slight downward curvature, and always with a blunt tip — features not shown by the bird in the photograph. In addition to having the bill characteristics shown by the mystery sandpiper, Baird's Sandpipers are rather finely streaked across the breast, with the streaks hardly extending onto the sides at all. A final reality check is to look carefully at the pictured bird's folded wings. The very long primaries so typical of a Baird's Sandpiper (Calidris bairdii) can be seen crisscrossed over the incubating bird's tail.

The adult Baird's Sandpiper in the picture was photographed at its nest on Bylot Island, Northwest Territories, Canada, by Dr. William H. Drury.

Juveniles are the age class of Baird's Sandpipers noted most frequently in Massachusetts, where this species is an uncommon and local late summer and early fall migrant along the coast, and inland along lake shores wherever suitable habitat conditions exist. The species is practically unknown as a spring migrant along the Atlantic Coast.



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Can you identify this bird?

Identification will be discussed in next issue's AT A GLANCE.



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