Bird Observer

VOLUME 29, NUMBER 6

DECEMBER 2001



Western Massachusetts

HOT BIRDS



THE bird of September 2001 had to be this Couch's Kingbird, which was found by Rick Heil on September 7 on Plum Island. The bird was a one-day wonder, but was seen by several observers and was heard vocalizing. If accepted by the Massachusetts Avian Records Committee, this will be a first state record for this species. Denny Abbott shot some video of the bird, from which this still was extracted.

Rick was on a roll on the 7th as he also located a **Northern Wheatear** on Plum Island. This bird was a bit more cooperative, and stayed around for several days. David Larson managed this photograph through his telescope on the 9th.



This **Sandhill Crane** was very cooperative at Great Meadows NWR in Concord from late August to early September. David Larson took this photograph through his telescope on September 2.

A Lark Sparrow was also a one-day wonder at the game farm in East Sandwich. Ellie Winslow took this image, also on September 2.



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Editor's note: In the December 1999 issue of Bird Observer, which focused on the birds of Berkshire County, René Laubach, director of the Mass Audubon's Berkshire Wildlife Sanctuaries, reminded readers that "yes, there is (avian) life west of Worcester!" We are reminded of this as we once again welcome René as guest editor and especially thank our western neighbors who contributed their insights and observations to this special issue.

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Bird Observer

A bimonthly journal — to enhance understanding, observation, and enjoyment of birds VOL. 29, NO. 6 DECEMBER 2001

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SUBSCRIPTIONS: \$21 for 6 issues, \$40 for two years for U.S. addresses. Inquire about foreign subscriptions. Single copies \$4.00, see http://massbird.org/birdobserver/subform.htm.

CHANGES OF ADDRESS and subscription inquiries should be sent to: Bird Observer Subscriptions, P.O. Box 236, Arlington, MA 02476-0003, or E-mail to Carolyn Marsh at <iandcmarsh@mediaone.net>.

ADVERTISING: full page, \$100; half page, \$55; quarter page, \$35. Send camera-ready copy to Bird Observer Advertising, P.O. Box 236, Arlington, MA 02476-0003.

MATERIAL FOR PUBLICATION: BIRD OBSERVER welcomes submissions of original articles, photographs, art work, field notes, and field studies. Please send submissions to the Editor: Brooke Stevens, 5 Hemlock Road, Cambridge, MA 02138; E-mail: <Brookestev@aol.com>. If possible, please include a computer disk (Microsoft Word, txt, or rtf formats), or e-mail to the Editor as an attached file. Include author's or artist's name, address, and telephone number and information from which a brief biography can be prepared.

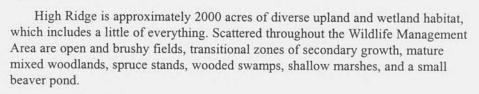
POSTMASTER: Send address changes to BIRD OBSERVER, P.O. Box 236, Arlington, MA 02476-0003. PERIODICALS CLASS POSTAGE PAID AT BOSTON, MA.

BIRD OBSERVER (USPS 369-850) is published bimonthly, COPYRIGHT © 2001 by Bird Observer of Eastern Massachusetts, Inc., 462 Trapelo Road, Belmont, MA 02478, a nonprofit, tax-exempt corporation under section 501 (c)(3) of the Internal Revenue Code. Gifts to Bird Observer will be greatly appreciated and are tax deductible. ISSN: 0893-463

Birding High Ridge Wildlife Management Area Gardner/Westminster/Ashburnham, Massachusetts

Tom Pirro

Habitat



Birds of Special Interest

American Bittern, Wood Duck, Hooded Merganser, Sora, Virginia Rail, Barred Owl, Alder and Willow flycatchers, Winter Wren, Eastern Bluebird, Tree Swallow, Black-throated Blue Warbler, Chestnut-sided Warbler, both waterthrushes, Canada Warbler, Bobolink, Evening Grosbeak, and most of the winter finches (during flight years)

Directions

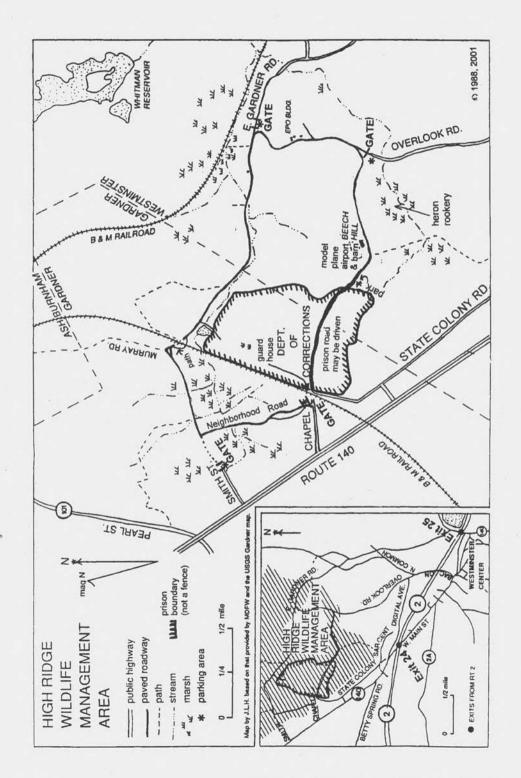
High Ridge Wildlife Management Area is located in northern Worcester County in the towns of Ashburnham, Gardner, and Westminster, approximately 25 miles north-northwest of the city of Worcester. There are five possible entrances to this wildlife management area. All directions are from Route 2, which runs east-west through northern Massachusetts.

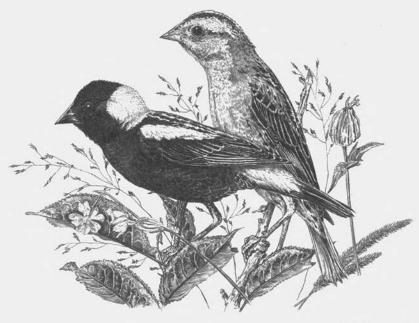
Overlook Road Entrance

From Route 2 take Exit 25 (Routes 2A and 140), and follow Route 2A west for 0.8 mile to the first traffic light in Westminster center. Turn right onto Bacon Street, follow it 0.7 mile, and then take a left onto Overlook Road (currently unmarked). Follow Overlook about one mile until it ends at an orange gate. Park here regardless of whether the gate is open, being careful *not* to block the gate or the school bus turnaround.

While at the gate, look around the stream that crosses the road for Louisiana Waterthrush, Winter Wren, and Yellow-bellied Sapsucker. All regularly occur during spring, and all have probably nested in the general area. Several years ago a territorial Kentucky Warbler spent nearly two months here during late spring and early summer.

After walking through the gate, you will have a choice of going left or continuing straight ahead. The left route will bring you through some spruce trees on the right.





ANDREW MAGEE

Look here in winter for Golden-crowned Kinglets, crossbills, Pine Grosbeaks, and Red-breasted Nuthatches. During spring and fall migration, careful scrutiny may turn up some of the spruce-loving warblers such as Cape May, Bay-breasted, or Tennessee. This road eventually leads to a series of open fields in which Savannah Sparrows, Bobolinks, and the occasional meadowlark (during migration) can be found. Another stand of spruce trees on the left (south) of the road is worth careful inspection during any season. Sumac bordering the field will often attract Evening Grosbeaks during the colder months. Occasionally these handsome finches can be found here during spring and even summer in small numbers, although nesting has not been established.

At the time of this writing, there are two abandoned houses and a barn along this section of road, about half a mile in from the Overlook Road entrance. The barn is used by a local model airplane club. The shrubbery and thickets around these houses are worth inspection for Chipping Sparrows, catbirds, and possibly cuckoos. Do not venture inside these buildings.

The wide-open space around the buildings provides a southern view from which to scan for hawks, vultures, or even a passing eagle during migration. American Kestrels have nested in the dead trees near the barn, and recently kestrel nest boxes have been attached to the telephone poles along this section of road.

A little past the barn, there is an old cart path on the left leading south to a lower field down in the hollow. To the west of the lower field is a small pond surrounded with cattails. Swamp Sparrows can usually be found along the edge; on occasion the

piercing call of a Green Heron will be heard. To the east is a wooded swamp containing a Great Blue Heron colony (15 to 20 nests), as well as Black, Mallard, and Wood ducks. Check the colony in early spring, and look for a Great Horned Owl in one of the heron nests. It may be difficult to get a good view of this area because of the dense vegetation surrounding the swamp. If you return to the main road via the cart path and walk left (west) past the barn, you will find similar habitat, a few more abandoned buildings, and eventually the prison entrance. At some point you will need to return to your car.

Choosing to go straight at the Overlook Road gate will lead you past an open field to the right and then through a dried-up wooded streambed. The tree trunks here may reveal sapsucker drillings, since Yellow-bellied Sapsuckers nest in this area. The road will go uphill through two more fields. Watch for Eastern Bluebirds, because this is perhaps the best spot in High Ridge to find these handsome thrushes. As you near a series of buildings, used as Massachusetts Fisheries and Wildlife's hunter safety headquarters, notice the berry bushes and crab apple trees. During the late fall and winter, Cedar Waxwings and American Robins will congregate here to feed, and both Pine and Evening grosbeaks are possible during a winter finch year.

This road continues past the buildings into a wooded section that leads downhill to the East Gardner Road entrance and the Lower Marsh (see below).

East Gardner Road Entrance

From Route 2 take Exit 25 (Routes 2A and 140), and follow Route 2A west for 0.8 mile to first traffic light in Westminster center. Turn right onto Bacon Street, and follow it for 1.7 miles (a mile past Overlook Road), then take a left onto East Gardner Road. (Don't worry about the name changes; if you stay on the main road, the transition from Bacon to North Common to Oakmont is seamless.) Follow East Gardner Road about one mile until it ends at an orange gate. Park here (even if the gate is open), being careful not to block the gate. The East Gardner Road entrance is a good choice if time is limited and marsh habitat is the focus. Once you walk to the bottom of the hill, going straight will lead you past a brushy field. Just past this field is a dirt path on the right that leads to the marsh. Many of the species mentioned from the Smith Street marsh (see below) are present here, such as American Bittern, Virginia Rail, Sora, American Woodcock, Willow and Alder flycatchers, and Swamp Sparrow. Beaver activity has increased in recent years, which has flooded sections of this path, Back on East Gardner Road the mixed woodlands to the left contain Hermit Thrushes, Veerys, Brown Creepers, and Winter Wrens. To the right is secondary growth between the road and the marsh; continuing along the road eventually leads you to more marsh in another few hundred yards. This part of East Gardner Road leads to the section covered under the Smith Street entrance.

Smith Street Entrance

Take Route 2 to Exit 24 (Route 140 Winchendon), and follow Route 140 north for 2.3 miles. Smith Street is to the right. It is approximately one-half mile south of the junction of Routes 140 and 101. Follow Smith Street a few hundred yards to the

orange gate, which leads into the Wildlife Management Area. The parking area here is dirt and grass.

Before walking through the gate, take some time to scan and listen around the parking area for migrants during spring and fall. Past the orange gate look for Common Yellowthroats, House Wrens, and Gray Catbirds in the thickets, and Baltimore Orioles, Scarlet Tanagers, and Indigo Buntings higher up along the woodland edges to the left and right. In late fall and winter the sumac on either side often harbors Evening Grosbeaks.

As you walk down Smith Street beyond the gate, scan the field to the north (left) for American Pipits and Horned Larks during fall and Snow Buntings in winter. About 100 yards past the gate you will come to woodlands on either side. Look and listen here for Brown Creepers, Chestnut-sided Warblers, and Ovenbirds. Take a right onto Neighborhood Road. To the right (west) are mixed conifers and some hardwoods that can be an excellent spot for mixed flocks of migrant vireos, warblers, thrushes, and kinglets. Particularly on cold mornings, look just as the early sunlight warms the trees. Tree Swallows, House Wrens, and an occasional Eastern Bluebird will nest in the boxes along the road.

Farther down Neighborhood Road you will come to a wetland on both sides of the road. During the wet season it may be flooded here from beaver activity. If it has been a particularly wet spring, midcalf boots will be helpful here if you want to pass. To the right (west) is a wooded swamp filled with snags. To the left (east) is a marsh with shrubby vegetation. During the breeding season look and listen for Green



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Herons, Wood Ducks, Hooded Mergansers, Northern Waterthrushes, and Purple Finches. During migration be on the lookout for migrants such as Olive-sided Flycatcher, Swainson's Thrush, Ruby- and Golden-crowned kinglets, Philadelphia Vireo, Northern Parula, Lincoln's Sparrow, and Rusty Blackbird. A Clay-colored



Sparrow was seen in an adjacent field during the fall of 1996. If it has been a dry summer, be alert for shorebirds such as Spotted, Solitary, and Least sandpipers.

Continuing south on Neighborhood Road will lead to the Chapel Street entrance, so follow Neighborhood Road back to Smith Street, where a right turn (so that you are facing east) leads you under telephone wires. A Kentucky Warbler made a brief appearance here in May 1997. In another hundred yards you will come to the top of

an incline. Look for an unmarked break in the brush to your right. This dead-end path leads to a brushy opening that overlooks more of the marsh you just saw from Neighborhood Road. Along this marsh both Willow and Alder flycatchers may breed, with Alder being the more common of the two. Thoroughly scan the marsh for American Bitterns, Wood Ducks, and Hooded Mergansers during spring and summer. Because the marsh attracts numerous swallows and songbirds, this is a good vantage point to look for raptors, particularly during migration. Species regularly seen include Sharp-shinned and Cooper's hawks, Merlin, and occasionally a Northern Harrier. Scan the snags and treetops during late fall and winter for Northern Shrikes. A Northern Goshawk is possible any time of year throughout High Ridge. An evening visit in early spring should produce displaying American Woodcocks, with Barred and Great Horned owls being reasonably possible.

Returning to Smith Street and continuing downhill, you will come to the edge of the marsh. This area offers a good opportunity to find Virginia Rails and Soras. Both are probable nesters in this marsh. This low section of road could be flooded during spring, depending on recent rainfall and beaver activity, so high boots will be beneficial for crossing here. Continuing up the hill leads to an open field to the right that can have American Pipits, Horned Larks, or Snow Buntings. The road follows the edge of the field until it comes to a dead end (there was once a bridge to cross the railroad tracks). Look for a narrow path to the right (there is a steeper and more precarious path to the left) that will lead to the RR tracks and on across to the paved road to the southeast of the tracks. This entire area along the tracks can be very good for migrant flycatchers, vireos, and warblers. It is an active track, so be cautious of approaching trains.

Once back on the paved road across the RR tracks (now East Gardner Road), look for a field to the left that usually holds a few pairs of Bobolinks. Ruby-throated Hummingbirds can also be seen along this stretch of road. To the right you will notice a small pond which may have Green Herons, Great Blue Herons, and Wood Ducks.

Shortly you will come to an intersection where you can take a right, which takes you closer to the pond. Beyond the pond is a stand of hemlock trees which are good for. migrant warblers such as Cape May, Bay-breasted, and Tennessee during migration, and Yellow-rumped, Pine, and Black-throated Green during breeding season. The border of the North Worcester County Correctional Facility is in this general area and is well marked with white signs. Do *not* proceed past these signs. On the way back to East Gardner Road, note a path to the right which leads to a cemetery. Pine Warblers can be seen and heard in the white pine stand near the entrance of the cemetery. Again, do *not* go beyond the signs marking the edge of the prison grounds. There is a target range on the prison grounds further up the hill.

Upon returning to East Gardner Road, notice the fast-flowing stream exiting the pond. Listen and look for Louisiana Waterthrushes along this stream. The stream and the road run parallel to each other for nearly a mile to the southeast. The road continues downhill past a series of fields on the left. It is worth walking the perimeter of these fields while searching for songbirds such as Rose-breasted Grosbeak, Scarlet Tanager, Blue-winged Warbler, Yellow Warbler, Chestnut-sided Warbler, and Bluegray Gnatcatcher. The nest boxes along the road and fields are mostly inhabited by Tree Swallows and House Wrens, but look for a pair of Eastern Bluebirds as well. East Gardner Road continues downhill along the stream through wooded habitat and leads to another marsh that is covered in the East Gardner section.

Chapel Street Entrance

Take Route 2 to Exit 24 (Route 140 Winchendon), and follow Route 140 north for 1.7 miles to Chapel Street on the right. Follow Chapel a few hundred yards to the end and turn left. You may park on the roadside near but not in front of the orange gate, which is actually on Neighborhood Road.

As you walk north along Neighborhood Road you will see a mixture of hardwoods and conifers leading to the old sewer beds of the former Gardner State Hospital. Along this stretch of road there are good possibilities for finding nesting Broad-winged Hawks, Pileated Woodpeckers, Veerys, and Black-throated Blue and Black-throated Green warblers. The sewer beds are now a marsh thanks to recent beaver activity; they are covered in the Smith Street portion of this article.

Prison Entrance

Take Route 2 to Exit 24 (Route. 140 Winchendon), follow Route 140 north for 1.3 miles, and take a right on an unmarked street. Follow this unnamed road for approximately 150 yards, and take a left on Old State Colony Road. This road will lead to a guardhouse to your left where the road makes a sharp right turn into the prison area; you may proceed past unless asked to stop. Should you be asked to stop, simply tell the guard your intentions, and you will be waved through, since the road is a public right-of-way. Proceed by passing the prison to your left (north) and administrative buildings to your right (south), and look for the signs for the Wildlife Management Area to the east of the prison grounds. You can park along the roadside or in driveways of the vacant buildings (three at the time of this writing). Birding near

the buildings is permitted, but do *not* enter any buildings throughout High Ridge WMA. You may walk past this point, but unauthorized vehicles may not proceed any farther without special arrangement.

Birding the secondary growth around the vacant buildings can be very productive for both migrant and breeding songbirds. Careful inspection of the spruce trees could turn up Red-breasted Nuthatches and Tennessee, Cape May, Magnolia, and Baybreasted warblers during spring/fall migration, or winter finches, such as crossbills, grosbeaks, or Pine Siskins. Following the paved road, which is plowed during the winter months, will lead to open fields and the model airplane airport and barn previously mentioned in the Overlook section. This area would make an excellent spring or fall hawkwatch site. Continuing along this road will lead to the Overlook Road entrance

Although the major roads through the Wildlife Management Area have been covered in this article, many side trails and dirt roads exist and are worthy of coverage. Each of the entrances to High Ridge is worth a field trip in itself, in duration from a half-hour to several hours.

Hunting Seasons

High Ridge Wildlife Management Area is an actively hunted area, primarily during autumn from mid-October to the second week in December. The spring Wild Turkey season does attract a few sportsmen but on a much smaller scale than the fall. There is *no* hunting in Massachusetts on *Sunday*.

Reference:

Quinlan, C.B. 1988. Summer Birds of High Ridge. Bird Observer 16: 64-72.

Tom Pirro of Gardner has birded the greater Gardner area since 1988; his Gardner town list now stands at 208 species. He is a member of the editorial committee of The Chickadee, an annual journal of Worcester County ornithology. Besides birding, Tom enjoys coaching youth sports and holds a B.S. in Biology from UMass Amherst. He has a twelve-year-old son, Ian.

Editor's note: Tom Pirro's article and Andrew Magee's illustrations are part of an upcoming bird-finding guide to western Massachusetts that will be published within the next year. This comprehensive guide will cover birding sites from western Worcester County to the New York state line. Thirty-five illustrations and more than sixty-five maps will accompany the text. It will also discuss conservation and habitat protection issues in the western part of the state. To be notified when the guide becomes available, please send an e-mail to books@umext.umass.edu. If you do not have e-mail, call 877-UMASSXT (toll-free in Massachusetts) or 413-545-2717 and select option 3. Andrew Magee has been a field observer, drawing and sketching the natural world, since childhood. He also illustrated A Guide to Amphibians and Reptiles by Thomas F. Tyning. He lives in Conway, Massachusetts.

Of Mascots and Migrants: Three Decades of Keeping Tabs on the Birds of Berkshire Community College

Richard L. Ferren

Berkshire Community College (BCC) was the first community college in the Massachusetts system and began holding classes in 1960. It was initially housed in an older building in downtown Pittsfield and moved to its beautiful campus on outer West Street (about three miles from Pittsfield's center) in 1972. I came to BCC to teach biological sciences in 1971, just in time to spend a semester on the old campus and move to the new one. When I arrived as a new professor, I discovered that founding President Thomas E. O'Connell was not only a birder, he had begun keeping records of the birds at the new campus site as early as 1966, before architects had examined it. Distracted by the many duties of the President's office, Tom soon bequeathed to me the job of keeping up the bird records, which I have continued ever since. These initially amounted to scribbled notes on species pages in a big notebook, but the entire mass of data was eventually put into a Macintosh computer database and can now be sorted by species, year, month, day, location, and so on. There are now about 6,000 entries of birds and other fauna from the campus and surrounding areas.

Bucolic Setting

The 200-acre campus is an elongated rectangle oriented north-south that is bisected by West Street. It was once the old Pittsfield "poor farm." Little more than a few planted spruces, one apple tree, and some signs of the plow remained of the old farm after the razing of the remains of the farm buildings and the construction of new campus buildings. With time and the growth of trees, the college buildings and parking lots have come to fit into their rural landscape reasonably well, and much of the rural character of the original poor farm remains to grace the campus today.

While the college is within the city limits, it is close to the western edge of town where farmland and forests are still extensive. Miraculously, the campus's immediate surroundings have remained almost completely undeveloped. Campus elevations range from 1000-1200 feet, and students come and go in the afternoon shadows of the Taconic range of hills (sometimes called Massachusetts' backbone) that stretch north-south and rise above 1,800 feet only about two miles to the west. Hills and mountains not only dominate the views to the west, but at 2,126 feet Lenox Mountain stands out several miles to the south; 3,491-foot Mount Greylock and neighboring Saddleball are distantly visible to the north, and the 1800-2100-foot hills of the Berkshire Plateau (e.g., October Mountain and the Hilltowns) provide a rim for the valley to the east. Anyone familiar with the campuses of Massachusetts institutions of higher learning would probably agree that the setting of the BCC campus is among the most picturesque in the state.

The northern segment of the campus grounds is dominated by maturing white pine forest and mixed woodlands, with a large field bordering other farmland along its western edge. The majority of the academic buildings are in the southern part of the northern half of the campus, but close to West Street, leaving much of the northern half undeveloped. The southern segment of the campus, containing the gymnasium, tennis courts, and several athletic fields, has another dense white pine forest and an approximately ten-acre marsh and wooded swamp that has varied in size depending on the activities of a colony of beavers that occupied the site in the early 1980s. A trout stream (May Brook) enters the beaver flowage from the northeast and also feeds a small artificial pond. Several certified vernal pools, complete with frog and salamander migrations, are also found on the south side.

Open Country Nesters Past and Present

One of the most noticeable species on campus in 1971 was the Killdeer, which for two decades nested on peastones on the flat roofs of the academic buildings. Later these buildings were retarred and roofed with crushed stone of larger sizes, making nesting more difficult. This change was actually positive because the campus was probably a "sink" for breeding Killdeer. The young (formerly seen frequently on the roofs) were vulnerable to crow predation and were probably unable to negotiate the three-foot rims along the edges of the roofs in order to find food on the ground. Since the early 1990s Killdeer have nested near the parking lots or around the athletic fields using bare patches of ground.

Another species that has been continuously present for thirty years is the American Kestrel, which is attracted by the open character of the campus surroundings. We set out two boxes on utility poles, and these have been occupied continuously, and on occasion there have been aerial duels between competing males directly over the buildings. While kestrels seem to have faded away in other parts of Berkshire County, their return to the campus in March is an annual ritual, and the campus sports teams are called the Fighting Falcons.

When the campus was young and when the adjoining farm to the west was more actively hayed and grazed, a variety of grassland species nested regularly. As many as eight territorial male Bobolinks remained into June in the north field and often gave



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their bubbling flight song directly over the buildings. Eastern Meadowlarks nested for many years and Savannah Sparrows nested at least twice. With only sporadic mowing of the north field and similar random mowing of neighboring fields, all of these species have become only occasional visitors and probably do not breed. Before campus tree plantings had grown significantly, there were occasional sightings of American Pipit, Snow Bunting, Horned Lark, and even Lapland Longspur on the campus grounds. A

small colony of Cliff Swallows, on the other hand, arrived in 1975 and began to build nests under the eaves of the roofs of various campus buildings. Sometimes absent but more often present, they appear in late April or early May and depart in August. Boxes erected in open areas have always attracted Tree Swallows, but a greater number of Eastern Bluebirds have bred since the early 1990s.

Denizens of Successional Haunts

While grassland and open-country birds are now at their lowest ebb since records began in 1971, certain birds of brush and woodland have increased. Prairie and Nashville warblers breed on the farm to the west, and Field Sparrows and Brown Thrashers (otherwise scarce in the general area) are encountered occasionally. On the south side, the Blue-winged Warbler is now present in brushy areas where the Golden-winged Warbler was present fairly regularly in the 1980s, according to the late Bob Goodrich. American Woodcock arrive every year to display from patches of an old field near the Beaver swamp on the south side, and Swamp Sparrows are regular breeders. Common Snipe have been territorial in the area, based on a nearby off-campus cattail marsh, and for a time they regularly conducted aerial displays high over the campus.

Forest and Edge Dwellers

Woodland breeding birds are as diverse in the general area of the campus as anywhere in Massachusetts. Blackburnian and Black-throated Green warblers, Hermit Thrushes and Veerys, Yellow-rumped Warblers, Dark-eyed Juncos, White-throated

Sparrows, Scarlet Tanagers, Rose-breasted Grosbeaks, Indigo Buntings, Wild Turkeys, Eastern Towhees, and numerous others nest in wooded or brushy areas of the campus. As many as three territorial male Ruffed Grouse have been heard displaying simultaneously in the north end woods, and both Great Horned Owl and Barred Owl maintain a presence in the pines within the same forest. Signs of the presence of Pileated Woodpeckers are found on larger trees throughout campus, and individuals are commonly seen flying past classroom windows. Yellow-bellied Sapsuckers nest in the vicinity of the campus.



Not counting the kestrels, five other species of hawks nest in the immediate area. Red-shoulders nested just north of campus in the 1970s, and Cooper's Hawks (rare in the 1970s but common after about 1985) have been regularly observed in territorial display over campus in recent years. Redtails nest every mile or so along the Taconics to the west. A pair of Northern Goshawks nested in a yellow birch in the north end's pine forest in 1999.

Changing Bird Populations

The presence of many Canadian-zone breeding birds and the lack of most saltwater birds are among the contrasts that await birders from eastern Massachusetts. There have been numerous changes in bird populations between 1971 and 2001 as well. Double-crested Cormorants have only been seen three times over campus, all between April 19-21 in various years. Northern Cardinals were common on campus in summer before 1971, but almost none were noted in fall and winter until the 1990s. Tufted Titmice remained unrecorded until 1992, but have lately become regular.

There were only two House Finch sightings during the 1970s (starting in 1976) and only two in the 1980s. All other sightings have been in the 1990s. The House Finch suddenly became common in the early 1990s, with flocks of up to sixty seen. Then, despite a more intensive bird-feeding effort, counts after the mid-1990s have been significantly smaller, probably because of their well-known eye disease. Great Blue Herons have vastly increased at all seasons coincident with the establishment of

several breeding colonies nearby. Turkey Vultures were only occasional in the 1970s, but had become regular in spring and early fall by the mid-1990s. Common Ravens were unknown in Berkshire County until 1973, and were first seen at BCC in 1984 and 1986. There were many more sightings after 1992, and the species is now seen regularly.

Canada Geese were mainly represented by high-flying Canadian breeders in the 1970s, with only occasional records of local birds. Locals vastly increased in the 1980s and are now a constant presence on and over the campus. Wild Turkey sightings have all been since 1990. Flybys of Ring-billed and Great Black-backed gulls have sharply increased in the last thirty years, while Herring Gulls have marginally declined. Mourning Doves were scarce in the early 1970s, but are now vastly more numerous. Rock Doves took nearly

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ten years to get used to the campus buildings, but they gradually built up to a resident flock of about 30-40 that roosts on the theater most of the time. Eastern Bluebirds were scarce in the 1970s and rarely bred despite numerous nesting boxes put out by students. They gradually increased through the 1980s and now breed regularly, and a flock began wintering on campus in 2000-2001. Evening Grosbeaks were often seen flying over campus or coming to our feeders in the period 1972-1994, but only one has been seen since 1994.

Hawks, Migrants, and Out-of-Season Sightings

Fall hawk migration is one of the more interesting spectacles to be seen from the campus, and passage of Broad-winged Hawks in mid-September is the most

spectacular. Numerous Ospreys, Northern Harriers, Sharpshins, Cooper's, kestrels, and Redtails migrate in season through the nearby valley and along the Taconic ridges to the west. So far, the largest seasonal count of Broadwings has not exceeded 240 birds, but the future may very well yield counts of more than 2,000 birds as have other Berkshire hawkwatching efforts. A surprising count of 53 Redtails (including several kettles of 10+) was made from an office window after 4:30 p.m. on October 27, 1999. Some coastal hawks (e.g., falcons) are scarce here in fall, and there are only six records of Merlin and one of Peregrine Falcon (two together on September 13, 2000). Some of the rarer species that have occurred over the years include Great Egret (one on September 10, 1993), Rough-legged Hawk (January 17, 1975), Snowy Owl (January 22, 1992), Purple Martin (four on September 13, 1988), and Bohemian Waxwing (seven on February 23, 1996).

Other rarities include Golden Eagle (four birds between October 16-November 16 in various years), Bald Eagle (seven records), and Snow Goose (occasional sightings including 1,000 overhead on April 6, 1979). Tough categories to record include waterbirds and shorebirds, but American Bittern, both teals, Northern Pintail, Greater Scaup, Hooded and Common mergansers, Greater Yellowlegs, and Semipalmated Sandpiper have all been recorded on or over the campus. Other rarities include Screech Owl, Northern Saw-whet Owl, Black-billed Cuckoo, and Whip-poor-will.

The first two Fish Crows ever seen in Berkshire County appeared over the college on May 1, 1973, and anticipated the off-campus buildup of a regular breeding population in the Pittsfield-Lenox area. A second Yellow-throated Warbler for the county was picked up dead under the windows in the 1980s. Northern Shrikes seem to have an affinity for BCC's open grounds and have been recorded quite frequently.

A few common species have been recorded on unusual dates. An early Palm Warbler appeared on April 1, 1998, and a Chimney Swift on April 12, 1978. An American Redstart was noted picking insects from around the window frames on December 3, 1979. In the exceptionally



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mild winter of 1997-1998, an Eastern Phoebe was noted near the parking lots in late December. Presumably, the same bird was rediscovered in early February and was then seen regularly at least to March 1, thereby probably surviving the winter at this inland location. After a long and often blustery winter, the spring return of Killdeer and blackbirds marks the earliest spring migrants. Killdeer have appeared February 10 and 15, and Red-winged Blackbird on February 8, 11, and 12.

An Uncommon View

My office window overlooks the valley south of Pittsfield, and Lenox Mountain occupies the center of the view. Avifaunal phenomena that have distracted my attention from official work include migrating geese, hawks, and jays, roosting flights of blackbirds and robins, evening exodus of waterbirds from nearby Onota Lake, and feeding flights of spring ducks into ponds south of the campus. A major feature of the late winter is the return from the South (or the redistribution of locally wintering) American Robins. Robins are almost absent during December, but begin to appear as small flocks during January from parts unknown and increase in February. Large numbers are sometimes present by mid-February, well in advance of any returning blackbirds or Killdeer, but whether these are true southern migrants or redistributing New England coastal winterers is a mystery. They seem to change roosting locations annually as evidenced by evening flight directions, but they have sometimes formed huge roosts in February in local pine forests. Such flights were largest at BCC in February 1998 (during El Niño and one of the mildest winters on record). The largest count was 6,000 robins heading south to roost in under an hour on February 18, 1998.

Summary

In any region the most productive bird locations over time are those most carefully monitored. The thirty-year database of BCC bird records amassed by birding faculty, staff, and students now serves as a basis for understanding the future bird life of the campus and surrounding area. Students and visiting birders are encouraged to examine BCC's natural habitats and contribute notes of flora and fauna seen on or near the campus. Numerous courses in the natural sciences make use of BCC's exceptional outdoor resources. Students in the Environmental Sciences Program can study ecology and conservation amid natural environments that range from wetlands and grasslands through successional stages to woodland. They attend field trips and conduct experiments in a natural laboratory where they can learn about ecological connections and gain environmental ethics in very direct ways. An ornithology course is offered that involves field trips to area habitats and includes a student-created collection of bird specimens that participants can work with.

On the BCC campus, black bears, white-tailed deer, coyotes, foxes, beavers, trout, and innumerable birds all roam free. So does the human spirit. In 1970 one of my early mentors, Jim Baird, said to me, when I was looking around for a job: "You ought to get a job teaching in one of the new community colleges; it would be a great life." He was right, and as a teacher needing a college with some semblance of a natural environment to teach young people about the natural world, I couldn't have been luckier.

Richard L. Ferren, a native Rhode Islander, is a full professor of Life Sciences at Berkshire Community College in Pittsfield, Massachusetts. He has been on the BCC faculty since 1971. He has also been a member of the Lenox Conservation Commission for the past twenty-five years. Dick studied ornithology under Dr. George Lowery and Dr. Bob Newman at Louisiana State University. He is currently writing a book about the bird life of Rhode Island.

The Adventures of an Eagle Photographer

Ben Garver

I remember it well. I tore my leather jacket while suspended from an ultralight airplane with my bullwhip. It was the first day that I began photographing birds as part of my adventures as a news photographer for the *Berkshire Eagle*. Smoke and oil were belching from the primitive engine when the wings caught fire. Danger flashed in my opaline green eyes as I snapped the shutter; I had no idea venomous Bluebeaked Warblers were so deadly. . . .

Actually, over the past year birds have changed how I see the world. As a news photographer, one learns to look for photographic opportunity. As a new birdwatcher, I began finding more than my fair share of bird behavior and form to document. As a guide to other photographers who like nature, it is fair to say that bird watching is an adventure, but not like the movies.

The tools are simple: a camera, a car, a Labrador retriever, and my eyes. The camera is with me in the car, while watching my feeder, and when walking the dog. Most of the bird photography I do, either for the paper or myself, is very simple and has to do with taking advantage of opportunity, quiet movement, the blind created by my car, or my ability to stay very still, almost catatonic, while waiting for a closeup of a bird. Oh, the dog is responsible for scaring up birds smart enough to stay hidden.

As for the poisonous Blue-beaked Warbler: it is about as real as experiencing swashbuckling adventure while photographing birds in the Berkshires. Photographing birds is as exciting as Indiana Jones, just different. Wild Turkeys (*Meleagris gallopavo*) have been described to me as smoke. They vanish in the time it takes to push the shutter button. Recently, Ursa (the Labrador) discovered a group of fifteen

young turkeys with adults. The birds flew into nearby trees, unharmed, and I was able to get off a few frames before pulling the dog away. I have yet to catch the magnificent birds in flight.

As a beginner to the birding world, I am excited by every opportunity to get a close look at even common birds. Windows are great blinds for feeders and flowering plants. Last winter thirty-five species flew onto my windowsill. In order to get nice pictures, I would hide outside and photograph the birds, mostly Downy Woodpeckers and finches, in nearby shrubs. My favorite picture, photographed through a window, is of a Ruby-throated Hummingbird



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(Archilochus colubris) on a fuchia plant. At 1/2000 of a second, the wings were barely frozen in the frame.



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The happiest moments of discovery are finding, through a photograph, that the markings of a bird and the plumage texture are remarkably similar to the images in bird books. Last winter a plowed snowbank afforded a great, concealed, and close view of a flock of Cedar Waxwings (Bombycilla cedrorum) eating an apple. The dry snow muffled the sound of my movements. The resulting exposures confirmed my suspicions: waxwings look and behave just the way that Kaufman (2000) and Sibley (2000) describe them.

My most recently published photo is of a group of Great Egrets (*Ardea alba*) feeding in a pond (known locally as The Cove) in Lee, Massachusetts. The birds were attracted to the great density of fish in the drought-shrunken pond. So long as my

movements were slow, the birds showed no sign of concern. They were intent on feeding; I focused a short 200mm telephoto and waited for a pleasing composition. There was nothing difficult about photographing the situation, and I was able to get a wonderful picture of elegant birds and their reflections. This last photograph is the most important to share. Anyone with an interest in birds and some patience could have made the



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photograph. Anyone with a car has a blind. Anyone with a feeder can explore birds closely. All one has to do to see birds and take their photos is to be patient in order to take time to really observe them. I do plan to photograph shorebirds this fall while dancing in the jaws of alligators and drinking the venom of snakes, but that is another story. . . .

As a photographer for the *Berkshire Eagle*, I use a digital single-lens reflex body. All of the photographs published here were done for work and thus are digital images. The camera is fine quality, fast, and efficient. For glossy publication, slides are the preferred medium despite their slow film speed and cost. They radiate saturation and detail. Color negative film is the best medium for making prints to decorate or show. Plus, the added film speed makes life easier. All major brands of film are very high quality; avoid others. With all media, the best, sharpest, and most detailed films have

slower film speed or ISO/ASA. For birds, this is key; the object of the game is to enjoy how they look.

I use the same lenses for my free time as I do for work. The difference is that I use slide film in my camera. Most bird shots can be made with a 400mm lens and close proximity to the subject. I often use a 200mm lens or shorter for hummingbirds and feeder birds like the chickadee.

From mirrors to zooms, all telephoto lenses are difficult to hold. So the last and most important tool for the bird photographer is a camera support. Jackets, monopods, tripods, or pillows will give you added useable shutter speed. More often than not, sharpness will be your greatest nemesis after impatience for getting great pictures. With patience, camera supports and 400 speed film will yield superb results even from modestly priced lenses.

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Ben Garver has been photographing for the Berkshire Eagle for nearly six years. He grew up outside Cleveland, Ohio. After graduating from Middlebury College in 1990, Garver began working in the field of photography as a photographer's assistant and later as a journalist. His last job before landing at the Eagle was working as a freelance photographer for the Associated Press during the 1995-1996 Republican primaries.



BEN GARVER

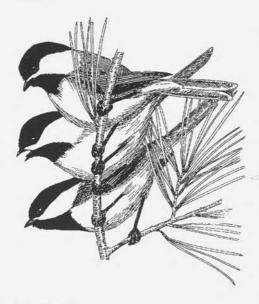
Come Here My Little Chickadee: Sixteen Years of Black-capped Chickadee Banding at Pleasant Valley Wildlife Sanctuary, Lenox

René Laubach

Early History

Bird banding has a long history at Pleasant Valley Wildlife Sanctuary, going all the way back to 1929 when the sanctuary's first warden, the later much-renowned Maurice Broun, banded birds outside the sanctuary's cottage and kept meticulous bird records. Among those birds was the ever-present Black-capped Chickadee (*Poecile attricapilla*). Broun served from the Sanctuary's founding in 1929 to 1931. In 1934 he began his storied thirty-four-year tenure at Hawk Mountain Sanctuary in Pennsylvania.

In 1937 a young ornithologist from New Hampshire, fresh from his Ph.D. thesis work on Vermont's Mount Mansfield where he delved into the life history of Bicknell's Thrush (*Catharus bicknelli*) (then a subspecies of Gray-cheeked), took over as warden. Dr. George J. Wallace began breeding bird census work in 1938 and sporadic bird banding. He eventually banded a little over 1,000 individuals during his nearly five-year tenure. Most of this work was done during winter months, and it produced some interesting results. Although Black-capped Chickadees were (and still are) generally regarded as permanent residents, he discovered a more complicated scenario.



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Wallace color-banded 125 Blackcapped Chickadees during his first three winters. Of the seventy-four banded during the winter of 1937-38, forty-five were back the following winter. From his observations, Wallace learned that four "status groups" were present: year-round residents, winter residents, fall and spring transients, and summer residents. About 80 percent of the total population were vear-round or winter residents. He found that transient birds arriving in late fall soon disappeared. Some of these were retrapped in the spring along with some new birds. And even after an intensive winter of banding, he found unbanded birds during subsequent summers — a summer resident group.

Wallace also recorded some notable longevity records for the time. A chickadee banded by Broun in January 1931 was present each winter until April 1939, when it was nine or more years old. Another bird banded in December 1931 was last seen alive in February 1940, when it was approximately eight and one-half years old. At the time, these were the oldest known members of the species. The present longevity record for Black-capped Chickadee is twelve years, five months, based upon U.S. Bird Banding Laboratory files. Wallace also tracked the cohesiveness of winter flocks and found that the same individuals remained together through the winter and rarely mixed with other flocks. He published his results as "Winter Studies of Color-banded Chickadees" in *Bird Banding* 12 (2): 49-62.

Other wardens of Pleasant Valley, before and after George Wallace, who also participated in various banding projects, include Morris Pell, Wallace's immediate predecessor from 1932 to 1937, and Alvah Sanborn, who followed Wallace from 1942 to 1973.

Today's Banding Efforts

Current banding efforts at Pleasant Valley (station permit #22061) began in August 1985, and since that time we have banded 645 chickadees at the office banding station. Some years have yielded many new individuals (eighty-eight in 1989) while others have seen few in comparison (only twenty in 1999). We have averaged almost thirty-nine new chickadees banded through 2000.

Our major thrust has been to educate the public about birds and their conservation by offering regularly scheduled banding demonstrations. While banding has been conducted throughout the year, in recent years it has been limited to winter, spring, and fall seasons. Usually one or two twelve-meterlong nylon mist nets are set adjacent to the sanctuary's birdfeeding station, immediately



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north of the circa 1790 cottage that serves as our office building. Banding sessions last from 10 a.m. until noon. After being netted, birds are promptly and carefully removed and taken to the office (within view of the nets) for processing. Birds are temporarily held in cloth sacks prior to banding.

Procedure

After the attachment of the USF&W aluminum band, standard measurements are taken and recorded: wing chord (folded wing from wrist to tip of longest primary), tail, culmen (upper mandible), and tarsus (lower leg) length. We also routinely check for amount of stored fat (fat class) by ranking deposition in the wishbone declivity from zero to three. Notations are also made regarding the presence/absence of molt and/or ectoparasites. Depending on the season and species, the technique of "skulling" is used as an aid to determining age. This involves wetting the scalp, parting the feathers, and examining the skull (which is visible through the translucent scalp) to

determine whether it consists of one or two layers of bone. Hatching-year birds usually show a single layer of bone, while older birds display the speckled cranium typical of two layers separated by bony pillars, as it were.

During the breeding season we likewise check for the presence of a brood (or incubation) patch in females and a cloacal protuberance in males. This is, in fact, the only way that chickadees can be sexed in the hand. Finally, we weigh each bird to the nearest tenth of a gram using a triple-beam balance.

Recaptured Birds Yield Interesting Data

In addition to the data obtained from the initial banding effort, recaptured birds unwary enough to blunder into our nets during subsequent banding demonstrations yield more valuable information. To date, 305 individuals have been recaptured at least once (47 percent of the total banded). Only eleven chickadees have been handled at least once during each season of the year, although usually not during the same year. These are most likely true year-round residents. The fact that only eleven fall into this category is partly attributable to our lack of summer banding during recent years.

Only seven chickadees have been retaken more than five times, hinting at the rather short average life span of this species and perhaps also at their net-avoidance capabilities. It is interesting to note that our oldest chickadee compares favorably with Wallace's "nine-or-more-"year-old bird. Ours (#111-05883) was banded on August 17, 1989, as a hatching-year (HY) bird based on the results of skulling, and then recaptured six subsequent times, the last on November 11, 1998, making it approximately nine years, six months of age (assuming a June 15 hatch date) at that time.

One individual (#1590-81340) was recaptured ten times over a period of approximately 3.5 years! Its "net-affinity" enabled us to track changes in this bird's weight, among other things. It weighed 9.8 g at initial capture in April 28, 1990, and 10.1 g on August 5, 1993, when we handled it last. But between these two dates, notably from October 12, 1991, to November 9, 1991, this bird gained 3.2 g, a 35.6



percent increase in one month! A year later it was back down to 9.9 g. Given the species' high metabolic rates and corresponding food intake requirements due to its large surface area to volume ratio, drastic changes in weight over short time spans are not too surprising. In one dramatic instance, an individual captured twice on December 6, 1997, weighed 11.8 g at 11:37 a.m., as compared with 11 g only 97 minutes earlier, an increase of 7.3 percent.

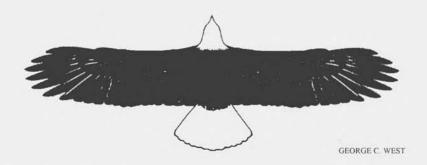
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We have also found, as others have, that in general individual chickadees captured in the afternoon tend to weigh more than birds captured earlier in the day. As birds feed vigorously on sunflower seeds, their weights naturally increase; as evening and the prospects for a long, cold night increase, the need to take on substantial fuel is obviously critical. For the same reason, chickadees tend to be lightest in the early morning following a crisp night.

Not surprisingly, fat class generally has a direct correlation on body weight. The fourteen heaviest individuals were rated an average fat class of 1.07, whereas the lightest twenty-six were rated 0.62 (the average for all chickadees was fat class 0.635). But there are other causes for weight gain. One female that showed a massive spike in weight in mid-May (up from 10.7 g in April 1995 to 14.7 g in May 1995) may well have reflected the additional increase caused by an egg she was about to lay (she showed the signs of a developing brood patch). In November this bird's weight was back down to 10.9 g. The average Black-capped Chickadee weight for 645 initial captures has been 11.27 g and ranges from 8.8 g to 15.1 g.

Much data collected from Black-capped chickadees at Pleasant Valley Wildlife Sanctuary remain to be analyzed, not to mention data for the other fifty-two species of birds that have been banded at this station since 1985. No doubt there will be plenty to ponder in the coming years!

René Laubach has been director of Massachusetts Audubon Society's Berkshire Wildlife Sanctuaries since 1985. At Michigan State University, where he received his B.S. in Wildlife Biology, he counts himself fortunate to have had Dr. George J. Wallace as instructor of his ornithology class in 1970. In 1976 René earned an M.A. in Museum Science from Texas Tech University. He was involved in museum work through 1984. He is author of five books dealing with natural history subjects, including The Backyard Birdhouse Book, which he co-authored with his wife Christyna. He also leads natural history tours for Massachusetts Audubon. René and Chris began their banding careers in 1980 while both were employed at the Iowa Science Center in Des Moines, and René acknowledges that the sanctuary public banding programs couldn't be conducted without Chris's diligent work as a sanctuary volunteer. Chris has been taking measurements and recording data, as well as serving as an interpreter for the program for the entire sixteen years. René would also like to thank Chris's Lenox Memorial High School students, and colleagues, most recently Dr. Kate Harding, who have provided additional assistance with the banding program.



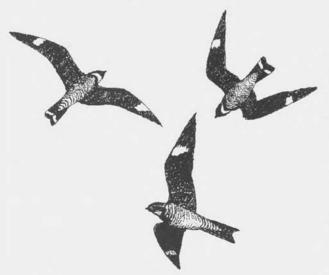
The Pittsfield Nighthawk Watch: 1993-2001

Scott and Joan Robinson

The Hoffmann Bird Club began counting migrating Common Nighthawks (*Chordeiles minor*) in a formal way in 1993. Thomas F. Tyning, with Massachusetts Audubon Society at the time, noticed several nighthawks flying over Canoe Meadows Wildlife Sanctuary off Williams Street in Pittsfield, where he resided, and thought it would be a good idea to start counting them in fall at that location. The authors have been coordinating the count since 1999.

The Sanctuary borders the Housatonic River, an insect-rich migratory pathway for numerous southbound migrants. This species, which winters through South America as far south as northern Argentina, has experienced population declines in many parts of its range, making annual monitoring potentially even more important.

The annual count period extends from about August 21 through about September 3, but has varied slightly over the years. While August 21 has nearly always marked the start of the count period, the ending date has varied from September 2 to September 6. The hours of counting have been consistent, however. Observers bring a lawn chair and meet at the sanctuary about an hour before sunset. We count from 6 to 8 p.m., tabulating the number of nighthawks seen in 15-minute increments. Over the years we have had a lot of fun counting and socializing. When we hit a slow night, we start counting anything that moves, from various other species of birds, to common darners, butterflies, white-tailed deer, and even airplanes. This year there were fifteen people counting the first night, with an average of eight people per night over the nearly two-week count period.



The number of migrating nighthawks has varied greatly over the nine-year history of the count. During the first year, 1993, Tyning and twelve other observers counted a total of 2.927 nighthawks, with 2,000 passing by on August 31! The vast majority of all birds that season (76 percent) were tallied between 6:30 and 7 p.m. The total for that year and for a single evening remains the largest we have yet encountered

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(although the Berkshire record, by Thomas G. Smith, stands at some 5,000 birds over the neighboring town of Dalton on August 22, 1981). The following year, 1994, only 532 Common Nighthawks were counted. In 1995 the total increased again to 1,721. In 1996, another dip, as 953 were tallied. In 1997, 779 nighthawks were counted, with most being spotted on August 27, 29, and September 3. The poorest count year so far has been 1998 when a mere 146 birds were watched as they passed by. And nearly all (120) were counted on the single evening of August 26.

During the past three years, during our watch, so to speak, there has been a steady and steep decline in the total number of nighthawks counted: 2,012 in 1999, 993 in 2000, and 494 during 2001. In 1999, 97 percent of the birds were counted in five days between August 23 and 28. On August 25, 917 were tallied. In 2000 the migration was more evenly spread out, but with 355 nighthawks counted on August 31. This year, with counting extending through September 2, 275 of the total were seen on August 27. Observers failed to count a single nighthawk on four of the twelve evenings.

Nighthawks continue to trickle through the Housatonic Valley for some days following the official count period. Nineteen, for instance, were noted passing over Canoe Meadows during a short time span on the evening of September 6. George J. Wallace recorded a single bird over Lenox, north of Pittsfield, on September 21, 1940, and Bartlett Hendricks (1999) notes that the species has been recorded here as late as early October.

Although nine years is not really long enough to establish a reliable trend, the pattern noted so far is generally downward, in agreement with observations in other parts of the bird's range. We are intrigued by this question — why was the count so low this year? Was it because of loss of habitat, or did we miss the peak migration period? Maybe the nighthawks selected another route this year. There is one thing for sure, as we search for answers to these questions: we are looking forward to the end of August 2002 when we will be back at Canoe Meadows counting Common Nighthawks again.

References

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Joan and Scott Robinson, who have lived in Lenox, MA, since 1970, started birding in 1995 after raising four sons. Not long after the Robinsons began birding, Scott started photographing wildlife. Together they enjoy travelling, and most of their trips to various parts of the U.S. and elsewhere have centered around birding, wildlife, and nature. Travelling has become an especially important part of their lives since Scott's retirement in September 2000. Most recently Joan and Scott visited Churchill, Manitoba, where they lived on the tundra, viewing and photographing polar bears, ptarmigan, arctic fox, and Snowy Owls. They would like to thank Thomas F. Tyning of Berkshire Community College and Thomas G. Smith of the Berkshire Museum for supplying additional data for this article.

Observations at a Broad-winged Hawk Nest

Jill Johnson

There is a delicious feeling of suspense when one learns of an unidentified bird in a specific area. That pleasure was felt this summer when a friend at work mentioned that a hawk was frequenting her backyard. Not only was the hawk present, but it appeared to have a nest with young.

My coworker's home was built only the previous summer on a steep wooded hillside near a ski area in Great Barrington, in the southwestern corner of Massachusetts. The driveway in winter looks like a bobsled run; however, on this day, June 30, 2001, it was an easy drive up through the eastward-facing deciduous woods. Several visits to the site afforded great views of the nest, some thrilling moments, and a lot of fun.

The host tree grew in a hollow below the house, so that the nest was not much above eye level from this vantage. Within 150 feet of the house and located in the main crotch of a red maple tree about 35-40 feet above the ground, it was clearly visible from the backyard, although surrounded on all sides by thick foliage. Standing near the house we faced the nest, which was to our northeast, with a clear line of sight between the nest and the house.

Of course, the big questions were what species and how many young? The first visit answered the latter question. In the large shallow nest, built of middle-sized sticks layered over with a bed of fresh hemlock and oak boughs, there appeared to be two young hawks. Their heads were still covered with downy soft white pinfeathers, while their backs and wings had "real" feathers coming in nicely. One could still see the dark ear openings on the sides of their heads. Looking plucked, gawky, and adolescent, the birds remained in the nest and shifted positions periodically.



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Finally, an adult hawk flew in from a northerly direction, a silhouette moving through thick leaves; it left as suddenly as it had arrived, a mere glimpse. More waiting yielded no further sign of the adult.

A few visits later, on July 8 at 11 a.m., a cloudy, misty Sunday morning, we noticed that the young hawks were branching. They remained near the nest, stretched their wings, and moved in very short steps away from the nest—all this in slow installments over time. For all our enjoyment of the young birds, we were eager to see the adults. We waited. And we waited. At around 11:45 a.m. there was movement in the woods, and a mature hawk appeared, wheeling over the clearing in which we stood. The showy black and white banded tail was unmistakable. A Broad-winged Hawk (*Buteo platypterus*)!

It circled to the northeast edge of the nest so that it faced us, and placed something in the nest. Now time slowed down for us, as it does in a near miss on the highway or a slip on the ice. We watched with joy that was quickly replaced by a touch of adrenaline as the bird flew straight toward us, a beautiful, horizontal line of wing/head/wing, coming straight, yes, straight, no other direction, at us.

We stood frozen in a combination of awe, intense joy, and fear. The bird veered off as it closed in on us and flew to a nearby branch some twenty-five feet away; for a few wonderful seconds we soaked in everything we could see of this splendid creature. Meanwhile it looked at us fiercely, opening and closing its beak in a threatening manner. Then it called out. It descended to another branch and called again.

Sometimes birds allow viewers a long lingering look, time enough to watch fully and satisfy the eyes' and hearts' longing. Other times, all that is granted is a glimpse, a flash of imprint on the memory. This time it was something in between. We watched wide-eyed, absorbing every detail of the hawk's barred breast, its dark wings, the handsome fierce expression, and the sound of its powerful call. Then off it flew, and the treetops hid it. We returned to viewing the young, which had begun eating what appeared to be a chunk of purplish meat. Time resumed its normal pace, and we began to breathe again.

On our final visit to the nest during the late afternoon of July 13, we watched the young Broadwings take a few hesitant flights — that is, they dropped from one branch to another, heavily, hesitantly. There they would remain very still. Only a few pinfeathers fluffed out from their heads. They were moving out into the world. Soon they would be flying.

The nest had cradled them, and the tree still held them; soon they would belong to a much bigger world. Edward Howe Forbush wrote, "Possibly no hawk ascends higher in the heavens than this rather small, inconspicuous species." It has been a pleasant experience to imagine, now and then, those two young birds soaring freely.

A question remains about the hawks. Why did they choose to nest so near a home, a home with lawn-mowing, cars — an active family? After all, the expanse of lonely, steep forested hills does stretch down and across the valley. Since Broadwings rarely use the same nest site again, however, we may never have an answer to this question.

Jill Johnson grew up in the Berkshires and was introduced to birding at age two, when her family acquired an orphan crow named Crocus. She has loved birds and birding ever since. She attended Skidmore College and did graduate work at the University of Vermont in philosophy. For ten years Jill worked as a teacher and cofounder of a Waldorf School in Great Barrington. She has written a murder mystery and paints and sells images of chickens in flower and vegetable garden settings. Her work has been shown in several galleries in the Berkshires and in the Boston area. Jill has led field trips for the Hoffmann Bird Club and has helped document the bird life of a local Trustees of Reservations property. Jill lives with her husband Alex and their two children in Great Barrington.

Life and Death on the Links: Monitoring a Bluebird Trail

Kate Ryan

In the spring of 2000 I had the pleasure of monitoring eleven Eastern Bluebird (Sialia sialis) boxes on the Stockbridge golf course as part of the ongoing Cornell Laboratory of Ornithology study. Situated in the Berkshire County town of Stockbridge, with the Housatonic River meandering through it, the course contains ideal habitat and abundant food supply. The eleven houses (all standard design nest boxes save for one Peterson box) were located in a variety of environmental settings—at the edge of the fairway, in tall grasses, and in the middle of a small ponding runoff area that flooded during rainy spells.

A road divides Stockbridge golf course, and my monitoring was concentrated on the north side of the course. I attempted to do all the monitoring midweek and prior to 7 a.m. or around dinnertime in order to avoid the onslaught of projectiles (i.e. golf balls). It was not always possible to avoid encountering golfers, but when I did, they were often curious and concerned for the bluebirds' welfare. I was anxious to see how the season would go. The previous year had been my first formal monitoring for the Cornell program. In order to make a difference in the offspring survival rate, I would be challenged by a steep learning curve. The previous year I had been amazed at the loss of life from unseen predators. This year I hoped would prove different.

In January I prepared the boxes, cleaning out the old nesting material. On a 30-degree evening in February I noticed twelve to fifteen bluebirds perched wing to wing facing west, catching the last few warm rays of sun. This camaraderie would soon give way to competition for territories. But this day the common enemy was the cold.

It is difficult to know whether any of the bluebirds seen during February were among those nesting in spring. I observed bluebirds most months of the year on my daily walks on the course. The thick brambles in the floodplain area provided many berries as a winter food source. By the end of March the competition was fierce. Male bluebirds flew and sang loudly, flitting from box to box, vying for the attention of females and staking claim on many boxes that Tree Swallows (*Tachycineta bicolor*) also showed interest in. I mentally mapped and numbered the boxes. Eventually three bluebird pairs seemed to be left. It was time to begin monitoring.

Bluebirds tend to be a bit shy and here they are fortunate to benefit from the high spring waters in the floodplain, which delay the golf season. The flooding of greens and fairways on this course, more than any other in the area, gives the bluebirds time to settle in, undisturbed by golfers. Once the eggs are present, the birds are less likely to abandon the nest site despite human presence.

During the first weeks of April I found nothing but dead swallows in many boxes. Some of the dead and dying appeared to have diarrhea. A couple were pierced in the back of their heads. I was appalled when the dead numbered thirteen.

Box #1 was the first to have bluebird activity in early April. I observed the male and female bringing pine needles to this box on two consecutive visits. I opened the box to find only a partially completed nest. Instead they chose to settle in box #2, the only Peterson design box on the course. The resettling took place on April 27. This newly occupied nest box was in a floodplain, and after heavy rain the post would be in up to six inches of water. The box had a great east-southeast exposure, and soon I found four eggs within. It was only the second week of May. With each consecutive visit I would check the hatchlings for blowfly larvae (*Protocalliphora*), as the parent

waited in a nearby tree. On one visit I found the front portion of the box open and no sign of life. I surmised the likely predator to be a raccoon (*Procyon lotor*) that had climbed the post and pulled open the box with its claws. I repaired the board and replaced the nail with a screw so that future nestlings would not share the same mishap. I was surprised to find that the bluebirds were close by.

On my following visit I was delighted to find that the birds had rebuilt. My delight was short-lived, however, as the next week found the male trading places off and on with a male House Sparrow (*Passer domesticus*) that appeared to be staking a claim. Deep flooding prevented me from getting close, so the newly hatched sparrows were well on their way to fledging by the time the frequent rains had stopped. The bluebirds



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continued to remain in the area, but not actively nesting. I thought that perhaps I had stopped by when they happened to be inactive. However, as I continued my rounds, I eventually found that the bluebirds had waited until the House Sparrows fledged and then returned to box #2, laying three eggs this time. This nesting took place in July and was a success since all birds apparently fledged.

Boxes #4 and #5 were on a fence post separating a cow pasture from the fairway. On May 2 I found one egg in box #4. This was another favored area for the bluebirds, and with each visit I found another egg until the count was seven. I suspect more than one female was responsible, as studies show broods often are derived from more than one female. But unfortunately, the next week's visit, May 9, revealed an empty nest, undisturbed. This was likely the work of a snake that had easy access with the help of the fence post. The bluebirds added more pine needles and, beginning May 15, I again noted one egg per visit until the count was four. The eggs, however, were buried on my next visit, May 29, and the box was filled with sticks. A House Wren (*Troglodytes aedon*) had moved in. The bluebirds had begun to fill box #5 with needles but for some reason had stopped. Perhaps the threat of the wren was too much.

A pair of back-to-back houses, boxes #6 and #7, hosted a House Sparrow that occupied the southeast facing number #6 box — one that had been a sparrow site for

four years running. Although I attempted to clear them out, they always managed to rebuild and didn't at first seem to mind the Tree Swallows that lived in box #7. At least that was what I thought until I found the eggs of the swallows broken and the nest abandoned.

On my first inspection of box #8, I found a House Sparrow perched atop it. Inside was a dead Tree Swallow. I was unable to determine whether the sparrow was the cause of death or if it was only considering this box for nesting. Perhaps both. But this box remained unused the rest of the season.

Box #9 had also been another favorite of the bluebirds each year. A tree situated close by provided good shelter and observation of the box and surrounding habitat. I wondered whether this location, like box #2, was what bluebirds considered ideal. It contained three eggs on May 29. The following week I saw two eggs and what I first thought was a worm showed itself to be a tiny bird that must have hatched that day. On my next visit I discovered two baby birds. I was uncertain what had become of the third egg. As the babies grew, one was noticeably larger and appeared ready to fledge. Eventually I found the smaller of the two dead. There appeared to be a puncture in the back of its head. This confused me until, in my later monitoring of boxes #10 and #11, where Tree Swallows had nested, a singing House Wren was always present. I found the swallow nestlings dead a week after hatching with the same piercing in the head or breast. I sought advice and was told that House Sparrows mutilate nestlings, while House Wrens generally kill by piercing their victims.

On July 1 I noted that a renesting had taken place in box # 9. I found the box leaning at a 45-degree angle on one visit and righted it. Most likely this was the work of a predator. On my next inspection the female bluebird flew out as I prepared to open the box. I postponed my inspection for two weeks, hoping to minimize disturbance. On my subsequent visit, July 15, the box was again leaning, and the male dove at my head from the nearby tree as I opened the box to find a single baby bird. From this time on I no longer saw the female. The male would frantically fly from ground to box as quickly as possible, feeding the baby alone. He never flew anywhere but back to the same tree and never hunted for insects far from the box. He appeared to be raising this nestling alone. I wondered whether the female had met her demise due to a predator, or whether perhaps she was attending to a previous brood.

In the years I had been walking the golf course and a nearby farm, I observed the increasing House Wren population encroach upon and drive out the bluebirds on the farm. As the 2000 season ended, I wondered whether these bluebirds would be able to hold their ground in the coming years. Perhaps human intervention would be their only ally.

Kate Ryan lives in Monterey, MA, where she is an avid birder with a lifelong interest in natural history. She is a member of the Hoffmann Bird Club, a former Chairman of the Stockbridge Conservation Commission, and member of the Citizens Coordinating Council which oversees clean-up of PCBs in the Housatonic River. Kate is also currently a Stream Team volunteer and studies amphibian migration in her spare moments.

FIELD NOTES

Bluebird Dad

Tom Killoren

Jane (my wife) and I have put out many bluebird boxes over the years, but this year we were fortunate enough to be able to move to a new home in Holliston that had an ideal bluebird habitat. In fact, we moved in on December 8, 2000, and saw our first bluebird the next day! We knew we did right by buying this place. I put out six boxes in February. In late March, the bluebirds were going from box to box trying to make the big decision. We first guessed this box, then that box. Finally, they selected this crazy-looking "store-bought" Gingerbread house, that someone had given us as a gift, that we put up on a whim! It did have a sliding back panel so we knew it would work. It happened to be the closest box to our house, so we had front-row seats.

The family has been coming along just fine, with the raucous calling of the chicks getting louder every day. Until Friday, when we observed that the female adult was missing, and that the noise in the box had ceased. I decided to open the box and take a look, thinking that the brood might have already fledged. Reaching in with a finger, I could feel the birds, which felt bare although warm. On Saturday morning, one chick was on the ground under the box being fed by the adult male. I watched from a distance for some time, but after an hour with no movement, I went in for a

closer look. This chick was definitely prematurely out of the box. I picked it up and put it back in the box. The adult male continued to bring food to the box throughout the day.

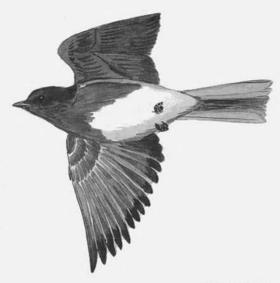
On Monday morning I opened the box expecting the worst. I removed four dead chicks from the box, but "my" chick was still alive and kicking. Soon after, the adult male showed up, as if to say, "I'll take over from here" . . . thank you sir, go right ahead. He fed the single chick all day. Mother was nowhere to be seen. This is pretty open land and we have seen Goshawks take Mourning Doves right in front of us, as well as sharpies diving at the feeders. Maybe momma met some ill-fated end? It seems highly unlikely for the adult female to just



DAVID M. LARSON

quit on her brood. In any event, this male deserves some kind of special recognition for his work ethic! What a trooper!

The adult male continued to feed the single chick throughout the day on Monday. On Tuesday morning the box was empty. No sign of the chick anywhere. We assumed that it had fledged. The male was frantically calling for a new mate. We felt sad for him. Yesterday and today the adult was still hanging around the box and still doing his gathering routine of jumping down from the fence into the grass, as he had done all along while feeding



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the brood. Tonight, when I got home from work, Jane said she saw the young fledgling fly across the yard and land in an apple tree. Sure enough, the adult was still feeding it in the tree. It later flew to a nearby pine, with dad right on its wing, to a position much higher up than before. It is now out of cat range. Phew! In between feedings, dad flies to the tippity-top of some of the surrounding trees, still singing his heart out looking for a new mate. We'll see.

Meanwhile, on Father's Day I will drink a toast to the best dad at this address—he's the one wearing the blue suit!

Name that flock

1. A	of crows	8. A	of peacocks
2. A	of geese	9. A	of pheasants
3. A	of quail	10. A	of wildfowl
4. A	of falcons	11. A	of mallards
5. A	of coots	12. A	of nightingales
6. An	of larks	13. A	of snipe
7. A	of woodcock	14. A	of oilbirds

(Answers are given on page 479.)

THE WIRED BIRDER

Birding Weather

David Larson

Every birder knows about the importance of accurate and timely weather and climate data. Weather information goes far beyond choosing appropriate clothing; birding success depends on information. From the Berkshire hills to the coast, birding destinations, plans, and expectations can all depend on favorable conditions.

Certainly, the arrival of extreme weather, especially dangerous storms, is a potential deterrent, though such meteorological convulsions often provide superb birding opportunities. The passage of tropical storms frequently heralds the appearance of storm-tossed rarities on the coast or far inland. The precise locations you might search will depend on the storm track (for example, see the article on inland pelagics by Mark Lynch in *Bird Observer* 28: 237-239, 2000). More mundane weather events or conditions such as wind direction or speed can strongly influence bird distribution, particularly during migration. Hawk watchers look for northwest to northeast winds in the fall in hopes of mega-flights (see the discussion of the effects of weather on raptor migration in the article by Paul Roberts in *Bird Observer* 29: 269-271, 2001). New England birders eagerly await favorable winds in the spring in hopes of showers of neo-tropical migrants. So, how do you find the best information on regional and local weather and other physical conditions?

Weather on the Web

Well, as wired birders, internet sources are an obvious first choice. Following the cues in the last Wired Birder (*Bird Observer* 29: 293-300, 2001), you might head for weather radar sites and tap into the WSR-88D data stream. For those less willing to do their own interpretation, there are a number of web sites with current weather conditions and predictions. The National Oceanic and Atmospheric Administration (NOAA) sites are a good source of basic weather information, along with the radar images. They provide links to the Hurricane Center site, where you can monitor oncoming oceanic storms. Among commercial sites, The Weather Underground www.wunderground.com remains my favorite general weather site, in large part because of its extensive listings of subsidiary sites and links. Local conditions and forecasts for diverse locations are easily available, along with real-time information from local (civilian) weather stations. In addition, links are provided for radar and satellite images, marine forecasts, storm advisories, hurricane/tropical storm predictions, and even astronomical charts. Of course, many other weather sites exist.

When I am primarily interested in marine forecasts (about to go on a pelagic trip or trying to decide on a seawatch location), then I head for MaineHarbors.com. Their marine weather site is more visually appealing than most and, as is the case with other sites, is based on weather data and forecasts from NOAA. For a closer look at the data on particular marine locations, check out the direct link to weather buoy data (via

Maine Harbors or NOAA). The various offshore buoys report wave heights, periods, and steepness, as well as temperature and barometric pressure.

Weather in the field

So what happens when you leave the cozy confines of your home and venture out in search of birds? You need not go without weather updates. You could drag along a laptop computer with a cellular modem and enjoy the connectivity you have at home. But a laptop is clumsy in a vehicle, and a real drag in the field. If you have a connected handheld computer (or a cell phone or pager), you can receive weather updates through the Weather Channel. This service is unlikely to deliver the specific details you require, such as wind speed and direction, but you will hear about storm predictions. It is possible to capture NOAA weather information directly using a connected handheld computer such as the Palm VII (see <www.netmeister.com>).

Of course, you could go analog while in the field and turn on a weather radio. NOAA broadcasts continuous local weather reports, as well as storm alerts, 24 hours per day over several preset channels. Unless you are in a very difficult location, you should be in reach of a NOAA station anywhere in the United States. Radios designed to receive NOAA weather broadcasts include dedicated units such as those produced by Oregon Scientific and other manufacturers, as well as some FRS radios (e.g. Motorola Talkabout T6320) that contain the requisite additional circuitry. NOAA weather reports are delivered (except during emergencies) by a computer-generated voice that takes a bit of getting used to. When this system debuted, the National Weather Service was deluged with calls complaining about the accent of the "new Danish guy." The voice has been improved since then.

Finally, if you have a cell phone, you could always (if you are in range) call and listen to the NOAA report over that medium. If you have the right cell phone (like the Samsung i300 with its embedded Palm device), you can get the PDA-level data via your phone, meaning one fewer battery-operated toy to carry in the field.

If you really get excited about very local weather, you can bring along your own weather instruments. Well, a WSR-88D is a bit cumbersome and would require amazing batteries, but real-time data on local conditions can be gathered by handheld devices. Several companies (including Brunton, Dwyer, Flytec, and Neilsen-Kellerman) produce personal weather gizmos that function as anemometers (measuring windspeed and direction), barometers (indicating atmospheric pressure and hence frontal activity), and thermometers. If you do not need the wind data, Avocet and other manufacturers offer wristwatches that measure ambient temperature and barometric pressure. Finally, if you are packing a GPS unit to trace your location, perhaps you might use one that contains a continuous logging barometer with storm warning, like the Brunton Multi-Navigation System.

Other temporally useful data

Other temporal data that are useful for birding include sunrise/sunset times and (for coastal locations) tides. These data are available on line from various sources.

Both the NOAA and the U.S. Naval Observatory web sites have calculators for determining sunrise and sunset for any location. Tide charts are similarly available online. Here my favorite is again Maine Harbors: the site has a clean attractive design and useful, clear preset locations (often harbors, for some odd reason) from Maine to Connecticut. Another popular site is Roy McMorran's Interactive Tide Table, which is more flexible in time and covers Georgia to Newfoundland, but is less easy to use. Since my Palm device is nearly always along when I am in the field, I use the Tide Tool from Toolworks, a free and amazingly useful program for the Palm operating system that provides table-based or graphic tide display for over 6000 locations world-wide. It also provides sunrise/sunset times for those locations.

Finally, if you have to go analog, you could always take along the amazing multifunctional Bird Observer tide chart, the centerfold of this issue. Not only does it have the tide table, but if you are standing outdoors, and the paper gets wet, you will have a good short range prediction of precipitation. If that isn't enough, you already have it, and it doesn't take any batteries. What more could you want?

Links

NOAA/NWS radar sites for New England:

Boston, MA <weather.noaa.gov/radar/latest/DS.p19r0/si.kbox.shtml> <weather.noaa.gov/radar/latest/DS.p19r0/si.kcbw.shtml> Caribou, ME Portland, ME <weather.noaa.gov/radar/latest/DS.p19r0/si.kgyx.shtml> Burlington, VT <weather.noaa.gov/radar/latest/DS.p19r0/si.kcxx.shtml> <weather.noaa.gov/radar/latest/DS.p19r0/si.kenx.shtml> Albany, NY <weather.noaa.gov/radar/latest/DS.p19r0/si.kokx.shtml> Upton, NY

NOAA/NWS sevices:

Internet services for Massachusetts <iwin.nws.noaa.gov/iwin/ma/ma.html> Forecast for Boston <www.nws.noaa.gov/er/box/> NOAA weather radio <www.nws.noaa.gov/nwr/> National Hurricane Center

<www.nhc.noaa.gov/>

Commercial weather sites:

Weather Underground <www.wunderground.com/USA/MA/Boston.html> The Weather Channel <www.weather.com>

Marine forecasts:

Maine Harbors <www.maineharbors.com/weather/marzone.htm> NOAA <www.nws.noaa.gov/er/box/marine.html>

Sea conditions:

NOAA <www.ndbc.noaa.gov/Maps/rmd.shtml> <www.maineharbors.com/weather/buoy.htm> Maine Harbors

Tide charts:

Maine Harbors <www.maineharbors.com>

Roy McMorran's <www2.shore.net/~mcmorran/bin/stateloc.pl?state=MA>

Sunrise/Sunset times:

U.S. Naval Observatory <aa.usno.navy.mil/data/docs/RS_OneYear.html>

NOAA www.srrb.noaa.gov/highlights/sunrise/sunrise.html

Personal toys:

Avocet Alpin Vertech www.avocet.com/vertechpages/vertechalpin.html

Brunton Multi-Navigation System and Sherpa <www.brunton.com >

Dwyer Instruments PWM3 <www.dwyer-inst.com/htdocs/flow/pwm3.html>

Flytec Alti <www.flytec.com/altiwind.htm>

Neilsen-Kellerman Kestrel <www.nkhome.com/ww/wwindex.html>

Motorola T6320 <www.motorola.com>

Oregon Scientific NWS radio<www2.oregonscientific.com/noaa/wr102.html>

Samsung i300 <www.samsungelectronics.com>

Palm OS tools:

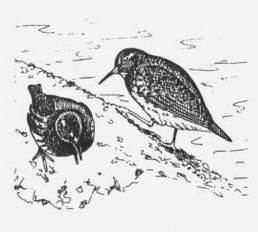
Tide Tool www.toolworks.com/bilofsky/tidetool.htm

 $NOAA\ weather\ via\ Palm\ VII<\\www.netmeister.org/palm/WCA/WCA.html>$

Weather Channel <cgi.weather.com/custom.wireless_splash/palm.html>

David Larson is the Production Editor of Bird Observer. Neither he nor Bird Observer has any proprietary interest in any of the items or services described. He would like to emphasize that web addresses like those cited above tend to be ephemeral; that's the nature of the web. So when you find a broken link within this list, go exploring to find its new address; you might find something better! If you do, let him know at david@larsonweb.org.

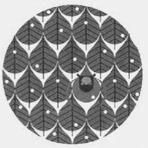




WILLIAM E. DAVIS. JR.

102nd Christmas Bird Count

Birders of all skill levels are encouraged to participate in the 102nd CHRISTMAS BIRD COUNT, sponsored by the National Audubon Society and Cornell Laboratory of Ornithology. The following thirty-four counts are located entirely or partly within Massachusetts. To participate, please make contact with the listed compiler at least one week before the count. Results of previous counts are available online at http://birdsource.cornell.edu/cbc/.



CHARLEY HARPER

Saturday, December 15, 2001

Andover: Lou Wagner, (978) 927-1122 Ext. 2705, lwagner@massaudubon.org

Athol: David Small, (978) 249-2094, dhsmall@gis.net

Buzzards Bay: Richard Harlow, (508) 748-1297, raharlow@mediaone.net

Groton-Oxbow N.W.R.: Julie Lisk-Gonzalez, (978) 448-0147, jliskgonzalez@earthlink.net; and Peter Alden, (978) 369-5768, peteralden@aol.com

Millis: Elissa Landre, (508) 655-2296, Ext. 7301, elandre@massaudubon.org Newport County, RI - Westport, MA: David Emerson, (508) 822-7430

Northern Berkshire: Pamela Weatherbee, (413) 458-3538, pamweath@bcn.net

Quincy: Glenn d'Entremont, (781) 344-5857, gdentremont@juno.com; and Patricia O'Neill, (617) 696-0831

Springfield: Bruce Kindseth, (860) 745-9593, kindsebr@aol.com Stellwagen Bank: Simon Perkins, (781) 259-9506 Ext. 7403

Worcester: Francis McMenemy, (508) 755-3828

Sunday, December 16, 2001

Cape Ann: Barbara Volkle, (508) 393-9251, barb620@world.std.com Cape Cod: Blair Nikula, (508) 432-6348, odenews@mediaone.net

Central Berkshire: Dr. Edwin Neumuth, (413) 623-5447 or (413) 623-5329,

eneumuth@berkshire.com

Greater Boston: Robert Stymeist, (617) 926-3603, rstymeist@juno.com

Northampton: Jan Ortiz, (413) 549-1768, jtortiz@aol.com; and Mary Alice Wilson, (413) 549-1768, mwilson@k12s.phast.umass.edu

Tuesday December 18, 2001

Sturbridge: Mark Lynch, (508) 799-9343, moalynch@aol.com

Saturday, December 22, 2001

Martha's Vineyard: Robert Culbert, (508) 693-4908, wrculbert@islanderis.net

Westfield: Seth Kellogg, (413) 569-3335, skhawk@vgernet.net

Westminster: John Williams, (978) 249-7831, cwstudio@yahoo.com

Sunday, December 23, 2001

Marshfield (So. Scituate, Marshfield, Duxbury, Gurnet): Warren Harrington, (781) 834-3216, wharrington@townofmarshfield.org; and David Clapp, (781) 834-3216

Newburyport: Tom Young, (603) 424-4512, redscreechowl@aol.com

Truro: Tom Lipsky, (978) 897-5429, tlip@massed.net

Friday, December 28, 2001

Tuckernuck: Simon Perkins, (781) 259-9506 Ext. 7403; and Richard Veit, (718) 982-3862

Saturday, December 29, 2001

New Bedford: Michael Boucher, (508) 990-3910, britmm@juno.com

Quabbin: Scott Surner, (413) 253-7486, ssurner@aol.com

Taunton-Middleboro: Russ Titus, (508) 265-7050, rct6@cornell.edu

Sunday, December 30, 2001

Concord: Henry Norwood, (508) 358-7524, HankN583@aol.com

Greenfield: Mark Fairbrother, (413) 367-2695

Nantucket: Edith Andrews, (508) 228-9529, efa@nantucket.net

Uxbridge: Richard Hildreth, (508) 429-5085

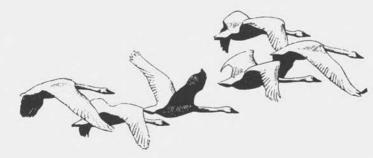
Tuesday, January 1, 2002

Southern Berkshire: René Laubach, (413) 637-0320, berkshires@massaudubon.org

Dates for the following counts were not available at press time:

Mid-Cape Cod: Peter Trimble, (508) 477-3847, merlin@capecod.net

Plymouth: Trevor Lloyd-Evans, (508) 224-6521, tlloyd-evans@manomet.org





DAVID A. SIBLEY

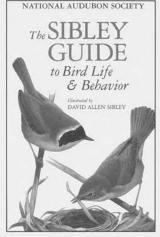
ABOUT BOOKS

A Grand Synthesis

Mark Lynch

The Sibley Guide to Bird Life & Behavior Illustrated by David Allen Sibley. Edited by Chris Elphick, John B. Dunning, Jr., and David Allen Sibley. 2001. New York: Alfred A. Knopf. 587 pages. \$45.00

Birds make ethologists of us all. In no other group



of vertebrates are all aspects of a creature's life such as courting, mating, the search for food, migration or aggression, more on display for prying and curious human eyes. Most mammals are very shy of close human presence, and many of their behaviors are best seen at night. Reptiles and amphibians are difficult to observe at any time and are most active here in New England for only part of the year. Observing fish behavior requires very special equipment. But birds are all around us, from city to forest, throughout the year. Birds can even be easily coaxed to our backyard. And when we look at birds, they are often doing something interesting. They are scratching under a bush, or crawling up the side of a tree, or building a nest, or diving after fish, and most extraordinary for the human observer, birds fly and sing. Any neophyte with a sunflower feeder begins to ask questions like "where is that chickadee taking that seed?" or "why does this bird scold a cat when it could just as easily fly away?" The answers to these questions can have a profound effect on our sense of self. The more we learn about animal behavior, the more we can see our own behavior in a new light, and form a deeper bond with our natural environment.

Observations of bird behavior have been written since at least Aristotle. Many bird books written in the nineteenth and twentieth centuries, in fact, concentrated not so much on field identification as the authors' personal observations of the bird's behavior or compiling such observations of others. With the coming of the popular field guide, there was a change in focus in popular bird books to the field identification of birds. Because such volumes were meant to be carried while out and about, space was at a premium, and notations about behavior were often left out of a field guide for brevity's sake. At the same time, especially in the last decades, there has been a wealth of scientific research done on almost all aspects of many species of birds' life. But much of the information learned from this ornithological research has not been generally available to the nonacademically affiliated public until very recently.

In the last ten years there have been a few books that have attempted to synthesize the current scientific knowledge of bird behavior for the general public and fill in the gaps of information left out of field guides. Books like *The Birder's Handbook* by Ehrlich, Dobkin, and Wheye or *Lives of North American Birds* by Kenn Kaufman both have detailed sections on a species' egg dates, nest, diet, displays, and conservation. *The Sibley Guide to Bird Life & Behavior* is the latest, and most successful, of these single volume compendiums of bird behavior.

Although the Sibley name is featured in large letters on the cover, and although David Allen Sibley is the artist of this book, he is only one of the three technical consultants and editors. The others are Chris Elphick and John B. Dunning, Jr. There is little doubt that the huge and well-deserved success of his field guide has made David Sibley heir apparent to the "Peterson" style of name-brand marketing of birders materials. Sibley, Elphick, and Dunning have organized forty-eight ornithologists, scientists, and birders to write individual chapters, some long, some short, on eighty families of birds. The taxonomic order follows that of the current American Ornithologists Union (AOU) checklist.

Many of these authors are a perfect match for the specific bird-family chapter they have authored, and you could not ask for a better expert on that group of birds. For instance, Alvaro Jaramillo, author of *New World Blackbirds*, wrote the chapter on "Blackbirds, Orioles and Allies" (pp. 452-551). Many of the authors for chapters on specific bird families wrote accounts of species of that family for the *Birds of North America* series. Each of these family accounts has sections on taxonomy, food and foraging, breeding, movements, conservation, and where appropriate, accidental species. In every family account there is also a boxed section that contains "Worldwide Family Features" including egg dates, details of nest construction, number of species found worldwide, and so on. The emphases in each family account, though, are the species found in North America.

The first section of the book, "The World of Birds" (pp.15-120), offers a crash course in current ornithology. Here are good general accounts of bird flight, morphology, evolution, distribution, taxonomy and, most importantly, conservation. There is even a nice summary of DNA-DNA Hybridization (pp. 45-50) and its impact on the A.O.U. checklist by Rick Cech and Margaret Rubega.

The book ends with a glossary, a section of short author biographies, and a species checklist. What you will not find in the book, much to my surprise, is a bibliography. The editors explain in the introduction: "Due to the constraints of space, and because we wanted to make the book as readable as possible, we have chosen not to follow the common practice in the scientific literature of inserting citations into the text" (p. 9).

The editors then mention several texts that "were so fundamentally important to the production of this book that they must be mentioned" (p. 9). These essential books include Frank B. Gill's *Ornithology*, Proctor and Lynch's *Manual of Ornithology*, John Alcock's *Animal Behavior: An Evolutionary Approach*, as well as the two monumental series *Handbook of the Birds of the World* and the *Birds of North America*. You can find a chapter-by-chapter list of references at the website <www.sibleyart.com>, although I could find no such listing for the important "World"

of Birds" section. I appreciate the need to keep the size of any book manageable, but I cannot say that I find the lack of citations or a bibliography actually in the book a good plan. Suppose I am not near a computer when I want to check a reference? Suppose the website experiences technical problems? Frankly, I think this book could have done without the checklist (how many people actually use them?) and perhaps listed the author biographies at the website and kept a list of references *in* the book.

Overall the writing is good, clear, precise, and concise. As with any project involving so many authors, the quality of the writing, and even the list of references on the website, varies with each family account. Inevitably, some sections are better than others. By way of a small example, the section on "Understanding Behavior: The Outer Frontiers" (p. 79) reads more like a book review of Bernd Heinrich's *Ravens in Winter*, instead of an overview of current challenges in ethology.

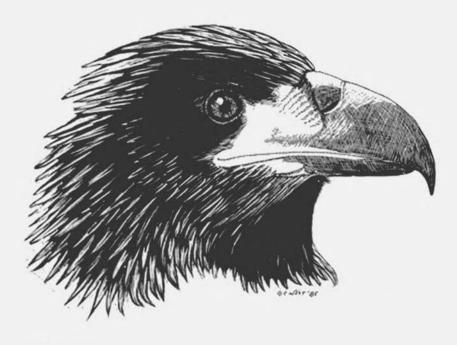
The Sibley Guide to Bird Life & Behavior also contains more than 795 of David Sibley's illustrations. These are by necessity small, but are often lively and well reproduced. A few seem just a bit sketchy, especially the landscapes. Overall, though, there is a nice spontaneous field sketch appearance to many of the illustrations, the look of a painting of a living, active bird done on site. All the illustrations are appropriate to the text of the page on which they appear and are well placed on the page.

The Sibley Guide to Bird Life & Behavior is a great synthesis of current scientific knowledge about bird behavior, a fine basic reference book written for the beginner feeder watcher or experienced hard-core birder. Whether wondering why shearwaters fly as they do or how sparrows scratch under your feeder, how owls turn their head, or what a "nectar robber" is, this is the book that has all the answers.

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Mark Lynch is a teacher and environmental monitor at Broad Meadow Brook, Massachusetts Audubon Society, Worcester. He also is a teacher and docent at the Worcester Art Museum and hosts Inquiry, a talk show of the arts and sciences on radio station WICN. He is forever indebted to Professor Nick Thompson of Clark University whose classes on Primate Social Behavior and Instinct gave Mark his first experience of ethology and convinced him that a life in natural history was to be his lot in life.



GEORGE C. WEST

From a reader:

The article in the October *Bird Observer* (29: 387, 2001) of gull predation of sea ducks brought back a memory. It must be ten or twelve years ago that Hamilton Coolidge and I were birding at Andrews Point, where we found two Thick-billed Murres. We were delighted. These birds were hard to get in those days; we called them Brunnich's Murres then. The two murres were no more than fifteen feet apart, probably less. A Great Black-backed Gull grabbed one of the murres, pecking steadily. The murre dove once, but when it came back to the surface the gull was on it. Without mercy the gull killed it. Two oddities: (1) the gull did not eat the murre; (2) the murre's companion stayed exactly where it was, within fifteen feet of the murre that had been killed. The second murre did not fly away, swim away, or anything else. Was it *stupid*? Or was there some other reason? *Henry T. Wiggin, Brookline*

BIRD SIGHTINGS

JULY/AUGUST 2001

Richard S. Heil, Seth Kellogg, Marjorie Rines, Robert H. Stymeist

July was dry, sunny, and on the cool side, while August was hot and wet in our area. During July the temperature averaged 69.9° in Boston, about 3.6° below normal; it was the ninth coolest July in 131 years and the coolest since 1992. July was quite comfortable overall with several cool days, but the month managed to squeeze in a three-day heat wave on July 23-25 when the high mark of 95° was reached in Boston on the July 25. In August the average temperature in Boston was 73.9°, about 2.0° above average. Six days hit the 90° or better mark with a 97° recorded in Boston on August 9. Rainfall over the two-month period was 6.27 inches, about normal for the period. Measurable amounts fell on sixteen days; the most in any twenty-four-hour period was a mere 1.61 inches on August 3-4. Thunderstorms were noted on four days in July and on five days in August in the Boston area, with a few additional thunderstorms recorded in western Massachusetts. The migration of shorebirds especially begins during this period and later, about mid-August; the first evidence of returning passerines is noted with or without favorable winds.

LOONS THROUGH ALCIDS

The Pied-billed Grebe nest at a marsh in the Willowdale State Forest, Ipswich, mentioned in the May/June summary, successfully produced three young, observed in mid-July. Greater Shearwaters, with a few exceptions, were comparatively scarce on the inshore fishing banks of Stellwagen Bank and Jeffreys Ledge for much of the summer. Several trips there failed to locate any Greaters, and many others returned to port having recorded fewer than twenty. These opportunistic feeders wander over a vast expanse of ocean and can disperse or concentrate quickly to locate and exploit a food source, so an area devoid of tubenoses one week (or day) can be swarming the next. At least one food source, sand eels (Ammodytes), was apparently thin on the banks this summer, or stayed deep. Sooty Shearwaters were observed in near normal to higher-than-average numbers, while Manx Shearwaters were consistently noted in higher-thanaverage numbers, and often outnumbered Greaters. High counts for the season offshore included 1100 Greater and 2130 Sooty shearwaters at Stellwagen, both on July 11, and 170+ Manx there on August 8. From shore, 250+ Greaters were noted from South Beach July 27, and 61 Manx passed by Andrew's Point in Rockport in just three hours on the afternoon of July 26. Cory's Shearwaters staged a rather modest incursion into the Gulf of Maine this year, with daily counts of 10-20 at Stellwagen and lesser numbers north of Cape Ann, which is typical. A chartered Brookline Bird Club boat trip on August 27, to the warm waters near Hydrographer Canyon, about 90 miles south of Nantucket, yielded three Audubon's Shearwaters, where this species is expected. Also located in the vicinity of Hydrographer August 27, and well imaged for posterity, were two separate White-faced Storm-Petrels. This attractive storm-petrel, with a distinctive bouncing, stiff-winged flight, breeds across the Atlantic off northwest Africa at the Salvages and Cape Verde Islands. Despite very infrequent forays to the proximate shelf region by local birders, this species has consistently been recorded here, and, in fact, is probably as regular and as expected in the warm shelf waters off southern New England as it is anywhere along the east coast of the United States. For the second summer in a row a few Leach's Storm-Petrels were regularly noted close to shore in the same area just outside the entrance to Barnstable Harbor. Could these birds possibly be breeding among the dunes on Sandy Neck?

The biggest tubenose story of the summer came from its most diminutive member. Beginning in early July and continuing through the period, unprecedented numbers of Wilson's Storm-Petrels entered into coastal waters and were visible from shore along much of the Massachusetts coast. Hundreds of foraging birds were present very close to shore, not only from each of the traditional headlands, but also from inset coastal locations. On the North Shore at least, these birds were visible not only from the beaches at Salisbury, Plum Island, and Nahant, but also from bays and harbors, including several in Lynn Harbor, Salem Harbor, and a dozen more than a mile up into Gloucester Harbor, as far as Ten Pound Island. A circuit of Cape Ann on August 5 tallied 830 birds. On Cape Cod, hundreds were a daily spectacle along South Beach in Chatham, many just beyond the surf. Offshore at Stellwagen numbers were also impressive, with the season high count of 9500 on July 9. The unexplained food source that enticed so many of these birds inshore remains a mystery, but such an event has not been previously reported in the New England ornithological literature.

Confirmed breeding for Least Bittern came from tiny phragmites-ringed Cambourne Pond in Rockport in early August, where an adult female and three young were discovered, the latter still in natal down and pinfeathers. These birds performed superbly for more than a month at this brackish site, literally a stone's throw from the surf. Evening roost counts of egrets in the marsh at Plum Island August 23 included 210 Greats and 520 Snowies. Two nests containing a total of four juvenile Tricolored Herons were located at Kettle Island, Manchester, during a survey July 18. These constitute only the third confirmed breeding record for the state since 1976, when Tricoloreds were first discovered nesting at nearby House Island before that site was abandoned. Among reports of several adult Yellow-crowned Night-Herons in the state, a bird in fresh juvenal plumage at the Marblehead Neck Wildlife Sanctuary August 10 raised strong suspicions of local breeding.

Small numbers of migrating dabbling ducks began to infiltrate the state during August, including Blue-winged Teals, Northern Pintails, and Green-winged Teals. Scoter migration also begins much earlier than many may realize. Small groups of Surfs, nearly all of adult males, were moving at Rockport July 26 and August 20, and at South Beach in Chatham July 27, while truly out-of-season waterfowl included a Long-tailed Duck at Rockport, a female Common Goldeneye at Turners Falls, and two Ruddy Ducks in Melrose, all in mid-July.

Ospreys bred along the Connecticut River, fledging two young at West Springfield for the first time since Forbush noted them at Northampton in 1915, although breeding was suspected into the 1930s. At Tuckernuck Island, the last stronghold for Northern Harriers in the state, six nests produced sixteen young this summer. A Sharp-shinned Hawk nest discovered in the Willowdale State Forest, Ipswich, contained three young July 16. By the end of August small numbers of Broad-winged Hawks were already on the move, including a total of 42 over Mt. Wachusett August 25-26. A Sandhill Crane appeared at Great Meadows N.W.R. August 18 but reportedly succumbed later in September.

Many birders enthusiastically turn their attention to shorebirds come July and August. This season was no exception. Peak counts at South Beach in Chatham were impressive, as usual, and included 3000 Semipalmated Plovers August 11, and 220 Eastern Willets, 2000 Red Knots, 3200 Sanderlings, and 3200 Short-billed Dowitchers, all on July 27. The best counts of Semipalmated Sandpipers, however, came from elsewhere. At Plum Island, drawn-down water levels in just two impoundments attracted 6500 Semipalmated Sandpipers on July 24, while at Nahant-Lynn Beach 5000+ worked the algae mats August 4. The only **American Avocet** this season was found at Tuckernuck Island August 5. One hundred and twenty Willets, all adults, at Plum Island/ Newburyport July 15 was a new high for north of the Chatham area. Hudsonian Godwits have noticeably declined in the Newburyport-Plum Island area of late. If the trend

continues, soon it may become as rare as Marbled Godwit on the North Shore. The high there was a paltry seven this summer (compare July-August maxima at Newburyport 1988-2001: 33, 39, 25, 24, 41, 30, 37, 17, 30, 19, 13, 20, 10, 7). In the Monomoy-South Beach area the picture is less clear, although a slight decline is perhaps indicated in recent years, there being no count over 110 there since 1997 (July-August maxima at Monomoy-South Beach 1988-2001: 150, 50, 135, 90, 200, 140, 115, 160, 125, 131, 40, 105, 109, 107).

There was a major flight of adult White-rumped Sandpipers in late August, with peak counts of 215 at Plum Island August 21 and a remarkable 800 at South Beach August 26. An adult **stint**, either a Red-necked or a Little, unfortunately viewed too briefly to differentiate, was reported from South Beach August 13. The only **Curlew Sandpiper** was seen sporadically at South Beach August 5-26. Four Stilt Sandpipers were a good find at Muskeget Island July 21, while the maximum count at the more traditional Plum Island pools reached an about-average 42 on July 24. Two juvenile Stilts at Plum Island August 8 may be the earliest ever reported. As usual, a few Baird's and Buff-breasted sandpipers arrived in late August. A very rare adult Buff-breasted was studied at Plum Island on the early date of August 15. Rare, interesting shorebirds in the western part of the state included a Ruddy Turnstone, the first reported since 1993, at Agawam August 28, a Sanderling at Longmeadow August 13, and two Baird's Sandpipers at Agawam August 31.

The South Beach gull show of last summer failed to materialize this season, with only a very few Lesser Black-backed Gulls being noted. Midsummer Caspian Terns are always noteworthy. Two adults were at Plum Island July 3. Breeding both to our north and south, birds appearing here in early summer may represent failed breeders emanating from either source. **Royal Terns** seem to be increasingly scarce in the Bay State. Only a single bird, at Tuckernuck July 2, was found this summer. Following a poor showing in 2000, by the end of August Forster's Terns appeared to be setting the stage for an irruption. The count at South Beach built to forty August 23, while nineteen others were reported elsewhere.

July and August are not the usual time to ponder alcids in Massachusetts. This summer was different. A breeding-plumaged **Dovekie** at Nahant, first discovered in June, was relocated July 8, for one of very few summer records. On Martha's Vineyard, three Razorbills were present throughout the period, and photographed on one of the salt ponds at Chilmark. Finally, a total of twelve Atlantic Puffins passed Andrew's Point in Rockport, including *nine* on August 20 during placid conditions. Other puffins were noted at Plum Island and on Stellwagen, both in July.

R. Heil

Red-throated L	oon			Greater Shear	water		
	Chatham (S.B.)	1	V.0	7/11, 30	Stellwagen 1	1102, 350	P. Trull
Common Loon				7/26	Rockport (A.P.)	22	R. Heil
	off P.I.	3	J. Berry	7/27	Chatham (S.B.)	250+	R. Heil
	Duxbury B.	1	D. Clapp	7/31	Truro	10+	M. Lynch
	Paxton	1 ad	M. Lynch	8/11	Jeffreys L.	30	F. Grenon
	P.I.	3	R. Heil	8/27	Hydrog. Canyor	1 78 B	BC (N. Samson)
	Wachusett Res.	10	M. Lynch	8/28	Stellwagen	90	P. Trull
	Quabbin (G40)	5 br pl	R. Packard	Sooty Shearw	ater		
	S. Monomoy	5	B. Nikula	7/11	Stellwagen	2130	P. Trull
Pied-billed Gre				7/26	Rockport (A.P.)	2	R. Heil
		1+3 yg, 1 ju	iv J. Berry	7/27	Chatham (S.B.)	50+	R. Heil
	Wakefield	1	P. + F. Vale	7/30, 8/28	Stellwagen	470, 65	P. Trull
	Sterling	1	C. Caron	7/31	Truro	30+	M. Lynch
	GMNWR	1	B. Volkle#	Manx Shearw	rater		
Northern Fulma	ar			7/7	S. Boston	2	R. Donovan
	Stellwagen	1 lt	S. Moore#	7/10	P.I.	3	R. Heil
Corv's Shearwa				7/11	Stellwagen	18	P. Trull
	Stellwagen	20	P. Trull	7/13	Jeffreys L.	1	S. Mirick#
	Chatham (S.B.)	4	R. Heil	7/26	Rockport (A.P.)	61	R. Heil
	Stellwagen	18	J. Trimble#	8/8	Stellwagen	170+	J. Trimble#
	20 m S of Nant.	17	R. Heil	8/19	Stellwagen	15	B. Nikula#

Manx Shearwater (continued)	8/6 Chatham (S.B.) 8 S. Leonard#
8/22, 26 Chatham (S.B.) 1, 1 B. Nikula	8/7 GMNWR 3 R. Lockwood
8/27 Hydrog. Canyon 4 BBC (N. Samson)	8/9 Scituate 65 B. Litchfield
Audubon's Shearwater *	8/23 P.I. 520 R. Heil
8/27 Hydrog. Canyon 3 BBC (N. Samson)	Little Blue Heron
Wilson's Storm-Petrel	7/14 Nantucket 1 M. Greenberg
7/1 Eastham 5 G. Hirth	7/17 Essex 6 ad J. Berry
7/8 Nahant 3 R. Heil	7/18 Manchester (K.I.) 10 juv S. Perkins#
7/9, 30 Stellwagen 9500, 2800 P. Trull	7/26-30 GMNWR 1 imm R. Titus
7/10 P.I. 24 R. Heil	7/30 Wayland 1 imm E. Taylor
7/20 Nantucket Sound 50 R. Veit	8/21 Chatham (S.B.) 1 R. Donovan
7/26 Rockport (A.P.) 33 R. Heil	8/23 P.I. 4 juv R. Heil
7/27 Chatham (S.B.) 800+ R. Heil	Tricolored Heron
7/31 Truro 60+ M. Lynch	7/7, 24 P.I. 1 ad R. Heil
8/4 Marblehead 100 R. Heil	7/17 Essex 2 J. Berry 7/18 Manchester (K.I.) 2 nests S. Perkins#
8/5 Cape Ann 830 R. Heil 8/8 Stellwagen 750+ J. Trimble#	
	7/30 Oak Bluffs 1 V. Laux 8/23 P.I. 1 ad, 1 juv R. Heil
8/11 Chatham (S.B.) 50+ B. Nikula 8/11 Jeffreys L. 250+ F. Grenon	Cattle Egret
8/13 P'town H. 120+ P. Flood	7/21-8/28 Manchester 1 J. Berry#
8/14 Rockport 100+ J. Berry#	Green Heron
8/15 P.I. 50 R. Heil	7/4 S. Natick 3 BBC (E. Taylor)
8/27 Hydrog. Canyon 800 BBC (N. Samson)	7/15 P.I. 6 R. Heil
8/28 Stellwagen 6700 P Trull	7/16 Ipswich ad + 3 yg J. Berry
White-faced Storm-Petrel (details submitted) *	8/1 GMNWR 7 M. Rines
8/27 Hydrog. Canyon 2 ph M. Sylvia#	8/5 Wayland 10 E. Taylor
Leach's Storm-Petrel	8/24 DWWS 3 D. Furbish
7/16 Nomans I. 4 R. Lockwood#	8/25 S. Quabbin 4 M. Lynch
7/29, 8/8 off Barnstable 6, 4 J. Trimble	8/30 HRWMA 4 T. Pirro
8/27 Hydrog. Canyon 24 BBC (N. Samson)	Black-crowned Night-Heron
Northern Gannet	7/14 GMNWR 3 S. Perkins
7/7 Stellwagen 12 M. Emmons#	7/16 Nomans I. 3 R. Lockwood
7/8 Nahant 45+ R. Heil	7/21 Manchester 20+ J. Berry#
7/10 P.I. 13 R. Heil	8/2 Nauset 3 M. Lynch
7/15 Jeffreys L. 16 N. Paulson	8/4 W. Springfield 2 Allen Club
8/19 Stellwagen 2 B. Nikula#	8/4 Wayland 30 E. Taylor
Great Cormorant	8/16 Wakefield 3 P. + F. Vale
7/8 Nahant 1 1S R. Heil	8/20 HRWMA 3 T. Pirro
7/14 Rockport (H.P.) 1 ad M. Lynch	Yellow-crowned Night-Heron
Double-crested Cormorant	7/3-23 P.I. 1 ad M. Tingley#
7/16 Nomans I. 1000 R. Lockwood#	7/1-8 Salem 1 v.o.
7/27 Chatham (S.B.) 1500+ R. Heil	8/8-11 P.I. 1 1S R. Heil
8/thr P.I. 3710 migr R. Heil	8/10 MNWS 1 juv R. Heil
8/25 N. Scituate 500 G. d'Entremont#	8/13 Katama 1 H. Meleney#
8/26 S. Monomoy 1500+ B. Nikula	8/16 Chappaquiddick 1 A. Keith
8/28 Agawam 20 S. Kellogg	Glossy Ibis
American Bittern	7/9 N. Monomoy 3 B. Nikula
7/26 GMNWR 2 R. Titus	7/18 Manchester (K.I.) 30 S. Perkins#
8/20 HRWMA 6 T. Pirro	8/3 Newbury 70 T. Wetmore
8/26 Newbypt. 1 D. Chickering	8/11 P.I. 47 R. Heil
Least Bittern	8/15 N. Monomoy 7+ B. Nikula
7/4 Maynard 1 R. Lockwood#	8/26 S. Monomoy 5 B. Nikula
7/4 Ipswich pr J. Berry#	Black Vulture
7/12 DWWS 1 D. Clapp	7/1 Sheffield 1 J. Hoye#
7/22 Wakefield 1 corpse P. + F. Vale	7/1 Dudley 4 B. Thompson
7/28 Maynard 1 R. Lockwood	7/9 Gr. Barrington 2 R. Laubach
8/5-31 Rockport 1 ad + 3 yg R. Heil	Turkey Vulture
8/15 Ipswich 2 J. Berry	7/1 Sheffield 25 J. Hoye#
Great Blue Heron	7/6 Worcester 9 S. Sutton#
7/1 Westboro 22 n E. Taylor	7/31 Hardwick 36 C. Buelow
7/22 GMNWR 22 P. + F. Vale	8/17 Barre 10 C. Buelow
8/25 Eastham 25 B. Nikula#	8/25 S. Quabbin 23 M. Lynch
Great Egret	8/29 Mt. Watatic 6 T. McCullough#
7/2 DWWS 9 D. Furbish	Canada Goose
7/6 Westport 23 M. Lynch	7/4 Wakefield 327 P. + F. Vale
7/18 Manchester (K.I.)140 juv S. Perkins#	Brant
7/27 Scituate 18 D. Clapp	8/26 S. Monomoy 1 B. Nikula
7/29, 8/12 GMNWR 22, 6 M. Rines	Mute Swan
7/29 Randolph 8 G. d'Entremont	7/6 Westport 12 M.
8/15 N. Monomoy 7 B. Nikula	Lynch
8/17 Amherst 10 H. Allen	7/6 Acoaxet 65 M. Lynch
8/23 P.I. 210 R. Heil	8/25 N. Scituate 19 G. d'Entremont
8/24 Lee 14 R. Laubach	8/26 S. Monomoy 35 B. Nikula
8/26 S. Monomoy 10+ B. Nikula	Whooper Swan
Snowy Egret	7/6 P.I. 1 J. Berry
7/18 Manchester (K.I.)300 juv S. Perkins#	Wood Duck
7/20 Chatham (S.B.) 12 MAS (P. Flood)	7/4 Wakefield 20 P. + F. Vale
7/29 Squantum 9 G. d'Entremont	

Wood Duck (***************************************	Osprey		
7/24	Longmeadow	55	S. Kellogg	thr	P.I.	2 ad, 3 yg v.o.
8/5	Wayland	25	E. Taylor	7/thr	Westboro	2 ad, 3 yg E. Taylor
8/12	Northampton	36	R. Packard	7/1-8/30	W. Springfield	2 ad, 2 yg v.o.
8/15	Boxboro	17	J. Michaels	7/1	Eastham	G. Hirth
8/17 Codmoll	GMNWR	80	S. Perkins	7/6	Acoaxet	48 M. Lynch
Gadwall	DT	64	D 77 11	8/1	Saugus	2 P. + F. Vale
7/15	P.I.	54	R. Heil	8/1	Nauset Marsh	3 M. Lynch
7/19	DWWS	2 f	D. Furbish	8/4	Westboro	3 E. Taylor
7/thr 8/26	Muskeget I.	3 pr	R. Veit	8/11	DWWS	l ad, 2 yg D. Furbish
American Wi	S. Monomoy	6	B. Nikula	Bald Eagle	Coultrad	1: P. P 1
7/28	Marstons Mills	1	S. Miller	7/8	Gay Head	1 imm R. Pasternak
7/30	P.I.	1		8/3 8/20	Orleans	1 imm D. + S. Larson
Blue-winged		-1	D. Chickering	8/30	Quabbin (G40) Sunderland	1 imm R. Packard
7/5, 8/15	P.I.	1, 6	R. Heil	Northern Ha		 M. Williams
8/12	GMNWR	2	M. Rines	7/thr		6 mm m D Voit
8/21	Chatham (S.B.)	4	R. Donovan	7/8	Tuckernuck I. Chatham (S.B.)	6 pr n R. Veit 1 f D. Silverstein#
8/26	S. Monomoy	10	B. Nikula	7/17	Nomans I.	1 f D. Silverstein# 1 R. Lockwood#
Northern Sho		10	D. HIKUIA	7/31	Nauset	
8/29	Edgartown	1	J. Norton	8/thr	DWWS	l M. Lynch l f D. Furbish
Northern Pint			0.1.01.011	8/4	Wellfleet	1 C. Buelow
8/23	P.I.	8	R. Heil	8/13	P.I.	1 f, 2 juv R. Heil
8/26	S. Monomoy	8	B. Nikula	8/22	HRWMA	1 imm T. Pirro
Green-winger				8/23	P.I.	6 R. Heil
7/thr	Muskeget I.	1 pr	R. Veit	8/24	Gr Barrington	1 B. Bennett
7/12	P.I.	17	R. Heil	8/31	Northampton	1 R. Packard
7/14, 8/31		1, 30	S. Perkins	Sharp-shinne	d Hawk	1 IC. I dekard
8/22	HRWMA	13	T. Pirro	7/1	Sheffield	1 J. Hoye#
8/23	P.I.	121	R. Heil	7/6	Westport	1 M. Lynch
8/26	S. Monomoy	40	B. Nikula	7/16	Ipswich nest	w 3 yg J. Berry 1 ad M. Lynch
Common Eid				7/21	Rutland	l ad M. Lynch
7/5	Duxbury B.	116	D. Clapp	8/thr	Reports of indiv.	from 15 locations
7/18	Manchester (K.I	.) 10	S. Perkins#	8/25-26	Mt. Wachusett	
8/1	Stellwagen		M. Lynch	8/25	S. Quabbin	6 M. Lynch
8/4	Nahant	1 f + 3	uv R. Heil	8/29	Mt. Watatic	7 T. McCullough#
8/13	P'town H.	25+	P. Flood	Cooper's Hay		T. T. Carron B.
8/24	Gloucester	100+	J. Berry#	7/thr	Tuckernuck I.	pr n R. Veit
8/30	Chatham (S.B.)	9	J. Berry#	7/thr	Natick ad	+ 3 yg E. Taylor v.o.
Surf Scoter				7/thr	Lexington 1	or, 3 juv J. Tassel
7/19	Stellwagen	7	P. Trull	7/3	Marstons Mills	pr n S. Miller
7/26	Rockport (A.P.)	8 migr	R. Heil	7/11	Hardwick	pr n S. Miller 1 w/yg C. Buelow
7/27	Chatham (S.B.)	8 m	R. Heil	8/4	Duxbury	3 juv N. Swirka
White-winger				8/4	Natick	1 ad,3 imm E. Taylor
7/3	Duxbury B.	1	D. Clapp	8/27	Wellfleet	2 juv M. Faherty
7/8	Nahant	7 I	D. Saffarewich	thr		from 17 locations
8/1	Chatham	9	M. Lynch	Northern Gos		
8/4	Wellfleet	5	C. Buelow	7/3	Barre ad	+ 2yng C. Buelow
8/16	N. Monomoy		IAS (P. Flood)	7/23	E. Middleboro	2 yg K. Anderson
8/24	Gloucester	7	J. Berry#	7/28	Mt. Washington	I B. Nikula
Black Scoter	CL d (CD)			8/8	Savoy	 R. Packard
8/11	Chatham (S.B.)	9	J. Young	8/11	Stow	1 R. Lockwood
Long-tailed D				8/14	Groton	1 ad T. Pirro
7/26	Rockport (A.P.)	1	J. Barber	Red-shoulder	ed Hawk	
Common Gol		1.6	14 T-1	7/thr	E. Middleboro	2 ad, 3 yg K. Anderson 1 ad G. d'Entremont
7/14, 23 Hooded Merg	Turners Falls	1 f	M. Taylor	7/20	Stoughton	I ad G. d'Entremont
7/3	Muskeget I.	1 iuv	D Walt	7/23	P.I.	l imm R. Heil
7/4			R. Veit	8/3	S. Carver	l R. Titus
7/9	Boxboro	1 1 3 July	J. Michaels	8/10	Northampton	1 R. Packard
7/14	Chesterfield GMNWR	2	R. Packard	8/11	Carlisle	1 T. + D. Browrigg#
7/26		3 juv	S. Perkins	8/16	DWWS	2 imm D. Furbish
	Barre	5 juv	C. Buelow	8/21	Westminster	1 C. Caron
7/31 8/1	Hardwick WBWS	5 juv 2 f	C. Buelow	8/24	Maynard	1 L. Nachtrab
8/12		11	D. Silverstein	8/25	Mt. Wachusett	3 T. Carrolan
8/22	Paxton	11 juv	M. Lynch	8/29	Mt. Watatic	1 T. McCullough#
	HRWMA	4	T. Pirro	8/30	Groton	1 imm T. Pirro
Red-breasted	Chatham	2.40	Millions	Broad-winger		2
6/1		1	M. Lynch	7/1	Pepperell	 M. Torpey
Common Mer 7/1		1 f	T Dim	7/2	Andover	2 ad J. Berry
7/12	Monroe	2	T. Pirro	7/21	Barre	3 juv M. Lynch 2 T. + D. Browrigg#
7/23	Northampton Deerfield	12	R. Packard	8/11 8/14	Carlisle	
7/23	Turners Falls	4	R. Packard R. Packard		Groton	
8/21	Sunderland	12	M. Williams	8/19	Athol	8 D. Small
8/24	S. Hadley	10		8/24	Westminster	3 C. Caron 32 M. Lynch
Ruddy Duck	o. Hadicy	10	H. Allen	8/25 8/25-26	S. Quabbin Mt. Wachusett	
7/14	Melrose	2	D. + I. Jewell	8/29	Mt. Watatic	
		-	D I. Jewell	0/29	ivit. vvatatic	34 T. McCullough#

5	TT 1 (Sora			
Broad-winged 8/30	Hawk (continued) Groton	2 imm	T. Pirro	7/4	Ipswich	1	J. Berry#
thr	Reports of indiv. f			7/23, 8/8	P.I.	I ad	R. Heil
American Kes			5.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4.4	8/14	Neponset	1	R. Donovan
7/3	Ipswich	3 yng	J. Berry	8/29	GMNWR	l juv	S. Perkins
7/22	S. Peabody	1 ad, 3	yg R. Heil	Common Mo			m n 1
7/27	Lynn	3	J. Quigley	8/26	GMNWR	I imm	T. Roberts#
7/29	Squantum		3. d'Entremont	8/26	Westport	1	J. Offermann
8/1	Bedford		R. Lockwood#	American Coo		1	J. Quigley
8/4	Lancaster DWWS	4	R. Lockwood D. Furbish	8/1 Sandhill Cra	Lynn	1	J. Quigicy
8/24 8/25	Mt. Wachusett	4	T. Carrolan	8/18-31	GMNWR	1 A.S	Selewski + v.o.
8/25	Dedham	3	A. Joslin	Black-bellied			
8/27	GMNWR	3	S. Hedman	7/3, 8/4	Duxbury B.	17, 16	D. Clapp
Merlin	24-14			7/4	P.I.	12	P. Roberts
7/22	Grafton	1	M. Lynch	7/11	Chatham (S.B.)	480	B. Nikula
8/23	P.I.	2	R. Heil	7/31	WBWS	70+	M. Lynch
8/30	Boston	1	J. Berry#	7/31 8/1	Nauset Chatham	60+ 30	M. Lynch M. Lynch
Peregrine Falo 7/20	P.I.	1 juv.	R. Heil	8/5	Newbypt.	23	P. + F. Vale
7/28	Melrose	1	D. + I. Jewell	8/11, 23	Chatham (S.B.)		
7/28	GMNWR		E. Taylor v.o.	8/24	Eastham (CGB)	525	B. Nikula
8/1	Medford	1	P. Roberts	8/28	Edgartown	400	M. Pelikan
8/3	Duxbury B.	1	D. Clapp	American Gol			D 61
8/5	Agawam	1	Allen Club	7/3	Duxbury B.	1	D. Clapp
8/8, 13,	P.I.	1, 1, 1	R. Heil	7/18, 8/28		l ad, l	R. Heil R. Heil
8/19	Revere	2	P. + F. Vale D. + I. Jewell	7/27 8/23	Eastham Nantucket	l ad	E. Ray
8/21	Melrose P.I.	3 juv	R. Heil	8/26	S. Monomoy	1	B. Nikula
8/28-31 8/30	DWWS	1 imm	D. Furbish#	8/26	GMNWR	î	D. Sibley
Ruffed Grous		1 1111111	D. I diolom	Semipalmated			
7/1	Stow	1	R. Lockwood	7/11, 8/11	Chatham (S.B.)	180, 3000	B. Nikula
7/12	Worc. (BMB)	6	J. Liller	7/22	Plymouth B.	200	T. Maloney#
8/1	Manchester	4	J. Nelson	7/24, 8/21		680, 900	R. Heil
8/2	Ashfield	1	S. Sauter	8/thr 8/1	GMNWR	1-4	S. Perkins M. Lynch
8/11	ONWR	1	R. Lockwood C. Buelow	8/4	Nauset Marsh Duxbury B.	200	D. Clapp
8/13 8/20	Barre Ouabbin (G40)	2	R. Packard	8/4	Nahant D.	385	R. Heil
8/30	Whately	3	M. Williams	8/7	Revere	750+	P. + F. Vale
8/31	Lancaster	1	R. Lockwood	8/13	Longmeadow	9	R. Packard#
Wild Turkey				8/16	Edgartown	200+	A. Keith
7/1	Stow	2	R. Lockwood	8/16			AAS (P. Flood)
7/3	N. Marshfield	1 f, 2 y	g D. Furbish D. + I. Jewell	8/24	Eastham (CGB)		B. Nikula
7/9		ad, 8yg	D. + I. Jewell	8/29 Dining Diagram	Agawam	10	H. Allen
7/14	Concord	2 2	R. Lockwood P. Angiolillo	Piping Plover 7/thr	Muskeget I.	5 pr n	R. Veit
7/14 7/23	Medford Lincoln	2	R. Lockwood	7/thr	Tuckernuck I.	7 pr n	R. Veit
7/25	Kingston		uv D. Furbish	7/1	P.I.	3	P. + F. Vale
8/4	Sherborn	8	E. Taylor	7/11	Chatham (S.B.)	22	B. Nikula
8/20	Westminster	6 f	C. Caron	7/27	Eastham	23	R. Heil
8/28	Hardwick	18	C. Buelow	7/31	Nauset	5	M. Lynch
8/29	Leicester	5	M. Lynch	8/4	Duxbury B.	4 3 N	F. Garretson (AS (P. Flood)
8/29	Woburn	12+	J. Brown	8/16 8/23	N. Monomoy	60 N	B. Nikula
Northern Bob	Sheffield	2	J. Hove#	Killdeer	Chatham (S.B.)	00	D. IVIKUIA
7/1 7/16	Wellfleet	2	S. Morytko#	7/30	Ashfield	23	S. Sauter
7/20	Hyannis	2	C. Buelow	8/1	Orange	30+	M. Taylor
7/31	WBWS	1	M. Lynch	8/21	GMNWR	70	S. Perkins#
7/31	Truro	2 5	M. Lynch	8/23	Gardner	33	T. Pirro
8/15	Falmouth	5	C. Buelow	American Oy		6	CHIAL
8/22	Medford	1	M. Rines#	7/1 7/6	Eastham	6	G. Hirth M. Lynch
Clapper Rail	P.I.	1	R. Heil	7/8	Westport Winthrop		juv S. Zendeh
8/4	Newbypt.	1	C. Ekroth#	7/21	Thompson's I.	3	J. Hoye#
King Rail	теноура.		CT End out.	7/27, 8/23	Chatham (S.B.)	30, 185	B. Nikula#
7/4	Maynard	1	R. Lockwood#	7/29	Squantum	3 (G. d'Entremont
7/15	ONWR	1	R. Lockwood#	8/17	Falmouth	2	R. Farrell
Virginia Rail				8/23	Edgartown	16	A. Keith
7/4	Ipswich	5-6	J. Berry#	American Av		1	D Voit
7/4	Maynard	4	R. Lockwood#	8/5 Greater Yello	Tuckernuck	1	R.Veit
7/6	Rowley	2	J. Berry R. Heil	7/8	Winthrop	12	S. Zendeh
7/9 7/14	Newbypt. GMNWR	2 juvs 2 juv	S. Perkins	7/14, 8/26		3, 12	S. Perkins
7/16	Nomans I.	8	R. Lockwood#	7/23	N. Monomoy	160	B. Nikula
7/29	W. Bridgewater	5	W. Petersen	7/25	Longmeadow	1	S. Kellogg
7/30	Hardwick ad	+ 7 yg	C. Buelow	7/27, 8/23	Chatham (S.B.)		B. Nikula#
8/2	Вагте	12	C. Buelow	7/29	Squantum	105 (G. d'Entremont
				8/1	Nauset Marsh	150+	M. Lynch

Greater Yello	wlegs (continued)		8/11	Chatham (S.B.)	3	B. Nikula
8/24	Eastham (CGB) 240	B. Nikula	8/19	P.I.	1	B. Zuzewich
8/26		C (S. Grinley)	Ruddy Turnst		-	0.77 11
Lesser Yellov	vlegs	D 11-31	7/8	Winthrop	150 200	S. Zendeh
7/4	P.I. 260	R. Heil	7/27, 8/11 7/31		20	B. Nikula# M. Lynch
7/8 7/11	Winthrop 10 Chatham (S.B.) 30	S. Zendeh B. Nikula	8/4	Nauset Duxbury B.	29	D. Clapp
7/12	Newbypt. 750+	R. Heil	8/4	Plymouth B.	30	S. Zendeh#
7/14	GMNWR 2	S. Perkins	8/11	P.I.	28	P. + F. Vale
7/14	Newbypt. 375+	M. Lynch	8/16	N. Monomoy		MAS (P. Flood)
7/23	N. Monomoy 40	B. Nikula	8/20	Cape Ann	61	R. Heil
7/29		d'Entremont	Red Knot	OI 1 (0.D.)	210 2001	
8/4	W. Springfield 1	H. Allen	7/11, 27	Chatham (S.B.)	240, 2000	B. Nikula
8/21	N. Monomoy 70	B. Nikula	8/11, 8/23	Chatham (S.B.)		B. Nikula B. Nikula
Solitary Sand	Marshfield 6	D. Clapp	8/24 8/31	Eastham (CGB) Revere	9	P. + F. Vale
7/27 7/29	Marshfield 6 Sterling Peat 6	M. Lynch	Sanderling	Reveie	,	1. 11. vaic
7/30	Ashfield 8	S. Sauter	7/27 8723	Chatham (S.B.).	3500, 320	0 B. Nikula#
8/9	Arlington 4	M. Rines	8/1, 19	Revere	425, 700	P. + F. Vale
8/13	Longmeadow 6	R. Packard#	8/4	Lynn/Nahant	2150	R. Heil
8/22	Hyannis 10	C. Buelow	8/4	Duxbury B.	179	D. Clapp
8/23	Gardner 11	T. Pirro	8/13	Longmeadow	200	R. Packard
8/28	Malden 4	D. + I. Jewell	8/14	Rockport	300	J. Berry#
8/31 Willet	GMNWR 5	S. Perkins	8/24 Semipalmated	Eastham (CGB)	230	B. Nikula
Willet 7/3	Duxbury B. 11	D. Clapp	7/11, 27	Chatham (S.B.)	550 3000	B. Nikula
7/9	N. Monomoy 110	B. Nikula	7/12	Duxbury B.	500+	D. Clapp
7/11, 27	Chatham (S.B.) 90, 220	B. Nikula	7/14		1300+	M. Lynch
7/15	Newbypt./P.I. 120 ad	R. Heil	7/22	Plymouth B.	500	T. Maloney#
8/11, 23	Chatham (S.B.) 80, 55	B. Nikula	7/24, 8/21		500, 2800	
Western Will		D 1111 1	7/29	Squantum		G. d'Entremont
	Chatham (S.B.) 20, 12	B. Nikula	8/4	Longmeadow	12	S. Kellogg R. Heil
8/28	P.I. 1	R. Heil	8/4 8/4	Lynn/Nahant Duxbury B.	5000+ 222	D. Clapp
Spotted Sand 7/1	Sterling Peat 7	M. Lynch	8/6	Cumb. Farms	11	J. Sweenev#
7/5	Duxbury B. 4	D. Clapp	8/7	Revere	400+	P. + F. Vale
7/14	GMNWR 5	S. Perkins	8/23	Chatham (S.B.)		B. Nikula
7/18	Manchester (K.I.) 5	S. Perkins#	8/24	Eastham (CGB)	4000	B. Nikula
7/22	P.I. 4	J. Hoye#	Western Sand		2	
7/29	Paxton 7	M. Lynch	7/5-7	P.I.	1	R. Heil
8/2	Hardwick 5	C. Buelow	7/27, 8/3	Chatham (S.B.)	1, 8 ad	
8/3	Hadley 15	R. Packard	7/29 8/21	P.I.	2	J. Hoye# R. Donovan
8/4 8/12	Longmeadow 20 Holden 6	S. Kellogg M. Lynch	8/23	Chatham (S.B.) Chapaquiddick	4	A. Keith
8/24	Gardner 4	C. Caron	Red-necked/	Little Stint (detail		red) *
Upland Sand		C. Caron	8/13	Chatham (S.B.)	1	B. Nikula
7/6	Lancaster 1	R. Lockwood	Least Sandpip			
7/21	Edgartown 2	M. Pelikan#	7/3	Duxbury B.	17	D. Clapp
7/30	GMNWR 3	D. Diggins#		Chatham (S.B.)		B. Nikula
8/thr		V. Laux + v.o.	7/22	Grafton	73 400+	M. Lynch
8/1		R. Lockwood#	7/23 7/29	P.I. Pandolph		R. Heil G. d'Entremont
8/1 8/11	Orange 1 GMNWR 7	M. Taylor S. Perkins	7/31	Randolph WBWS	20+	M. Lynch
8/16	DWWS 1	D. Furbish	8/4	Longmeadow	60	S. Kellogg
8/18	P.I. 1 migr	R. Heil	8/4	GMNWR	45	P. + F. Vale
Whimbrel			8/20	Edgartown	60	V. Laux
7/7	Stellwagen 2	P. Trull	8/22	Hyannis	55	C. Buelow
7/14	Rockport (H.P.) 2	M. Lynch	8/22	HRWMA	15	T. Pirro
7/14		M. Greenberg	White-rumpe		1 15	R. Heil
7/15	Newbypt. 8	R. Heil	7/2, 8/15 7/9	P.I.	1, 15	V. Laux
7/28		W. Harrington M. Lynch	7/27, 8/11	Oak Bluffs Chatham (S.B.)	3, 60	B. Nikula
7/31 8/3		S (D. Furbish)	8/16	N. Monomoy	2	MAS (P. Flood)
8/15	N. Monomoy 175	B. Nikula	8/16, 23	Chapaquiddick	1, 1	A. Keith
8/16, 23	Chapaquiddick 5, 2	A. Keith	8/19	Revere	6	P. + F. Vale
8/27	Eastham 1	M. Faherty	8/21	P.I.	215	R. Heil
Hudsonian G	odwit	e sede	8/24	Eastham (CGB)		B. Nikula
7/4	P.I. 6	R. Heil	8/26	S. Monomoy	15	B. Nikula
7/11, 27	Chatham (S.B.) 38, 95	B. Nikula	8/26-27	Chatham (S.B.)	800	B. Nikula
7/12	Newbypt. 7	R. Heil	Baird's Sandr 8/21	P.I.	1 juv	R. Heil
7/21	N. Monomoy 8 Chatham (S.B.) 107-18	B. Harrison B. Nikula	8/29-31	P.I.	2 juv	R. Heil
8/13, 27 8/21	Chatham (S.B.) 107, 18 N. Monomoy 56	B. Nikula	8/31	Agawam	2	S. Kellogg
8/21 8/25	Newbypt 1	J. Berry#	Pectoral Sand		118	
8/27	Eastham 1	M. Faherty	7/3	Duxbury B.	3	D. Clapp
Marbled God		200	7/22	Scituate	1	C. Dalton
7/23, 8/8		B. Nikula	7/29	Sterling Peat	1	M. Lynch
	N. Monomoy 2, 4				2	1 17
8/3	Chatham (S.B.)	R. Heil	8/11	Chatham (S.B.)	2	J. Young

Pectoral Sand	lpiper (continued))		8/4	Duxbury B.	14	F. Garretson
8/12	Longmeadow	3	S. Kellogg	8/11	Chatham (S.B.)		J. Young
8/17, 23	GMNWR	4, 7	S Perkins	8/19	Falmouth	182	R. Farrell
8/18	P.I.	12	BBC (D. Oliver)	8/22	Revere	17 BE	BC (P. + F. Vale)
8/21	Chatham (S.B.)	2	R. Donovan	8/23	Wasque	1	A. Keith
8/21	N. Monomoy	2	B. Nikula	8/24	Gloucester	5	J. Berry#
Dunlin				Little Gull			
7/4	P.I.	1	R. Heil	7/1-11	P.I.	1(1S)	R. Heil + v.o.
	Chatham (S.B.)	2, 3	B. Nikula	Black-headed			
Curlew Sand				7/1-20	P.I.	1 1S	R. Heil
8/5-26	Chatham (S.B.)	1 R.	Lockwood + v.o.	Bonaparte's (102 20100
Stilt Sandpipe		10 42	D 11.21	7/7	P.I.	60+	R. Heil
	P.I.	10, 42	R. Heil	7/21	Gloucester	2	R. Lockwood#
7/21	Muskeget I. Scituate	4 ad	R. Veit	7/25, 8/7	Lynn	250, 2000	J. Quigley S. Kellogg
7/22 8/8, 21	Scituate P.I. WBWS S. Monomoy	7 22	C. Dalton	8/4	Longmeadow	204	S. Kellogg P. + F. Vale M. Lynch P. + F. Vale J. Berry#
8/21	P.I.	1, 22	R. Heil	8/5	Newbypt.	294	P. + F. Vale
8/26	S Monomou	1	P. Flood# B. Nikula	8/12 8/19	Wachusett Res.	l ad	M. Lynch
Buff-breasted	Sandpiper	**	D. INIKUIA	8/24	Revere Gloucester	10	r. + r. vale
	P.I.	1 ad	Liny D Hail		-backed Gull	10	J. Belly#
8/29	GMNWR	1 au,	l juv R. Heil S. Perkins	7/7	Stellwagen	155B(C (M. Emmons#
Short-billed D				7/27, 8/3			R. Heil
	P.I.	420	R. Heil	8/1	Wasque	1 28	V/ Louis
7/8	Winthrop	60	S. Zendeh	8/20	Chatham Light		B. Nikula
7/11, 27	Chatham (S.B.)	1800, 32	00 B. Nikula	8/27	Chatham (S.B.)		B. Nikula
7/15	Newbynt /PT	1600	R. Heil	Black-legged		. 50	D. Tilkula
7/24	Edgartown	200+	V. Laux	8/21	Chatham (S.B.)	1	R. Donovan
7/29	Squantum	15	G. d'Entremont M. Lynch	Caspian Terr	1		
8/2	Nauset Marsh	500+	M. Lynch	7/3	P.I.	2 ad	R. Heil
8/3	Duxbury B.	110	M. Lynch D. Clapp P. + F. Vale P. + F. Vale	Royal Tern			
8/7, 31	Revere	16, 25	P. + F. Vale	7/2	Tuckernuck I.	1 ad	R. Veit
8/8	Wakefield	7	P. + F. Vale	Roseate Tern			
8/11, 23	Chatham (S.B.)	1100, 60	0 B. Nikula	7/thr	Wasque	3000+	V. Laux#
8/12		30	M. Rines	7/2	P.I. Eastham Stellwagen	3 ad	R. Heil
8/24	Eastham (CGB)		B. Nikula	7/27	Eastham	110	R. Heil
Short-billed D	owitcher (hender			7/30	Stellwagen	4	P. Trull
7/2,10,15		2	R. Heil	8/11	Chatham (S.B.)	400+	B. Nikula
7/27	Chatham (S.B.)	3	R. Heil	8/28	Wasque	400+ 750+ 640	M. Pelikan
Long-billed D		1 6	D Hail	8/31	Falmouth	640	R. Farrell
7/12, 24 8/23	P.I. P.I.	1, 5	R. Heil R. Heil	Common Terr	Wasaus	2000 :	17 T#
8/24	Eastham (CGB)	15 ad	B. Nikula	7/thr 7/thr	Wasque Muskeget Acoaxet	165 mm	V. Laux#
Common Snip		1	D. IVIKUIA	7/6	Acoavet	105 pr 11	R.Veit M. Lynch
		1	R. Packard	7/27	Chatham (S.B.)	25,000	R. Heil
7/29	Turners Falls Chilmark	i	A IV aidle	7/28	S. Carver	2	K. Anderson
8/14	GMNWR	12	M. Rines M. Hartel IAS (N. Soulette) B. Nikula	7/29	Newbypt. H.	200	S. Mirick#
8/18	Cambridge	2	K Hartel	8/13	P'town H.	75+	P. Flood
8/22	Newbynt	ĩ M	AS (N Soulette)	8/23	Hull	50	N. Swirka
8/26	S. Monomov	î "	B. Nikula	8/29	Hyannis	350	C. Buelow
8/30	New Braintree	2	C. Buelow	8/31	Revere	42	P. + F. Vale
American Woo	odcock			8/31		2560	R. Farrell
		6	R. Packard	Arctic Tern			
Wilson's Phala				7/22	Plymouth B.	2	T. Maloney#
7/1-10, 8/8	P.Í.	4 ad,	1 juv R. Heil	7/27, 8/22	Chatham (S.B.)	118	B. Nikula#
8/11-13, 23	Chatham (S.B.)	1, 1	B. Nikula D. Sibley	7/27	Eastham Stellwagen Nauset Marsh	1(1S)	R. Heil
8/15	Sandwich	1	D. Sibley	8/1	Stellwagen	1 ad	M. Lynch
Red-necked Pl	halarope			8/1	Nauset Marsh	1 ad	M. Lynch
8/27	Hydrog. Canyon	3 B	BC (N. Samson)	Forster's Tern	DI	1.7	P 11 11
	Edgartown	1	L. McDowell	7/7, 8/23	P.I. Wasque Stellwagen Chatham (S.B.)	1, 7	R. Heil
phalarope spec		40	T.D. #	8/1	Wasque	1	V. Laux
8/24	Stellwagen	40	J. Berry#	8/7	Stellwagen	3	I. Giriunas#
Pomarine Jaeg	25 m C of Nont		D. II31	8/11, 23	Chathain (O.D.)	2, 10	B. Nikula
	25 m S. of Nant.	3	R. Hell	8/15	P'town (R.P.)	1 2	J. Meyers
Parasitic Jaege		1 20	D Hall	8/23	Edgartown	30+	A. Keith
7/10 7/14	P.I.	1 3S 1 lt	R. Heil	8/26 8/31	S. Monomoy	2	B. Nikula P. + F. Vale
	Rockport (H.P.)	1	M. Lynch		Revere	3	
7/20 8/3	P.I. Chatham (S.B.)	6	D. Abbott# R. Heil	8/31 Least Tern	Falmouth	5	R. Farrell
8/19	Stellwagen	3	B. Nikula#	7/6	Acoaxet	9	M. Lynch
8/26	Chatham (S.B.)	20+	B. Nikula#	7/14	P.I.	24	S. Moore#
jaeger species	Chamani (S.D.)	201	D. Mikulah	7/31	WBWS	10+	M. Lynch
7/27	Chatham (S.B.)	2	B. Nikula#	8/1	Stellwagen	10+	M. Lynch
8/12	Stellwagen	2	B. Nikula	8/1	Nauset Marsh	15	M. Lynch
8/28	Chatham (S.B.)	3	B. Nikula#	8/3	S. Carver	1	R. Titus
Laughing Gull				8/13	P'town H.	1	P. Flood
7/7	Stellwagen	23	M. Emmons#	8/18	Chatham (S.B.)		. d'Entremont#
7/24, 8/24		2, 11	J. Quigley	Black Tern			
7/27	Chatham (S.B.) 1		R. Heil	7/27	Eastham	1 ad	R. Heil
Nese/A		063135	THE THE	TO ME SEL		2.517570	7.650 PG/55

Black Tem (c	continued)			7/12	Duxbury B.	1	D. Clapp
8/1	Wasque	1	V. Laux	7/22	Plymouth B.	1	T. Maloney#
8/5	Nantucket	1	E. Rav	7/27, 8/26	Chatham (S.B.)	3, 4	B. Nikula#
8/18	P.I.	1 juv	R. Heil	Dovekie			
8/19	Stellwagen	2	B. Nikula#	7/8	Nahant	1 ad br pl	R. Heil
8/23	Chappaquiddick	2	A. Keith	Razorbill			
8/24	Bourne	1 iuv	C. Dalton	7/thr	Edgartown	3 ph	V. Laux
8/26	S. Monomoy	5	B. Nikula	8/1-22	Chilmark	3	T. Rivers
8/27	Chatham (S.B.)	4	B. Nikula	Atlantic Puffi	n		
8/31	Falmouth	9	R. Farrell	7/11	Stellwagen	1 imm	P. Trull
Black Skimm				7/15	P.I.	1	R. Heil
7/1	Orleans	1	G. Hirth	7/26, 8/20	Rockport (A.P.)	3, 9	R. Heil
7/10, 24	P.I.	2 ad, 1 ad	R. Heil				

CUCKOOS THROUGH GROSBEAKS

The big owl news this season was not here in Massachusetts but in our sister states to the north — news that may effect the sightings of Boreal Owls this fall and winter in our state. On July 29, 2001, an adult **Boreal Owl** was found on Mount Pierce in New Hampshire (elevation 4310 ft); Steve Mirick investigated and found a juvenile Boreal Owl, which he photographed as the first nesting record for the eastern United States. In addition, another adult Boreal Owl was found on Stratton Mountain in Vermont, and reports from southern Quebec indicated many birds. This is a significant range expansion from previously reported nesting areas in Eastern Canada. Keep alert!

At the Marconi White Cedar Swamp Trail in South Wellfleet, avian night activity continued to delight birders into the summer. The Chuck-will's-widow was still calling actively as late as mid-July along with Whip-poor-wills and a Northern Saw-whet Owl. A Short-eared Owl was seen on Nantucket, keeping alive the hope that this species may still nest on the island. The annual fall migration of Common Nighthawks gets underway in mid-August, and for several veteran nighthawk watchers this season's results were dismal. Tom Gagnon, who has kept vigil from Northampton over the past twenty-three years, reported just 1340 birds, 63 percent below average! This writer experienced the lowest total in eighteen years of monitoring the nighthawk flight from Watertown and Mount Auburn Cemetery, a mere 89 individuals compared with over 800 last year. Watchers in the Worcester area also reported lower numbers, but not as dramatic as in these other areas.

Chimney Swifts are also on the move in late August along with the nighthawks, taking advantage of the hatching of the flying ant swarms, and on August 21 over a thousand swifts were estimated at Great Meadows in Concord. The staging of the Tree Swallows at Plum Island is another annual migration "must see." Over 100, 000 Tree Swallows and tens of thousands of European Starlings make Plum Island an avian biomass during the late summer.

While many birders are concentrating on the big shorebird flights, songbirds, too, are heading south in late summer. The earliest migrants are usually Orchard Orioles, which are generally gone by the end of July, so the bird noted on Plum Island on August 18 was exceptionally late. Olive-sided Flycatchers move through rather quickly, and in a short time span; just three were noted this period as compared with five last year, and they were all in western Massachusetts. An Acadian Flycatcher was still singing on July 29, the latest date noted from the western part of the state for this species. Philadelphia Vireos are much easier to find in the fall migration here than in the spring, so a vanguard of at least five individuals surpassed the one located for this time frame last year. A total of twenty-eight warbler species was recorded during the period. A Connecticut Warbler on August 29 was on the early side, with most reports first coming well into September.

A Clay-colored Sparrow was noted for several days in early July in Lancaster. Although this species is yet to be confirmed as a breeder in the state, these reports are encouraging. There

have been many near confirmations of this species possibly breeding as far back as 1988, when a pair was suspected defending territory at Fort Devens in Ayer, and more recently at Miles Standish State Park in Plymouth. The recent confirmation on the Kennebunk Plains in Maine, and this year near Albany, proves that it should just be a matter of time for this state's first confirmed nesting. A Lincoln's Sparrow in Hinsdale on August 11 represents only the second August report of this species in western Massachusetts, supporting the notion that it may have bred nearby.

A sighting of an **Ash-throated Flycatcher** at Rock Meadow in Belmont was especially interesting: most reports for this species have occurred much later in the fall, usually long after the Great Crested Flycatchers have departed. The observer took careful notes and, most importantly, heard it call nearly forty times, clinching its identity. A Western Kingbird on Plum Island on August 29 was also on the early side: historically most reports are during the months of September-November. Other unusual species sighted during the period included a Redheaded Woodpecker in Weston, a Sedge Wren at the Daniel Webster Sanctuary in Marshfield, a Lark Sparrow on Tuckernuck Island, and Dickcissels on Plum Island and in Deerfield. There was a small movement of Evening Grosbeaks in early July, with reports from four scattered locations across the state.

R. Stymeist

Black-billed				Common Ni			
7/7	Hatfield	1	R. Packard	8/6-18	Reports of 1-2		
7/15	E. Middleboro	1	K. Anderson	8/19	Wilbraham	39	J. Gawienowski
7/15, 8/11	P.I.	2, 2 ju	v R. Heil	8/22	Maynard	79	L. Nachtrab
8/2	Ashfield	1	S. Sauter	8/22, 23	Roslindale	150, 10	
8/5	Barre	3	M. Lynch	8/24	HRWMA	136	
8/15	Amherst	1		8/25			T. Pirro
		1	H. Allen		Worcester	604	M. Lynch
Yellow-billed				8/27	Pittsfield	265	S. Robinson
7/1	Northampton	1	R. Packard	8/27	Northampton	418	T. Gagnon
7/1	Manchester	1	J. Nelson	8/27	Hardwick	150	C. Buelow
7/7	Ouabbin Pk.	1	E. Labato	8/28	Natick	100+	R. Natichioni
7/13-27	E. Middleboro	i	K. Anderson	8/28	N. Hadley	200+	C. Gentes
7/18	Southwick	1		8/28			
		1	S. Kellogg		Worcester	934	B. Kamp
8/5	Barre	1	M. Lynch	8/28	Wilbraham	159	J. Gawienowski
8/20	Quabbin (G40)	5	R. Packard	8/30	Stow	161	R. Lockwood
8/23	E. Gloucester	1	C. Leahy	Chuck-will's	s-widow		
Eastern Scree		- 7		7/9-18	Wellfleet	1	V.O.
7/4	Wakefield	1	P. Vale	8/1		1	
7/30		2			Edgartown	1	A. Keith
	Arlington	2 2	M. Rines	Whip-poor-w			
8/22	Boston		M. Kanaracus	7/1-8	Monterey	1	S. Protheroe
8/23	Lexington	1	M. Rines	7/9	W. Newbury	3	BBC (T. Young)
8/28	Winchester	1	M. Rines	7/11	Dover	5	E. Taylor
8/28	W. Gloucester	2	J. Nelson	7/14	Montague	3 5 7	R. Packard
Great Horned		-	J. INCISUII	7/15		,	
7/22					Southwick	1	S. Kellogg
	Maynard	.2	R. Lockwood#	8/11	Newbury	1	P. + F. Vale
8/4	Hyannis	2	C. Buelow	8/23	Stow	4	R. Lockwood
8/23	Whateley	2	M. Williams	8/28	W. Gloucester	1	J. Nelson
8/24	DWWS	2	D. Furbish	Chimney Sw			10,100,000,000
8/31	Falmouth	2 2 2 2 2	R. Farrell	7/10	Falmouth	35	D. Furbish
thr				7/29		30+	
	Reports of indiv.	from 10	locations		Grafton		M. Lynch
Barred Owl				8/thr	S. Lancaster n		S. Sutton
7/1	Stow	1	R. Lockwood	8/18	Cambridge	50+	K. Hartel
7/3	Harvard	2 yg	S. Hardy	8/21	Melrose	50+	D. + I. Jewell
7/8, 31	E. Middleboro	1	K. Anderson	8/21	GMNWR	1000	S. Perkins#
7/20	Boxford	i	D. + I. Jewell	8/30	Stow	116	R. Lockwood
7/22		1				110	R. Lockwood
	Williamsburg	2	R. Packard	Ruby-throate	ed Hummingbird		12 20000
7/26	Barre	3	C. Buelow	7/3	Stow	11	S. Sutton
8/1	W. Gloucester	2	J. Nelson	7/29	Huntington	6	R. Packard
8/1	Southwick	1	S. Kellogg	8/2	Windsor	4	R. Packard#
8/1-24	Athol	2	R. Coyle	8/4	Lenox	5	R. Laubach
8/7	Becket	1		8/19		4	
		1	R. Laubach		Lexington		M. Rines
8/20	Quabbin (G40)	1	R. Packard	8/25	S. Quabbin	4	M. Lynch
8/27	Hardwick	1	C. Buelow	8/26	Adams	4	R. Packard
Short-eared C)wl			Red-headed	Woodpecker		
7/10	Nantucket	1	E. Ray	7/13-20	Weston	1 ad	B. Fullerton
Northern Sav			L. Ray		ed Sapsucker	ı au	D. I unciton
		1	C El d			1	V/ 1
7/15	Wellfleet	1	C. Floyd	7/1	Holden	1	M. Lynch

Name	M. Lynch M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont# M. Rines M. Lynch	5 3 2 6 2 2 1 1 17 44, 65 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1	Saugus P.I. Manchester MBWMA DWWS Northampton Medford Lexington gbird P.I. bird Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Stron Boxford	7/19 7/31 8/1 8/1 8/1 8/12 8/22 8/28 Western Kingt 8/31 Eastern Kingt 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed V 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	G. d'Entremont# R. Packard S. Sauter R. Packard# M. Williams M. Lynch D. + 1. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard R. Packard	8 1 7 1 juv 1 juv 5 4 7 4 3 3 pr n 1 1 4 1 2	Hawley Quabbin (G10) Huntington Ashfield Windsor Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	7/7 7/22 7/29 8/2 8/2 8/30 Hairy Wood 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
7/12	R. Heil J. Nelson P. + F. Vale D. Furbish R. Packard M. Rines# R. LaFontaine R. Heil M. Lynch R. Heil M. Lynch M. Lynch M. Lynch P. Venama M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	5 3 2 6 2 2 1 1 17 44, 65 1 1 1 1 2 1 1 1 1 2 1 1 1 1 1 1 1 1 1	P.I. Manchester MBWMA DWWS Northampton Medford Lexington gbird P.I. Joird Barre P.I. Jireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick led Vireo Sheffield Carlisle Stow Boxford	7/31 8/1 8/5 8/11 8/22 8/22 8/28 Western Kingl 8/31 Eastern Kingl 8/5 8/11, 28 White-eyed V 7/6 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/5 8/12 8/5 8/12 8/7 8/23 Yellow-throat 7/1 7/3	G. d'Entremont# R. Packard S. Sauter R. Packard# M. Williams M. Lynch D. + 1. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard R. Packard	7 1 juv 1 juv 5 4 7 4 3 3 9 pr n 1 1 4 1 2 1	Quabbin (G10) Huntington Ashfield Windsor Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	7/22 7/29 8/2 8/2 8/30 Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
No. Proceedings Process Proc	J. Nelson P. + F. Vale D. Furbish R. Packard M. Rines# R. LaFontaine R. Heil M. Lynch R. Heil M. Lynch M. Lynch M. Lynch M. Lynch M. Lynch M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood M. Lynch J. Berry# C. Buelow R. Lockwood M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	3 2 6 2 2 1 1 17 44, 65 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	Manchester MBWMA DWWS Northampton Medford Lexington gbird P.I. Dird Barre P.I. Jireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/1 8/5 8/11 8/12 8/22 8/28 Western Kingle 8/3 8/31 Eastern Kingle 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/2 8/12 8/23 Yellow-throat 7/3	R. Packard S. Sauter R. Packard# M. Williams M. Lynch D. + I. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	7 1 juv 1 juv 5 4 7 4 3 3 9 pr n 1 1 4 1 2 1	Huntington Ashfield Windsor Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	7/29 8/2 8/2 8/30 Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
	P. + F. Vale D. Furbish R. Packard M. Rines# R. LaFontaine R. Heil M. Lynch M. Lynch M. Lynch P. Venama M. Lynch M. Lynch S. Sauter M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 17 44, 65 1 1 1 1 2 8 1 2 1 1 1 1 1 1 2 1 1 1 1 1	MBWMA DWWS Northampton Medford Lexington gbird P.I. joird Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Stow Boxford	8/5 8/11 8/12 8/22 8/28 Western King 8/31 Eastern Kingt 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7/7 7/21 7/28 7/29 8/2 8/2 8/23 Yellow-throat 7/1 7/3	S. Sauter R. Packard# M. Williams M. Lynch D. + I. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 juv 1 juv 5 4 7 4 3 3 3 pr n 1 1 4 1 2	Ashfield Windsor Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/2 8/2 8/30 Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
No.	D. Furbish R. Packard M. Rines# R. LaFontaine R. Heil M. Lynch R. Heil M. Lynch M. Lynch M. Lynch P. Venama M. Lynch M. Lynch S. Sauter M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 17 44, 65 1 1 1 1 2 8 1 2 1 1 1 1 1 1 2 1 1 1 1 1	DWWS Northampton Medford Lexington gbird P.I. joird Barre P.I. ireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/11 8/12 8/22 8/28 Western Kingl 8/31 Eastern Kingl 8/5 8/11, 28 White-eyed V 7/6 7/6 8/20 Blue-headed Y 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	R. Packard# M. Williams M. Lynch D. + 1. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 juv 1 juv 5 4 7 4 3 3 3 pr n 1 1 4 1 2	Windsor Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/2 8/30 Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
	M. Rines# R. LaFontaine R. Heil M. Lynch R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood M. Lynch J. Berry# C. Buelow R. Lockwood P. Lockwood J. Hoye# T. Brownrigg R. Lockwood J. Hoye# T. Brownrigg R. Lockwood J. Hoye# C. Buelow R. Lockwood D. Chickering M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 17 44, 65 1 1 1 1 2 8 1 2 1 1 1 1 1 1 2 1 1 1 1 1	Medford Lexington gbird P.I. bird Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Story Boxford	8/22 8/28 Western King 8/31 Eastern Kingl 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/3	M. Williams M. Lynch D. + I. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 juv 5 4 7 4 3 3 3 9 pr n 1 1 4 1 2 1	Whately pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/30 Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
	R. LaFontaine R. Heil M. Lynch R. Heil M. Lynch M. Lynch M. Lynch P. Venama M. Lynch M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 17 44, 65 1 1 1 1 2 8 1 2 1 1 1 1 1 1 2 1 1 1 1 1	Lexington gbird P.I. ord Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/28 Western King 8/31 Eastern Kingl 8/5 8/11, 28 White-eyed V 7/6 7/6 8/20 Blue-headed Y 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	M. Lynch D. + I. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	5 4 7 4 3 3 3 pr n 1 1 4 1 2	pecker Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	Hairy Wood 7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
No. Lynch Stow Algorithms Algorith	R. Heil M. Lynch R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood M. Lynch J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 17 44, 65 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	gbird P.I. bird Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	Western King 8/31 Eastern Kingt 8/5 8/11, 28 White-eyed V 7/6 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	D. + I. Jewell M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	4 7 4 3 3 3 pr n 1 1 4 1 2	Holden Medford Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	7/1 7/3 8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
Stoke	M. Lynch R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	17 44, 65 1 1 1 17 28 1 2 1 10 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	P.I. bird Barre P.I. fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Story Boxford	8/31 Eastern Kingt 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/2 8/23 Yellow-throat 7/1	M. Lynch R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	7 4 3 3 9 pr n 1 1 4 1 2	Barre Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/5 8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
Stow 4 R. Lockwood Statem Kingbird Stow Statem Kingbird Stow Statem Kingbird Statem	M. Lynch R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	17 44, 65 1 1 1 17 28 1 2 1 10 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	Barre P.I. Fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Stow Boxford	Eastern Kingle 8/5 8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	R. Lockwood J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	4 3 3 pr n 1 4 1 2	Stow Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/11 8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
St.25 Boxboro 3	R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood B. Lockwood D. Chickering M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	44, 65 1 17 28 1 2 1 10 1 1 1 2 1 1 m 12, 2 1	Barre P.I. Fireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/5 8/11, 28 White-eyed V 7/6 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1	J. Michaels M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	3 3 pr n 1 1 4 1 2	Boxboro Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/25 8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
No.	R. Heil M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood B. Lockwood D. Chickering M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	44, 65 1 17 28 1 2 1 10 1 1 1 2 1 1 m 12, 2 1	P.I. ireo Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ied Vireo Sheffield Carlisle Stow Boxford	8/11, 28 White-eyed V 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1	M. Rines J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	3 pr n 1 1 4 1 2	Lexington odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	8/29 Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
Pileated Woodpecker 7/5 Gloucester pr n 7/5 Gloucester pr n 7/29 Huntington 1 R. Packard 8/2 Ashfield 1 S. Sauter 8/20 Hardwick 1 R. Packard 8/20 Hardwick 1 R. Packard 8/20 Hardwick 1 R. Packard 8/20 Quabbin (G40) 2 R. Packard 8/21 Sunderland 1 M. Williams 7/28 Maynard 1 R. Lockwood 8/27 Northampton 2 T. Gagnon 7/29 Paxton 2 M. J. S. Sauter 8/20 Nantucket 1 P. Verick 7/2 M. J. S. S. Sauter 8/20 Nantucket 1 P. Verick 7/2 M. J. S. S. Sauter 8/20 Nantucket 1 P. Verick 7/2 M. J. S. S. Sauter 8/20 Nantucket 1 P. Verick 7/2 M. J. S. S. Sauter 8/20 Nantucket 1 P. Verick 7/2 M. J. S. S. Sauter 7/2 M. J. S. S. Sauter 7/2 M. J. Williams 7/28 Maynard 1 R. Lockwood 8/25 N. Sciutate 1 P. Verick 7/2 M. J. S. S. Sauter 7/2 M. J. S.	M. Lynch M. Lynch M. Lynch P. Venama M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 1 17 28 1 2 1 10 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1	Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ted Vireo Sheffield Carlisle Stow Boxford	White-eyed V 7/6 8/20 Blue-headed Y 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	J. Berry R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard	pr n 1 1 4 1 2 1	odpecker Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	Pileated Wo 7/5 7/29 8/2 8/5 8/20 8/20
No. Color	M. Lynch P. Venama M. Lynch M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood J. Hynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 1 1 2 1 1 m 12, 2 1 1 m 12, 2 1 1	Westport Acoaxet Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	7/6 7/6 8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	R. Packard S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 1 4 1 2	Gloucester Huntington Ashfield Barre Hardwick Quabbin (G40)	7/5 7/29 8/2 8/5 8/20 8/20
No.	P. Venama M. Lynch M. Lynch M. Lynch M. Lynch S. Sauter M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 17 28 1 2 1 10 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Nantucket Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/20 Blue-headed 7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	S. Sauter M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 4 1 2	Ashfield Barre Hardwick Quabbin (G40)	7/29 8/2 8/5 8/20 8/20
Strict	M. Lynch M. Lynch M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	17 28 1 2 1 10 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	Vireo Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	Blue-headed '7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	M. Lynch C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	4 1 2 1	Barre Hardwick Quabbin (G40)	8/5 8/20 8/20
No.	M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	28 1 2 1 10 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	Hawley Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	7/7 7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	C. Buelow R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 2 1	Hardwick Quabbin (G40)	8/20 8/20
Stock	M. Lynch R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	28 1 2 1 10 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1	Barre Maynard Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	7/21 7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	R. Packard M. Williams T. Gagnon M. Williams R. Packard R. Packard	2	Quabbin (G40)	8/20
Record R	R. Lockwood M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Browning R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 2 1 10 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1	Maynard Paxton Ashfield Barre Williamsburg Hardwick ked Vireo Sheffield Carlisle Stow Boxford	7/28 7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	M. Williams T. Gagnon M. Williams R. Packard R. Packard	1 2 2		
Size	M. Lynch S. Sauter M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	2 1 10 1 1 1 2 1 1 1 m 12, 2 2 1	Paxton Ashfield Barre Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	7/29 8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	T. Gagnon M. Williams R. Packard R. Packard	2 2		9/22
Size	M. Lynch R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	10 1 1 2 1 1 m 12, 2 2 1	Ashfield Barre Williamsburg Hardwick ded Vireo Sheffield Carlisle Stow Boxford	8/2 8/5 8/12 8/23 Yellow-throat 7/1 7/3	M. Williams R. Packard R. Packard	2		
Size	R. Packard C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 2 1 1 m 12, 2 2	Williamsburg Hardwick ed Vireo Sheffield Carlisle Stow Boxford	8/12 8/23 Yellow-throat 7/1 7/3	R. Packard			
8/26 Greylock 2 R. Packard 8/23 Hardwick 1 C. Bu 8/30 Stow 1 R. Lockwood 7/1 Sheffield 2 J. F. 7/1 Holden 15 M. Lynch 7/3 Carlisle 1 T. Brow 7/7 Hingham 10 G. d'Entremont 7/4 Stow 1 M. Lockwood 7/29 Worc. (BMB) 8 J. Liller 7/28 ONWR 2 R. Lockwood 8/15 Medford 7 R. Lockwood 7/29 Huntington 1 R. Packard 8/19 Duxbury 8 N. Swirka 8/5 Barre 2 M. I 8/25 S. Quabbin 14 M. Lynch M. Lynch 7/4 Wasefield 6 P. F 8/26 Paxton 1 M. Lynch 8/26 Lexington 2 M. 8/26 Paxton 1 M. Lynch 8/25 D. WS 1 G. d'Entre	C. Buelow J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 2 1 1 m 12, 2 2	Hardwick ded Vireo Sheffield Carlisle Stow Boxford	8/23 Yellow-throat 7/1 7/3	R. Packard			
Eastern Wood-Pewee	J. Hoye# T. Brownrigg R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont# M. Rines M. Lynch J. Berry#	2 1 1 1 m 12, 2 2 1	ed Vireo Sheffield Carlisle Stow Boxford	Yellow-throat 7/1 7/3				
Eastern Wood-Pewee	T. Brownrigg R. Lockwood* J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 m 12, 2 2	Sheffield Carlisle Stow Boxford	7/1 7/3	R. Lockwood			
The content of the	T. Brownrigg R. Lockwood* J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 1 m 12, 2 2	Carlisle Stow Boxford	7/3		1		
7/6 Hardwick 7 C. Buelow 7/4 Stow 1 R. Lockwod 7/7 Hingham 10 G. d'Entremont 7/7 Boxford 1 m J. Barre 28 M. Lynch 7/9, 8/12 Hardwick 12, 2 C. Buelow R. Lockwood R. Packard R. Packard </td <td>R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#</td> <td>1 m 12, 2 2</td> <td>Stow Boxford</td> <td></td> <td>M Lynch</td> <td>15</td> <td></td> <td></td>	R. Lockwood# J. Berry# C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1 m 12, 2 2	Stow Boxford		M Lynch	15		
This	C. Buelow R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	12, 2 2 1	Boxford					
Times	R. Lockwood R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	2	Hardwick	7/7				
No.	R. Packard M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	1				28		
N. Swirka S/15 Boxboro Duxbury S/25 S. Quabbin 14 M. Lynch S/25 S. Quabbin 14 M. Lynch S/26 Paxton 1 M. Lynch S/26 Paxton 1 M. Lynch S/26 Lexington 2 M. Lynch S/29 Huntington 1 R. Packard S/25 N. Scituate 1 D. Chick S/26 Barre 1 M. Lynch S/25 DWS 1 G. d'Entrer S/25 D. Scituate 1 D. Chick S/25 DWS 1 G. d'Entrer S/25 D. Scituate 1 G. d'Entrer	M. Lynch J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#					8		
N. Swirka	J. Michaels P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#	2				7		8/11
State	P. + F. Vale R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#					7		
No.	R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#	1						
Yellow-bellied Flycatcher	R. Lockwood D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#	6						
8/25 S. Quabbin 1 M. Lynch 8/19 MNWS 2 D. Chick 8/26 Paxton 1 M. Lynch 8/26 Lexington 2 M. Acadian Flycatcher 7/1 Quabbin (G15) 2 m J. Hoye# B/18 Bolton Flats 2 C. C. 7/12 Huntington 1 R. Packard 8/25 Pl. 1 D. Chick 8/5 Barre 1 M. Lynch 8/25 Pl. 1 D. Chick 8/5 Barre 1 M. Lynch 8/25 Pl. 1 D. Chick 8/5 Barre 1 M. Lynch 8/25 Pl. 1 D. Chick 8/1 M. Lynch 8/25 DWWS 1 G. d'Entre 8/2 Huntington 3 J. Berry# 7/1 Holden 2 M. J. 8/2 Windsor 9 R. Packard 7/7 Hawley 7 M. J. 8/5 Barr	D. Chickering M. Rines C. Caron D. Chickering G. d'Entremont G. d'Entremont M. Rines M. Lynch J. Berry#				IVI. Lynch	14	od Elycatcher	Vallow ball
Addarf Flycatcher T/7 Quabbin (G15) 2 m Flyage Philadelphia Vireo R. Packard T/7 Boxford 23 m J. E. Packard T/7 Boxford 23 m J. E. Packard T/7 Boxford 23 m J. E. Packard T/7 Boxford T/7 T/7 Boxford T/7 T/7 Boxford T/7	C. Caron D. Chickering G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#				M. Lynch	1		
Academ Private Priva	D. Chickering G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#	2	Lexington					
7/1 Quabbin (G15) 2 m J. Hoye# Philadelphia Vireo 7/29 Huntington 1 R. Packard 8/25 P.I. 1 D. Chick 8/5 Barre 1 M. Lynch 8/25 DWWS 1 G. d'Entrer 7/7 Hawley 1 M. Lynch 8/25 N. Scituate 1 G. d'Entrer 7/17, 29 HRWMA 2 T. Pirro Red-eyed Vireo 7/1 Holden 24 M. J 7/22 W. Boxford 3 J. Berry# 7/7 Boxford 23 m J. E 8/2 Windsor 9 R. Packard 7/7 Boxford 23 m J. E 8/5 Barre 7 M. Lynch 7/9 Hardwick 35 C. B 8/5 Barre 7 M. Lynch 7/9 Hardwick 35 C. B 8/5 Barre 7 M. Lynch 7/9 Huntington 15 R. Pa 8/1 Ba	G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#	2						
No.	G. d'Entremont G. d'Entremont# M. Rines M. Lynch J. Berry#	1					Quabbin (G15)	7/1
Alder Flycatcher 7/7 Hawley 1 M. Lynch 8/25 N. Scituate 2 M. Lynch 8/29 Lexington 2 M. 7/7, 29 HRWMA 2 T. Pirro 7/12 W. Boxford 3 J. Berry 7/1 Holden 24 M. J. Erry 7/29 Huntington 6 R. Packard 7/7 Boxford 23 m J. E. 8/2 Windsor 9 R. Packard 7/7 Boxford 23 m J. E. 8/2 Windsor 9 R. Packard 7/7 Hawley 72 M. J. E. 8/2 Willow Flycatcher 7/21 Barre 105 M. E. Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Packard 7/15, 8/18 P.I. 10, 3 R. Lockwood 8/5 Barre 78 M. J. E. R. Heil 8/20 Quabbin (G40) 10 R. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 4 R. Lockwood 8/25 S. Quabbin 69 M. J. Packard 7/122 Grafton 8/29 J. Packard 7/122 Grafton 8/29 J. Packard 7/122 J. Pac	G. d'Entremont# M. Rines M. Lynch J. Berry#							
Marrow M	M. Rines M. Lynch J. Berry#				M. Lyncn	1		
7/17, 29 HRWMA 2 T. Pirro Red-eyed Vireo 7/22 W. Boxford 3 J. Berry# 7/1 Holden 24 M.J. 7/29 Huntington 6 R. Packard 7/7 Boxford 23 m J. E 8/2 Windsor 9 R. Packard# 7/7 Hawley 72 M.J. 8/5 Barre 7 M. Lynch 7/9 Hardwick 35 C. B Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Packard# 7/15 Maynard 4 R. Lockwood# 8/5 Barre 78 M.J. 7/15 8/18 P.I. 10 3 R. Heil 8/20 Quabbin (G40) 10 R. Packard# 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	M. Lynch J. Berry#				M Lynch	1		
7/22 W. Boxford 3 J. Berry# 7/1 Holden 24 M.J. 7/29 Huntington 6 R. Packard 7/7 Boxford 23 m J. E 8/2 Windsor 9 R. Packard# 7/7 Hawley 72 M.J. 8/5 Barre 7 M. Lynch 7/9 Hardwick 35 C. B Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Packard# 7/4 Maynard 4 R. Lockwood# 8/5 Barre 78 M.J. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Packard# 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.J.	J. Berry#		eo	Red-eved Vir			HRWMA	
Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Pa 7/4 Maynard 4 R. Lockwood 8/5 Barre 78 M. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/122 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.			Holden	7/1		3		
Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Pa 7/4 Maynard 4 R. Lockwood 8/5 Barre 78 M. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/122 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	M. Lynch					6		
Willow Flycatcher 7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Pa 7/4 Maynard 4 R. Lockwood# 8/5 Barre 78 M. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.						9	Windsor	8/2
7/3 Lancaster 4 R. Lockwood 7/29 Huntington 15 R. Pa 7/4 Maynard 4 R. Lockwood# 8/5 Barre 78 M. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	C. Buelow				M. Lynch	7	Barre	8/5
7/4 Maynard 4 R. Lockwood# 8/5 Barre 78 M. 7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	M. Lynch R. Packard				D. Lastones 1			
7/15, 8/18 P.I. 10, 3 R. Heil 8/20 Quabbin (G40) 10 R. Pa 7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	M. Lynch							
7/22 Grafton 4 M. Lynch 8/25 S. Quabbin 69 M.	R. Packard							
//22 Granton	M. Lynch							
7/28 ONWR 3 + 2 fl R, Lockwood Fish Crow				Fish Crow	2 fl R. Lockwood		ONWR	7/28
7/29 Huntington 3 R. Packard 7/27 Marshfield 5 D. F	D. Furbish	5		7/27	R. Packard	3		
7/30 GMNWR 5 R. Lockwood# 7/29 Randolph 3 G. d'Entr	G. d'Entremont	3			R. Lockwood#	5	GMNWR	
8/5 Hardwick 2 C. Buelow 8/9 Northampton 2 R. Pa	R. Packard					2	Hardwick	8/5
8/5 Wakefield 2 P. + F. Vale 8/13 Longmeadow 1 R. F.	R. Packard D. Furbish		Longmeadow		P. + F. Vale	2	Wakefield	8/5
	J. Young			8/24	M. Tamak	- 2	tcher	
// Holden 1 P P 1 1 9/21 Northampton 1 P Pe	R. Packard					3		
	acra a dental d	0 0				5		
7/4 Barre 6 M. Lynch Common Raven 7/7 Hawley 3 M. Lynch 7/1 Barre 1 C. B	C. Buelow	1				3		
7/7 Hawley 3 M. Lynch //1 Barre 1 C. Buelow 7/7 Hawley 3 M. Lynch //1 C. Buelow 7/7 Hawley 3 M.	M. Lynch					2		
8/5 Barre 13 M. Lynch 8/25 Mt. Wachusett 6 T. Ca	T. Carrolan	1 3				13		
8/19 Lexington 2 M. Rines 8/25 S. Quabbin I M.	M. Lynch	1 3 6				2		8/19
8/20 Ouabbin (G40) 1 R. Packard 8/29 Sunderland 1 M. WI	M. Williams	1 3 6 1			R. Packard		Quabbin (G40)	
8/20 Concord 1 M. Rines 8/30 Groton 2	T. Pirro	1 3 6 1				1	Concord	
9/21 PT 1 R. Heil Horned Lark	D. Silverstein#	1 3 6 1	Groton		R. Heil	1	P.I.	9/21
Ash-inroated riveatcher (details submitted)	M. Taylor	1 3 6 1 1 2	Groton		nitted) *	tails sub	ed Flycatcher (de	Ash-throa
0/20 Delmont 1 M Kines 8/1 Urange 12 141.		1 3 6 1 1 2	Groton Eastham		M. Rines	1	Relmont	8/30
0/30 Delinione		1 3 6 1 1 2 4 12	Groton Eastham Orange	8/1				
Great Crested Flycatcher 7/1 Holden 4 M. Lynch 8/11 Chatham (S.B.) 8 J.	J. Young	1 3 6 1 1 2	Groton Eastham Orange	8/1	M Lynch		ed Flycatcher	Great Cres

148 H 500 V							
Purple Martin			n n	House Wren			
7/5 7/5	Scituate DWWS	2 pr	D. Furbish		Barre	17	M. Lynch
8/14, 29	P.I.	31 pr 35, 1	D. Clapp juv R. Heil		MBWMA Belmont	13	P. + F. Vale
Tree Swallow		55, 1	idv ic. Heli	8/24	Wakefield	8	M. Rines# F. Vale
7/9, 8/8	P.I.	800, 80	000 R. Heil	8/26	Lexington	18	M. Rines
7/30	Wayland	200	E. Taylor				in raines
8/12	Holden	200+	M. Lynch	7/4	Barre	5	M. Lynch
8/18-23	Newbypt./P.I. 50	0,000-10	00,000 R. Heil	7/6	Hardwick	1	C. Buelow
8/25 8/26	S. Quabbin S. Monomoy	195 mi 800		7/7	Boxford	2 n	
	gh-winged Swall	OW.	B. Nikula	7/7 7/29	Hawley HRWMA	5	M. Lynch T. Pirro
7/6	Acoaxet	4	M. Lynch	8/2	Ashfield	î	S. Sauter
7/14	Rockport (H.P.)	2	M. Lynch	8/12	Williamsburg	1	R. Packard
7/28	Melrose	33	P. + F. Vale	8/19	Lexington	2	M. Rines
7/29	Paxton	1	M. Lynch	Sedge Wren			
8/12 8/13	Holden	1	M. Lynch	8/13, 29	DWWS	1	D. Ludlow
8/16	Longmeadow Wakefield	14	R. Packard# P. + F. Vale	Marsh Wren	Wakefield	6	P. + F. Vale
Bank Swallov		17	1. T. vale	7/26	GMNWR	15	R. Titus
7/1	Sterling Peat	30+	M. Lynch	7/29	P.I.	15	P. + F. Vale
7/1	Eastham	10	G. Hirth	Blue-gray Gr			
11.1	P.I.	240	R. Heil	7/3	Medford	2	D. + I. Jewell
7/5	Scituate	65	D. Clapp	7/29	MBWMA	4	P. + F. Vale
7/14 7/16	Turners Falls Nomans I.	50 60	M. Taylor	7/29	Huntington	2	R. Packard
7/17	E. Sandwich	120	R. Lockwood# S. Miller	8/19 8/20	Lexington Ouabbin (G40)	2	M. Rines
7/31	Hardwick	10	C. Buelow	8/20	Hardwick	20	R. Packard C. Buelow
8/3	Fairhaven	140	R. Titus	8/25	S. Quabbin	4	M. Lynch
8/13	Longmeadow	15	R. Packard#	Golden-crow			in Lynen
8/18	Chatham (S.B.)	4	G. d'Entremont#	7/7	Hawley	7	M. Lynch
8/30 Dam Swallow	Groton	2	T. Pirro	8/5	Barre	8	M. Lynch
Barn Swallow 8/5	Cape Ann	125+	R. Heil	8/20	Quabbin (G40)	2	R. Packard
8/8	P.I.	200+	R. Heil	Ruby-crowne 8/26	Paxton	1	M. Lynch
8/12	Holden	50+	M. Lynch	Eastern Bluel		-1	W. Lynch
8/18	Chatham (S.B.)	44	G. d'Entremont#	7/15	MBWMA	5	D. Chickering
8/21	GMNWR	800	S. Perkins	8/5	Barre	5 7	M. Lynch
Cliff Swallow		-	D Chialasia	8/5	MBWMA	5	P. + F. Vale
7/4 7/18, 30	Newbury P.I.	5 2, 2	D. Chickering R. Heil	8/18 8/25	Millis	6	E. Taylor
7/22	Belchertown	1	G. d'Entremont#	8/27	S. Quabbin Northampton	14	M. Lynch
7/29, 8/6	HRWMA	1, 1	T. Pirro	Veery	rvortnampton	5	T. Gagnon
7/29	Williamsburg	1	R. Packard	7/1	Holden	11	M. Lynch
8/1	Ashfield	4	S. Sauter	7/4	Barre	26	M. Lynch
8/5	Gloucester (E.P.)	2	R. Heil	7/6	Hardwick	24	C. Buelow
8/11 8/21	Rockport Chatham (S.B.)	1	F. Vale R. Donovan	7/7 7/7	Hawley	11	M. Lynch
8/25	N. Scituate		G. d'Entremont#	7/29	Hingham Huntington	14	G. d'Entremont R. Packard
8/29	P.I.	1 juv		8/2	Windsor	2	R. Packard#
Red-breasted 1			730,7770	8/11	ONWR	1	R. Lockwood
7/7	Hawley	6	M. Lynch	8/12	Williamsburg	1	R. Packard
8/5	Barre	46	M. Lynch	8/20	Quabbin (G40)	1	R. Packard
8/11 8/11	Carlisle Stow	3	+ D. Brownrigg# R. Lockwood	Hermit Thrus	n Holden	9	Million
8/14	Hardwick	3	C. Buelow	7/4	Barre	50	M. Lynch
8/15	Ipswich	2	J. Berry	7/7	Hawley	35	M. Lynch M. Lynch
8/20	Quabbin (G40)	19	R. Packard	7/9	Hardwick	8	C. Buelow
8/24	Hingham	7	C. Dalton	7/11	Dover	5	E. Taylor
8/25	S. Quabbin	.7	M. Lynch	7/22	Quabbin (G10)	8	G. d'Entremont#
8/26	Paxton	10	M. Lynch	7/28	Uxbridge	4	J. Liller
Brown Creepe	Hawley	6	M. Lynch	7/thr 8/5	Sherborn Barre	5 76	E. Taylor
7/7	Hingham		G. d'Entremont	8/20	Quabbin (G40)	3	M. Lynch R. Packard
7/28	Uxbridge	3 2 3 2 4	J. Liller	Wood Thrush	(3.0)		
8/1	Manchester	2	J. Nelson	7/1	Holden	14	M. Lynch
8/11	Stow	3	R. Lockwood	7/6	Hardwick	31	C. Buelow
8/12	Williamsburg	2	R. Packard R. Packard	7/7	Hawley	6	M. Lynch
8/20 8/29	Quabbin (G40) Ashburnham	6	C. Caron	7/7 7/12	Boxford Worc. (BMB)	8 7	J. Berry# J. Liller
Carolina Wren		,	C. Caron	7/28	Uxbridge	8	J. Liller
7/4	Sturbridge	2	R. Stymeist	8/12	Williamsburg	8 2 5	R. Packard
7/22	Grafton	2 2 1	M. Lynch	8/27	Hardwick	5	C. Buelow
7/29	W. Springfield	1	T. Gagnon	American Rob			
7/29	Worc. (BMB)	7	J. Liller	8/11	P.I.	110	R. Heil
8/11 8/29	Stoughton	7 8 7	G. d'Entremont M. Rines	8/19 Gray Catbird	Lexington	98	M. Rines
0/29	Lexington	1	IVI. ICIIICS	7/6	Acoaxet	51	M. Lynch
						**	Lynon

0 0 1 1				V-11			
Gray Catbird	Worc. (BMB)	38	J. Liller	7/7	nped Warbler Hawley	19	M. Lynch
7/29 8/5	Barre	58	M. Lynch	7/21	Barre	34	M. Lynch
8/5	MBWMA	39	P. + F. Vale	7/28	Groveland	i	D. Chickering
8/11	P.I.	123	R. Heil	8/19	Duxbury	1	N. Swirka
8/19	Lexington	68	M. Rines	8/20	Quabbin (G40)	10	R. Packard
8/20	Belmont	34	M. Rines#	8/20	Lexington	1	M. Rines
8/21	Brewster	32	S. Finnegan#	8/26	Paxton	7	M. Lynch
Brown Thrash	er		14000		ited Green Warbler		
7/1	Sterling Peat	3	M. Lynch	7/6	Hardwick	11	C. Buelow
7/3	Lancaster	4	R. Lockwood	7/7	Boxford	6	J. Berry#
7/20	P.I.	21	R. Heil	7/7	Hawley	35	M. Lynch
7/20	Wakefield	4	F. Vale	7/21	Barre	52	M. Lynch
7/28	Rockport (H.P.)	2 I	D. + T. Brownrigg D. + I. Jewell	8/12	Holden	4	M. Lynch
8/15	Stoneham			8/25	S. Quabbin	10	M. Lynch
8/15	Medford	7	M. Rines	8/26	Paxton Worklow	7	M. Lynch
European Star		+000+	R. Heil	Blackburnia 7/1	Holden	3	M. Lynch
8/15 Cedar Waxwii		,000	K. Hell	7/7	Hawley	25	M. Lynch
7/21	Barre	26	M. Lynch	7/21	Barre	25 3 2 2	M. Lynch
7/29	P.I.	32	P. + F. Vale	7/29	Huntington	2	R. Packard
8/2	Windsor	50	R. Packard#	8/20	Quabbin (G40)	2	R. Packard
8/5	Barre	77	M. Lynch	8/21	Medford	1	R. LaFontaine
Blue-winged '				8/26	Paxton	2	M. Lynch
8/5	Barre	5	M. Lynch	8/30	Whately	ī	M. Williams
8/16	Belmont	2	M. Rines	Pine Warble		170	
Brewster's Wa				7/1	Holden	14	M. Lynch
8/24	Lincoln	1	M. Rines#	7/2	Andover	7 m	J. Berry
Tennessee Wa	rbler			7/21	Barre	38	M. Lynch
8/26	Adams	1	R. Packard	8/5	Barre	45	M. Lynch
Nashville War	bler		10000	8/20	Quabbin (G40)	6	R. Packard
7/4	Barre	1	M. Lynch	8/25	S. Quabbin	13	M. Lynch
7/7	Hingham	l m	G. d'Entremont	8/26	Paxton	7	M. Lynch
8/22	Ipswich	1	J. Berry	Prairie War			D. Laulineau J.
8/26	Paxton	3	M. Lynch	7/3	Lancaster	4	R. Lockwood
8/26	Greylock	1	R. Packard	7/4 7/14	Barre Walsofield	4	M. Lynch P. + F. Vale
8/26	Medford	1	P. + F. Vale C. Floyd	7/19	Wakefield Saugus	2	D. + I. Jewell
8/29 Northern Paru	Lexington	1	C. Floyd	8/1	Falmouth	3	C. Buelow
7/22	Middleboro	1 m	W. Petersen	8/4	MNWS	2 2 3 1	R. Heil
8/20	Concord	1	M. Rines	8/20	Woburn		M. Rines
8/29	Lexington	2	M. Rines	8/25	S. Quabbin	3	M. Lynch
Yellow Warbl		-	Tri. Tellios	8/26	Paxton	2 3 2	M. Lynch
7/4	Wakefield	24	P. + F. Vale	Bay-breaste			77.67.55.5°
7/20, 8/11	P.I.	70, 44		7/21	Вагте	1 m	M. Lynch
7/28	Melrose	10+	D. + I. Jewell	8/22	Medford	1	M. Rines#
8/5	Barre	13	M. Lynch	8/25	P.I.	3	J. Hoye#
8/23	Lexington	2 2	M. Rines	8/27	Westminster	1	C. Caron
8/28	Winchester	2	R. LaFontaine	Blackpoll \	Warbler		180 000 0
Chestnut-side	d Warbler			7/22	Mt. Greylock	1	B. Nikula
7/1	Holden	13	M. Lynch	8/27	Westminster	2	C. Caron
7/7	Hawley	6	M. Lynch	8/29	Lexington	1	C. Floyd
7/9	Hardwick	5	C. Buelow	8/31	Belmont	1	C. Floyd#
7/29	Huntington	6	R. Packard	8/31	Brewster	I b	S. Finnegan#
8/5	Barre	39	M. Lynch	8/31	Lynnfield	1	P. + F. Vale
8/12	Williamsburg	2 6 2 6	R. Packard		white Warbler	3	M. Lynch
8/20	Quabbin (G40) Medford	0	R. Packard	7/7 7/29	Hawley	7	R. Packard
8/22		6	M. Rines# M. Lynch	8/5	Huntington Barre	23	M. Lynch
8/26	Paxton	2	P. + F. Vale	8/12	Williamsburg	4	R. Packard
8/31 Magnolia War	Lynnfield	4	r. + r. vaic	8/14	Hardwick	3	C. Buelow
7/4	Barre	2	M. Lynch	8/18	MNWS	4	P. + F. Vale
7/7	Hawley	6	M. Lynch	8/20	Quabbin (G40)	6	R. Packard
7/29	Huntington	1	R. Packard	8/25	S. Quabbin	18	M. Lynch
8/2	Windsor		R. Packard#	8/26	Paxton	7	M. Lynch
8/20	Quabbin (G40)	2 2 1	R. Packard	American l		5000	100000000000000000000000000000000000000
8/22	Medford	1	M. Rines#	7/9	Hardwick	14	- C. Buelow
8/23	E. Gloucester	1	C. Leahy	7/29	Huntington	8	R. Packard
8/25	P.I.	3	J. Hoye#	8/5	Barre	11	M. Lynch
8/27	Westminster	1	C. Caron	8/18	Arlington	6	K. Hartel
	d Blue Warbler		-	8/21	Medford	10	R. LaFontaine
7/6	Hardwick	6	C. Buelow	8/23	Lexington	9	M. Rines
7/7	Hawley	14	M. Lynch	8/24	Stoneham	4	D. + I. Jewell
7/21	Barre	20	M. Lynch	8/25	S. Quabbin N. Scituate	6	M. Lynch
7/22	Quabbin (G10)	6	G. d'Entremont#	8/25	N. Scituate	4	G. d'Entremont#
8/22	Ipswich	1	J. Berry	Ovenbird	Stow	5	D Lashmand
8/26	Quabbin (G36)	1	C. Buelow	7/1	Stow -		R. Lockwood
0/20	Quadonii (G50)	1	C. Duelow	7/1	Holden	14	M. Ly

Ouanhind (0.45	1 (1) (1)	20	
Ovenbird (4, 8/5)	Barre	57, 7	M. Lynch	8/5 8/5	MBWMA Barre	28 25	P. + F. Vale
7/6	Hardwick	12	C. Buelow	8/15	Medford	14	M. Lynch M. Rines
7/7	Hingham	12	G. d'Entremont	Clay-colored		0.7	III. Itilies
8/11	Stoughton	4	G. d'Entremont	7/1-6	Lancaster	1	R. Lockwood
8/15	Medford	2	M. Rines	Field Sparrov		1000	
8/26	Mt Wachusett	1	S. Sutton	7/22	Wakefield	6	P. + F. Vale
8/29 8/30	Lexington Whately	1	M. Rines M. Williams	7/31	Lancaster	42	R. Lockwood
Northern W	Vaterthrush	1	w. williams	8/5 8/5	Barre MBWMA	7 21	M. Lynch
thr	Reports of indiv	from 1	6 locations	8/15	Falmouth	10	P. + F. Vale C. Buelow
8/4	MNWS	4	R. Heil	Vesper Sparr		10	C. Duciów
8/5	Cape Ann	6	R. Heil	7/3, 31	Lancaster	2, 4	R. Lockwood
8/9	Amherst	11	H. Allen	Lark Sparro	ow		
	Waterthrush	-		7/25	Tuckernuck	1	R.Veit
7/1 7/6	Holden Hardwick	3	M. Lynch	Savannah Sp		0.1	
7/21	Barre	2ad	C. Buelow M. Lynch	7/16 8/1	Nomans I. Bedford	31	R. Lockwood#
8/12	Williamsburg	1	R. Packard	8/31	GMNWR	102 15	R. Lockwood# S. Perkins
8/17	Southwick	i	S. Kellogg	Grasshopper		13	S. Perkins
Kentucky V	Warbler			7/6, 8/4	Lancaster	46, 23	R. Lockwood
8/17	MNWS	1	R. Heil	7/14	Turners Falls	3	R. Packard
Connecticu			4.4.4.4	8/15	Falmouth	2	C. Buelow
8/29	Lexington	1	M. Rines#	Saltmarsh Sh	arp-tailed Sparrov	V	11 22 21 11 21
Mourning V	Hawley	1 m	M. Lamah	7/6	Acoaxet	4	M. Lynch
8/11	P.I.	1	M. Lynch R. Heil	7/14 7/29	P.I. Squantum	17	M. Lynch
8/23	E. Gloucester	i	C. Leahy	7/31	WBWS	1 2 juv	G. d'Entremont
Oporornis s			C. Leany	8/11	Chatham (S.B.)	1	M. Lynch J. Young
8/16	Belmont	1	M. Rines	8/31	Duxbury B.	4	D. Furbish#
	ellowthroat			Seaside Span			Z / T di Ololiii
7/4	Wakefield	31	P. + F. Vale	7/10	W. Barnstable	3	S. Miller
7/7 7/16	Hawley	42 39	M. Lynch	7/15	P.I.	3	R. Heil
7/29	Nomans I. Huntington	39	R. Lockwood# R. Packard	Lincoln's Spa 8/11		4	T C III
7/29	Paxton	21	M. Lynch	White-throate	Hinsdale	1	T. Collins
8/5	Вагте	86	M. Lynch	7/7	Hawley	6	M. Lynch
8/14	Hardwick	25	C. Buelow	7/21	Barre	12	M. Lynch
8/19	Lexington	19	M. Rines	8/2	Windsor		2 juv R. Packard
8/26	Adams	10	R. Packard	8/26	Lexington	1	M. Rines
Hooded Wa 8/21	P.I.	1	T 37	Dark-eyed Ju			
Wilson's W		1 m	J. Young	7/7 8/2	Hawley Windsor	2 - 4 -	M. Lynch
8/21, 31	Brewster	1 h	b S. Finnegan#	8/3	Westminster	1	2 juv R. Packard
8/21	Medford	1	R. LaFontaine	8/25	Princeton	2	C. Caron C. Caron
8/23	E. Gloucester	1	C. Leahy	Rose-breasted	d Grosbeak	-	C. Caron
8/30	Lexington	2	G. Tepke#	7/1	Holden	7	M. Lynch
Canada Wa		4.7		7/5	ONWR	5	R. Lockwood
7/29 8/5	Paxton	1 imi		7/28	Groveland	4	D. Chickering
8/12	Barre Williamsburg	1	M. Lynch R. Packard	7/29 8/2	W. Newbury	6	D. Chickering
8/15	Stoneham	1	D. + I. Jewell	8/5	Windsor Barre	8	R. Packard#
8/15	Medford	2	M. Rines	8/16	Hardwick	5	M. Lynch C. Buelow
8/18	MNWS	1	P. + F. Vale	8/19	Lexington	10	M. Rines
8/19	Lexington	1	M. Rines	8/20	Quabbin (G40)	4	R. Packard
8/20	Quabbin (G40)	4	R. Packard	Indigo Buntin			
8/22 8/23	Ipswich	1	J. Berry	7/3	Lancaster	3	R. Lockwood
Yellow-brea	E. Gloucester	1 .	C. Leahy	7/7	Hawley	3	M. Lynch
8/19	Lexington	1	M. Rines	7/22 7/29	W. Boxford HRWMA	4	J. Berry#
8/23	E. Gloucester	i	C. Leahy	8/19	Lexington	4	T. Pirro M. Rines
Scarlet Tana			C. Deally	8/20	Concord	6	M. Rines
7/1	Stow	5 7	R. Lockwood	8/29	Cumb. Farms	3	J. Sweeney#
7/1	Holden	7	M. Lynch	Dickcissel			
7/7	Hawley	12	M. Lynch	8/11	P.I.	1	R. Heil
7/9 7/21	Hardwick	8 5	C. Buelow	8/30	Deerfield	1 imm	R. Ranney
7/21	Stoughton Barre	34	G. d'Entremont M. Lynch	Bobolink	Ipswich	30+	I D. #
7/28	Uxbridge	10	J. Liller	7/3 7/4	Barre	10	J. Berry#
7/29	Huntington	4	R. Packard	7/15, 8/11	P.I.	75, 60	M. Lynch R. Heil
7/29	Paxton	4 3	M. Lynch	8/2	Windsor	30	R. Packard#
7/31	Lancaster	3	R. Lockwood	8/4	Lancaster	102	R. Lockwood
8/20	Quabbin (G40)	5	R. Packard	8/20	GMNWR	20	S. Perkins
Eastern Tov		20	D I	8/26	Lexington	60	M. Rines
7/1 7/7	Stow	28 25	R. Lockwood	8/28	Wellfleet HRWMA	100	M. Faherty
7/28	Hingham Uxbridge	22	G. d'Entremont J. Liller	8/30 Red-winged E	Blackbird	10	T. Pirro
7/29	Worc. (BMB)	29	J. Liller	8/8	P.I.	300+	R. Heil
-	(БіліБ)		J. Lintel			2001	A. Hell

Red-winge	d Blackbird (con	tinued)		8/18	P.I.	37	R. Heil
8/19	Lexington	425	M. Rines	8/19	Lexington	18	M. Rines
Eastern Me				Purple Finch			Tran Tellings
7/3	Ipswich	7	J. Berry	7/4	Barre	3	M. Lynch
7/3	Lancaster	6	R. Lockwood	7/7	Hingham	2	G. d'Entremont
7/13	P.I.	1	P. + F. Vale	7/11	P.I.	3	J. Berry
8/1	DWWS	1	D. Furbish	7/14	Plainfield	2	Allen Club
8/1	Bedford	25	R. Lockwood#	7/22	Quabbin (G10)	8	G. d'Entremont#
8/29	Leicester	2	M. Lynch	7/28	Uxbridge	2	J. Liller
Common C	Grackle			8/2	Windsor	8	R. Packard#
7/4	Maynard	350	R. Lockwood#	8/26	Adams	2	R. Packard
7/22	Walpole	1040	E. Taylor	8/26	Paxton	2	M. Lynch
8/1	Saugus	300+	P. + F. Vale	8/30	HRWMA	2 2 2	T. Pirro
8/5	Westboro	250+	S. Sutton	8/31	Lancaster	2	R. Lockwood
8/5	Wakefield	139	P. + F. Vale	Pine Siskin			
Orchard Or	riole			7/22	Mt. Greylock	1	B. Nikula
7/6	Rowley	3 m	J. Berry	Evening Gro	sbeak		25.1.1114
7/27	Wakefield	1 m ac		7/1	Shutesbury	2	J. Hoye#
8/18	P.I.	2	R. Heil	7/4	Becket	2 2	R. Laubach
Baltimore (7/4	Barre	10	M. Lynch
7/21	Stoughton	16	G. d'Entremont	7/7	Mattapoisett	2	M. LaBossiere
8/1	Wakefield	17 imm	F. Vale	7/22	New Salem	2 2	G. d'Entremont#
8/5	MBWMA	45	P. + F. Vale				
Corrigend		2 2 2		should read			
	Warbler (details		0.0		Warbler (details sub		
5/11 - 6/	6 Naushon I.	1 m ph	S. Storer + v.o.	5/11 - 6/6	Naushon I.	1 m	ph T. Maloney, A. Jones, S. Storer

Species on the Review List of the Massachusetts Avian Records Committee (indicated by an asterisk [*] in the Bird Reports), 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 Rines, Massachusetts Audubon Society, South Great Road, Lincoln, MA 01773, or by e-mail to <mrines@mediaone.net>.

HOW TO CONTRIBUTE BIRD SIGHTINGS TO BIRD OBSERVER

Bird Observer prints compilations of birds reported in Massachusetts and offshore waters. Our compilers select and summarize for publication reports that provide a snapshot of bird life during the reporting period.

Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or e-mail. Send written reports to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. Include name and phone number of observer, common name of species, date of sighting, location, number of birds, other observer(s), and information on age, sex, and morph (where relevant). For instructions on e-mail submission, visit: http://massbird.org/birdobserver/submitrec.html>.

Answers to "Name that flock" (from page 454)

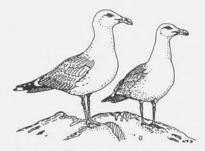
- 1. A murder of crows
- 2. A gaggle of geese
- 3. A covey/bevy of quail
- 4. A cast of falcons
- 5. A covert of coots
- 6. An exaltation of larks
- 7. A fall of woodcock

- 8. A muster of peacocks
- 9. A nide of pheasants
- 10. A skein of wildfowl
- 11. A sord of mallards
- 12. A watch of nightingales
- 13. A wisp of snipe
- 14. A conflagration of oilbirds (credited to Wayne Petersen)

Source: *The American Heritage Dictionary of the English Language*. 1992. Third Edition, pp. 696-697. Boston: Houghton Mifflin.

LIST OF ABBREVIATIONS

	LIST OF A	ADDREVIAL	IONS
a	adult	L.	Ledge
alt	alternate	M.V.	Martha's Vineyard
b	banded	Mt.A.	Mount Auburn Cemetery, Cambridge
br	breeding	Nant.	Nantucket
dk	dark (phase)		Newburyport
f	female	P.I.	Plum Island
fl	fledged	Pd	Pond
imm	immature	Pont.	Pontoosuc Lake, Lanesboro
ind	individuals	P'town	Provincetown
juv	juvenile	Quab.	Quabbin Reservoir
loc	location	Res.	Reservoir
lt		R.P.	
1.00	light (phase)	S.B.	Race Point, Provincetown
m	male		South Beach, Chatham
max	maximum	S. Dart.	South Dartmouth
migr	migrating	S.N.	Sandy Neck, Barnstable
n,	nesting	Stellw.	Stellwagen Bank
ph	photographed	Worc.	Worcester
pl	plumage		Barre Falls Dam, Barre, Rutland, Oakham
pr	pair	ABC	Allen Bird Club
S	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		Stowe, Bolton, Harvard
уg	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	80.000.000	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. Farms Cumberland Farms, Middleboro-		MDFW	MA Division of Fisheries and Wildlife
	Halifax	MNWS	Marblehead Neck Wildlife Sanctuary
E.P.	Eastern Point, Gloucester	MSSF	Myles Standish State Forest
F.E.	First Encounter Beach, Eastham	NAC	Nine Acre Corner, Concord
F.H.	Fort Hill, Eastham	NBC	Needham Bird Club
F.M.	Fowl Meadow, Milton	NEHW	New England Hawk Watch
F.P.	Fresh Pond, Cambridge	ONWR	Oxbow National Wildlife Refuge
F.Pk	Franklin Park, Boston	SRV	Sudbury River Valley
G40	Gate 40, Quabbin	SSBC	South Shore Bird Club
G45	Gate 45, Quabbin	TASL	Take A Second Look Harbor Census
H.P.	Halibut Point, Rockport	USFWS	US Fish and Wildlife Service



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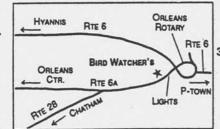
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ABOUT THE COVER

Ruddy Duck

The Ruddy Duck (Oxyura jamaicensis) is a small, plump, "stifftail" duck that has proportionally small pointed wings, and hence labors into flight, pattering across the water with a blur of wingbeats that gives it the moniker "bumble bee buzzer." When approached, it generally dives rather than flies. Males in breeding (alternate) plumage are spectacular and unmistakable, with black heads highlighted by white cheeks and a broad, flat, bright blue bill. Their bodies are a bright rufous color that gives them their common name. Females are a somber brownish gray with a dark line across the cheek. Both birds molt to a dull gray in nonbreeding (basic) plumage. Juveniles resemble nonbreeding females.

The taxonomy of the Ruddy Duck is problematic, with four subspecies recognized by most workers. In North America O.j. rubia is the subspecies that breeds in the interior, with O.j. jamaicensis confined to the West Indies. However, some taxonomists do not recognize rubia. In South America O.j. andina is found in Colombia, while O.i. ferruginca (which is often considered a separate species) ranges from southern Colombia to Tierra del Fuego. The bulk of the North American population breeds in the western United States and Canada, with resident populations south to Central America. Ruddy Ducks breed in smaller numbers to the east coast, with scattered Massachusetts breeding records including Monomoy and Plum Island. Most North American ruddies are migratory and move to coastal and southern areas in winter. They experience postbreeding dispersals that merge into a fall migration, mostly in small, nocturnal flocks. They winter in shallow, protected, coastal areas, utilizing fresh, brackish, and salt water. In Massachusetts Ruddy Ducks are uncommon spring migrants from March to May, and are locally common to abundant fall migrants. However, numbers vary substantially from year to year, and fall migrants are concentrated mostly in southeastern Massachusetts and Martha's Vineyard, where over 1000 have been reported.

Ruddy Ducks are seasonally monogamous, although males desert shortly after incubation begins. They nest in freshwater marshes and marsh-bordered lakes and ponds. Females give a nasal raanh call, and males, during displays, a loud raa-anh. Males use a "bubble display" in courtship and in aggression toward other males, in which they tilt their tail forward, inflate tracheal air sacks, and slap their bright blue bills against their breasts, the disturbance causing a bubbly froth in the water around them. They also perform a "ring-rush display" in which the male partially submerges, and then using its tail, feet, and wings, rushes forward creating a shower of spray. These displays, in addition to various other chases and rushes, make their courtship competition with other males a sight to behold.

Ruddy Ducks usually nest as single pairs, although they sometimes nest in loose colonies. Their nest is over water in dense stands of emergent vegetation such as cattails. The female builds an anchored platform of plant material, lays the eggs, and

then constructs a rim for the nest before commencing incubation that she alone performs. The nest is lined with down. She may build on old nests of other bird species or even on muskrat houses. The usual clutch is 6-8 creamy white eggs that are so large that their weight may exceed that of the duck that lays them. Ruddy Ducks are brood parasites and often lay eggs in other ruddy nests, but may lay eggs in the nests of other duck species or even in nests of rails or grebes.

The incubation period is between three and four weeks. The chicks are precocial and leave the nest by the end of the first day, at which point they can dive and feed by themselves. In six weeks they can fly. Ruddy Ducks feed mostly by diving and straining small animal and plant material from the bottom ooze. They will, however, dabble. The majority of their food consists of vegetation, but they also take insects, mollusks, and crustaceans, especially in summer.

Heavy hunting pressure in the late nineteenth and early twentieth centuries caused population declines from which Ruddy Ducks have never recovered, probably due to extensive breeding habitat alteration through drainage and perhaps drought. Hunting pressure remains high in some parts of their range, and oil spills on wintering grounds have reduced their numbers. Because their range is so extensive, they are probably not threatened as a species, but an increased presence of this elegant little duck would certainly be welcome.

William E. Davis, Jr.

About the Cover Artist

Don Radovich is a Colorado wildlife artist who is retired from his teaching position (painting, art history) at Western State College. He has been interested in birds since childhood and has illustrated several books, including *Migratory Shore and Upland Game Bird Management in North America*, by Thomas Tacha and Clait Braun, and the *Guide to the Birds of the West Indies*, by Herbert Raffaele et al., for which he did the warbler plates.



DAVID M. LARSON

AT A GLANCE

October 2001



PHOTOGRAPH BY DEBORAH V. HOWARD, COURTESY MAS

A quick look at this month's At a Glance photograph reveals a juvenile waterbird of some sort or another. The combination of webbed feet and sharp, pointed bill at once suggest that the bird is a young tern. If the bird was a baby gull, the plumage would be more spotted, the legs would be longer, the body more chunky, the tail less pointed, and the bill would be more laterally compressed and less tapered and pointed at the tip.

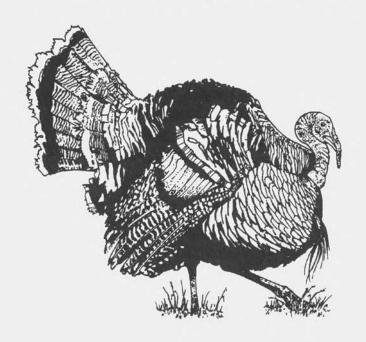
Because juvenile terns are a regular feature on certain Massachusetts beaches in mid to late summer, the season when they begin leaving their breeding colonies and start gathering on nearby open beaches and mudflats, being able to distinguish them in juvenal plumage is a useful skill. Four species of terns are regular breeders in Massachusetts — Roseate, Common, Arctic, and Least. One of these, the Arctic Tern, is such a rare breeder in the Commonwealth that it is unlikely that many birders will ever see this species in juvenal plumage in the Bay State. In the unlikely situation that a juvenile Arctic Tern is encountered in Massachusetts, it would be readily recognizable by its short black legs, all black bill, pure white forehead, and neat black scarf extending from eye to eye around the back of the head and nape. Clearly, the young tern in the photograph is not a juvenile Arctic Tern.

The Least Tern in a corresponding plumage would possess distinctive, U-shaped speckles on the back, not wavy barring as indicated in the pictured tern. In addition, a Least Tern would not have such a distinct and extensive black scarf on the back of the

head and nape as that displayed by the mystery tern. And finally, young Least Terns oftentimes resemble miniature Forster's Terns in nonbreeding plumage by having a black bar running through the eye, in contrast with the lightly streaked top and back of the head. From this information it can be deduced that the tern in the photograph is not a young Least Tern.

Having thus narrowed the field to only one of two likely possibilities, it is necessary to distinguish between the juvenal plumage of the Roseate Tern and the Common Tern. A juvenile Roseate Tern has black legs, a black bill, a finely streaked forehead contrasting with a black scarf on the back of the head and nape, and a distinctive dark, scaly dorsal pattern created by dusky terminal crescents on the back and scapular feathers. By comparison, a juvenile Common Tern has pinkish-orange legs and feet, a pinkish-orange lower mandible and a dusky upper mandible, a whitish forehead contrasting with a black scarf on the back of the head and nape, dusky wavy-shaped bars on the back (often with a warm ginger-toned background coloration), and a prominent black carpal bar on the leading edge of each wing. Although the mystery tern's head may appear to have streaks, in fact it simply has some of the same ginger coloration that appears on the back of most juvenile Common Terns, a coloration that is typically quickly lost, thus producing the characteristic white forehead of a young Common Tern.

With this information in mind, it is obvious that the mystery bird is a juvenile Common Tern (Sterna hirundo). Deborah V. Howard photographed the individual in the picture on Plymouth Beach. Common Terns are locally abundant coastal nesters in Massachusetts, especially on Cape Cod and the Islands, where the breeding birds typically arrive in early May and depart by mid-October. ** Wayne R. Petersen*





DAVID M. LARSON

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

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