Bird Observer

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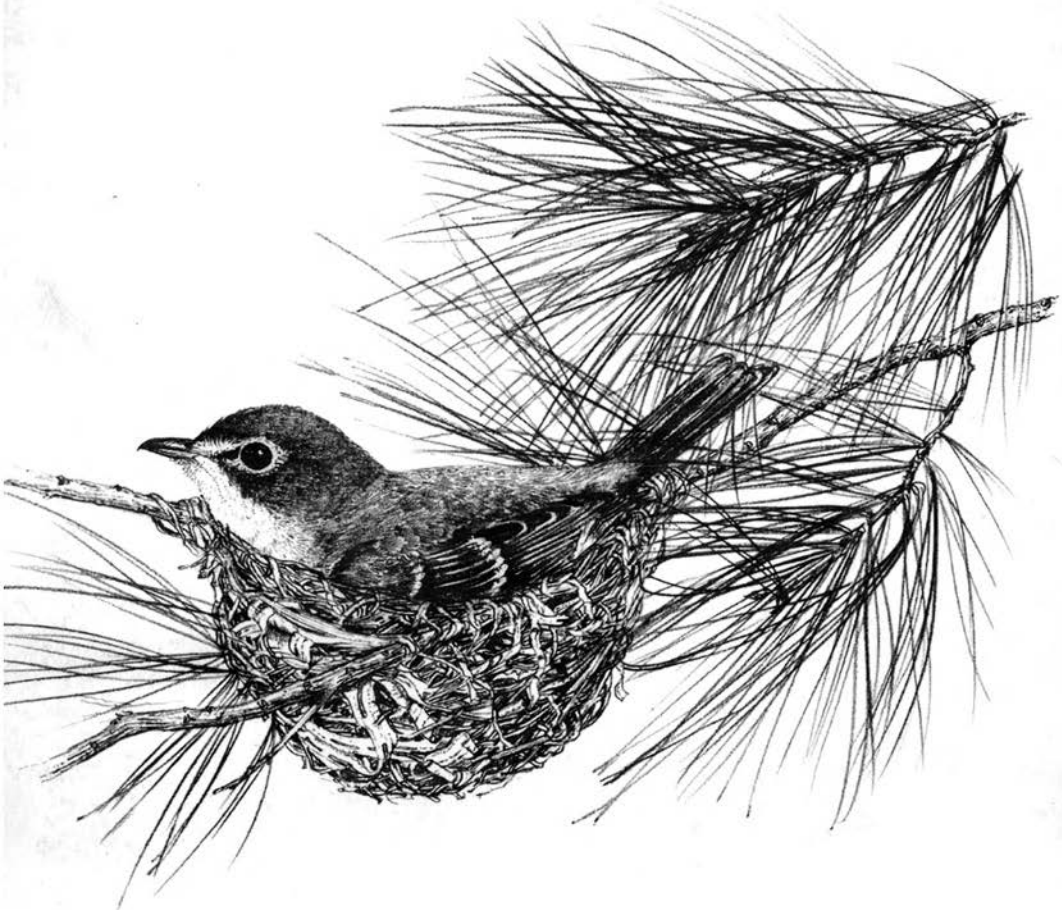

HOT BIRDS

Part of an apparent regional influx of the species, this **Barnacle Goose** was found by Peter and Fay Vale in the Lynnfield Marshes on February 17. Marj Rines took this photo of the cooperative bird in Wakefield.

A **Western Grebe**, located by Rick Heil on March 6, was regularly seen north or south of parking lot 1 at Parker River National Wildlife Refuge into April. Steve Mirick took this digiscoped image on March 31.

A flock of five **Lesser Yellowlegs** managed to over-winter in Newburyport Harbor. Phil Brown took this photo at Joppa Flats on March 25.

Stan Bolton was birding in Westport when he found this handsome **Harris's Sparrow**. Phil Brown took this image of the bird on April 1 (no fooling).

On April 14, Leslie Bostrom saw a **Common (Eurasian) Kestrel** on Lieutenant's Island, S. Wellfleet. On April 18, Bob Clem found what surely must have been the same bird at the Morris Island causeway in Chatham. Blair Nikula took this digiscoped image the same day. This bird stayed for weeks, and was visited by birders from across North America.

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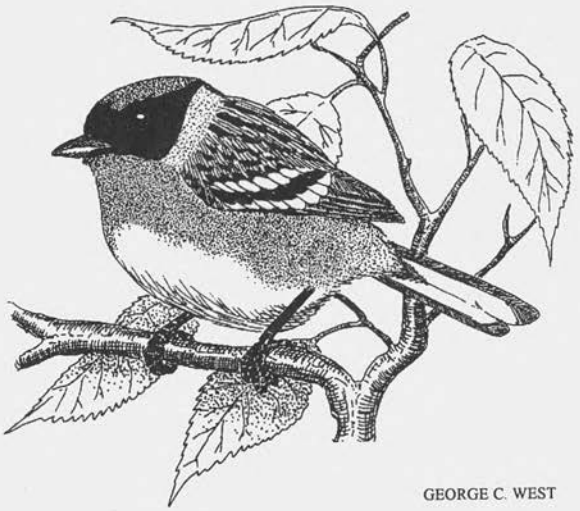

GEORGE C. WEST

Bird Observer

A bimonthly journal — to enhance understanding, observation, and enjoyment of birds

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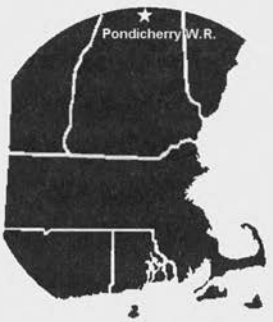
Birding the Pondicherry Wildlife Refuge and Vicinity



Robert A. Quinn and David Govatski

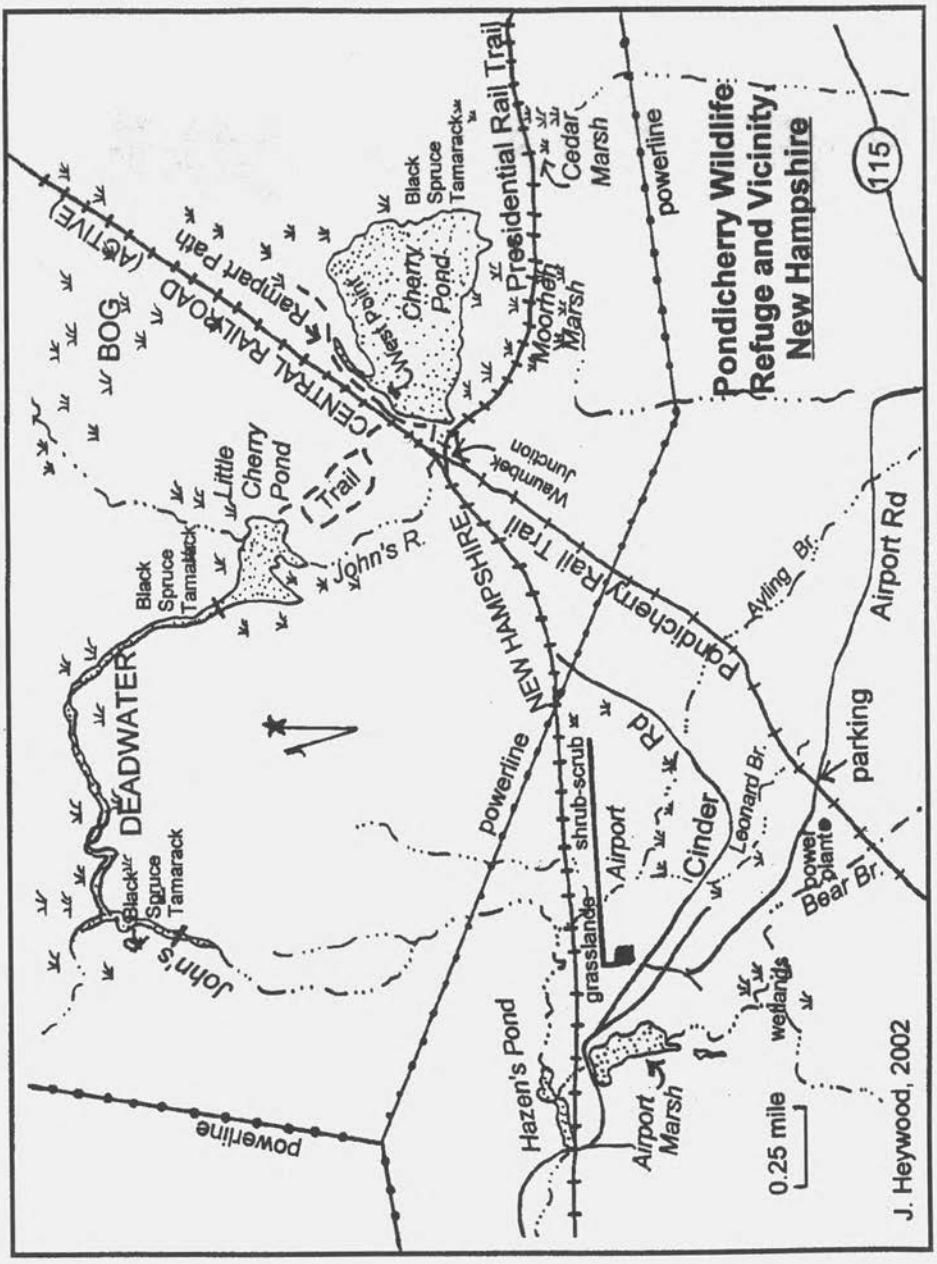
The Pondicherry Wildlife Refuge is located twelve miles northwest of Mount Washington, New Hampshire, in the towns of Jefferson and Whitefield. From Boston, take I-93 North to Exit 35. Take Route 3 North, and then Route 115 East (right) four miles to Airport Road. Turn left, and follow Airport Road 1.4 miles to the Pondicherry Rail Trail Parking Lot. From the trailhead parking lot it is less than a mile to the Mount Washington Regional Airport (locally called Whitefield Airport). The total distance is around 150 miles. The rich variety of habitat, including boreal forests, bogs, fens, swamps, marshes, ponds, and grasslands supports an abundant variety of bird life. This article describes the bird life and provides suggestions for birding the refuge and vicinity.

The refuge and adjacent Mount Washington Regional Airport have long been favorite destinations for birders. This location has a greater diversity of breeding birds (125) than probably any other similar-sized area in New Hampshire. Pondicherry is also one of the best inland migration spots in the state. Over the years more than 220 species have been seen here, including over fifty species of waterbirds. Besides the birding, it has several features that make it a wonderful destination: spectacular mountain scenery, relatively easy walking, and isolation. It is a small enough area that it can be covered in a day, but it has enough variety to keep you coming back for years.

The U.S. Fish and Wildlife Service, New Hampshire Fish and Game Department, and Audubon Society of New Hampshire jointly manage the Pondicherry Wildlife Refuge. The history of the refuge dates back to 1963 when New Hampshire Audubon acquired 312 acres. In 2000, U.S. Fish and Wildlife acquired 670 acres of wetlands that brought the refuge total up to 982 acres. A dedicated public-access route called the Pondicherry Rail Trail was acquired in 2000 by the State of New Hampshire on the abandoned Maine Central Railroad grade.

The human history of the area dates back 11,800 years when Paleoindian hunters used the Israel River valley for hunting, trade, and the manufacture of lithic tools using a type of Rhyolite that is found in the area. Evidence has been found indicating that native people used the Pondicherry area to hunt and fish until sometime after the arrival of European settlers.

The first scientific work started in 1829 and consisted of botanical studies by J. W. Robbins, who found two aquatic plants new to science. Horace Wright conducted ornithological studies in the area from 1899-1911 and later published a book on his findings. This book, *The Birds of the Jefferson Region of the White Mountains*, was recently updated by Tudor Richards in 2000 and is available from New Hampshire



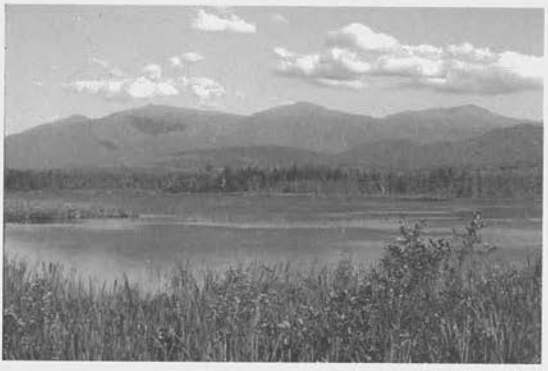
Audubon. In 1906 Arthur Stanley Pease conducted botanical studies and found over forty species of aquatic plants in Cherry Pond. His publication, *A Flora of Northern New Hampshire*, published in 1924 and revised in 1964, is now out of print. Tudor Richards, working first for the New Hampshire Fish and Game Department and then for New Hampshire Audubon, has conducted bird studies from 1947 to the present

day. Tudor was the driving force behind the 1963 acquisition of the refuge by New Hampshire Audubon.

The origin of the Pondicherry name is uncertain. Pondicherry was shown on early nineteenth century maps of northern New Hampshire. Some people think the name comes from the capital of a former French colony in India. Numerous black cherry trees are found around Cherry Pond, and this could also be related to the naming.

Birding Locations

Cherry Pond is the centerpiece of the refuge. The views from this 100-acre natural pond are considered to be among the finest in the White Mountains, given the spectacular view of the Presidential Range to the southeast. Cherry Pond is a favorite migration stopover for many waterbirds and is ornithologically famous for its migrants in general. It is also the home of a Common Loon family that nests on one of the floating islands that dot the pond. One large floating island became hung up on a rock outcrop during a hurricane and is now firmly anchored. The bog mat on this island rises and falls with changes in water level, but the loons remain the same distance from the edge of the water, helping to ensure successful nesting.



DAVID GOVATSKI

Cherry Pond, Pondicherry Wildlife Refuge

Cherry Pond is now only six feet deep, but 12,000 years ago it was forty-eight feet deep. Scientists are currently studying several core samples of the pond's bottom for pollen and micro-invertebrate fossils to help reconstruct the region's environmental history. This study is part of a research effort in nearby Jefferson at a Paleoindian archaeological complex. One interesting geological feature is the presence of "ice push ramparts" along the north and west shorelines. (These are defined later in this article.)

Cherry Pond is a warm-water pond and home to horned pout, chain pickerel, pumpkinseed, yellow perch, and golden shiners. Osprey and Bald Eagles often fish at Cherry Pond, but as of yet have not nested on the dark forested shores. Other fish-eating birds seen or heard around the pond include the Great Blue Heron, American Bittern, and Belted Kingfisher. Dragonflies are numerous in August, and thirty-eight species have been recorded. A spotting scope is recommended here; this "pond" is really a lake.

The John's River connects Little Cherry Pond to Cherry Pond. This little stream is canoeable for about three miles below Cherry Pond; that is, both above and below Little Cherry Pond. A short portage trail a hundred feet downstream of the railroad

bridge is where you put in. (See the trail descriptions below.) The John's River is a narrow and slow-moving stream at this point. Expect to cross a dozen beaver dams, paddle through shallow water in thick oozing muck, and be host to swarms of biting insects on the flat journey to Little Cherry Pond. The rewards make persistence worthwhile. Moose, beaver, and muskrats are often seen. Ring-necked Ducks, Green-winged Teal, Palm Warblers, Rusty Blackbirds, and Lincoln's Sparrows reside along the streams and adjacent forests. Black-backed Woodpeckers, Boreal Chickadees, and Gray Jays live and nest in the black spruce/tamarack stands that line the John's River. Spruce Grouse are seen on occasion near Little Cherry Pond.

DAVID GOVATSKI

Black spruce at Little Cherry Pond

Little Cherry Pond is a twenty-acre shallow pond surrounded by a bog mat and a stunted black spruce/tamarack forest. A viewing platform on the east shore is accessed by a loop trail from Cherry Pond. Long stretches of boardwalk make walking the trail easier, but there are still areas of uneven footing. Boreal Chickadees are often heard calling along the first section of boardwalk. Carnivorous pitcher plants and sundews are found along the boggy edge of Little Cherry Pond. Beaver, otter, and even moose are often seen at Little Cherry Pond in the summer.

The Deadwater is the name given for a flat two-mile stretch of the John's River below Little Cherry Pond. The direction of flow is west toward the Connecticut River. The John's River is thirty feet wide at this point and up to three feet deep. The flow is imperceptible though, hence the name Deadwater. The Deadwater has a big beaver dam at the end and from that point is narrow and tree-lined and unsuitable for canoeing. The beautiful purple rhodora lines the stream as it flowers in May. Wood and Black ducks, Green-winged Teal, and Hooded Mergansers are often seen along the Deadwater.

Airport Birding. Most birders start at the Whitefield Airport and park in a small lot by the tiny terminal building. This is major grassland and has Eastern Meadowlarks, Bobolinks, Northern Harriers, Savannah Sparrows, Killdeer, and even had an Upland Sandpiper in 1997. Across the road from the airport is the New Hampshire Fish and Game Department's Airport Marsh. This pond and marsh have a good variety of waterbirds such as American Bittern, Great Blue Heron, Virginia Rail, Hooded Merganser, Wood Duck, and Belted Kingfisher. The airport area is also excellent for migrants in spring and fall.

The Cinder Road, running east from the airport, is a productive birding area that starts at a navy-blue hangar and becomes a tree-lined lane that Brown Thrashers and

Northern Mockingbirds frequent. In the winter of 2000-2001 a Northern Hawk Owl spent seventy-nine days entertaining nearly two thousand appreciative birders. This abandoned mile-long rail grade soon passes by a large alder swamp on your left where Alder and Olive-sided flycatchers are often seen. Look for Wild Turkeys farther along near the east end of the runway. American Woodcock perform their sky dances here in April. Cinder Road ends at an active rail line; do not walk along this track for obvious reasons.

Hazen's Pond is northwest of the airport and has species similar to those at Airport Marsh, but is less accessible. Scan the tree line around Hazen's Pond and look for Merlins and other raptors. Merlins have almost certainly nested in the Pondicherry area for the past three years (they have also started to breed as far south as central New Hampshire), and you may catch a glimpse of one carrying food items to a nest. Northern Harriers often hunt for prey over the airport grasslands and Hazen's Pond and also nest in the vicinity.

Birding through the Seasons

The best time to visit Pondicherry is normally between ice-out in April and freeze-up in November. It is convenient to break that time span down into three segments.

Ice-out through late May. Early spring can vary from wintry to quite pleasant. The waterbirds and a few land migrants are the first to arrive. Loons, grebes, herons including American Bittern, and just about any species of waterfowl are possible. Unusual spring birds have included Black Tern, Dunlin, Short-billed Dowitcher, and Orange-crowned Warbler.

Late May through mid-July. With warm weather finally in control, a rush of landbird migrants is likely; the rails arrive, and the shorebirds pass through. Under the right conditions birding can be wonderful — on May 27, 1997, we recorded 95 species at Pondicherry. Twenty species of warblers were the highlights, including 25 Nashville, 42 Magnolia, 1 Cape May, 26 Black-throated Blue, 52 Yellow-rumped, 28 Black-throated Green, 17 Ovenbirds, 12 Blackburnian, 10 Bay-breasted, 2 Mourning, 14 American Redstarts, and 2 Wilson's. Not to be overshadowed were 16 Yellow-bellied Sapsuckers, one Gray Jay, one "Gray-cheeked" Thrush, one Philadelphia Vireo, one Rusty Blackbird, and 15 White-winged Crossbills. That was all before noon. A Northern Wheatear was recorded on June 3, 2001.

As June bursts out, the insects become more of a problem (before that the cold keeps them at bay). The voices of the frogs compete with those of the wetland birds, but this is the peak of the landbird breeding season. Territorial birds are easier to track down than migrants, so if you have the time and patience you should be able to see such unusual or hard-to-see nesting species as Cape May Warbler, Yellow-bellied Flycatcher, Ruby-crowned Kinglet, Northern Waterthrush, and Canada Warbler. Northern finches are possible almost any time and any place. A visit to the wetlands at dawn or dusk should result in a chorus of wetland species like Common Snipe, Sora, Virginia Rail, American Bittern, Marsh Wren, Barred Owl, and possibly even a Long-eared Owl.

Mid-July through freeze-up. By the middle of July the landbirds are starting to wander and the shorebirds are migrating. Both yellowlegs and Solitary and Least sandpipers are common. More unusual midsummer visitors have included Pectoral Sandpiper, Northern Shoveler, Bonaparte's Gull, and Common Tern. By August the warblers are moving in significant numbers, and Pondicherry can be a fantastic place in late summer for a large concentration of neotropical migrants. As fall arrives, the ducks and geese come through, and a good variety and numbers are possible almost any time. Grebes and scoters are regular, and some rarities have included Great Cormorant, Rough-legged Hawk, and Red Phalarope.

Year-round residents. Some interesting species can be found at any time of the year. Boreal Chickadees and Black-backed Woodpeckers are often the highlights; Gray Jay and Spruce Grouse have been seen but can't be expected. Winter is usually the slowest time of year at Pondicherry, but the trails make for good cross-country skiing and snowshoeing. Great-horned and Barred owls are often heard during moonlit winter nights.

Irruptive Species. The presence of a wide variety of habitats, including low-elevation boreal forest, makes the Pondicherry Wildlife Refuge an attractive location for many irruptive species. Small numbers of resident Evening Grosbeaks and White-winged Crossbills are joined in good cone-crop years by large numbers of their cousins. Pine Grosbeak numbers vary from year to year as do Redpolls and Pine Siskins. In addition to the Northern Hawk Owl mentioned above, a second Hawk Owl was seen in the nearby Jefferson Meadows.

Pondicherry Birder Trails

The Pondicherry Rail Trail. This pleasant, flat trail follows the abandoned Maine Central Railroad grade for 1.5 miles into Cherry Pond and the Refuge. The Rail Trail starts at a trailhead parking lot along Airport Road that is 1.5 miles from Route 115. The beginning of the trail is opposite a large wood-to-energy plant (you cannot miss it). A kiosk at the parking lot has maps and other information about the refuge.

Right at the trailhead parking lot are some huge white spruce and balsam fir trees that almost always harbor something of interest. The walking is easy, but there may be some wet spots in spring. Motorized vehicles are not allowed during the snow-free season, but bicycles are allowed. The habitat varies from fragrant stands of white pine and balsam fir to pungent balsam poplar and other young hardwood stands that have nesting Mourning and Chestnut-sided warblers. You pass several small brooks and a power line that provide even more variety. After about a mile and a half, you come

DAVID GOVATSKI

Pondicherry Rail Trail, refuge access

out at Waumbek Junction (see map). The railroad line is active at this point, so use care in crossing the tracks.

Little Cherry Pond Trail. This 1.2 mile loop trail includes 500 feet of boardwalk that take you across black spruce and tamarack stands to remote Little Cherry Pond. The Little Cherry Pond Trail starts a quarter-mile north of the railroad bridge over the John's River. A bypass trail to avoid the active railroad tracks will be built in 2002 and will allow a connection to both the Little Cherry Pond Trail and the Rampart Path. Listen carefully along the way for Boreal Chickadees and the light tapping of Black-backed Woodpeckers. A final stretch of bridges over the bog mat takes you to a small viewing platform at Little Cherry Pond. Beaver, muskrat, otter, and moose are often seen here. Ring-necked Ducks nest on small floating islands around this twenty-acre pond and can often be seen at the far side. Large stands of rhodora bloom in May, and carnivorous pitcher plants dot the bog mat.

Rampart Path. This quarter-mile path starts at the northwest corner of Cherry Pond, opposite the trail to Little Cherry Pond. Look for a small trail to the right, leading to Cherry Pond. After 100 feet of walking you arrive at West Point, a fine spot to watch for loons and eagles. The unmarked path continues to the left along the shore on an ice push rampart. The path on this rampart looks man-made but is natural, formed by the action of Cherry Pond freezing and expanding. The ice pushes sand, gravel, and even boulders a few inches every year to create this geological oddity. The views of the Presidential and Franconia Mountain Ranges are spectacular from this lightly used path. All three kinds of Scoters, Long-tailed Ducks, and Buffleheads can often be viewed here in October and early November. Mountain holly grows in profusion along this path.

DAVID GOVATSKI

Moorhen Pond, Pondicherry Wildlife Refuge

Moorhen Marsh Trail. This trail starts at Waumbek Junction and follows a rail trail east to Moorhen Marsh at 0.5 mile and Cedar Marsh at one mile. A portage trail to Cherry Pond is on your left after 500 feet, along with a spectacular view of Cherry Pond and the distant Pliny Range in Jefferson. Future plans call for a wheelchair-accessible trail to this point. At Moorhen Marsh look and listen for Virginia Rails, Sora, and Common Snipe that are often found in this highly productive area. The winnowing of the snipe in spring is one of the featured attractions of this marsh. Common Moorhen and Least Bittern have been recorded here but are not to be expected. At Cedar Marsh, look for Green-winged Teal. Northern Parulas are often heard in the spruce forest around Cedar Marsh. The rail trail continues to Gorham, NH, in another eighteen miles, but the best birding is back at the refuge.

Conclusions

Birding the Pondicherry Wildlife Refuge can be a very satisfying experience. New access trails and National Wildlife Refuge status have improved opportunities for visiting birders. You can also learn what to expect at Pondicherry by reading *New Hampshire Bird Records* and by obtaining a new bird checklist for Pondicherry at the New Hampshire Audubon website: <http://www.nhaudubon.org/sanctuaries/pondicherry.htm>. You can help increase our knowledge of the bird life by submitting your records to New Hampshire Audubon.

Make the effort to visit Pondicherry and you will be rewarded. Few days in the field can be better than a day in this marvelous refuge with its wealth of bird life, botany, and scenery. Watching the golden glow of sunset on the Presidential Range reflecting off the waters of Big Cherry Pond while a loon calls is a wonderful way to end a day of birding.

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Robert A. Quinn *is a New Hampshire native with a degree in Zoology from the University of New Hampshire. He worked for the Audubon Society of New Hampshire for nine years, becoming their first staff ornithologist, and continues as an active volunteer for Audubon. He has led dozens of field trips including trips to Alaska, California, Oregon, Florida, Hawaii, Maine, New Jersey, Rhode Island, Texas, Ontario, New Brunswick, Trinidad, and Costa Rica. For twenty years he was editor of the nesting season for* New Hampshire Bird Records *and a founding member of the New Hampshire Rare Bird Committee. He is proprietor of a natural history services business, Merlin Enterprises, and has worked on contract for the U. S. Fish and Wildlife Service in Maine and New Hampshire, the State of New Hampshire, the Society for the Protection of New Hampshire Forests, and the Audubon Society of New Hampshire. This article was adapted and greatly expanded from a shorter piece on the area's bird life published in* New Hampshire Bird Records, 16:3, Fall 1997.

David Govatski *is an avid birder and volunteer Pondicherry Wildlife Refuge Manager since 1992. He resides in Jefferson, NH, and is employed as a Fire and Aviation Management Officer with the White Mountain National Forest. He is Chairman of the Friends of Pondicherry and has been actively involved in land acquisition and protection efforts.*

Hybrid Terns Cryptically Similar to Forster's Terns Nesting in Massachusetts

Ian C. T. Nisbet

On June 16, 1975, Karen Wilson and I found an unusual tern resembling a Forster's Tern at Monomoy National Wildlife Refuge, Chatham. The bird was mated to a Common Tern and had a nest in the middle of the large colony of Common and Roseate terns on North Monomoy Island. Although I was unable to catch it and examine it in the hand, I studied it carefully in the ensuing weeks and took detailed notes and photographs. At that time, I had only recently encountered hybrid Common x Roseate terns for the first time. I had found two hybrids nesting at Monomoy in 1974, and in 1975 was studying a hybrid nesting at Bird Island, Marion, and a pure Common x pure Roseate interbreeding pair at Monomoy. I tentatively concluded that the 1975 Monomoy bird was probably a Common x Roseate hybrid, but I could not rule out the possibility that it might be a Common x Forster's hybrid or even an aberrant Forster's Tern.

In the intervening years, I have seen and handled many more Common x Roseate hybrids and backcrosses, and I have learned the range of their characteristics. No other has remotely resembled the 1975 Monomoy bird, and no other has resembled a Forster's Tern. I was recently prompted to reexamine my notes and photographs of that bird. I now believe that it was probably a hybrid with a fortuitous resemblance to a Forster's Tern, but I am still uncertain about its parentage.

Detailed description

A page from my 1975 field notebook and two photographs taken by Karen Wilson are reproduced here as Figures 1-3. This was a very large tern, about ten percent larger than its mate, stood taller, and had noticeably longer legs. The upperparts were pale gray, intermediate between those of Common and Roseate terns, and the underparts were pure white, without trace of the gray color of a Common or the creamy-pink of a Roseate. The bill was more robust than that of a Common, bright orange-red with about thirty-three percent blackish at the tip (see Figure 3). It thus had more black on the bill than most of the Common Terns at that stage in the breeding season, but more red than any of the Roseates. At rest, the tail projected 2-3 cm beyond the wing tips (i.e., intermediate between Common and Roseate). The outer tail feather (t6) was white; t5 was dark gray on the outer web and light gray on the inner web, and tt1-4 were white (Figure 2). The outer five primaries (pp6-10) appeared black, with white "frosting" when the wing was folded, but the frosting was less prominent on pp6-7, so that at some angles these appeared blackish, contrasting with the silvery pp8-10. Also, pp5-8 had narrow white fringes on the inner webs, forming a very thin white trailing edge to the closed wing (Figure 3). On the underside of the spread wing, the black on the inner webs of pp6-9 formed a narrower dark margin to the trailing edge than on a Common Tern, and the inner webs of pp9-10 were translucent (Figure 3).

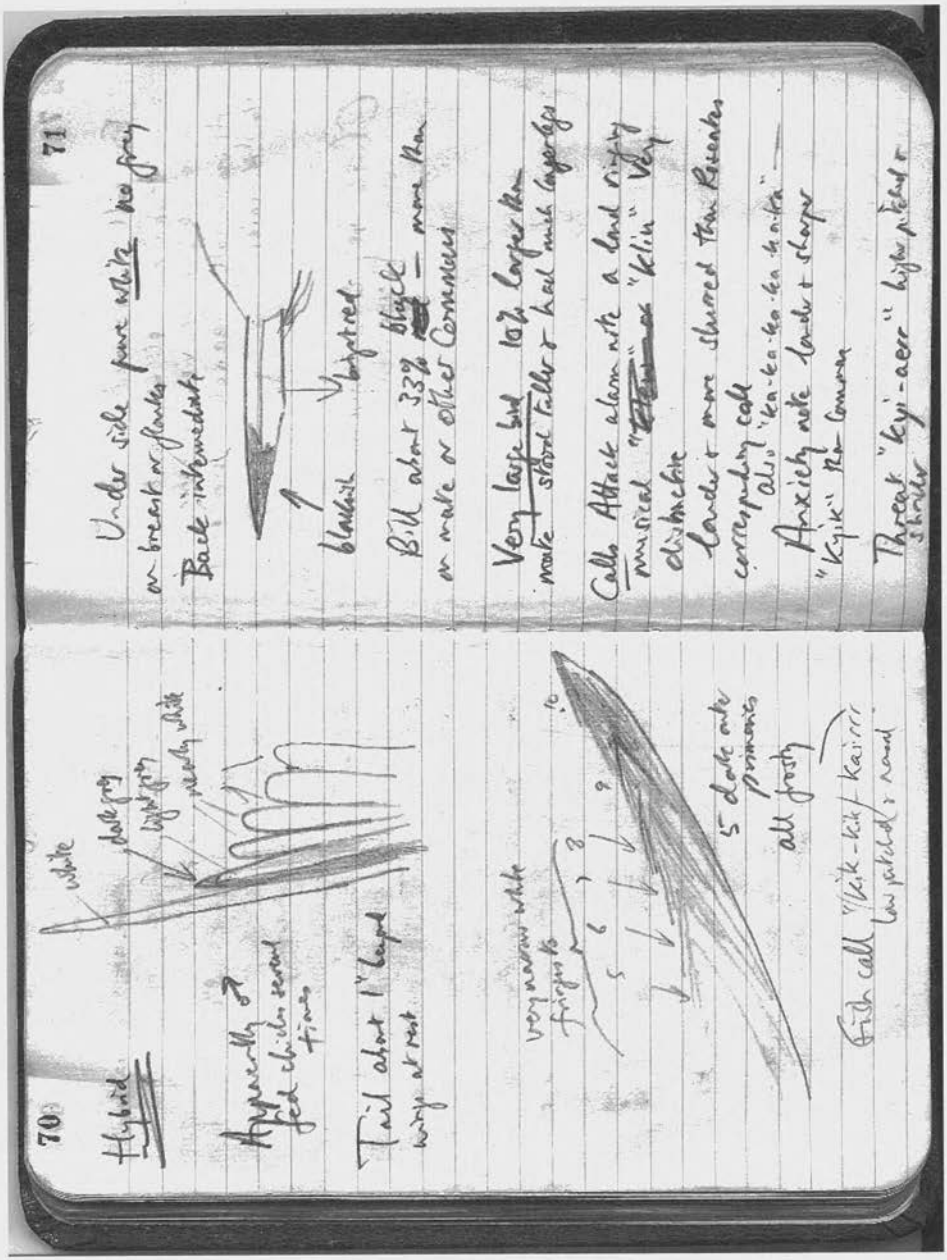

Figure 1: Double page from the author's field notebook for 16 June 1975

The bird had a number of distinctive calls. It initially drew attention to itself with a loud, ringing, musical alarm or attack call, *kliu*, louder and more down-slurred than the similar alarm call of the Roseate. This call was given regularly when we approached the nest or chick, and was used when the bird attacked us, sometimes combined with a rattling *ka-ka-ka-ka-ka-ka*. The bird was extremely aggressive,

KAREN WILSON

Figure 2: Hybrid tern at Monomoy National Wildlife Refuge, 17 June 1975. Note the white breast, dark upper surface to outer primaries, white outer tail feather (t6), and dark gray outer web to t5.

continuing to attack us vigorously even after its chick could fly in early July, when most Common Terns had almost stopped doing so. Another aggressive call was a rasping *aaach*, more nasal than the corresponding call of Roseates. The high intensity alarm call was *kyi-aerr*, similar to but higher-pitched and shorter than the corresponding call of Commons. The advertising call, given when the bird flew in with a fish, was a down-slurred *kaaerr*, or *kik-kik-kaerr*, low-pitched and slightly nasal in tone. The anxiety note was *kyik*, louder and sharper than that of Commons.

Breeding

The bird was mated to a tern that appeared identical in all respects to a Common Tern (Figure 3), including the patterns of black and white on the outer primaries and gray and white on the tail. We suspected that the "Forster's" was the male, because it brought most of the food during the first few days while its mate did most of the brooding, it was much more aggressive than its mate, and its mate had a relatively small bill. The pair had a nest in an open, flat sandy area with no vegetation except for a small clump of seaside goldenrod and a few tufts of dead beach grass (Figures 2-3). This was unusually open habitat for Common Terns, which were nesting all around it, and would have been completely atypical for Roseates or Forster's. When we found the pair on June 16, they had a chick about four days old and an unhatched egg. They were still sitting on the egg occasionally, but abandoned it within a day or two. The egg measured 4.370 x 3.188 cm and appeared identical to a Common Tern egg in shape and coloration. It contained a dead embryo, about two-thirds developed.

I suspect that the death of the embryo may have resulted in some way from its hybrid parentage, because it is and was very rare for Common Tern embryos to die at this stage of development. In my Common Tern study-plot at Monomoy in 1975, hatching success was over ninety-seven percent (135/139) and the few eggs that failed showed no signs of embryonic development.

The chick closely resembled a Common Tern. We enclosed it within a low wire fence to facilitate study, and gave it a small wooden box to provide shelter from the

KAREN WILSON

Figure 3: Hybrid tern (left) with its Common Tern mate (right) and chick at Monomoy National Wildlife Refuge, 17 June 1975. Note the white breast, bill coloration, and pattern of black, gray, and white on the underside of the outer primaries.

sun (Figure 3). We banded it, checked it every 1-2 days, and scrutinized it carefully just before it fledged. We could find no differences from neighboring Common chicks, despite careful examination and side-by-side comparisons of size, structure, coloration, and details of patterning of tail, wing and upperparts. It was so similar to a Common Tern in all respects that I suspected that it may actually have been fathered by a Common Tern rather than by the "Forster's" that was raising it.

We first saw the chick fly out of the enclosure on July 4. We caught it again on July 6 and put a colored plastic patagial tag on one wing. The wing length was then 172 mm, typical for a Common Tern at the time of fledging. The chick was probably still present on July 8, when the "Forster's" parent vigorously attacked me, but we did not see either again at Monomoy. However, Vernon Laux saw the chick with its tag at Nauset New Island, 19 km north of Monomoy, on July 9, 13, and 14. It was found dead, still banded, at Nauset on July 24 by Gordon Brown. Its head was missing, and it had evidently been killed by a Great Horned Owl. I reported this event in a short note on early dispersal of fledgling Common Terns, published in *Bird-Banding* (Nisbet 1976).

I searched diligently for the "Forster's" Tern at Monomoy in 1976 and 1977, but did not find it.

Identification

The adult was clearly not a Common Tern, nor a Roseate, nor an Arctic (the only three tern species nesting at Monomoy in 1975). In many respects, it appeared similar to an adult Forster's Tern (Figures 2-3). However, the patterns of black, gray, and white on the outer tail feathers and outer primaries were wrong for that species. Adult Forster's Terns have the outer tail feather (t6) white at the base and on the outer web, with the distal third of the inner web dark gray (Figure 4); the remainder of the tail, including t5, is all pale gray. The Monomoy bird had t6 entirely white (like Roseate), t5 dark gray on the outer web and light gray on the inner web (like Common: Figure 2), and tt1-4 white (like Common and Roseate). Adult Forster's have much lighter primaries (lighter than the back), and only the tips begin to darken during June (Wilds 1993). Two-year-old Forster's (Alternate II plumage) can have the outer five primaries all black, and three-year-olds may be similar (Wilds 1993, Olsen and Larsson 1995), but they do not have white tips to pp5-8, and they usually have white speckling on the forehead or other signs of immaturity. I have examined the extensive collection of Forster's Tern skins in the Museum of Comparative Zoology (MCZ), Cambridge, and I have not found any with primaries similar to the Monomoy bird.

Although I have no experience of Forster's Terns at breeding colonies, I have been unable to match my notes of the Monomoy bird's calls to published descriptions of vocalizations of Forster's (Hall 1998, McNicholl et al. 2001). The musical attack call *kliu* apparently resembled the advertisement vocalization of Forster's, but that call often has two parts, ending in a trill or buzz, and is used when bringing fish to the chick or calling to the chick near the nest (Hall 1998). The same call is also described as being combined with a harsh-sounding rattle in agonistic encounters with other Forster's Terns (Hall 1998). The Monomoy bird often used this call separately from the rattle and used it only when attacking humans. This call was most similar to the low-intensity alarm call of Roseate, but was louder and more down-slurred, and was sufficiently distinct to draw instant attention to the bird when I first heard it calling overhead.

The advertisement call of the Monomoy bird, given when bringing fish to the chick, was completely different from the advertisement vocalization described by Hall (1998), and unlike any other call described for Forster's. It was also unlike any call of Common or Roseate (Gochfeld et al. 1998, Nisbet 2002).

The *aaach* aggressive call appears to have been similar to the harsh, raspy alarm vocalization described for Forster's by Hall (1998), but was given only in flight, not on the nest or in combination with aggressive displays on the ground as described by Hall. It was most similar to the high-intensity alarm call of the Roseate, but differed in tone. In the circumstances described by Hall for the alarm vocalization of Forster's ("when nonmate conspecifics or individuals of other species (including humans) approached the nest site or colony or as a general reaction to a non-specific disturbance"), the Monomoy bird usually gave its *kyi-aerr* alarm call. This call was similar to the corresponding alarm call of the Common Tern (Nisbet 2002), but

differed in tone and duration; it was unlike any call of Roseate and appears unlike anything described for Forster's.

Table 1 summarizes twenty-three characteristics of the 1975 Monomoy bird and compares them with those of the three putative parental species. This bird had several features suggesting each of the three species, but several features incompatible with each. It was clearly a hybrid, but its parentage is not clear. Overall, it was most similar to a Common Tern in plumage details and voice, but t6 and several of the calls are consistent only with Roseate. I would have identified it as a Common x Roseate hybrid, except that all the other Common x Roseate hybrids and backcrosses that I have studied appeared and sounded totally different. The possibility that it was a three-way hybrid (perhaps Common x Forster's backcrossed with a Roseate) cannot be dismissed entirely, although it seems extremely improbable. Otherwise, this bird's resemblance to a Forster's appears to have been fortuitous, although the bird could easily have been identified as Forster's without careful examination.

Table 1. Characteristics of the 1975 Monomoy tern compared to those of Common, Roseate, and Forster's Terns. "Yes" indicates that the characteristic was similar to or compatible with the pure species; "(Yes)" that it differed but had some features in common; "No" that it was incompatible with the pure species.

Characteristic	Common	Roseate	Forster's
Mate	Yes	No	No
Nest substrate	(Yes)	No	No
Characteristics of chick	Yes	No	No
Body size	No	No	Yes
Length of legs	No	No	Yes
Color of upperparts	No	No	Yes
Color of underparts	No	(Yes)	Yes
Bill thickness	(Yes)	No	Yes
Bill coloration	(Yes)	No	Yes
Tail length	No	No	Yes
Tail feather 6	No	Yes	No
Tail feather 5	Yes	No	No
Tail feathers 1-4	Yes	Yes	No
Number of black outer primaries	Yes	No	Yes
Frosting on outer primaries	Yes	No	No
Extent of black on outer primaries	(Yes)	No	(Yes)
White tips to pp 5-8	No	(Yes)	No
Alarm/attack call	No	(Yes)	No
Rattling attack call	Yes	(Yes)	Yes
Harsh attack call	No	(Yes)	(Yes)
High intensity alarm call	(Yes)	No	No
Advertising call	No	No	No
Anxiety call	(Yes)	(Yes)	(Yes)

Birds trapped at Ram and Bird Islands, 1947-1949

Veit and Petersen (1993) did not know of any breeding records of Forster's Tern in Massachusetts earlier than 1990. Indeed, they listed only two fully documented spring records of the species in the entire state prior to 1975. However, Oliver Austin, Sr., had reported trapping two adult Forster's Terns at Ram Island, Mattapoisett, in 1947 (Austin 1948). His banding notes, archived at the Wellfleet Bay Wildlife Sanctuary in Eastham, MA, actually list five adult Forster's Terns banded by him in Massachusetts: two at Ram Island on July 8, 1947, one at Ram Island on July 9, 1948,

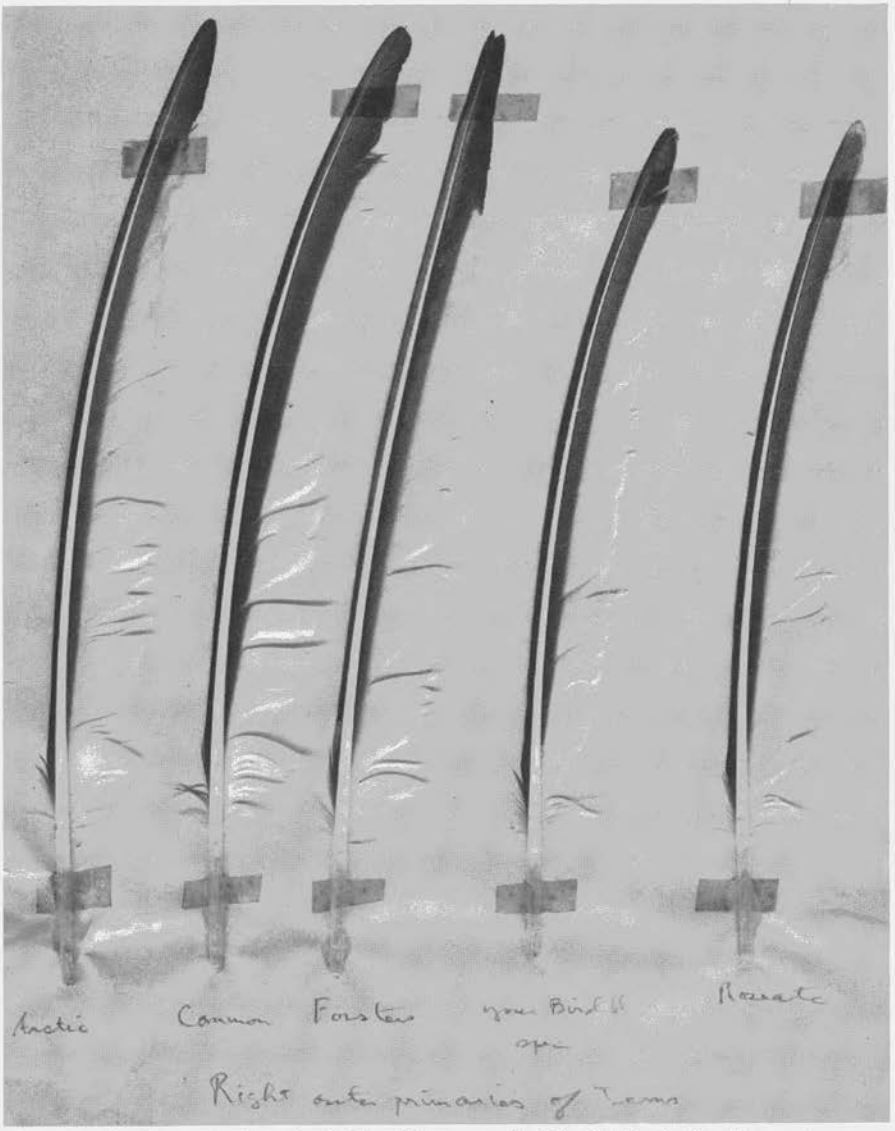

Figure 4: Right outer primaries (p10) of five terns. (Left to right): Arctic, Common, Forster's, an apparent hybrid trapped at Bird Island on 5 July 1949, and Roseate. Display prepared for Oliver Austin, Sr., by James Peters.

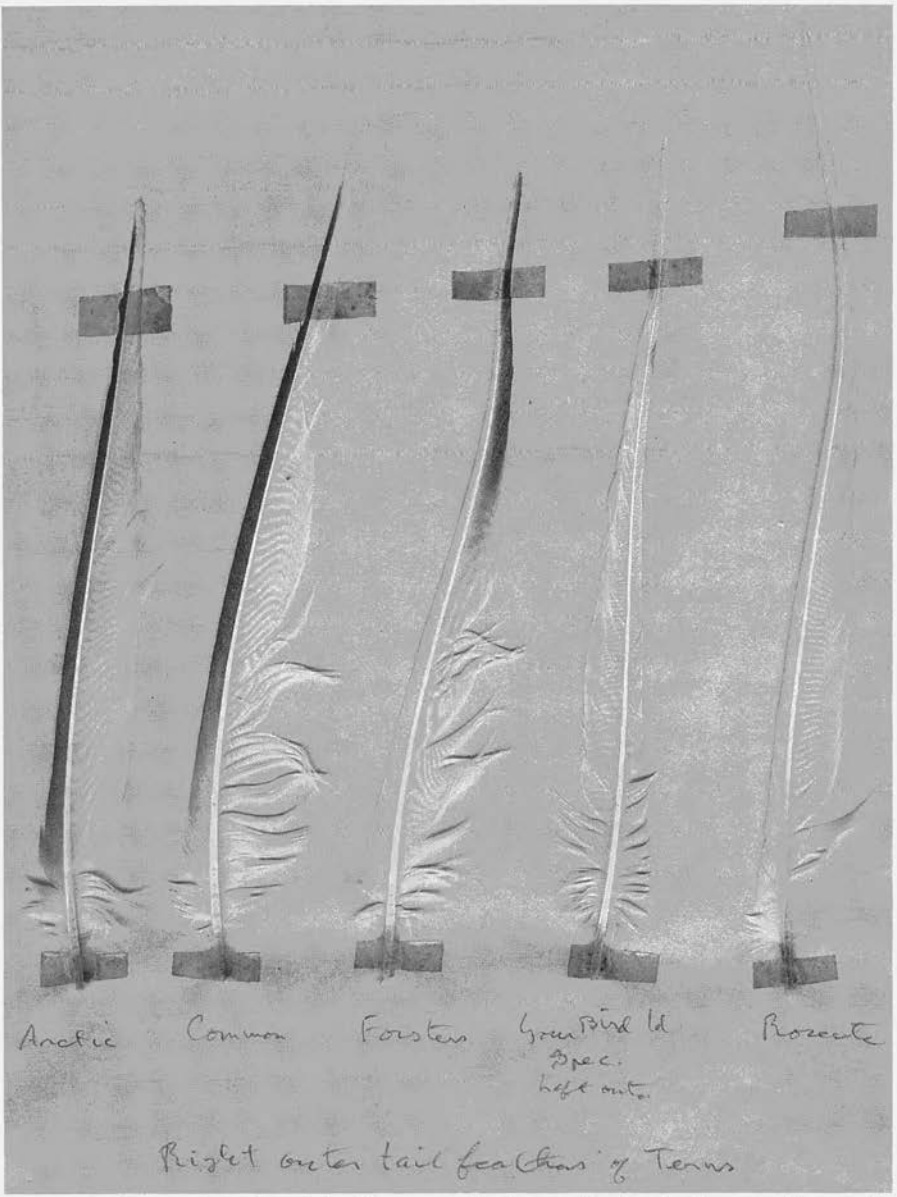

Figure 5: Outer tail feathers (t6) of five terns. (Left to right): Arctic, Common, Forster's, an apparent hybrid trapped at Bird Island on 5 July 1949, and Roseate. Display prepared for Oliver Austin, Sr., by James Peters.

one at Bird Island, Marion, on July 15, 1948, and one at Bird Island on July 5, 1949. Austin trapped adult terns on nests, so these were evidently breeding records. Austin's practice when banding adult terns was to set large numbers of traps on unmarked nests, so he would not have known whether the two birds he trapped at Ram Island in 1947 were attending the same or different nests.

I have searched Austin's records, but I have not found any notes, descriptions, or photographs of these birds. In 1947, the center of Ram Island contained depressed marshy areas subject to flooding, which would have provided suitable habitat for Forster's Terns (Austin 1948). However, Bird Island does not now contain suitable habitat for Forster's Terns and probably did not in 1948-1949. Austin's journal for July 15, 1949, states that the bird was "found under a good sized bush," which is typical for Roseate Tern but would be extremely unusual for Forster's.

In 1977 I found among Austin's records an envelope containing five outermost primary feathers (p10) and five outermost tail feathers (t6) of terns: one Common, one Arctic, one Forster's, one Roseate, and one "other." The "other" feathers were labeled "your Bird Id spec" (see Figures 4-5). The envelope had been mailed to Austin by James Peters, then Director of the MCZ, and was postmarked July 8, 1949. The notes are in Peters' handwriting. I have not been able to find any correspondence between Austin and Peters, either among Austin's records or at the MCZ, and Austin's journal does not mention removing any feathers. However, the circumstances suggest that Austin had removed two feathers from the tern trapped at Bird Island in 1949, had sent the feathers to Peters for identification, and that Peters had returned them to Austin with reference feathers from the four putative species.

The outermost primary feather labeled "your Bird Id spec" is 185 mm long, versus 187 mm for that of Roseate, 212 mm for Forster's, 213 mm for Common, and 215 mm for Arctic. In pattern, it is most similar to that of Roseate, with less black on the inner web than on either Common or Forster's. However, the trailing edge of this feather is black for 16 mm back from the tip, whereas Common has black for 28 mm, Arctic 29 mm, and Forster's 41mm; Roseate has a narrow white margin to the inner web all the way to and around the tip, forming a 4 mm white tip (Figure 4). The outermost tail feather labeled "your Bird Id spec" is 176 mm long, versus 202 mm for that of Roseate, 169 mm for Forster's, 175 mm for Common, and 164 mm for Arctic. It is pure white like that of Roseate, completely lacking the dark gray on the outer web of Common and Arctic or the medium gray on the distal third of the inner web of Forster's (Figure 5).

These comparisons show that Austin's 1949 bird was not a Common, Arctic, or Forster's Tern. The two feathers were most similar to those of Roseate, but the patterning of p10 suggests that the bird was not a pure-bred Roseate, but probably a Roseate x Common hybrid. I have seen and trapped a number of Roseate x Common Tern hybrids at Bird Island between 1975 and 1998, all of which were similar to Austin's bird in their outermost tail feathers (white or pale gray, without dark outer webs as in Commons) and patterns of black and white on the outermost primaries (less black than Commons, but lacking the white margin around the tip characteristic of Roseates). All these birds similarly had tail streamers intermediate in length between those of Common and Roseate. Most also had wing lengths intermediate between those of Common and Roseate, but my measurements of wing length have been from the tip to the carpal joint, and so are not directly comparable with those of the outermost primaries.

This information does not support Austin's identification of Forster's Terns nesting at Ram and Bird Islands in 1947-1949, but suggests instead that he had

encountered Roseate x Common Tern hybrids. These were evidently sufficiently similar to Forster's Terns to lead to misidentification as that species.

Parker River Salt Marshes, 1990s

More recently, a few Forster's Terns have been reported breeding in salt marshes near the mouth of the Parker River on the Parker River National Wildlife Refuge, Newburyport. Three birds were seen holding territory on June 23, 1990, including one in courtship flight with a Common Tern, and single nests were found in 1991 and 1992 (Rimmer and Hopping 1991, Veit and Petersen 1993, Berry 2000). I have asked the observers of these birds whether they examined the birds sufficiently carefully to verify that they were Forster's Terns and not hybrids. All the observers noted distinctive characters of Forster's Terns, so it is unlikely that these were the cryptic hybrids described earlier in this article. However, it also has to be considered whether they might have been Common x Forster's hybrids. I have not found any definitive records of hybridization between Common and Forster's Terns (Nisbet 2002), but the report of a mixed pair in courtship certainly suggests the possibility of hybridization. Rick Heil believes that some or all of the three birds he saw in 1990 were pure Forster's, but the other observers cannot be certain of this in retrospect.

My experience with hybrids between Common and Roseate Terns has taught me that some hybrids or backcrosses look cryptically similar to one or the other parental species, so that it is easy to mistake a hybrid x Common or hybrid x Roseate pair for a Common x Roseate pair, unless both birds are examined very carefully. There are now many reported cases of hybridization among tern species, most frequently at the edge of the range of a scarce species, where birds of that species are present singly among large numbers of a common species and are unable to find conspecific mates. I recommend that any "Forster's Terns" found breeding in Massachusetts (or anywhere else outside their normal range) should be scrutinized very carefully in case one or both members of the pair are in fact hybrids.

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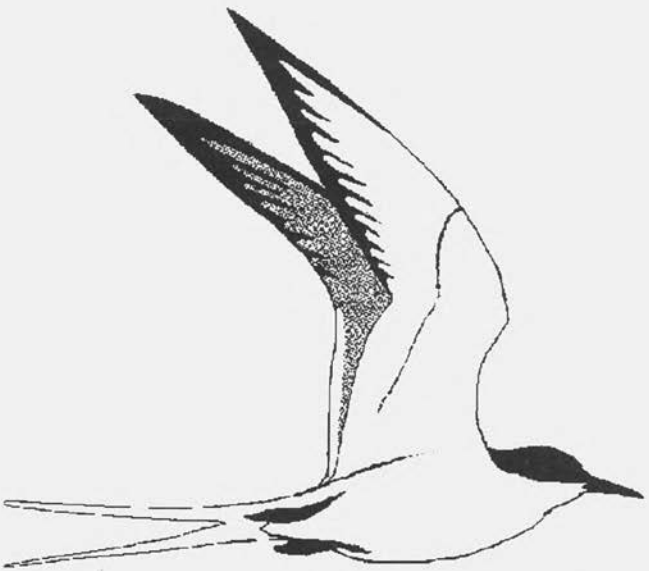


GEORGE C. WEST

News from MassWildife

Topozone.com Check out <www.Topozone.com> for a complete array of U.S. Geological Survey topographic maps for Massachusetts and across the nation. According to MassWildlife Database Manager Sergio Harding, the site is particularly useful for downloading and printing USGS maps as well as locating features that may not be unique in a state, such as one of several Long Ponds or Mill Ponds in the state.

Charles Johnson Maynard: The Enigmatic Naturalist

William E. Davis, Jr.

C. J. Maynard, the name he generally used in his voluminous publications, was born on May 6, 1845, on a farm in West Newton, Massachusetts, to Samuel and Emiline Maynard. His father's death when Charles was twelve precipitated a sequence of events that fostered the enigmatic aspects of his life and career. He was forced by circumstances to work on the farm and dropped out of the public school he attended by age sixteen. He was thus denied the education in science that would have facilitated his natural history interests, and he would spend his life trying to make ends meet. His blue-collar background separated him from the majority of those who pursued natural history as a vocation or serious avocation, and certainly was a factor in his rejection of the "establishment" professional outlets for mutual discussion and publication of natural history information. After an initial rejection by the members of the newly formed Nuttall Ornithological Club, Maynard made his own way in natural history through a long and amazingly productive career. He was viewed as a loner by the well-connected, but became a beloved teacher and guru to generations of young people who fell under his influence.

C. J. Maynard birding on the dunes, May 11, 1918.

Natural history as a career

West Newton of 1845 was rural, and early on, encouraged by his mother, Maynard developed an interest in natural history (Townsend 1929). He collected specimens of things natural and stored them in the attic of the old farm house. After three years of working on the farm, he ventured out to earn a living, and followed his interests by setting up a taxidermy shop in 1866, a business that he continued at one level or another for the rest of his life. He was hired in 1866 to collect birds for E. A. Samuels, the Curator of the State Cabinet for the Commonwealth. J. A. Allen from the Museum of Comparative Zoology at Harvard bought bird skins from him, as did William Brewster and many others whose passion for birds included amassing collections of bird skins.

One of his early jobs was to organize a large collection of mounted birds for the Boston Society of Natural History, a center for natural history devotees at the time, and during the year in which he was working on this project, he met many of the local

dignitaries, including T. M. Brewer. Maynard lived in Ipswich for three years, but returned to Newton in 1874 where he remained for the rest of his life. He took the first of his collecting trips to Florida and the Bahamas in 1868-1869 and his last to the Bahamas in 1924 (Townsend 1929). During the 1880s and 1890s he had a series of shops in downtown Boston where he dealt in natural history specimens. One of his advertisements states that he has the largest collections of corals, gorgonias, shells, echinoderms, general marine specimens, insects, minerals, and bird skins for sale in the United States. He also sold supplies for taxidermists, entomologists, oologists, botanists, and mineralogists. Although his taxidermy gradually became overshadowed by his natural history specimen sales, he continued to conduct taxidermy classes.

Collecting natural history objects was becoming an international pastime (Barrow 1999), and a growing market for bird skins, nests and eggs, and natural history items in general provided an outlet for a boy who was deficient in funds, education, and friends within the establishment.

A late nineteenth-century proliferation of magazines and journals dealing with aspects of natural history meshed well with Maynard's lifelong fascination with publishing books and articles. The sale of his books, along with teaching and bird walks in later years, provided sources of income. He charged $.50 for individual nature walks, and $2.00 for each volume of *Records of Walks and Talks with Nature*, forty bound lists of birds seen on the walks. He followed his predilections to print and publish his own books and articles, a habit that further estranged him from the establishment and further isolated him from peer review.

Maynard frequently encountered financial difficulties and apparently lived most of his life on the financial edge. This is illustrated by his letter to William Brewster, dated July 12, 1886:

> My dear Mr Brewster
>
> I want to make you an extraordinarily low offer in Bird skins as I greatly need money tomorrow. A customer who owes me a bill of $70.00 has just written me that they cannot settle before the 29 of August & as I have a note of $100.00 to meet on the 14/15 I am in a bad place, but I had rather sell my goods at a sacrifice than borrow as I might do of partners here in the city. Now if you accept my offer please do so, so that I can get the money tomorrow, the 14th, as I must have my resources by tomorrow night....I need all the ready money I can get to meet my bills & pull through.

His choice of profession, despite its financial limitations, allowed him the time and opportunity to indulge his passion, the observation and analysis of the natural world.

A brush with the "establishment"

Maynard met a number of the scientific luminaries of the day when he was in his early twenties as a result of his taxidermy work. It was natural that a young man who made his living largely by selling natural history objects would meet most of the kindred souls in the Boston area.

Hence, it was to be expected that when a group of young men began to meet informally in the early 1870s in Cambridge to discuss birds, and in 1873 formally established the Nuttall Ornithological Club, Maynard would sooner or later become involved. He was voted a Resident Member of the Club in January 1875, and Vice President of the Club in April 1876. He was older (at thirty) than most of the Club members and had already published a book and more than two dozen papers, articles, and notes. Hence, his lifelong love affair with publication was well under way.

At the time he joined the Club, the idea of publishing a scientific journal on birds was being actively debated by Club members, and Maynard became a strong advocate. His influence in the final decision to publish the *Bulletin* was described by J. F. Batchelder (1937): "Older than most of the members, persuasive and sanguine, he might readily have led their hesitating desire to a point where it was easier to go forward than not." He was elected coeditor with H. A. Purdie in 1876, and was influential, probably because of his contacts and experience in the publication world, in producing the first issue of the *Bulletin* of the Club. This was a landmark because the *Bulletin* was the first journal in North America dedicated entirely to ornithology, and eventually evolved into *The Auk*, the journal of the American Ornithologists' Union and the premier journal of North American ornithology.

This first number of the *Bulletin* was circulated on May 6, 1876, and included a paper by Maynard and a frontispiece featuring a painting of Brewster's Warbler, hand colored by Maynard or under his supervision. The second number was scheduled for release on July first, but Maynard left in May on a collecting trip to Florida from which he not return until July, a decision that left him vulnerable to criticism and that precipitated substantial changes in the Club's editorial policy. During Maynard's absence, J. A. Allen, Curator of Ornithology at the Museum of Comparative Zoology at Harvard, and destined to be one of the most prominent ornithologists and mammalogists of the nineteenth and early twentieth centuries, took over control of the *Bulletin*. Allen was seven years older than Maynard, one of the few professional ornithologists of the time, and a competent, powerful, and persuasive individual. At regular May meetings (Nuttall meetings were weekly at this time), Allen was first voted an associate editor and, on his motion, an editorial board was created. On another of Allen's motions two prominent national ornithologists, Elliott Coues and Geo. N. Lawrence were voted as associate editors. At a special meeting that followed, Allen was made Editor-in-Chief. In August, 1876, Maynard, obviously embittered by his removal, resigned from Nuttall. His brush with the establishment had been an unfortunate one.

Batchelder, in his *Nuttall Ornithological Club 1873-1919*, treats Maynard harshly, and probably unfairly. He refers to Maynard's later claim to having been the "originator and editor of the Nuttall Bulletin" as "...hollowness of Maynard's misleading statement." Batchelder refers to Maynard's leaving on his collecting trip in May as "...Maynard's faithlessness to his undertaking..." and later "...recognizing that Maynard could not be depended on..." This harsh assessment seems to be unjustified. It is interesting to note that Batchelder did not become a member of the Club until a 1877, and hence did not directly witness the events he describes. Batchelder, who had

independent means, apparently ignored the fact that Maynard was not similarly positioned and had to earn a living — which he did by collecting. It is probable that Maynard would have been financially hard pressed to abandon his collecting plans for June and July. Although his absence made him vulnerable and exacerbated a potentially bad situation for him, it seems probable that if he had remained the course of events would not have been significantly different. J. A. Allen was a powerful man with a national perspective and vision for the *Bulletin*, and undoubtedly had the support and confidence of William Brewster, President and leader of the Club. Purdie, coeditor with Maynard, was also superseded by Allen, but remained with the Club. Maynard's less distinguished education and family background in all likelihood worked against him, particularly with the class-conscious Batchelder, and it is possible that he simply felt out of place. It is interesting to note that Batchelder's most noteworthy publication, aside from his history of the Nuttall Club, was his bibliography (1951) of Maynard's published works — perhaps a twinge of guilt was involved in Batchelder's decision to undertake this project.

Problems with other scientists

Maynard's solitary ways and unorthodox approach to science and the publication thereof estranged him from the scientific community and, without doubt, diminished the value of his scientific contributions. He developed the bad habit of publishing his observations and theories without subjecting them to peer review, the normal procedure in science. He sometimes published his descriptions of new species or subspecies in non-mainstream and suspect journals. For example, he published the descriptions of five new species of birds in *The American Exchange and Mart and Household Journal* (1886), which was little more than a newspaper. Peer review standards were far different in the 1800s than they are today, and there were few exclusively scientific journals, but most published papers were reviewed by colleagues prior to publication. This is summed up, probably with justification, by Batchelder (1951):

> This somewhat solitary habit no doubt deprived him of much wholesome criticism of his work, which, had he had it, might have given him much higher standards....His independence of mind and disregard, perhaps to some degree unconsciousness, of other scientific writers' accepted standards and habitual ways in matters of writing and publishing are more than conspicuous in his own writings.

Maynard, from 1893 on, conducted bird walks, and from 1908-1920 published the lists of sightings as volumes of *Records of Walks and Talks with Nature*, often crediting the individual who first spotted a particular bird. The "shotgun school" of ornithology still prevailed, and sight records were not accorded the value that they are today. Hence, once again Maynard ignored the ornithological practices of the day.

The naturalist and his publications

Despite the criticisms of his practice of science, Maynard was an inspired naturalist whose contributions covered a broad spectrum of taxonomic groups.

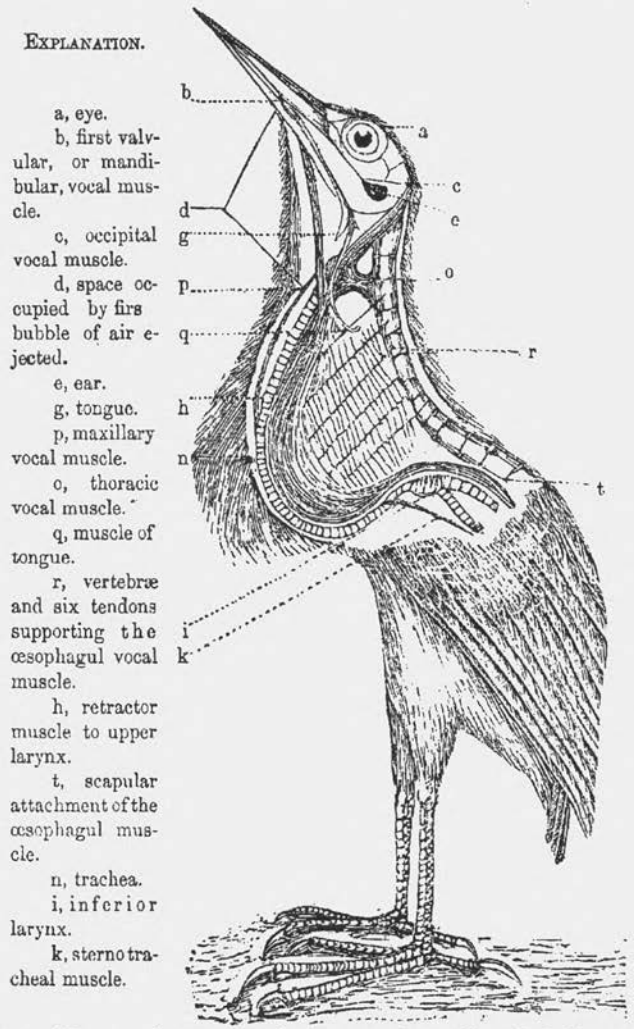
Included in his accomplishments are the discovery and first published description of the Ipswich Sparrow, of which he was particularly proud. Howard Rich, who went on nature walks with Maynard and visited his home, is quoted as saying (Snider 1976) about the reduction, many years after Maynard's death, of the Ipswich Sparrow to a subspecies of the Savannah Sparrow: "That would have broken his heart."

He had personality characteristics that contributed to his worth as a naturalist. He had an open mind. This is exemplified by a May 15, 1889, letter to William Brewster in which he reversed a preconceived notion when observations suggested that he had been wrong:

> My dear Mr. Brewster:
>
> I shall be pleased to see you at any time, and I am usually at home. I shall be here all this week and all next, excepting next Monday when I go to Wayland to look for a female Bittern. I was up day before yesterday and got a male within a hundred yards of where Bradford Torry heard his pumping. My bird was also pumping, although I did not see him. I was so perfectly skeptical as to Torrys theroy [sic] in regard to the sound being produced in any other way than by the lower larynx that had he stated that the bird went out in the marshes and cut a reed and played on it, I should have believed it as quickly.
>
> Judge my surprise when after six hours work, during which I never left my seat, I arose, not only thoroughly convinced that Mr. Torry was right in his conjecture, but also that his simile of a pump is most appropriate; the Bittern being provided with a pump having two boxes. What is more singular is that all the vocal apparatus, or rather the portion that makes it vocal, is assumed for the breeding season only. The story is such a long one that I will not enlarge on it as I shall publish the results of my investigations in the Jyly [sic] Contributions. I consider this one of the very most important of my discoveries in the anatomy of the vocal organs in Birds, as well as the most startling.

Despite his proclivity to solitary behavior, Maynard kept up good relationships with local ornithologists, including William Brewster, President of the Nuttall Ornithological Club. This may in some part havebeen due to economic considerations, since Brewster and other collectors of bird skins were important to his business interests, but his letters indicate a genuine desire to share information and be personally helpful. An example of this charitable character is seen in a June 10, 1907, letter to Brewster:

> My dear Mr. Brewster:
>
> Has anyone told you of the H. leucobronchialis [Brewster's Warbler, a species named by William Brewster but later recognized as a hybrid Golden-winged/Blue-winged warbler] in the Arnold Arboretum? There is a pair there, and I found the nest on Saturday....I will gladly go out there with you if you cannot find a guide...

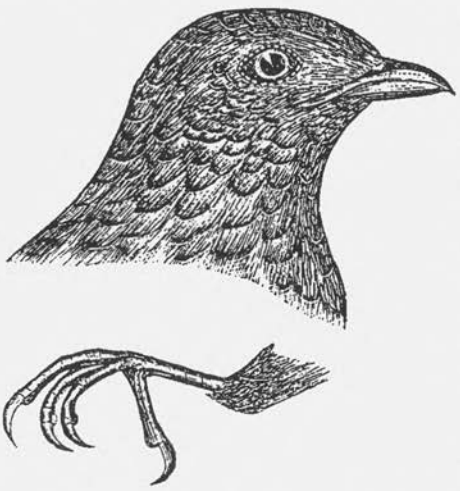


Ideal section of Bittern, showing vocal apparatus. Page 61 in C. J. Maynard's "Vocal Organs of Talking Birds."

Maynard published prolifically throughout his adult life. Batchelder's bibliography of Maynard's publications (1951) includes 271 entries, although the actual number of individual publications is difficult to determine, since Maynard published many editions of some books, and some of Batchelder's entries include a series of short publications. Nonetheless, Maynard's publications are prodigious, and they cover a wide range of topics. Although most concern birds, there are papers on reptiles (snakes, turtles), amphibians, mammals, fish, invertebrates (butterflies, molluscs, ants), echinoderms, sponges, pecan trees, and other topics such as Native

Americans, inscriptions on grave stones, and the weather. He also published on a number of topics including a theory of migration, evolution of species, and folklore. Many of his publications in later life reflected his increasing interest in teaching and education.

His publications ranged in length from a paragraph to more than 500 pages, and several publications, such as *Nature Study in Schools*, *Contributions to Science*, and *Records of Walks and Talks with Nature* (1908-1920), are probably best described as periodicals. Others, including *The Naturalist's Guide*, *The Birds of Florida, Birds of Eastern North America, Manual of Taxidermy, Butterflies of New England, Sparrows and Finches of New England, Warblers of New England*, and *Vocal Organs of Talking Birds* are all books, although some were published in parts.



Head and foot of an adult Purple Martin. Page 110 in "Swallows of Eastern North America" Nature Study in Schools *June-July 1899.*

Except for *The Naturalist's Guide* (1870), Maynard usually printed and published his own books. He set his own type, printed on his own press, made the woodcuts for the illustrations, and even made the tools he used in making the woodcuts. Some publications were "illustrated with hand-colored plates, drawn on stone by the author." He either hand-colored the plates himself or oversaw the coloring. Maynard was a keen observer, and his illustrations are accurate and often aesthetically pleasing.

Barred from a traditional career in science by educational constraints and upbringing, and perhaps personal preference, Maynard nonetheless became a naturalist and scientist through persistence and desire. Even his most vocal detractor, C. F. Batchelder, admitted his worth:

> In various details Maynard's writings are only too easily open to criticism. But the more intimate one becomes with them, and the more one takes into consideration the difficulties under which he labored, the more there appear streaks of genius that are utterly lacking in the work of much better known naturalists.

Another prominent ornithologist, Charles W. Townsend, wrote (1929) that Maynard had a "sunny and cheerful disposition" and was a keen and accurate observer. While regretting that Maynard had not had a better education in science, he suggested the possibility that, "this would have spoiled his independence and originality."

Conservation

Much of Maynard's science has not stood the test of time, and most of his so-called "new species" have disappeared into synonymy with other species. He made his mark, however, in many ways, and prominent among these is his contribution to the conservation movement. While controversy and turmoil swirled around the effects of market hunting and the plume trade, Maynard was addressing fundamental issues in conservation, and, as usual, publishing his thoughts and observations. Excerpts from a 1907 article recounting the habitat changes that had occurred in his neighborhood in Newton exemplify his perspective:

> I will take as an example the environment of my own home as a type of many places in our town....The meadow is drained, and the waving sedges have gone. The beautiful brook has been straightened into a ditch, and most of the willows have been cut down. The cedar hill is now an unsightly gravel pit. The golfer rolls his ball where once the meadow lark and bobolink sang. The old orchard has nearly gone, and few or no migrating warblers visit the few trees that remain; in short, the place has been made a desert for the birds...

Maynard then continues with recommendations that have a decidedly modern ring to them:

> plant *native* shrubbery...Do not remove undergrowth from woodlands...do not allow fire to consume fallen leaves...Public parks should have whole sections left perfectly wild for the birds...Trees in such parks should not be sprayed (poisons so used are an injury to the birds)...The time has come for us to make an effort to keep what birds remain; let us make that effort earnestly.

By the turn of the century Maynard had become an influential teacher, and would touch the lives of several generations, instilling an appreciation for the natural world and the importance of its conservation.

The Teacher

Maynard claimed to have begun teaching in 1868, and therefore, at his death in 1929, he had been teaching for sixty-one years. His original classes in taxidermy were superseded by more general natural history. In 1893 he helped introduce nature education into the local school system. His publications reflect these interests, e.g., *Appendix to the text of Maynard's School Zoological Collection* (1893), *Nature Study in Schools* (1899-1900), and *Systematic Zoology for Teachers* (1899-1900). From 1910-1919 (Snider 1976) he taught summer school at the Massachusetts Agricultural College and published the syllabi as *Methods in the Study of Birds and their Economic Value* (1913) and *Methods in Bird Study* (1914, 1915). He began the bird walks that led to the publication of *Records of Walks and Talks with Nature* in 1908. He was apparently a charismatic teacher, filled with knowledge and enthusiasm that drew teachers as well as young folks with an inclination for natural history.

His greatest impact in natural history, and particularly in birds, was probably his influence on several generations of students in whom he instilled an appreciation of

nature and a conservation ethic. A fitting tribute to this aspect of this enigmatic naturalist's character is found in the following excerpt from the 1928 journal of David Lloyd Garrison:

> Dec. 20. There came from home today Mr. Maynard's latest book, "Vocal Organs of Talking Birds." Mother got it on his advertisement and sent it to me.
>
> It was a funny, chunky little book bound in grey and printed in an old style of type. Its contents were mostly incomprehensible (technical), but undoubtedly scholarly.
>
> I sat on my trunk and read from it. Pictures came up in my mind. The stooped, unkempt, but still bright-eyed old sage shaking a little, working away by an oil lamp in his dusty garret; around him cats running over table tops and among specimens.
>
> I thought of how much he had meant in my life. For a time he was one of the most important forces in forming me. Through the freshness and wonder of early Spring mornings he would take us across country, through forests and meadows; by his knowledge and insight giving into our eternal possession the birds and other wild things of nature which we met. To Dick Bolster and me he was more than a teacher and friend: a holy man....
>
> This final book of his, strange, chunky, signed with his name, is indeed the work of his own hands. He composed it through years of minute study, in the field where he first found eminence and where he is still an unparalleled authority. He printed it himself, on his own small ancient hand press (a man over 80). The plates in it were from woodcuts he had made himself, and the four color plates he did in water-colors with his own shaking but tireless hand. This is the book that Mother bought for six dollars. I am glad she did, for the book is precious to me, and the six dollars may serve for a week perhaps to keep the wolf from the door for the nearly starving old man and his faithful wife and daughter Pearl.
>
> This book is his last shot and stand for independence. I think his friends are rallying 'round to give him support. Though age and changing times and penury gather to oppress him, his spirit is undimmed and his courage unshaken.

Few people are accorded such obvious respect and devotion.

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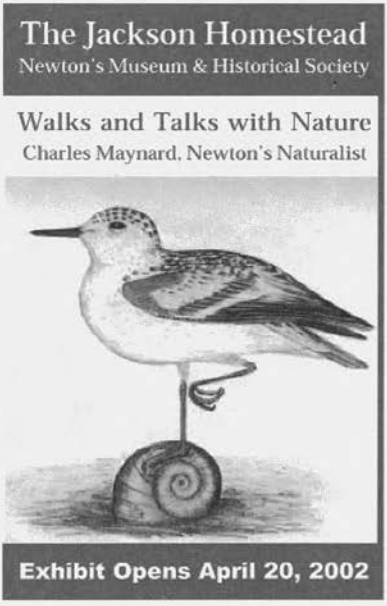
Editor's note: An exhibit, "Records of Walks and Talks with Nature: Charles Johnson Maynard, Newton's Naturalist," at the Jackson Homestead in Newton is open to the public April 2002-March 2003. Highlights include several editions of Maynard's *Birds of Eastern North America*, *Butterflies of New England*, and *Records of Walks and Talks with Nature* on loan from the Newton Free Library. Original Maynard bird specimens from several area museums are also on display. In addition, a series of original Audubon prints from the Massachusetts Audubon Society's Mildred Morse Center for Visual Arts will be shown during the exhibit, along with several volumes of *American Ornithology* by Alexander Wilson.



The Jackson Homestead is located at 527 Washington Street, Newton, between Newtonville and Newton Corner, less than 1/2 mile from Exit 17 on the Mass. Turnpike. Parking is available on site and on the street. Museum visiting hours: Tuesday through Saturday 11 a.m.-5 p.m., Sundays 2-5 p.m. For information call 617-552-7238 or visit <http://www.ci.newton.ma.us/Jackson/default.htm>.

Summary of Leach's Storm-petrel Nesting on Penikese Island, MA, and a Report of Probable Nesting on Noman's Land Island

Tom French

The Leach's Storm-petrel is one of the most abundant marine birds in the North Atlantic but is seldom seen by most birders because it usually feeds far offshore and only returns to its remote island nesting colonies after dark. It nests in the North Pacific from Japan to Alaska and south to Baja. In the North Atlantic, colonies are found from the British Isles to Iceland, Greenland, Newfoundland, and south to Muscongus Bay, Maine, with one small disjunct colony on Penikese Island, Massachusetts. This is the southernmost nesting site known in the North Atlantic, and is also the island on which the first North American and only known U.S. nesting of Manx Shearwater occurred (Ben David and Bierregaard 1973).

Penikese Island

Penikese Island is a seventy-four-acre, mostly treeless island, located about one mile north of Cuttyhunk Island at the end of the Elizabeth Island chain in Buzzard's Bay. It has a colorful history as the site of Louis Agassiz's John Anderson School of Natural History (1873-1874) and a state-run leper colony (1905–1921), and has been a Wildlife Sanctuary managed by the Division of Fisheries and Wildlife since 1924. It has also hosted the Penikese School, a special needs program for boys, since 1973 (Cadwalader 1988).

For four years beginning in 1930, the team that visited Penikese Island to band terns reported hearing strange calls at night from the vicinity of a rock retaining wall (Townsend and Allen 1933). Their eventual conclusion was that these calls were being made by some of the many cottontail rabbits on the island. Individual cottontails were even seen going in and out of crevices in the rock wall. Hearing a description of these calls, Charles Townsend of Ipswich was convinced that they were being made by Leach's Storm-petrels. Townsend, along with Francis Allen of Boston and his son Robert Allen of Cincinnati, visited Penikese and stayed the nights of July 18 and 19, 1933. Townsend confirmed that the calls were from Leach's Storm-petrels and was able to observe a flying bird land and enter a hole in the rock wall. They not only heard the flight call (chuckle call), but also heard the nest call (purring or churring call) coming from the same hole that they had seen the bird enter. Although wishing to get a

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specimen or photograph to confirm the record, they felt that their evidence of breeding was conclusive.

In August 1933, Dr. Oliver Austin, Jr. and Maurice Broun visited Penikese for one night and tried to acquire a specimen by placing a net over the entrance hole and then tearing down a section of the wall (Allen 1935). The blocks of cut rock proved to be too large, so they were not successful. Again in July 1934 the tern banding team reported hearing the flight call. For the same year the annual report of the Massachusetts Fish and Game Commission states that "The Leach's petrel reported last year was again heard at night, and its mate was heard responding from a stone wall, but at a new location. The section of stone wall used last year was pulled down by an enthusiast desiring credit for establishing the nest record, but the rock filling proved to be of such large material that it could be handled only by a powerful derrick; consequently, the nest was not seen. Measures are being taken to see that the walls will not be molested again..."(MFGC 1934). Birds were again seen and heard around the rock wall in 1935 (MFGC 1935) and in 1936 it was reported that " There is probably an increase in Leach's petrel for the caretaker has heard the night cries of more than one bird at a time..."(MFGC 1936).

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Leach's Storm-petrel on Kent Island, Maine

A specimen that would provide conclusive proof of nesting on Penikese Island was eventually collected on August 24, 1940, by the State Ornithologist, Archie Hagar (Griscom and Snyder 1955). This bird was a fully feathered male nestling that still had some remaining down (MCZ 291236). The following year Hagar produced a "Field Map of Leach's Petrel burrows on Penikese Island 21-22 May 1941" (MDFW

files). A notation states that each cross represents a burrow identified by either the characteristic odor or by hearing a petrel in it during the night. The map shows the locations of seventy-nine petrel burrows distributed all across the island. Archie Hagar estimated that 120 pairs nested annually on Penikese between the 1930s and 1950s (Veit and Petersen 1993). No estimates before or since have suggested more than just a few nesting pairs, all located in or near the original rock retaining wall. This was a period when the Massachusetts Fish and Game Commission burned at least parts of the island almost annually, keeping the vegetation open and low, and a period when no gulls nested on the island.

I know of no other reports from Penikese Island for thirty-one years. In 1972, one active and two inactive burrows were reported by Ian Nisbet (Finch 1972). On July 1, 1975, an estimate of fifteen to twenty pairs was made by Jim Baird, Archie Hagar, and Deborah Howard (Finch 1975), and on July 30,1981, five active burrows were located (Jeremy Hatch, pers. comm.).

I first visited Penikese Island in 1984. On the nights of July 20 and 21, I was able to locate five crevices along the rock retaining wall from which petrels were calling. Using a mist net and a tape of both the flight and nest calls, I was able to capture and band twenty-one Leach's Storm-petrels. Of these, nine still had bare brood patches, suggesting that they might be local breeders, and twelve had brood patches which had been bare but were beginning to fill in, which is typical of subadult nonbreeding storm-petrels that actively visit colonies during the nesting season. Not only do these nonbreeding birds spend a great amount of time flying and calling overhead, they will also land to prospect potential nest burrows and will even enter active nest burrows. As a consequence, many of the Leach's Storm-petrels in and around a nesting colony, even some of those in burrows, are subadults. Since most Leach's Storm-petrels do not nest until age four, these subadults visit multiple colonies over a rather large area and fly over islands that have no nesting pairs. Although I have never observed a nonbreeding subadult doing the nest call, the only way to absolutely confirm breeding is to document eggs or chicks.

Petrels were netted and banded in five other years: July 3-5, 1986 (seven captured, including one new bird); July 1, 2, 14, 15, 16, and August 26, 1989 (twelve captured, including three new birds); July 2-4, 1991 (five captured, including two new birds); July 3 and 5, 1994 (one previously banded bird and one new bird); and July 5, 1995 (one new bird). In all, twenty-eight petrels were banded, and thirteen of these were captured in more than one year. The amount of net effort varied significantly with most effort being expended in the earlier years. Therefore, the drop in captures over the years is probably largely an artifact of net effort. However, the number of active nest burrows has also varied from 1984 (five active burrows), to 1986 (seven), 1989 (four), and 1991 (three).

In 1984 one of the five nests was located under the large boulders thrown up on the shore just above the storm-tide line. In 1986 three of the seven nests were located under these boulders, which were on the nearest section of shore to the rock retaining wall nest area by the Penikese School's house. After 1986 these nests were no longer

occupied. Also in 1986, a traditional nest site in the wall was plugged up by a large European Starling nest and was never used by petrels again.

In most years Dave Masch of the Penikese School has heard the first returning petrels calling during the last week in April, but in 1984 they were back by the second week in April. The latest petrel in the season seen or heard by Dave Masch was a nearly fledged chick that he found in the rock wall on October 7, 1984. Since most of the nest chambers are so deep in the wall, actual observations of eggs and chicks on Penikese have been few. On July 3, 1986, I was able to use a flashlight at night to see an adult with an egg in its nest chamber. This is the only time I have ever been able to see an actual nest chamber on Penikese. However, while banding at night, I frequently heard the peeping calls of chicks, particularly when an adult was present and moving around within the nest crevice.

Noman's Land Island

Noman's Land Island is located about six miles SSW of Squibnocket off the southwest corner of Martha's Vineyard in Chilmark, Dukes County, MA. As the name implies, it is rather remote and exposed to the harsh conditions of the open sea. At 628 acres, it is just under one square mile in size. The landscape is dominated by old field grasses and waist-high shrubs. A variety of wetland habitats occurs on the island, including at least four man-made ponds, several shallow natural ponds, pristine cranberry-sedge bogs, and a number of small drainage streams. Although the island has a generally treeless appearance, there are many patches of small trees and large woody shrubs in low areas protected from the wind, particularly along wetland drainages.

For at least the last 300 years the landscape of Noman's Land has been significantly altered by a succession of human uses. The island was heavily pastured, and the rock walls were already built by the early 1700s (Wood 1978). In the mid-1800s, sixty fishermen and their families lived on the island during the fishing season, and several farming families stayed year-round. The last year-round family left the island in 1933.

With the beginning of World War II, the island was first leased and later bought by the U.S. Navy to be used as a target range. The Navy Seabees occupied a base on the island for a time and constructed a series of roads and an airstrip for the purpose of maintaining the target area. Fires, probably set by flares and machine-gun tracer rounds, burned vegetation over parts of the island almost annually. After the early 1950s only practice "dummy" bombs were dropped on the island. On April 29, 1970, the eastern one-third of the island was set aside to be managed for wildlife by the U.S. Fish and Wildlife Service (USFWS) in cooperation with the Navy. Use of the island as a military target range ended in 1996, and the entire island was turned over to the USFWS to become a National Wildlife Refuge on June 26, 1998. In 1997 and 1998 a total of 671,306 pounds of ordnance and 59,847 pounds of nonordnance scrap metal was removed from the island (Stephanie Koch, pers. comm.). Although a great deal of military ordnance has been removed, only items found on the surface were cleared. Additional ordnance may become exposed through frost heaving or erosion. For these

reasons and to protect the wildlife resource value, Noman's Land Island is closed to all public access.

During the week of June 11, 2001, the USFWS led one in a series of ongoing trips to the island to document and monitor the island's wildlife. I was fortunate to visit on June 13 and stay overnight. Although I have always believed that the presence of a Leach's Storm-petrel colony on Noman's was quite likely because of its distance offshore and its relative lack of human occupation, I was unable to detect any sign of storm-petrels on my only other overnight stay in June 1998. On the present trip I was too exhausted to stay up to listen and search for storm-petrels, so I went to bed shortly after dark. At 1:15 a.m. I was awakened out of a deep sleep by the familiar sound of a Leach's Storm-petrel chuckle or flight call nearby. I lay still and in a few minutes confirmed another call much farther away. I immediately got dressed and went outside to listen. Soon I was able to hear repeated calls coming from at least three different general areas. The calls were coming from only a few flying individuals, and they were intermittent, so it was not easy to determine whether the birds were just moving across the island or were focused on different nesting sites.

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Leach's Storm-petrel chick on Kent Island, Maine

I have often encountered these circumstances on islands in Maine. I chose what I believed was the closest calling bird and walked across the island in a straight line with as little light as possible until I eventually came to a short section of exposed rock wall, where I began to hear the distinctive purring or nest call. With some effort, I was able to detect birds purring at three different locations under this section of wall. By now it was 1:45 a.m., and a bright moon was just starting to rise. I went to a nearby hill and tried to determine from how many other locations storm-petrels were calling. There seemed to be two and maybe three other locations where, in each location, at least one bird was calling in flight. I targeted a second location and walked in that direction, but the calls became less frequent as the moon continued to rise. By 2:00 a.m. all of the storm-petrels were quiet. In all I heard five to seven birds calling from the air from three and maybe four different sites, and I heard three birds purring from under the same section of rock wall at probable nest sites. I did not attempt to investigate under any rocks to confirm an egg because I did not want to disturb the few birds present. Although it is true that subadult storm-petrels give the nest call while visiting potential future nest sites, it has been my experience that this behavior is not typical of multiple subadults

at sites that do not already have established breeders. Under these circumstances, I am quite confident that the three birds that I heard giving the purring call were all in nest chambers.

Another overnight trip was made on July 16-17, 2001, by Stephanie Koch, Tim Prior, and Ron Lockwood. Between 12:00 and 1:00 a.m. they heard at least four individual Leach's Storm-petrels flying around the same area giving the flight call. They did not attempt to locate nests and did not hear the nest call.

I was fairly certain that I could locate the nest sites when I visited the island again on October 9-10, 2001. Unfortunately, even after considerable effort I was not able to find any nest chambers under the rocks of the wall or entrances to nest burrows in the nearby soil. However, this was complicated by the fact that I did find several muskrat burrow entrances and tunnel systems in the soil by the wall. Like Charles Townsend in 1933, I am confident that these observations are indeed indicative of nesting, but for conclusive evidence we will have to wait for another nesting season.

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Additional Significant Essex County Nest Records from 2001

Jim Berry

In two recent issues of *Bird Observer* (Berry 2000, 2001), I summarized recent nesting confirmations for fourteen species of birds for which nests in Essex County, Massachusetts, have seldom (if ever) been found. My field work in 2001, supplemented by that of several other observers, added to the list of significant recent nesting records for the county. What follows is a brief summary of those observations for eight species. Some of them pertain to the same species covered last year and some to additional species.

Pied-billed Grebe, *Podilymbus podiceps*. Pied-billed Grebes have nested in Essex County on occasion, but not consistently. Townsend (1905, 1920) knew of no county breeding records, and his research went well back into the nineteenth century or farther. Griscom and Snyder (1955), writing of the species statewide, had this to say: "An inexplicably local summer resident, not known to nest in the coastal plain or the outer islands, and said by Forbush (1912) to have decreased greatly as a summer resident since 1850." Root (1957-1958), however, mentioned several nesting locations in the Andover region, estimating two breeding pairs a year in that area in the 1950s. (The "Andover Region," as Root defined it, is the northwestern part of Essex County, but excluding most of Methuen and Haverhill north of the Merrimack River.) Veit and Petersen (1993) cite the Parker River National Wildlife Refuge as a breeding site in the latter half of the twentieth century, even as statewide breeding numbers were decreasing, with a maximum of four breeding pairs in 1973. This situation came about as a result of the creation of three freshwater impoundments on Plum Island in midcentury after the establishment of the new refuge in the 1940s.

DAVID LARSON

In recent years, however, the quality of the freshwater marshes on the refuge has deteriorated, partly due to introduced plant species such as purple loosestrife and phragmites competing with the native cattails and apparently lessening the appeal of the marsh for many nesting birds. This has been a difficult problem to manage; in addition, water levels have been inconsistent, with fresh water being let out of the impoundments for various reasons at various times, and salt water introduced into the North Impoundment over the last few years. Whatever the causes, few of the marsh birds that used to nest in those impoundments are still breeding there. The last published record of nesting Pied-billed Grebes on Plum Island was in 1978, when a pair with six young was seen on August 19 (*Bird Observer*), although Rick Heil (pers. comm.) observed ten birds including several juveniles on 7/14/79. There have been

quite a few summer records of grebes on Plum Island in the intervening years; some of the *Bird Observer* reports have been of multiple birds, e.g., five on 7/10/81 and four on 7/12/82. The presence of this many adults was a good indication of nesting at least through that year, but after that summer, reports trickled off to one or two birds with no reports of juveniles, so it is unlikely that they have nested there in two decades.

One of the *Bird Observer* reports was of an immature bird in Salem on July 4, 1995. Ian Lynch (pers. comm.) described to me what was almost certainly a juvenile Pied-billed Grebe in a productive wetland known as Thompson's Meadow. However, he did not ever see or hear adult grebes in the marsh that year. Thus that nesting can only be assumed and should be regarded as probable rather than confirmed.

Given this background, it was nothing short of exhilarating in the spring of 2001 to hear a Pied-billed Grebe yodeling frequently in a relatively new (but large) beaver pond in Willowdale State Forest in Ipswich. The marsh, which is very close to Route 1, has been there all along, but in recent years has had its water level raised by beavers. This change has clearly made it suitable for grebes to move in; to my knowledge, nobody had ever found them there in the breeding season.

The proof of nesting came on June 9, when Susan Hedman, Geoff Wood, and I searched the marsh in Geoff's canoe. We found a suspicious mound of wet decaying vegetation, about a foot across, in open shallow water near some sparse shrubs. We inspected it and found six eggs under the top layer of vegetation, which I photographed. It is typical for grebes to cover the eggs when leaving the nest, so I knew we had it. The whitish eggs were beginning to be stained brown from the decaying vegetation, which is also typical for the species and for grebes in general (Baicich and Harrison 1997). Later that morning, Susan and Geoff, standing on land, saw an adult grebe slide off the nest.

On June 23 Geoff returned to the nest to find three exposed eggs, but no other evidence of the birds except for a grebe calling. On July 4 we checked it again and found two cold, exposed eggs, but no sign of any grebes. It was not until July 15 that we knew any of the eggs had hatched, when Jan Smith and Rick Heil (pers. comm.) observed an adult Pied-billed Grebe with two chicks. I went to a point overlooking the marsh the next day and spent an hour observing an adult grebe with three stripe-headed chicks, perhaps two-thirds grown in length and about half in bulk. Now all six eggs were accounted for, with three hatching and three failing to hatch.

The behavior of the birds was fascinating to watch. The chicks followed the adult around (but not always closely) as it foraged, sometimes picking things off the surface themselves and sometimes begging for food with plaintive peeping notes or, in one case, by pecking the parent on the neck. The adult was generous with the food it brought up from the bottom, usually offering it to the nearest chick. The food appeared to be plant matter, but I could not be sure; the species' diet is mainly animal food (Ehrlich et al. 1988). When the adult preened, the chicks preened, but when the adult dove, the chicks usually stayed on the surface. They dove occasionally, but only briefly, and were clearly just learning how to do it. There was some aggression among the young, indicating that a pecking order was probably being established. All this activity took place within about fifty yards of the nest. The last sighting I had of these

grebes was of one of the juveniles on August 15, now competently diving and feeding on its own.

Least Bittern, *Ixobrychus exilis*. Unlike the American Bittern, *Botaurus lentiginosus*, which was consistently called a "common summer resident" in marshy areas through the first half of the twentieth century (e.g., Townsend 1905, 1920; Forbush 1925; Griscom and Snyder 1955), declining only in recent decades as the pace of wetland destruction accelerated, the Least Bittern was labeled a "rare summer resident" by the same authors, although Griscom and Snyder suspected that it was "badly overlooked." Veit and Petersen (1993) also call it a "rare and local breeder" in Massachusetts. Nevertheless, there is no lack of nesting records in Essex County. J. A. Farley found a nest with eggs in Lynnfield in a year unspecified by Townsend (1920); Griscom and Snyder mentioned nesting locations in Ipswich and Wenham Swamp. Root (1957-1958) stated that a pair nested regularly at Chadwick Pond on the Haverhill-Boxford line. Rick Heil (pers. comm.) suspects they have also nested in Peabody and Rowley, and perhaps to this day in Lynnfield Marsh, although recent confirmations are lacking. The Plum Island impoundments have been at least occasional nesting locations, where adults are often seen but rarely with young. Heil observed a female with two fledglings there on 7/15/87, but no young have been documented there in *Bird Observer* since.

PHIL BROWN

Least Bittern, Cambourne Pond, Rockport, September 4, 2001

Most of the cited authors say that Least Bitterns are restricted to extensive cattail marshes for nest-building, which makes the nests too inaccessible to be found very often. Even the fledged young are rarely seen, as the above review of the records shows. Thus evidence of breeding of this elusive species is always exciting news. The 2001 nesting season provided a bonanza for Essex County in that two nesting pairs were found, and although the nests were not discovered, young were fledged for certain in one case and very probably in the other case. Neither pair was on Plum Island.

The first pair to be found was in the previously mentioned beaver marsh in Willowdale State Forest in Ipswich, presumably the same birds that were there the two previous years, although no evidence of nesting was obtained then. I heard and/or saw Least Bitterns there on June 9, July 4, and August 15, 2001; they were seen as well by many other birders from May through that entire period. On July 4 Steve Leonard and I were in Geoff Wood's canoe and came very close to finding the nest. We had several looks at a male and a female both standing and flying, and at one point they converged on the same small area of thick cattails within minutes of each

other. We could not get the canoe into that area (which was just as well), but I am reasonably certain that is where the nest was.

Additional evidence came on August 15, when from an overlook on the shore I observed two different Least Bitterns fishing at the edge of a cattail stand. Neither of these birds was the adult male, based on their pale plumage, quite unlike the striking contrast made by the male's black crown, back, and wings. This means, on the assumption there was only one breeding pair in the marsh, that I was seeing either the adult female and one fledgling, or two fledglings. I could not see white down on the head of either bird, but the likelihood that one or both were fledglings was very high.

Greater excitement came on August 5, when Rick Heil discovered a family of Least Bitterns in Cambourne Pond, opposite Pebbly Beach in Rockport, only yards from the Atlantic Ocean. For weeks afterward, the spectacle of the whole family fishing the pond was enjoyed by scores of birders, although fish were not their only source of food: on August 5 Rick had watched one of them snatching familiar bluet, *Enallagma civile*, damselflies from the air. Some of the birds remained on the pond until at least October 7, a late date (Jerry Soucy, *Massbird*). This was a remarkable nesting site in that the pond is disturbed and has no cattails, but is dominated by phragmites and purple loosestrife. The pond is also variably brackish, testing at four percent salinity on August 14 (Ted Tarr, pers. comm.). That a pair of Least Bitterns would nest in such seemingly unfavorable habitat is both astonishing and encouraging, since it is an indication that the bitterns might be starting to adapt to the exotic aquatic species that have taken over so much of their historical nesting habitat. (Note, however, that in coastal Mississippi, nesting Least Bitterns "seem to make little distinction between fresh, salt, and brackish environments;" Judy Toups, pers. comm.) It also means that the pond had an adequate food supply regardless of the introduced plants.

PHIL BROWN

Young Least Bittern at Cambourne Pond on August 13, 2001

My own enjoyment of these birds came on August 14, when I watched them for an hour or two with Karen Haley and Dave Bates. The birds we saw that morning were the adult female and three fledglings. They appeared at the edge of the reeds after a period of clucking from deep within the cover. The young ones had downy feathers sticking out of their heads, which made for fabulous photos on the internet (not mine). Two of the young stayed in the open virtually the entire time, where they were practicing their newly acquired fishing skills to very different degrees. One of them mainly sat still or climbed around, clucking occasionally (a guttural *uk uk uk*) to keep in contact with its parent(s). This bird made only one (successful) strike at a fish during the period we had it in view.

The other bird was an accomplished little predator. Within half an hour we saw it make eleven strikes and come up with a minnow on ten of them! What made it even more remarkable was that its perch was on a broken reed at least a foot and a half above the water. From this lofty position it would lean over until it spied a small fish. Then it would slowly stretch down as far as it could, revealing its incredibly long neck. The extension of the body was complete when it made the strike, after which, amazingly, it would spring right back up to its perching position. Most of the time. On several occasions it lost its balance when making the strike and dangled by its feet, eventually climbing back up to the perch – always with the fish firmly gripped in its bill! Never have I admired a baby bird like I did this one. It put to shame three fledgling Green Herons, *Butorides virescens*, that I watched in training in Ipswich on July 16, which were coming up with nothing but weeds and sticks!

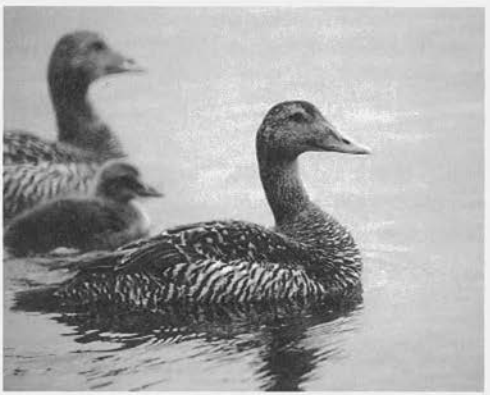
This experience was one of the highlights of my birding year. Few things are so rewarding as watching young animals learn how to survive. This family of Least Bitterns, nesting as it did in unaccustomed habitat and raising young to be efficient hunters, gave me hope that the species is hanging on amid the plethora of human activities that collectively overwhelm so many habitats and creatures. The baby that caught so many fish and gave us so much pleasure gets my vote as Bird of the Year.

Common Eider, *Somateria mollisima*. Last year I reviewed the literature to the effect that Common Eiders have nested historically only from the midcoast of Maine north, with the recent exception of an introduced population in the Elizabeth Islands in Buzzards Bay and scattered nests in Boston Harbor. Nesting at the former location was initiated by the introduction of eider chicks to Penikese Island from 1973-1975. Those birds began nesting by 1976 – the first recorded nesting of the species in Massachusetts – and had grown to an estimated 200 nesting pairs on several islands in Buzzards Bay by 1988 (Stanton 1989). There was a report of a female eider with two downy young in outer Boston Harbor as early as 1982 (Jeremy Hatch, *Bird Observer* 10 (4): 194-95); after that nesting apparently increased, for in a 1994 MDFW coastal waterbird breeding survey, division biologists discovered thirteen eider nests on four harbor islands (Heusmann 1995).

I also mentioned frequent verbal reports of eider chicks from the islands off Rockport, including my own observation of three rather large ducklings with adult females off Straitsmouth Island in late July 2000. Such records provide excellent circumstantial evidence of nesting in Essex County, but given the ability of waterfowl to lead babies miles from the nest within days or weeks of hatching, absolute proof of nesting would require the finding of an actual nest or, at the least, the presence of tiny chicks obviously just hatched.

Additional circumstantial evidence was found in 2001 by Chris Leahy and Linda Pivacek (pers. comm.). Chris discovered a hen with three chicks "more or less newly hatched" off Niles Beach in East Gloucester on June 12, and figured that she might have nested on nearby Ten Pound Island in the harbor, which contains a summering eider flock each year. There is no reason to think this flock is all immature birds: adult males are in eclipse plumage in summer and adults could certainly constitute part of the flock. Linda observed a female Common Eider with three "quite small" ducklings July 7 off East Point in Nahant. The mother was trying to show the young how to feed

in the rockweed without getting swamped by the swells. Reports of babies this small make it more and more evident that the birds are nesting along the rocky coast of the county.



WAYNE R. PETERSEN

Common Eiders in Iceland

More direct evidence was obtained from Brad Blodget, the recently retired State Ornithologist. After my article was published, I learned of H.W. Heusmann's 1995 article in *Massachusetts Wildlife*; in it, he cited an eider nest Brad found "on an island off Cape Ann" in the 1994 coastal waterbird breeding survey. From Brad (pers. comm.) I learned that he visited Norman's Woe, a large rock off Magnolia, on May 16, 1994. He and his crew were surveying for nesting Double-crested Cormorants, *Phalacrocorax auritus*, and large gulls. They incidentally discovered an apparent Common Eider nest lined with down and containing two eggs, although no duck was on it, and Brad suspected that the nest had been abandoned. The day was stormy and they did not linger, and no follow-up visit was made.

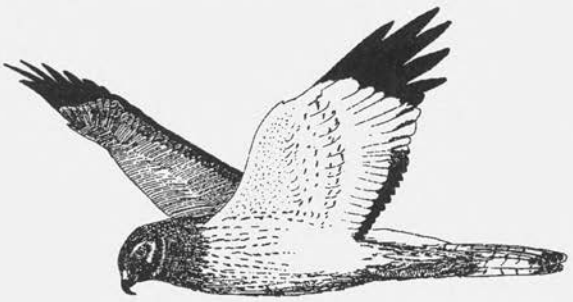
I hope to be able to explore some of the Cape Ann islands by boat in the coming years, which is what it will take to find occupied nests. Meanwhile, the circumstantial evidence for nesting in Essex County appears overwhelming, especially in view of the finding in June 2001 of no fewer than 214 (!) Common Eider ducklings in Boston Harbor (Petersen 2001). The question thus becomes whether the local nesting birds are expanding south from the historical Maine breeding population or north from the Boston Harbor population. A related question is whether the Boston population itself came from the introduced Buzzards Bay colony or represents a southward expansion of the long-established Maine population, wherein birds perhaps bypassed Essex County in view of the large number of gull colonies on the offshore islands. (Large gulls are very fond of eider ducklings; on the other hand, eiders contend with gulls almost anywhere they nest.)

Without an eider banding program the answers will remain elusive, but the apparent explosion of breeding eiders in Boston Harbor argues for that population as the source of what few birds might be nesting in Essex County. It will be interesting to see whether the eiders, under pressure of expansion, will be able to adjust to their larid predators and establish a viable breeding population on the North Shore. It may be that there are already many nesting attempts, and that the broods observed in 2001 were some of the very few that succeeded.

Northern Harrier, *Circus cyaneus*. Townsend (1905, 1920) described the "Marsh Hawk" as a "common summer resident, very rare in winter." Today it is almost the opposite. The Northern Harrier as a nesting bird in mainland Massachusetts is virtually a thing of the past. Even by the 1920s, Forbush (1927) had downgraded it to a "rather common migrant and summer resident in open lands...formerly much

more common...." By midcentury, Griscom and Snyder (1955) were calling it a "locally common summer resident throughout the state at lower altitudes...." Veit and Petersen (1993) state that "Northern Harriers have decreased considerably as breeders in Massachusetts since 1955. Their decline is probably due to habitat destruction and ecological succession in the open fields and pastures where they prefer to nest." I would eliminate the "probably" from that sentence. Jim Brown (pers. comm.) grew up in a part of Danvers with fields and wet meadows where harriers nested regularly into the 1950s. He showed me photographs of eggs and young in a nest he monitored there in 1951 as a teenager. That area was filled, cleared, and developed, like so many other wildlife habitats across the state. End of harriers.

The last nest from Essex County cited in Veit and Petersen (1993) was one with five eggs found in Andover in May 1956 and credited to Oscar Root. That nest was reported in *Records of New England Birds* for May 1956 from North Andover and indeed credited to Root. However, Root (1957-1958) did not mention finding any nests himself; rather, he cited three nests found in the Andover region by Jack Holt in 1953, 1956, and 1958. Jack Holt (pers. comm.) remembers finding only one nest in that time period, in North Andover, probably in 1956. When he checked his written records, he did not find that nest but did find that he had banded young in nests in Newbury in 1960 and in West Newbury in 1960, 1961, 1962, and 1963. The 1963 nest was therefore most likely the most recent Essex County breeding record. Whatever the case, by the mid-1960s the species had clearly disappeared as a breeder in the county, and on the mainland in general, remaining as a nesting species only on the islands off southeastern Massachusetts with the exception of a nest in Weymouth in 1986 and territorial pairs in four or five scattered locations since then (Tom French and Dan Furbish, pers. comm.). For this reason it is officially listed as a state-threatened species.



GEORGE C. WEST

In 2001, Rick Heil confirmed probably the most significant Essex County nesting record of the year when he watched a pair of harriers feeding young in a dry portion of a cattail marsh in the North Impoundment on Plum Island. The breakthrough came in May when Paul Roberts alerted Steve Haydock of the Refuge staff to his observation of courtship behavior by a pair of harriers over the Hellcat marshes and fields. Steve Haydock (pers. comm.) saw both adults hunting the fields adjacent to the marsh in mid-June and alerted Rick Heil, who on June 21 witnessed a food exchange in which a male harrier passed a rodent to the female, who rose up from the marsh to accept it and dropped back into the cattails with it. This alone was virtual proof of nesting, but the show continued. On July 4 the female dropped into the nest site with more grasses, and on July 12 with a rodent. On August 8 the female was seen with a freshly plumaged juvenile near the nest site, the juvenile sometimes perching on the

dike while the female hunted. On August 11, 13, 14, and 15 the female was seen hunting the Hellcat marshes with 2-3 juveniles (Rick Heil, pers. comm.).

The irony of this unexpected and very welcome breeding episode is that it comes just as the Refuge management is about to give up on maintaining the North Impoundment (but not the other two impoundments) as a fresh marsh. For several years, salt water has been sporadically introduced into this pool in an attempt to begin returning it to its original, pre-Refuge salt-marsh condition. The stage is thus set for a very difficult management decision: should the marsh, infested with phragmites and purple loosestrife, and considered by the staff an inordinate consumer of time and resources to maintain, be returned to salt marsh, or should efforts to maintain the fresh marsh be renewed in view of a state-threatened species beginning to use it as a breeding site? The management issues are complex, and the Refuge staff has been open to input on the subject, but the future of this marsh, representing over 100 of about 265 acres of fresh marsh in the three impoundments, is in doubt.

In my own view, it is the fresh marsh that is the threatened habitat in the northeast, not the salt marsh, and management for state-listed fresh-marsh species should be adopted as a priority in Refuge planning. The salt marshes have their share of important species, such as the maritime sparrows that nest there and the dozens of species that use them in migration and winter, and management for these species is certainly important. But the cattail marshes attract many of the state-listed species in Massachusetts: grebes, bitterns, rails, moorhens, and harriers. All these species except the harriers adopted the Plum Island impoundments as breeding sites in the decades after they were created, although they were made specifically to encourage the nesting of Black Ducks, *Anas rubripes*. But the Black Ducks never nested there in significant numbers, and today the grebes, bitterns, moorhens, rails, and Ruddy Ducks, which were fairly regular nesters until the early to mid-1980s, are no longer breeding. Now we are in danger of losing the largest of the three impoundments, and this loss would be felt most keenly by several state-listed species that deserve protection and encouragement. These impoundments have been some of the most valuable nesting sites for these birds in the entire state, and perhaps could be again if management for this purpose became a Refuge priority.

Sharp-shinned Hawk, *Accipiter striatus*. Last year I reported on a Sharp-shinned Hawk nest in a Norway Spruce grove on Choate Island in Essex Bay, the first Essex County nest of the species for which I have found evidence since 1896. Remarkably, another pair nested in Willowdale State Forest in Ipswich in 2001, making two county nests in two years. This nest was in a pine stand along the south edge of the marsh mentioned above. The nest tree was beside a trail that edges the marsh, and was in fact only yards from the open marsh, on the edge of the pine grove. Several other similar nests could be seen in adjacent pines, indicating possible nesting by sharpshins in prior years, although I am certain they did not nest there in 2000 because of the amount of time I spent in the same grove watching for Least Bitterns in the marsh without encountering any sharpshin activity.

I discovered the nest on June 9, the same day three of us found the Pied-billed Grebe nest out in the marsh. I was waiting for Geoff Wood and Susan Hedman to return to shore from their first canoe excursion to pick me up when I noticed an adult

sharpshin foraging and perching among the dead lower branches of the pines in the grove. Eventually I saw the bird on a nest 65-70 feet up in an Eastern white pine, although I could see no young. On June 30 I watched an adult break off a dead pine twig and carry it to the nest, where I still could not see any young. So far the bird(s) did not seem alarmed at my presence.

On July 8 things picked up. I could see one white downy young in the nest, and I also witnessed a food exchange from the male to the female, as Linda Cook and I had observed several times on Choate Island the year before. But unlike that pair, which had always tolerated our presence and freely fed the young in front of us, this pair was much more aggressive, especially the female. That day she made two stoops on me, coming within inches of my head. Both adults gave frequent alarm calls, so my visits to the site from then on were always very brief, usually not more than a few minutes, just long enough to put the scope on the nest and get out. I believe that the hatching of the young was the point at which the birds changed their behavior from tolerant to intolerant.

On July 16 I could see three young. By now they were mostly brown, and one had already branched out a few feet from the nest. This older nestling imitated its mother's alarm calls, only higher-pitched and not so loud. The mother stooped on me again, so I declared defeat and left. On July 20 I saw one young on a branch and none left in the nest; also another food exchange from the male to the female, who was clearly doing the feeding. On July 28, with Susan Hedman and Nick Nash, I saw both adults and two fledglings, who were giving frequent begging calls. At one point the young birds landed on the ground at the edge of the marsh and one of them bathed. With the young now flying, the parents tolerated our presence much better, did not stoop on us, and gave few alarm calls.

My experience over the last two nesting seasons has convinced me of the likelihood that Sharp-shinned Hawks have nested in the county more often than has been observed or documented. It is apparently a case of nests simply not being discovered. For example, Jim MacDougall (pers. comm.) observed a sharpshin carrying food on the Boxford-Georgetown line on June 22, 1998. This bird may have been nesting. There seems to be plenty of acceptable habitat, so it may be just a matter of time until more nests are found, although the species should still be considered rare in the breeding season.

Alder Flycatcher, *Empidonax alnorum*. The history of this species is more difficult than most to trace because the former Traill's Flycatcher, *Empidonax traillii*, was split in 1973 into two species, Alder Flycatcher, which became *Empidonax alnorum*, and Willow Flycatcher, which retained the old scientific name, *Empidonax traillii*. However, before the common name "Traill's" was adopted in 1957, the species was called Alder Flycatcher. That is what Townsend called it in his books of 1905 and 1920, with the subspecific name *alnorum (Empidonax traillii alnorum)*. This implies that today's Alder Flycatcher is the form that was found in Essex County a century ago; Townsend gives no hint of two different populations with differing songs and call notes, despite the fact that the very existence of a subspecific name implies the existence of other subspecies. Nor does Forbush (1927) refer to other song types; he is consistent with Townsend in describing the songs of yesterday's Alder

Flycatcher as what we today refer to phonetically as *fee-BEE-o*, *vee-BEE-er*, or syllables to that effect.

As for nesting, Townsend cites confirmed breeding locations for Alder Flycatchers in Lynnfield, Groveland, and Amesbury. Forbush has a map showing no fewer than five nesting locations in Essex County and three more in Middlesex and Norfolk Counties, although he described the bird as nesting more commonly in the western half of the state. Griscom and Snyder (1955) added West Newbury to the list of breeding sites, which is apparently one of the dots on Forbush's map. Interestingly, there is no mention of a second form (the future Willow Flycatcher) in this landmark work on Massachusetts birds, although Peterson (1947) had already called attention to the difference in song types in his popular field guide. Perhaps this form had not moved into Massachusetts by 1955.

In the 1960s things started to change, as the *fitz-bew* form of the species started moving into New England from the west and south. Since I have lived in Essex County (1972), the Willow Flycatcher has been the common nesting species. I encounter them routinely and have found several of their nests over the years, beginning with one in Ipswich on June 27, 1976. Alder Flycatchers, in contrast, remain hard to find in the county in summer. I am aware of only two or three locations where they may be regularly found in the nesting season, and these are mainly power lines with brushy wetlands. To my knowledge, no Alder nest has been found since the species was split in 1973, and perhaps not for many years before that.

I was therefore happy to find a small cluster of these birds along the power line in West Boxford a few years ago. Over the last several nesting seasons I have found singing and calling Alder Flycatchers in four different places along this power line, all within a two-mile stretch. More significantly, I observed an adult bird carrying food on July 8, 1999, and again on July 22, 2001. In neither of these instances were any Willow Flycatchers vocalizing in the area. On the latter date I made a careful search for the nest but did not find it. I returned in January 2002 and searched for the nest again in the leafless brush, still without success. This, combined with the rather late date, leads me to believe that the bird may have been feeding a fledgling rather than nestlings, although I have little doubt the nest was nearby. This one location has been the most consistent for the Alders, and both instances of food-carrying were in exactly the same place, near the edge of a beaver swamp. Food-carrying constitutes firm evidence of nesting for most songbirds including flycatchers, and establishes that the species is still breeding in the county.

As a footnote, this power line contains a major beaver swamp that harbors the only large Great Blue Heron nesting colony in Essex County that I am aware of; the colony itself straddles the North Andover town line. This is a rather recent colony, discovered in the 1990s, that rapidly doubled in size from about 43 to about 82 active nests between 1997 and 2001.

Blackburnian Warbler, *Dendroica fusca*. The nesting status of the Blackburnian Warbler in Essex County is a bit of an enigma. Last year I reported an instance of nest-building in Boxford in 1998, and summarized the available literature to the effect that the species is a rare breeder in the county and has been over the past century. I can now add significant additional information on this species.

Townsend (1905) summarized what was apparently the first confirmed county nest record as reported by his friend J. A. Farley in *The Auk* in 1901, a record I neglected to mention in my previous article. Farley found a nest in Lynnfield on June 21, 1901, where he thought the species was "a rare but regular breeder." The nest was thirty feet up in a hemlock, at the end of a long branch. Unfortunately, Townsend did not include anything in his summary on what the nest contained; only its construction.

Another major source of information in my research on the ornithological history of the county has been the series of annual *Bulletins* published by the Essex County Ornithological Club (ECOC) from 1919 through 1938. The *Bulletin* for 1924 contains a short piece by Rodman Nichols about his study of a Blackburnian Warbler family at his camp in Boxford in late June and July of that year. He describes hearing and seeing a male bird that carried food regularly to a suspected nest site high in a dense white pine. Later, he and his family observed both birds of the pair along with two fledglings, starting on July 10 and lasting until July 30. The nest could not be found, but the account firmly established a second county breeding record.

One field ornithologist disagreed that the species was a rare nester in Essex County, and that was Oscar Root (1957-1958), who described the Blackburnian Warbler as an "uncommon summer resident" and cited four nesting locations in the Andover area, including the Boxford and Harold Parker State Forests. He did not give specifics of any confirmed nestings, but estimated 10-15 pairs annually, "mainly in white pines." Greater numbers of these birds in the western part of the county would make sense, but few birders report from the Andover region these days. Thus Harold Parker State Forest and other extensive woodlands in the northwestern part of the county are high on my list of locations to check in the coming years for breeding birds. We simply don't have a good handle on how many of these warblers nest in the county, due in part to the height of the nests, given by Baicich and Harrison (1997) as anywhere from 5 to 85 feet (but mainly on the high side), well concealed in conifer branches or *Usnea* lichen.

Be that as it may, on June 30, 2001, Karen Haley and I witnessed a female Blackburnian Warbler gathering nest material from an old nest along the north side of Crooked Pond in the Bald Hill Reservation in Boxford. The old nest was fairly low in a white pine right over the main trail, and appeared to be that of a Chipping Sparrow, *Spizella passerina*. The warbler pulled grass stems out of it and flew with them across the pond to another stand of hemlock and pine, where she was presumably building her own nest. We watched for a while but did not see any Blackburnians emerge from the canopy. However, this is the second time in four years that observers have seen nest-building by this species in a place where the birds have consistently been found in small numbers for many years. It is only a matter of time, I hope, until another nest is found. So far as I know, no actual nest has been discovered since Farley's in 1901.

Louisiana Waterthrush, *Seiurus motacilla*. A warbler of southern affinity, the Louisiana Waterthrush was unknown in Essex County until 1919, when one was identified in Marblehead in July, during the species' fall migration. Forbush (1929) described the bird as an "uncommon to rare summer resident in southern part [of New England], accidental elsewhere." He shows a map with the species' summer distribution, with dots frequent in the four western counties and sporadic in the

eastern counties. Only two south-coastal Essex County locations are given, Marblehead and Nahant, clearly reflecting sightings of migrants.


DAVID LARSON

By midcentury, Griscom and Snyder (1955) could report that Louisiana Waterthrushes had been nesting near Crooked Pond in Boxford since 1948, with a maximum of three singing males and an estimate of a single breeding pair annually. Veit and Petersen (1993) report the same status for Essex County, with Boxford the only breeding location given, but estimate perhaps two or three breeding pairs, which I would concur with since I have heard the birds singing in several parts of that 1600-plus-acre forest. Confirming this tradition, Wayne Petersen found a nest with five young along the outlet stream from Crooked Pond on May 23, 1990 (*Bird Observer*). The young fledged around the end of May, as I recall, and I was able to find the empty nest on June 2. It was in a protected area at the base of a small hemlock, perhaps fifteen feet up the slope from the bank of the stream.

I thought that this might have been the only nest ever found in the county, until I learned from Chris Leahy (pers. comm.) that he and Dorothy Snyder found a nest at Crooked Pond in the late 1950s; Chris estimated that it was in June 1957. They observed a Louisiana Waterthrush carrying food, and Dee Snyder remarked that a nest had not been found before in the county. Chris then waded into the swamp and found the nest with young in the roots of an overturned tree.

But with only a single historical nesting location for this species in the county, it was welcome news when Rick Heil (*Massbird*) found one or two adult Louisiana Waterthrushes feeding two or three fledglings at the edge of a Red Maple swamp in Manchester near the Hamilton line on June 24, 2001. This area is densely wooded and thinly populated (with humans), but has always been underbirded. It is on the western side of the huge Manchester-Essex Wilderness Conservation Area, a forest-swamp complex I have only recently begun to learn and will be exploring more thoroughly this year. It is not surprising that Louisiana Waterthrushes would nest here, even though Essex County is on the north edge of their range, since the habitat is favorable. Sometimes the lack of nesting records reflects less the absence of breeding birds than the absence of birder effort.

That lack of effort, particularly in underexplored places, is something I and others will be trying to remedy in this and future nesting seasons. Some of the 2001 nests were complete surprises; who knows what gems will be uncovered this year. For me, establishing or reestablishing significant nesting records is by far the most exciting aspect of birding. I hope to exchange more of this kind of information with fellow birders in this and other New England counties on a continuing basis.

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***Jim Berry**, an Ipswich resident for thirty years, has been a member of the* Bird Observer *staff since 1991. He is working on a new* Birds of Essex County *with a concentration on the nesting status of the various species, and would welcome reports of breeding evidence, historical or current, for the less common nesting species.*

Jim would like to thank Tom French, Rick Heil, Chris Leahy, and Judy Toups for their helpful reviews of a draft of this article, and all the credited observers whose contributions have helped to give a better picture of the county's nesting avifauna.

Tree Swallow Nesting Success at a Construction Site

Richard Graefe

A century ago, Neltje Blanchan, in the book *Bird Neighbors*, described the Tree Swallow as "more shy of the haunts of man ... than its cousins." But as we have increasingly invaded their habitat, Tree Swallows have adapted. They now readily accept nest boxes and often nest close to human activity. In fact, for the 2000 and 2001 nesting seasons, Tree Swallows were the second most frequently reported species by participants in the Birdhouse Network program of the Cornell Laboratory of Ornithology (*Birdscope* 2002).

Just how tolerant of human activity can a species become? The 2001 nesting season put Tree Swallows to the test at my waterfront home on the shore of Narragansett Bay in North Kingstown, RI. Throughout the nesting season, the loud noise and intense human activity of a major construction and home renovation project left almost no area of my half-acre property undisturbed. Construction workers built a major addition, replaced all windows, replaced aluminum siding with cedar shingles, rebuilt the large deck, and reroofed the entire house. In the yard, they filled in two cesspools, added a new septic system, installed underground electrical service, and removed large overgrown shrubbery along the front of the house.

How well did Tree Swallows tolerate the activity? They used all six of my nest boxes, laid 39 eggs, hatched 30 of them, and fledged 22 young. They produced more fledglings than in any other year since I began monitoring my nest boxes in 1984 at my previous half-acre home site, also in North Kingstown. At my current home, where I have lived for seven years, the most young fledged in any past nesting season was 11, in the year 2000.

This article documents the disturbances that each nesting pair tolerated, the interactions each pair had with predators and nest-site competitors, and the positive effect that the intense human activity seemed to have in attracting swallows to the site and contributing to their nesting success. The experience of this Tree Swallow nesting colony has implications for optimal nest box placement for this species, especially in suburban settings, which are often heavily infested with nonnative House Sparrows and are prime habitat for House Wrens, a native nest-site competitor.

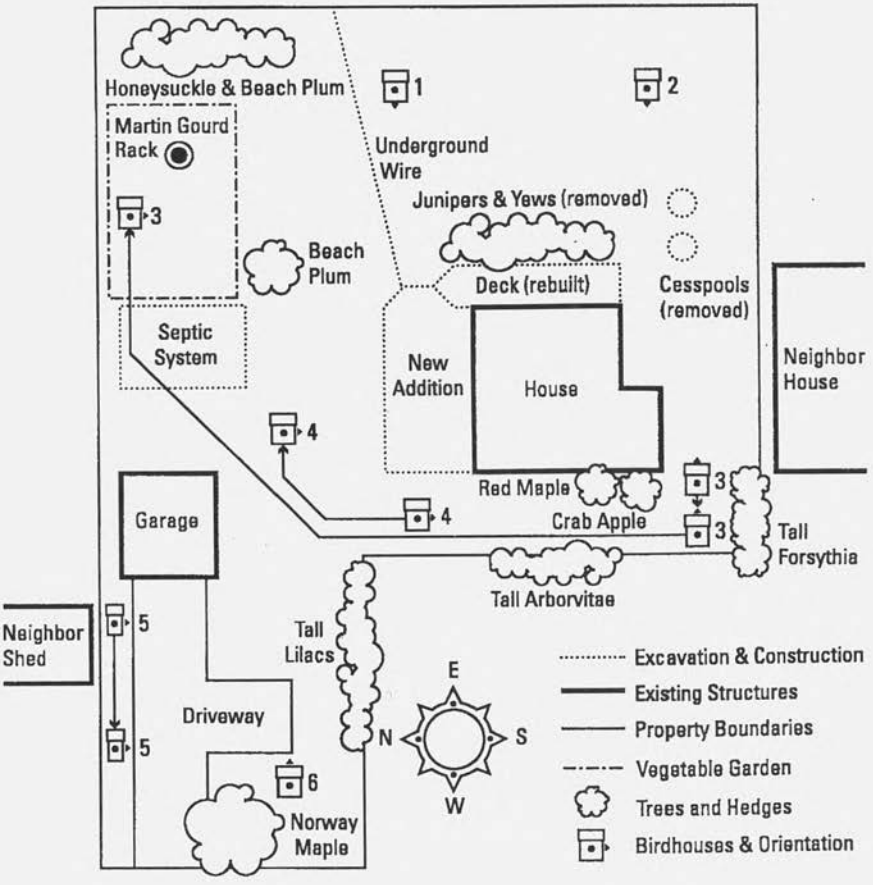
Pertinent Facts on the Species

Tree Swallows "oft[en] nest in loose colonies." (Ehrlich et al. 1988). A pair will fiercely defend its nest site and nearby cavities, but eventually will allow other Tree Swallows to nest nearby. At my site, pairs have nested at a minimum of forty feet apart, but pairs have been observed nesting as close as seven feet apart in boxes with entrance holes facing in opposite directions (*Nestbox News* 2002). Once neighboring pairs are firmly established, they can cross each other's territory without provoking aggression, and all pairs in the colony will jointly mob hawks and other avian

predators. In areas with substantial Tree Swallow populations, each nesting pair spends much time and effort throughout the entire nesting cycle fending off interloping pairs that have been unable to find suitable cavities of their own.

Although intraspecific brood parasitism has been observed in Cliff Swallow colonies (Ehrlich et al. 1988), I have found nothing in the literature that documents such behavior among Tree Swallows. The behavior is rare enough that I have not observed it during my eighteen years of monitoring nest boxes – until this year at this colony, where it definitely occurred in one nest and probably occurred in a second.

Tree Swallows are best at defending their nests from nest-site competitors if the area surrounding their nest box is free of trees and shrubbery. They will repel attempted invasion by House Sparrows by attacking the sparrows in the air and at the roof or entrance hole of the nest box, and they will tussle with the invaders on the ground. They will not pursue a House Sparrow into shrubbery, however, or attempt to dislodge it once it succeeds in entering the nest box.



CHRISTOPHER GRAEFE

The Colony Site

The site of this colony is my L-shaped half-acre home site fronting on Narragansett Bay to the east. (The driveway enters the property from the rear.) It is one of the biggest lots in a densely populated neighborhood of many small cottages and a few larger houses. It is within a quarter mile of a large cove and barrier beach, which contribute to excellent foraging opportunities for swallows. Tree Swallows are abundant in the area, and three other swallow species, including Purple Martins, visit the site each year (but Martins have not yet established a colony in the gourd rack I provide).

House Sparrows are a major problem for cavity-nesting species at this site. By year-round trapping I eliminate approximately 150 of these invaders each year, and in the drought year of 1999, when supplemental food and water were particularly attractive to them, I trapped 329!

Summary of the 2001 Nesting Season

In 2001 the noise and disturbance on the property appeared to attract the swallows and contribute to their nesting success by discouraging predators and nest-site competitors. Workmen were on site five or six days a week, and no nest failures due to competitors occurred on those days. The major losses for the season occurred on the three-day Memorial Day weekend, the longest period of time that no workmen were present. During that weekend and holiday, four eggs and seven young were lost to a House Wren and a House Sparrow.

A hawk presented new challenges to swallows at this site this season, but the intense human activity kept it away most of the time. Each winter at least one Sharp-Shinned Hawk frequents the site, but this was the first year I observed a Sharp-Shinned Hawk at the site during the swallow nesting season. I observed the hawk three times, once each in May, June, and July. All sightings were at times when workmen were not present (twice on weekends and once on a Friday evening). Songbirds at a neighbor's summer birdfeeder attracted the hawk, but it caused no observable losses to the nesting swallows, although it was a possible culprit in one nest abandonment, nesting attempt two in box 1.

It was the first year that I observed a House Wren exploring nesting opportunities at the site. (In one prior year, I observed House Wrens feeding fledged young on the property, but that nesting did not occur here.) This season's wren caused the loss of seven newly hatched young swallows late in the day on Memorial Day, but when construction activity resumed the next morning, the wren moved on and was not seen again.

The attractiveness of the site to swallows and some unexpected nesting successes attest to the positive influence of the noise and disturbance at the site. The following occurrences were particularly unusual during this nesting season. Pressure by interloping swallows was intense at all boxes, and for the first time intraspecific brood parasitism was documented at the site (definitely at box 2 and probably at box 5). The second-latest nesting start for Tree Swallows in all my years of nest monitoring

occurred this year (box 5). Swallows hatched young in three boxes that, due to location (boxes 3 and 6) or size (box 5), were poorly suited for this species. Two of these boxes successfully fledged young despite those disadvantages. An inexperienced first-time nester (the female in box 5) successfully fledged a full brood. A pair that twice proved to be ineffective nest defenders (box 2) eventually fledged almost a full brood.

Following are detailed descriptions of the disturbances, successes, and failures at each box. The boxes are identified by number on the site map. None of the birds were banded or otherwise distinguishable (except for one female's subadult plumage), so assumptions on the identity of individual birds are based primarily on behavioral observations.

Box 1

On May 3, two days before the first egg was laid, workmen excavated a trench for the underground electrical service, piling earth as high as the nest box and burying the bottom two feet of the nest box pole.

On May 8, the day when the third of five eggs was laid, workmen filled in the trench. On the Saturday of Memorial Day weekend, the day the eggs hatched, a male House Sparrow repeatedly attempted to enter the box, but the swallows successfully deflected him to box 2. On June 1 an electrician's panel truck parked all day five feet in front of the entrance hole.

On June 14 the entire brood fledged, and I cleaned out the box. On June 15 swallows that had begun building the day before in box 3 in the vegetable garden moved to this box, but abandoned the nest several days after the fourth and final egg was laid. Perhaps the Sharp-Shinned Hawk took one of the pair.

Box 2

A large backhoe parked several feet from the side of this box from April 27 to May 1 during nest-building.

RICHARD GRAEFE

On Saturday, May 26 (Memorial Day weekend), this pair failed to fend off the male House Sparrow that had unsuccessfully attempted to invade box 1. I trapped the sparrow in the box and removed him. The same pair of swallows cautiously took control of the box again, but only after at least a forty-five minute interruption of incubation. By June 4 the swallows had relined the nest, covering the first clutch of four eggs. Meanwhile, workmen bulldozed shrubbery into a large pile twelve feet from the side of the box, where it remained for many days.

Again, this pair of swallows proved to be ineffective at defending the nest. Within a 48-hour period, June 4-6, four of the five eggs of the new clutch were laid, a feat that could occur only as a result of brood parasitism. At night on June 12, responding to a lightening strike at our neighbor's home, firefighters talked loudly and repeatedly within two or three feet of the box. All five eggs hatched, four young fledged on July 13, and I then found the remains of a nestling missing since July 1 on the ground below the box.

Box 3

After dark on April 20 I moved this box seven feet farther from the house to minimize disturbance from construction. The morning after the move, the swallows that had controlled the box for several days seemed unfazed by the change. This box, however, was still too close to shrubbery for swallows to defend it easily.

On May 27, the Sunday of Memorial Day weekend, I observed the clutch of six eggs in the midst of hatching, but the next day, at 6:30 p.m., I saw a House Wren leaving the box. He had emptied and scattered the contents of the nest. On the ground below the box were one unhatched egg and one dead nestling. On June 3 I cleaned out the box and moved it to the overgrown, weedy vegetable garden, where, on June 14, a new pair of swallows began nest-building for a day before switching on June 15 to newly vacated box 1.

Box 4

After dark on April 20 I moved this box away from the brink of the excavation for the foundation to a recently cleared location near the newly installed septic system. Early the next morning, the swallows that had controlled the box for several days readily moved to its new location.

This box was at the hub of activity for the new construction. The swallows tolerated ongoing intense activity and noise, including stacking and unstacking of lumber and frequent use of a power saw. One evening, I moved the table for the power saw several feet because the workmen had placed it so close to the box that a cat or other predator could have jumped from it to the box. The full clutch hatched, and all five young fledged on June 22.

Box 5

This deep box has only a 4 x 4-inch floor and an entrance hole five inches above the floor. Tree Swallows do best in a shallow box with at least a 5 x 5-inch floor. Only once before have swallows even attempted to use this box. On May 11, I moved this unoccupied box away from the contractor's large van that routinely parked immediately adjacent to the entrance hole.

On June 16 a first-year female, identifiable by her subadult plumage, began nest building. Only once before had I ever observed tree swallows beginning a nest this late.

RICHARD GRAEFE

At dusk on June 21 the completed nest contained no eggs, but by 9:30 a.m. on June 23, three of the four eggs of this clutch had been laid. Three eggs laid within forty hours suggests brood parasitism. On June 25 the contractor's van parked all day with its side no more than four feet in front of the box. Despite this temporary disturbance and the ongoing noise of the compressor that ran daily in front of the garage to power the workmen's tools, this pair hatched the full clutch, and all young fledged on July 26.

Box 6

A large maple tree and tall lilac bushes nearby make this box difficult for swallows to defend from nest-site competitors and avian predators. Only two of a brood of five young survived to fledge during the prior nesting season, probably due to predation by marauding Blue Jays observed on the roof of the box several times. Throughout the construction project, this area was the parking lot for the cars and trucks of the workmen, with vehicles sometimes as close as five feet to the entrance hole.

All six eggs hatched on May 27, the Saturday of Memorial Day weekend, but the next evening the House Wren that destroyed the brood in box 3 struck this box as well. At 7:20 p.m. I found some of the nest lining and two live nestlings on the ground below the box, one seriously injured and one very responsive. I opened the hinged top of the box and dropped the uninjured nestling next to the adult swallow that was brooding her remaining young. My nest check the next day, however, found only four nestlings. All four successfully fledged on June 15.

Implications for Nest Box Placement and Management

Conventional wisdom would suggest that less disturbance would mean greater nesting success. For many species, this is indeed correct. But, for Tree Swallows, especially in areas with large populations of competitors and predators, nest box placement close to human activity may well have distinct advantages.

Would you place a nest box for this species next to a dog pen, adjacent to a children's play area, in a busy boatyard, or close to a rifle range? Conventional wisdom would say no. My recommendation would be yes, give it a try. Be confident of the ability of Tree Swallows to withstand maximum disturbance. Also consider the possibility that the disturbance itself may make the site more attractive for Tree Swallows. Species such as Purple Martins and Killdeer are known to prefer sites close to human habitation, although not necessarily in areas of such intense human activity. Tree Swallows, however, may be developing an even stronger preference for disturbed sites.

I would recommend that observers intensely monitor and manage nest boxes. Be aggressive in controlling House Sparrows. Use an array of baited traps and nest-box insert traps. Do not rely on nest removal alone. Do not be timid in nest box monitoring. Hinge-topped nest boxes with secure hooks provide a distinct advantage over front-opening boxes. Opening boxes from the top lets you monitor nests with less disturbance to brooding or incubating birds and lets you return fallen nestlings or remove dead nestlings more easily. Do not hesitate to move a box to a better location after swallows claim it but before nest-building begins. While Purple Martins will often abandon housing that is moved even slightly from one season to the next, Tree Swallows appear willing to move with their box for short distances within the same season, if the move occurs early enough in their nesting cycle. Perform all moves at night, after checking to be sure an adult swallow is not spending the night in the box.

My observations suggest that the major threats to Tree Swallow nesting success are nest-site competitors and predators, not noise, human disturbance nearby, or human interference at the nest box. Boxes in areas where noise and human activity discourage competitors and predators are highly attractive to this species, and the rate of nesting success can be above average at such sites.

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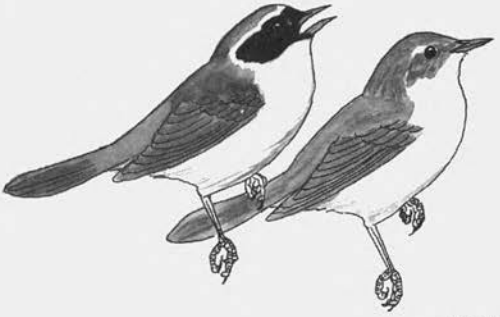
Richard Graefe *is a technical writer for American Power Conversion and lives in North Kingstown, RI. He is an avid birder in his spare time, is a volunteer ambassador for the Bird House Network of the Cornell Laboratory of Ornithology, and has contributed several brief articles in the past to* Bird Observer's *"Field Notes." He has hosted Tree Swallows (and other species) in his nest boxes since 1977 and monitored each nest since 1984. He has monitored the Tree Swallow colony at his present home since 1995. His son Christopher Graefe, a freelance graphic artist and computer interface designer at <www.bluewhalestudios.com>, provided the site map. Christopher resides in Pittsburgh, PA.*



GEORGE C. WEST

FIELD NOTES

Birdsitting

Joey Mason

It's not always a success when baby birds are "rescued" by someone, but in this case it was essentially a happy ending. If you have ever had House Sparrows take over a nest box that is already occupied by bluebirds or Tree Swallows, then you know that the outcome is usually death to the latter two species. This particular story is not all peaches and cream, but it is a true story.

One early sunny summer morning a few years ago, I was walking out to the barn, contemplating my schedule for the day. Beyond my barn is a one-acre meadow. The previous owners had horses, so the field has a well-chewed, weathered board fence enclosing half of it. Little saplings of pitch and white pines are trying to make a comeback within. The other half is grass and goldenrod, and I mow it periodically to keep it from reverting back to forest. I have numerous bluebird nest boxes randomly placed there to attract cavity-nesting birds. In the past, Tree Swallows, bluebirds, House Wrens, chickadees, Tufted Titmice and White-breasted Nuthatches have all nested in my yard at one time or another.

JOEY MASON

I love to hear the Tree Swallows chitter to one another as they fly circles around the meadow and up and over the large, awkward white pine that looms in its midst. This particular morning, my ears tuned into the screaming alarm calls of several Tree Swallows. There were two pairs nesting on the property at the time, and they had joined forces. All four adults were taking turns diving on a nest box in the back of the meadow. My immediate thought was that a cat had wandered into the yard and had decided to try its luck on having the Tree Swallows for breakfast. My instinct was to dash out there and scare it away. As I ran toward the box, I saw a cocky little brown head peering out of the entrance hole, chirping away happily. It was a House Sparrow or English Sparrow, as some call it.

House Sparrows are an introduced species. They compete for nesting cavities with many of our native species. My heart sank as I approached and the male sparrow flushed out of the box. I dreaded what I would find inside. I knew the adult Tree Swallows were safe because they were frantically flying above my head. But what of the young I knew were inside? When I opened the box, I carefully lifted out all four young and cradled them in my hand. They looked like they had five o'clock shadows because their quills were just emerging from their flesh, giving them a nubby gray appearance. The first three appeared to be fine, although one had a couple of tiny lacerations on its head. But the fourth had a bloody, swollen head. It was alive, but hunkered down flat in my hand.

House Sparrows have a stout, seed-eating bill, which they can use to kill any unsuspecting victim they happen to trap inside a nest box. They usually go for the head, and will peck enough times to expose the brain. Adult Tree Swallows or bluebirds do not have such stout bills and have no defense against House Sparrows. There was no hope for this innocent nestling. I hadn't gotten there soon enough for that one chick, but any later and the rest would also have been killed. It was lucky there were any survivors at all.

I couldn't put the remaining young back into the box until I disposed of the sparrow. I needed to catch the sparrow or he would also try to kill the adult swallows if they ventured back into their box. Since House Sparrows are an introduced species that are not protected by law, this puts them in the same category as pigeons (Rock Doves) and European Starlings. They can be disposed of humanely, or even kept as pets. Do not confuse House Sparrows with our native species of sparrows, which are protected by law. I have seen House Sparrows kill bluebirds and Tree Swallows through the years, so I have become heartless and will not tolerate them in any of my boxes. I do not place boxes in House Sparrow-infested areas for this reason. I will kill most that I catch and freeze them for recycling by a local educator's or falconer's birds. A few I keep alive in a cage and use as lures to catch more sparrows.

I walked back to the house to find something that would hold the young swallows. I found a small, lidless margarine container, stuffed it with Kleenex, and placed the four birds inside. I am not and have no wish to be a rehabilitator; but in an emergency I can get instructions from or work with a licensed rehabilitator. The rehabilitator had given me a supply of baby bird formula, which I keep in the freezer

at all times. I thawed it in the microwave and then sucked some up into a one-cc syringe. Although I can't reproduce a swallow's chittering call, I can do a really good bluebird imitation, so I tried it on the baby swallows. As luck would have it, my bluebird call worked well to get these young Tree Swallows to gape for food. As soon as their mouths opened, I carefully pushed the syringe way down their throats and gave a little squirt. They weren't dehydrated and were in no need of electrolytes, so this procedure didn't take long. Sadly, the badly injured bird did not want food. I called the rehabilitator on the phone and described the injury. She told me exactly what I expected to hear. I knew full well there was no way to save it, but I wanted to go through the formality of checking with the expert just to be sure. I had to put the poor thing out of its misery.

There was no place to hide in the backyard where I could get close enough to lie in wait for the sparrow's return to the box. My first thought was to bring my car and park it close to the box. I would try to catch the sparrow by running up to the box and covering the hole with my hand. I was not hopeful, but I was willing to give the mad dash approach a try. This works well to capture Tree Swallows, but isn't very successful with bluebirds and sparrows, in my experience. Sparrows are very quick. I didn't have a trap that would fit on the box other than an improvised flap of cardboard. I quickly discarded this idea because I didn't want to change the appearance of the box, which might cause the sparrow to switch his deadly attentions over to the other occupied swallow box. I would have to wait for him. And since the young needed to be fed every half hour or so, they came along for the ride.

So picture, if you will, a forty-something gal sitting in a meadow in a rusted-out 1985 Toyota Landcruiser with her hand on the cracked-open car door, waiting for a male House Sparrow to enter a nest box some thirty feet away. I sat and I watched and I waited as this lone male sparrow flew from branch to branch on the tree edge while the swallows watched from the fence posts. Once in a while, a swallow would land on the entrance hole to the box, and the sparrow would fly down and spook it away and perch on top of the box. There wasn't one female sparrow in sight, which aggravated me even more because this little beast was setting up housekeeping in hopes of attracting a mate that he didn't even have yet. I made a few mad dashes for the box when the sparrow went inside, but they were all futile attempts. He flew out effortlessly each time I got close to the box. He got so wary of my presence, he finally wouldn't even enter the box anymore but perched nearby singing away, still determined to attract a mate. The Tree Swallows hung around a little while but later gave up and disappeared.

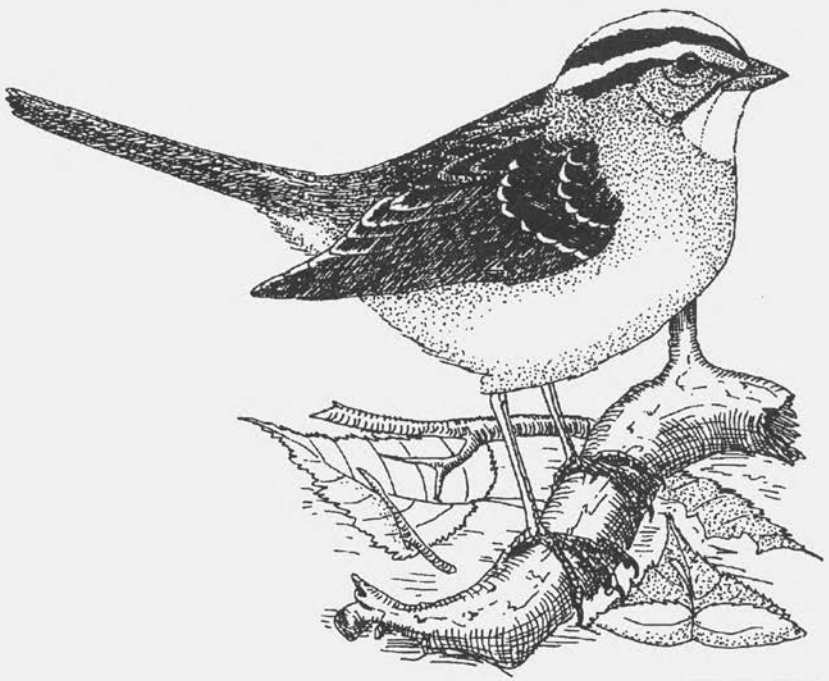
I had things to do, and could not waste any more time, so I decided plan B was next. I got my Cedar Valley Sparrow Trap and set it out, baited with birdseed and another male sparrow I had been keeping for just such an occasion. This is a trap that works best with a live sparrow inside. I had other nest boxes to check that morning, so I set the trap and took off. The young swallows went with me so I could feed them as needed. When I returned two hours later, I was happy to see two male House Sparrows in the trap. Success! But now that he was out of the way, what was I to do

with the three young Tree Swallows? There were no adult Tree Swallows hanging around the box anymore, so I was stuck with finding a home for them.

I have fostered young into other boxes before, but that year I didn't have any the same age that didn't already have a full house. It is best to have young of the same age in a nest box because if the fostered bird is larger, the original young in the box could be stressed for food from the competition, and conversely if the fostered one is smaller. So I had to become a baby-birdsitter for the rest of the day.

Sometimes if young Tree Swallow nestlings have all died, I have seen the adults revisit the box days later. This is not to say it is the same pair of Tree Swallows, but the way they act leads me to believe they are. They land on the entrance and look inside briefly and call. This call signals the young to beg for food, which prompts the adult to go in and feed them. That is what convinces me the adults haven't given up yet. They are trying one more time to see if anyone will answer from within the box. Remembering this gave me hope that these adults, too, might come back to see if their young were really gone.

It was six o'clock the following morning when the young birds went back into their original nest box. I did my chores for the morning and kept checking to see if the adults were back. The adults came back within an hour. It was such a relief to see the butt-end of a Tree Swallow disappear into the box once again! I stood and watched as one adult poked its head out the door and chittered to its mate. A tragic beginning to one morning ended happily the following morning. A week and a half later, all three baby Tree Swallows fledged successfully from their box.



GEORGE C. WEST

ABOUT BOOKS

Celebrating Biodiversity

Brooke Stevens

A Bibliography of Biodiversity and Natural History in the Sudbury and Concord River Valley including the Great Meadows, Estabrook Woods, and Walden Woods. 2002. Stephen F. Ells. Lincoln, MA. 36 pp. $10.00. Available at the Concord Bookshop and Shop at Walden Pond. Both a downloadable version of this bibliography and an on-line version (as well as any updates) are available at <http://www.walden.org/scholarship/e/ells_steve/biodiv_bib/index.html>

There are few stones left unturned in the intensively studied Sudbury and Concord River valley west of Boston, and it was during a bird conservation project in the Wayland to Carlisle region of the valley that Stephen Ells conceived the notion of a biodiversity bibliography for this important landscape. Dedicated to the six naturalists of the valley – William Brewster, Richard Eaton, Ludlow Griscom, Ernst Mayr, Allen Morgan, and Henry David Thoreau — Ells's extensive bibliography contains over 400 references (many helpfully annotated by the author) to writings over the last 170 years

> about the wild animals and plants in the wetlands, the ponds, the river, and the nearby upland habitat of forest and field. . . . focus [ing] on data-rich studies, inventories, and articles about those species as they inhabited or migrated through this valley corridor. [Also included are] a few references about land use and human history to provide context; references about the great naturalists of the nineteenth century to give continuity; and references about pollution and invasive species to sound a warning.

There are separate sections on Estabrook Woods (Concord and Carlisle), Walden Woods and Walden Pond (Concord and Lincoln).

While the area covered is only about fourteen miles in length, it has provided a rich laboratory for a succession of naturalists, from dedicated amateurs to eminent scientists. Gathered here, their species- and site-specific information, their records and data, offer an invaluable record and resource for local conservation commissions, land trusts, sanctuaries, or for any student of biodiversity.

Although much altered and fragmented, the valley was designated in 2001 as Core Habitat for biodiversity protection in the state. "By happy chance," Ells notes, "one hundred seventy years of observation in the valley has been supplemented by sixty years of conservation activism. . . . Thus, much of the historic landscape has been preserved in a mosaic of twelve thousand acres of public and private stewardship. It is a triumph of protection at the edge of Boston."

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Sudbury Valley Trustees. 2000. *Greenways Plan for the SuAsCo Watershed.* Wayland MA: Sudbury Valley Trustees.

US Environmental Protection Agency, Region One Office [Various reports on Nyanza Chemical Waste Dump, a National Priority List Superfund Site upstream in Ashland, MA, and its mercury pollution of the Sudbury and Concord Rivers.] See, Nyanza Superfund Fact Sheet at <http://www.epa.gov/region1/superfund/sites/nyanza>. Document repositories are at Ashland PL and US EPA Region One in Boston.

US Fish and Wildlife Service. Various surveys and studies relating to the Great Meadows National Wildlife Refuge . . . See <http://www.fws.gov/r5fws/ma/grm.htm> . . . including: Breeding birds, Anuran [certain amphibians], marshbirds, shorebird use, bluebird and wood duck box programs, West Nile Virus, various vegetation surveys and invasive species control studies for cattail, loosestrife, and water chestnut.

Cover caption:

This startling cover shows the more than seventy fragments of conserved land in the Sudbury-Concord River valley, whether owned by the federal government, the state, towns, land trusts, or Harvard University. Permanent conservation and agricultural preservation restrictions are also shown. The map shows a fourteen-mile N-S part of the river from the Greenough Conservation Area near Route 4 in Carlisle at the top, to Heard Pond in Wayland at the bottom. Each bloc contains about ninety acres and is about 2000 feet on a side. Despite the obvious fragmentation, about 12,500 acres have been saved for wildlife (3,500 are within Great Meadows NWR.) The remainder is a mosaic of protection that has evolved over 130 years. Much of this area is Core Habitat on the Commonwealth's BIOMAP <http://www.state.ma.us/dfwele/dfw/nhesp/nhbiomap.htm> and will be in an international Important Bird Area.

BIRD SIGHTINGS

January/February 2002

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

January and February 2002 were unusually mild. The temperature averaged 7.5 degrees above normal in January and 4.8 degrees above normal during February in Boston, making this the seventh warmer-than-normal month in a row. January was the warmest since 1937. The high for the month was 65 degrees on January 29, and even more interesting was that the low mark of 22 degrees was a record "mild" low for the month of January in Boston. In February only six days averaged below normal. The high in Boston was 60 degrees on February 26, 15 degrees above normal for that date.

Rainfall was below normal for both months and serious drought conditions are foreseen. In February the total precipitation was just 1.81 inches in Boston, 1.49 inches less than the average. Snowfall totaled 7.9 inches in Boston during January, 14.9 inches below the average, and just a mere half inch of snow was recorded during February in Boston, 10.8 inches under normal conditions. The season total for Boston now stands at 13.4 inches, 19.1 inches under average and the sixth least amount of snow on record. The snow depth in the suburbs barely reached an inch and the ground was bare most of the time during January. A messy mix of sleet, snow and rain on the last day of January produced some glazing of the roadways in many communities. *R. Stymeist*

LOONS THROUGH WATERFOWL

In New England, April may be the cruelest month, but January and February have traditionally been the harshest. It is a season when avian diversity reaches its lowest ebb. However, undeniably milder winters in recent years, resulting in less snow and ice, have made this less true, perhaps never more so than this winter season. Some species, particularly those waterfowl near the northern limits of their ranges, lingered throughout the winter in many locations in unprecedented numbers. Midwinter counts of waterfowl such as Wood Duck, Northern Shoveler, Northern Pintail, Green-winged Teal, and Ruddy Duck have never been higher. Other species, traditionally (read: formerly) wintering well to our south, are now braving the local winters, which of late requires far less fortitude than it once might have. Those species reported during the period, therefore de facto "wintering," or at least attempting to winter (ignoring for the purpose of illustration the fact that bird movements can occur throughout the year, beyond the periods we define as migration), either as pioneering individuals or even as small flocks, include Double-crested Cormorant, Turkey Vulture, Snow Goose, Semipalmated Plover, Killdeer, both yellowlegs, Least Sandpiper, Pomarine Jaeger, and Laughing Gull.

Continuing an apparent trend, yet two more **Pacific Loons** were seen, at Andrew's Point in Rockport from late January to mid-February, and at Race Point in Provincetown in late February, perhaps the same individual last noted there on December 6. Both of these locations are responsible for many of the ever bourgeoning number of Massachusetts records. Reflective of the mild winter, a number of loons and grebes lingered on the larger bodies of water inland. Fourteen Common Loons at Quabbin Reservoir, January 11, two Pied-billed Grebes at Wachusett Reservoir, January 27, and twenty-two Horned Grebes also at Wachusett, January 11, all probably moved on during February. The Gloucester **Eared Grebe** continued throughout February, while a second bird was reported from Sandy Neck in Barnstable in mid-January.

Perhaps as many as six **Greater White-fronted Geese** made appearances, but due to a lack of descriptions, the number originating from Greenland versus continental North America remains speculative. The wintering flock of Snow Geese at Plum Island began January numbering seventy-six strong, but dwindled to seventeen by the middle of February. Three or four Richardson's Canada Geese were reported, although none were described. Accompanied by Canadas, a **Barnacle Goose** showed well for three days from February 17-19 in the vicinity of the Lynnfield and Wakefield marshes and a golf course. This sighting follows the report of a bird in Gloucester for one day only on December 7. Apparently part of a region-wide incursion of Barnacle Geese into the Northeast, some twelve individuals were found from New Brunswick to New Jersey between November 2001 and March 2002. A total of forty-six Wood Ducks were reported, more than usual, including four probable early migrants at Northampton, February 26. An excellent count of 362 American Wigeon at a favored site in Somerset in late January also included one of the state's five Eurasian Wigeons found during the period. Two Blue-winged Teal on Martha's Vineyard were a nice late January find. An unprecedented twenty-two Northern Shovelers were reported, headed up by a flock at Arlington that peaked at ten birds January 5. In the Plum Island marshes maximum counts of 118 Northern Pintail and 74 Green-winged Teal during February were more typical of those usually made in late March. Two male "**Common (Eurasian) Teal**" were located at Plum Island on January 12 and at Scituate on February 23. Besides the Wachusett bird, a second drake **Tufted Duck** appeared in Bourne January 5-12. Six-hundred and eighty Common Mergansers was an impressive concentration in Harwich on Cape Cod January 6, and was made all the more remarkable given that there were also an additional 300 counted in adjacent Brewster the same day. Less than a decade ago, Veit and Petersen (*Birds of Massachusetts*, 1993) termed Ruddy Duck "rare in winter," as indeed they generally had been. In January and February of this year, a total of 555 Ruddies were noted at ten sites in eastern Massachusetts, not including additional smaller counts elsewhere. *R. Heil*

RAPTORS THROUGH ALCIDS

Bald Eagles were unusually well reported during this period, perhaps a function of the warm winter which resulted in more open water than is common at this time of year. Rough-legged Hawks were well represented, but not equaling 2001, which was an exceptional year for this species. Two **Gyrfalcons** were reported, one for a single day in Salisbury, but the second, the same individual that was reported on the Boston Christmas Bird Count in December, alternated between Logan Airport and an easily-viewed building in South Boston, where it delighted hundreds of fans.

A **Common Moorhen** on Nantucket was an unusual visitor. American Coots, like the waterfowl, benefited from the ample open water and were reported in unusually high numbers.

Thirteen species of shorebirds were reported during January and February, and while many of these are typical for this time of year, others were exceptional, including a **Semipalmated Plover** that overwintered in Boston, a flock of five **Lesser Yellowlegs** in Newburyport, and a **Least Sandpiper** seen on New Year's Day at South Beach in Chatham.

A **Pomerine Jaeger** at First Encounter Beach in Eastham on February 18 was reported by an experienced observer, perhaps the only February record for this species. Two reports of **Laughing Gull**, possibly the same individual, were exceptional for the winter, the more so because of the North Shore locations. While Little Gull is unusual in Massachusetts, it has become routine in the gull extravaganza in winter on Nantucket. A **Thayer's Gull** was photographed on Nantucket and details were submitted to the Massachusetts Avian Records Committee (MARC). Gull identification is always a lively subject among larid fans, and the

problems presented are compounded by hybridization among the species. There were three reports of "Nelson's Gull," the Glaucous x Herring gull hybrid. It was a lackluster season for alcids, although a count of 21 Common Murres at Race Point in Provincetown was excellent.

Red-throated Loon
1/1, 2/10 Chatham (S.B.) 55, 8 P. Flood
1/12, 2/14 P.I. 11, 25 R. Heil
1/21 Nantucket 15 BBC (J. Barton)
1/26 P'town (R.P.) 52 R. Heil
1/27, 2/10 Boston H. 28, 22 TASL (M. Hall)
Pacific Loon (no details) *
1/24-2/27 Rockport (A.P.) 1 J. Paluzzi + v.o.
2/16 Rockport (A.P.) 1 J. Hoye#
2/24-26 P'town (R.P.) 1 E. Nielsen + v.o.
Arctic/Pacific Loon (details) *
2/10-11 Winthrop 1 P. Randall + v.o.
Common Loon
1/6 Bourne 50 SSBC (K. Anderson)
1/6 Wachusett Res. 8 R. Lockwood
1/11 Quabbin (G43) 14 S. Perkins
1/21 Nantucket 30 BBC (J. Barton)
1/27, 2/10 Boston H. 10, 7 TASL (M. Hall)
1/29 Cape Ann 68 R. Heil
2/2, 15 Sterling 3, 2 S. Sutton
2/27 Marblehead 20 K. Haley
Pied-billed Grebe
1/1 Nantucket 5 G. d'Entremont#
1/4 Arlington 3 M. Rines
1/4 Plymouth 13 M. Faherty
1/12 Bourne 7 G. d'Entremont
1/23 Cambr. (F.P.) 7 S. Simpson
1/27 Wachusett Res. 2 M. Lynch#
Horned Grebe
1/5 Newbypt./P.I. 10 J. Berry#
1/11 Quabbin (G43) 22 S. Perkins
1/12 New Salem 4 W. Lafley
1/12 Marblehead 25 K. Haley
1/19 Fairhaven 14 BBC (R. Stymeist)
1/21 Swansea 85 M. Lynch#
1/27 P.I. 50 G. Haydock
1/27, 2/10 Boston H. 357, 118 TASL (M. Hall)
1/29 Cape Ann 28 R. Heil
2/27 Marblehead 18 K. Haley
Red-necked Grebe
1/1 Chatham (S.B.) 22 P. Flood
1/10 N. Scituate 12 R. Clem
1/27, 2/20 Boston H. 125, 87 TASL (M. Hall)
2/9 Marblehead 30+ K. Haley
2/19 Cape Ann 8 J. Berry#
Eared Grebe
thr Gloucester 1 J. Soucy + v.o.
1/12 Barnstable (S.N.) 1 M. Sylvia
Northern Fulmar
2/18 Eastham (F.E.) 85+ B. Nikula
Northern Gannet
1/1, 2/10 Chatham (S.B.) 450, 24 P. Flood
1/1 Salisbury 650 P. + J. Roberts
1/7 Rockport (A.P.) 70 R. Heil
1/26 P'town (R.P.) 250 R. Heil
2/18 Eastham (F.E.) 350 B. Nikula
2/24 Nauset B. 75 P. Flood
Great Cormorant
1/5 Hull 65 G. d'Entremont
1/6, 2/24 P'town 85, 200 B. Nikula
1/27 Boston H. 178 R. Stymeist#
1/29 Cape Ann 485 R. Heil
2/10 N. Scituate 142 BBC (G. d'Entremont)
2/16 Worcester 1 imm M. Lynch#
2/20 Arlington 8 M. Rines
Double-crested Cormorant
1/1 Sandwich 6 B. Nikula#
1/1 Nantucket 16 G. d'Entremont#
1/6 Boston 16 BBC (R. Stymeist)
1/6 Gloucester 4 P. + F. Vale
1/21 N. Truro 2 B. Nikula
1/27 Boston H. 8 TASL (M. Hall)
American Bittern
1/1 Eastham (F.H.) 2 v.o.
1/27 Nantucket 1 E. Ray
1/27 Nauset B. 2 S. Finnegan#
2/23 Westport 1 E. Neilsen
2/24 P.I. 1 S. Haydock
2/26 S. Dart. (A. Pd) 2 O. Spalding#
Great Blue Heron
1/19 Fairhaven 4 BBC (R. Stymeist)
1/19 Salisbury 4 J. Mullen#
1/27 Boston H. 5 TASL (M. Hall)
1/27 Nauset B. 7 S. Finnegan#
2/8 Yarmouth 10 D. Silverstein#
2/19 Maynard 4 L. Nachtrab
Black-crowned Night-Heron
1/1 Winthrop 7 R. Stymeist#
1/6 Hingham H. 2 D. Peacock
1/6 Boston 3 G. d'Entremont
1/24 Cambridge 1 D. Cowell
2/10 N. Marshfield 2 BBC (G. d'Entremont)
2/23 P.I. 1 ad S. Mirick#
Turkey Vulture
1/26 E. Sandwich 3 D. Manchester
2/2 Westport 25 G. d'Entremont
2/16 Newton 3 M. Kanaracus
2/18 Millbury 4 M. Lynch#
2/23 Lexington 9 A. Ankers#
Greater White-fronted Goose
1/20 Westport 1 M. Lynch#
1/30-2/17 Westwood 1 M. McCarthy + v.o.
2/3-19 Southwick 2 S. Kellogg
2/3 Fairhaven 2 ad G. d'Entremont
2/18-27 Easton 1 K. Ryan
Snow Goose
thr Waltham 1 J. Michaels
1/1 Plymouth 3 K. Anderson#
1/1-4 Chilmark 4 A. Keith
1/8 Northampton 1 B. Bieda
1/12, 2/28 P.I. 76, 17 R. Heil
1/17 Rochester 10 CCBC (S. Finnegan#)
1/20 Westport 6 M. Lynch#
1/20 Acoaxet 10 M. Lynch#
2/10 Rochester 9 W. Petersen
2/11 Southampton 1 J. Weeks
2/14-27 Southwick 1 J. Weeks
Richardson's Canada Goose
1/2 Gill 1 J. Morris-Siegel
1/11 Medford 1 P. Roberts
1/12 Hadley 1 H. Allen
1/12 Gill 1 H. Allen
2/7-8 Dedham 1 D. Furbish + v.o.
Brant
1/5 Eastham (F.H.) 34 S. Finnegan
1/5 Nahant 120 L. Pivacek
1/6 Bourne 54 SSBC (K. Anderson)
1/21 Swansea 1500 M. Lynch#
1/27, 2/10 Boston H. 1055, 930 TASL (M. Hall)
2/10 Chatham (S.B.) 110 P. Flood
2/17 Plymouth 200 P. Donahue#
2/25 Newbypt. 30 R. Heil
2/27 Marblehead 50+ K. Haley
Barnacle Goose (details submitted) *
2/17-19 Wakefield 1 ad ph F. Vale# + v.o.
Tundra Swan
2/24-26 Westport 4 S. Moore# + v.o.
Wood Duck
1/2 W. Boxford 6 T. Walker
1/4 Plymouth 5 O. Spalding#

Wood Duck (continued)
1/6 Boston 4 BBC (R. Stymeist)
1/12 Medford 12 R. LaFontaine#
1/18 Springfield 3 H. Allen
1/19 Plymouth 4 S. Hedman
1/23 Oak Bluffs 8 A. Keith
2/26 Northampton 4 R. Packard#
Gadwall
1/1 Ipswich 10 J. Berry
1/5 Newbypt. 77 J. Berry#
1/6 Plymouth 30 SSBC (K. Anderson)
1/12 P.I. 58 R. Heil
1/21 Somerset 46 M. Lynch#
1/21 Manomet 20 W. Petersen
2/6 Gloucester 24 J. Berry
2/10 Woburn 8 M. Rines
2/16 Barnstable 32 G. Hirth
2/16 DWWS 13 P. + F. Vale
2/28 Salem 32 K. Haley
Eurasian Wigeon
thr Newbypt./Salisbury 2 R. Heil + v.o.
1/1 Vineyard Haven 1 m A. Keith
1/4-6 Plymouth 1 m M. Faherty + v.o.
1/21 Somerset 1 m M. Lynch#
American Wigeon
1/4 Arlington 30 M. Rines
1/6 Newbypt. 26 M. Lynch#
1/12 Plymouth 25 G. d'Entremont
1/21 Somerset 362 M. Lynch#
1/21 Manomet 60 W. Petersen
2/10 Plymouth 10 BBC (G. d'Entremont)
2/16 Barnstable 20 G. Hirth
2/26 Northampton 4 H. Allen
2/thr Salisbury max. 44 R. Heil
American Black Duck
1/12 Newbypt./P.I. 2600 R. Heil
1/27, 2/10 Boston H. 540, 1030 TASL (M. Hall)
Blue-winged Teal
1/22 Chilmark 1 f A. Keith
1/23 Chappaquiddick 1 m A. Keith#
Northern Shoveler
1/1 Woburn 1 f M. Rines#
1/4 GMNWR 1 f M. Durand
1/5 Arlington 10 H. Hoffman
1/6 Boston 3 m G. d'Entremont
1/6 Plymouth 1 f D. Peacock
1/13 Wakefield 1 f P. + F. Vale
1/21 Manomet 2 W. Petersen
2/10 Easton 1 K. Ryan
2/10 Middleboro 1 K. Ryan
2/24 MNWS 1 m K. Haley
Northern Pintail
1/1 Plymouth 3 K. Anderson#
1/1 Marlboro 20 E. Taylor
1/12, 2/25 P.I. 65, 118 R. Heil
1/20 Acoaxet 14 M. Lynch#
1/25 Amherst 2 M. Faherty
2/8 Barnstable H. 6 D. Silverstein#
2/16 Cummiquid 19 G. Hirth
2/16 Halifax 9 C. Julius#
2/24 Westport 55 G. d'Entremont#
Green-winged Teal
1/1-12 Marlboro 3 E. Taylor
1/5 GMNWR 3 B. Volkle#
1/11 Chatham 4 D. Silverstein#
1/12, 2/25 P.I. 23, 74 R. Heil
1/26, 2/23 Scituate 25, 12 G. d'Entremont
2/16 Northbridge 3 M. Lynch#
2/16 Cummiquid 9 G. Hirth
2/25 Hadley 3 E. Labato
Eurasian Teal
1/12 P.I. 1 m R. Heil
2/23 Scituate 1 m G. d'Entremont
Canvasback
1/thr Harwich 87 max v.o.
1/2 W. Boxford 2 T. Walker
1/15 Cambr. (F.P.) 60 S. Simpson
1/20 Acoaxet 32 M. Lynch#
1/29 W. Boylston 1 m J. Liller
1/31 Falmouth 13 G. Hirth
2/9 Seekonk 17 J. Sweeney
2/16 Arlington Res. 3 J. Nelson
2/23 Westport 51 E. Neilsen
2/24 Nantucket 71 E. Ray
Redhead
thr Boston 1 v.o.
1/4-6 Plymouth 1 C. Fiorini + v.o.
1/21, 2/18 Nantucket 8, 12 E. Ray
1/23 Edgartown 1 A. Keith#
2/2 Brookline 1 pr A. Joslin
Ring-necked Duck
1/1 Melrose 22 D. + I. Jewell
1/2 Oak Bluffs 59 A. Keith#
1/2 W. Boxford 140+ T. Walker
1/12 W. Newbury (C.H.) 24 R. Heil
1/27 Wachusett Res. 99 M. Lynch#
2/7 W. Boylston 60 S. Sutton
2/10 Plymouth 75 BBC (G. d'Entremont)
2/16 Worcester 51 M. Lynch#
2/16 Barnstable 101 G. Hirth
2/25 Hadley 16 E. Labato
Tufted Duck
thr Wachusett Res. 1 m v.o.
1/5-12 Bourne 1 G. Ferguson + v.o.
2/16 Worcester 1 m M. Lynch#
Greater Scaup
1/1 Nantucket 500 G. d'Entremont#
1/3 Falmouth 900 D. Larson
1/5 Nahant 48 L. Pivacek
1/12 Bourne 300 G. d'Entremont
1/20 Acoaxet 54 M. Lynch#
1/27, 2/10 Boston H. 2125, 657 TASL (M. Hall)
2/3 Fairhaven 100 G. d'Entremont
2/9 Seekonk 120+ J. Sweeney
2/16 Centerville 50 G. Hirth
2/24 Westport 100 R. Lockwood#
2/25 Newbypt. 35 R. Heil
Lesser Scaup
1/2 W. Boxford 4 T. Walker
1/11 Nahant 140 R. Heil
1/20 Acoaxet 32 M. Lynch#
1/26 Marstons Mills 37 J. Liller
2/17 Seekonk 7 J. Sweeney
2/23 Westport 45 E. Neilsen
2/24 Lakeville 28 K. Anderson#
King Eider
thr Gloucester 1 m v.o.
thr Rockport (A.P.) 1 v.o.
1/3 Gay Head 1 m T. Day
1/6 Scusset B. 1 f D. Peacock
2/21 Scituate 2 R. Titus
2/28 Nantucket 1 E. Ray
Common Eider
1/1 Salisbury 800 P. + J. Roberts
1/5, 2/3 Nahant 1400, 800 L. Pivacek
1/5 Ipswich 450 BBC (J. Nove)
1/19 Fairhaven 500+ BBC (R. Stymeist)
1/20 Nantucket 18,000 BBC (J. Barton)
1/27, 2/10 Boston H. 8824, 6443 TASL (M. Hall)
2/8 Barnstable H. 2000 D. Silverstein#
2/10 Chatham (S.B.) 330 P. Flood
2/16 Sandwich 400+ D. Manchester
2/16 off Gay Head 5000+ J. Young
Harlequin Duck
thr Rockport 82 max v.o.
thr E. Orleans 8 v.o.
1/21 Nantucket 40 BBC (J. Barton)
1/27 N. Scituate 30 P. Fitzgerald
2/16 Sandwich 2 m D. Manchester
2/24 Nauset B. 3 m, 8 f P. Flood
Surf Scoter
1/19 Fairhaven 75+ BBC (R. Stymeist)
1/21 Nantucket 10,000 BBC (J. Barton)
1/26 Rockport 34 M. Lynch#
1/27, 2/10 Boston H. 138, 161 TASL (M. Hall)
2/3 Nahant 13 L. Pivacek

Surf Scoter (continued)			
2/16	Plymouth B.	30	P. + F. Vale
2/16	Bourne	30	P. + F. Vale
White-winged Scoter			
1/5	Nahant	300+	L. Pivacek
1/6	P'town	300	B. Nikula
1/19	Fairhaven	225+	BBC (R. Stymeist)
1/21	Nantucket	2,000	BBC (J. Barton)
1/27, 2/10	Boston H.	689, 635	TASL (M. Hall)
1/29	Cape Ann	520	R. Heil
2/16	Plymouth B.	50+	P. + F. Vale
Black Scoter			
1/21	Nantucket	5,000	BBC (J. Barton)
1/27	Boston H.	5	TASL (M. Hall)
1/28, 2/9	Gloucester	180, 200	J. Berry#
2/13	Orleans	50	D. Silverstein#
2/24	Nauset B.	55	P. Flood
Long-tailed Duck			
1/1	Chatham (S.B.)	13	P. Flood
1/6	P.I.	38	M. Lynch#
1/8	Ipswich (C.B.)	35	J. Berry#
1/20	Nantucket	50,000	BBC (J. Barton)
1/27	Boston H.	73	TASL (M. Hall)
2/16	Barnstable (S.N.)	20	G. Hirth
2/24	Gloucester	25	P. + F. Vale
Bufflehead			
1/20	Acoaxet	440	M. Lynch#
1/25	Newbypt.	370	R. Heil
1/26	Gloucester	103	M. Lynch#
1/27, 2/10	Boston H.	1589, 1472	TASL (M. Hall)
2/3	Nahant	180	L. Pivacek
2/5	S. Carver	30	K. Anderson
2/23	Westport	180	E. Neilsen
2/25	Newbypt.	210	R. Heil
Common Goldeneye			
1/1	Turners Falls	37	H. Allen
1/4, 2/3	Sunderland	50, 25	M. Williams
1/6	Falmouth	54	D. Peacock
1/11	Quabbin (G43)	30	S. Perkins
1/11	Holyoke	90	S. Kellogg
1/21	Swansea	139	M. Lynch#
1/21	Somerset	272	M. Lynch#
1/27, 2/10	Boston H.	1168, 775	TASL (M. Hall)
2/3	Fairhaven	155	G. d'Entremont
2/23	Westport	320	E. Neilsen
2/25	Newbypt.	260	R. Heil
Barrow's Goldeneye			
1/5	Nahant	1	L. Pivacek
1/6	Gloucester (E.P.)	1 m	P. + F. Vale
1/6	Scituate	2	D. Peacock
1/6	Falmouth	2	D. Peacock
1/16	Ipswich	1	D. + I. Jewell
1/19, 2/16	Barnstable (S.N.)	1 m	v.o.
1/21	Nantucket	3	E. Ray
1/21	Swansea	1 m	M. Lynch#
1/25, 2/25	P.I.	1 f, 2	J. Berry#
2/thr	Orleans	1 f	v.o.
2/3	Gloucester (E.P.)	1 f	D. Bates#
2/25	Newbypt.	3	R. Heil
Hooded Merganser			
1/5	Arlington	30	B. Volkle#
1/5	Eastham	130	S. Finnegan
1/6	Boston	22	G. d'Entremont
1/6	Wachusett Res.	28	R. Lockwood
1/19	Westboro	17	M. Faherty
1/21	Somerset	78	M. Lynch#
1/22	Essex	21	D. Brown
2/10	Plymouth 121	BBC (G. d'Entremont)	
2/17	Forestdale	67	D. Manchester
2/23	Wakefield	20	P. + F. Vale
Red-breasted Merganser			
1/1	Chatham (S.B.)	275	P. Flood
1/6	P'town	350	B. Nikula
1/12, 2/19	Cape Ann	165, 150	J. Berry#
1/21	Somerset	92	M. Lynch#
1/27, 2/10	Boston H.	1091, 749	TASL (M. Hall)
2/10	Salisbury	140+	M. Lynch#
2/14	Newbypt.	320	R. Heil
2/20	Belmont	20	M. Rines
2/21	Turners Falls	1	A. + L. Richardson
2/23	Westport	70	E. Neilsen
2/26	Northampton	1	H. Allen
Common Merganser			
1/5	New Salem	200	W. Lafley
1/6	Harwich	680	B. Nikula
1/6	Brewster	300	S. Finnegan
1/12	Plymouth	150	G. d'Entremont
1/23	Arlington	71	O. Spalding
1/26	Truro	140	R. Heil
2/16	N. Truro	130+	P. Flood
2/17	Forestdale	122	D. Manchester
2/23	Cambr. (F.P.)	200	M. Rines
2/23	Northampton	150	A. + L. Richardson
2/25	Westboro	123	E. Morrier
2/26	W. Newbury (C.H.)	70	R. Heil
Ruddy Duck			
1/1	Stoneham	140	D. + I. Jewell
1/10	Wakefield	26	P. + F. Vale
1/10	Woburn	25	J. Brown
1/11	Nahant	65	R. Heil
1/15	Lynn	27	R. Heil
1/20	Acoaxet	84	M. Lynch#
1/26	Marblehead	80	K. Haley
1/26	Cohasset	32	C. Nims#
2/5	Eastham	35	D. Silverstein#
2/17	Seekonk	41	J. Sweeney
Bald Eagle			
1/2	Gill	2 ad	J. Morris-Siegel
1/5	Agawam	2 ad	J. LaPointe
1/9	Northampton	2 ad	B. Bieda
1/14	Deerfield	1 ad, 1 3yr	M. Williams
1/16	Quabbin	30	MDFW
1/18	Newbypt.	3 ad	G. Haydock
1/18	Housatonic River	5	MDFW
1/19	Pepperell	2 imm	B. Taus
1/28	Methuen	2 ad	T. Wetmore
2/8	Brewster	2 ad	S. Finnegan
2/11	N. Andover	2 imm	S. McGrath
2/13	Newbypt.	4	MAS (B. Stevens#)
2/17	Conn. River	16	MDFW
2/28	Sunderland	1 ad, 2 imm	M. Williams
thr	Reports of indiv. from 28 locations		
Northern Harrier			
thr	DWWS	7 max	D. Furbish
1/1	Cumb. Farms	3	K. Anderson#
1/11	Bolton Flats	4	T. Murray
1/14	Salisbury	5	T. Wetmore
1/20	Westport	3	M. Lynch#
1/21	Nantucket	6	BBC (J. Barton)
2/16	Bourne	2	P. + F. Vale
2/21	Concord (NAC)	2	S. Perkins#
2/26	Wayland	3	G. Long
2/thr	P.I.	6+	R. Heil
Sharp-shinned Hawk			
1/6	Wachusett Res.	2	M. Lynch#
2/16	Centerville	2 imm	G. Hirth
thr	Reports of indiv. from 26 locations		
Cooper's Hawk			
2/3	Boston (A.A.)	2	A. Joslin
2/thr	DWWS	1-2	D. Furbish
thr	Reports of indiv. from 32 locations		
Northern Goshawk			
1/5	Groton	1 ad	R. Stymeist
1/12	Westminster	1	C. Caron
1/21	Essex	1 im (dead)	J. Berry
1/28	Pepperell	1	E. Stromsted
Red-shouldered Hawk			
1/1	Cumb. Farms	2	K. Anderson
1/4	Acushnet	1	O. Spalding
1/6	Hingham	2	D. Peacock
1/14	Raynham	1	J. Sweeney#
1/27	Bourne	2	St. Miller
2/2	Kingston	1 ad	D. Furbish#
2/3	Easton	1	K. Ryan
2/4	Gloucester (E.P.)	1 imm	T. Leverich
2/23	N. Marshfield	3 ad	G. d'Entremont

Red-shouldered Hawk (continued)
2/26 Carlisle 1 J. Keskulla
Rough-legged Hawk
1/1 Salisbury 2 T. Wetmore
1/3 Sudbury 1 N. Soulette#
1/8 Ipswich (C.B.) 2 lt J. Berry#
1/12, 25 P.I. 1 dk, 2 lt R. Heil
1/12 Hadley 1 H. Allen
1/21 Cumb. Farms 2 K. Anderson#
1/24 Kingston 1 K. Vespaziani
2/4 GMNWR 1 lt S. Perkins#
2/10 Bolton Flats 1 T. Murray
2/18 Wakefield 1 D. Wilkinson
2/28 DWWS 1 lt D. Furbish
Golden Eagle
2/25 W. Newbury 1 ad R. Heil
American Kestrel
2/16 Salisbury 2 J. Ouellette
2/16 P.I. 2 J. Ouellette
thr Reports of indiv. from 20 locations
Merlin
1/12 Nantucket 4 J. Palale#
2/16 Katama 2 J. Young
thr Reports of indiv. from 28 locations
Peregrine Falcon
thr Worcester 1 M. Lynch#
1/1 S. Boston 1 imm R. Stymeist#
1/6 Bourne 1 SSBC (K. Anderson)
1/9 Chappaquiddick 1 V. Laux
1/10-2/12 Cambridge 1 S. Simpson + v.o.
1/11 Lynn 1 ad R. Heil
1/12 Salisbury/P.I. 3 R. Heil
1/18 Essex 1 ad R. Heil
1/19 Springfield 1 T. Gagnon
1/21 Nantucket 2 BBC (J. Barton)
1/25 Bolton Flats 1 T. Murray
1/29 Rockport 1 imm. R. Heil
2/5 Amherst 1 W. Lafley
2/10 Stoneham 1 D. + I. Jewell
2/14-23 Plymouth 1 E. Neumuth
2/23 Chatham (S.B.) 1 imm P. Flood
Gyrfalcon (details submitted) *
1/13 Salisbury 1 T. Raymond
thr Boston (Logan) 1 N. Smith
2/10-28 S. Boston 1 ad ph M. McWade + v.o.
Ring-necked Pheasant
1/3 Salem 5 R. Heil
1/27 Mattapan 2 O. Spalding
2/19 HRWMA 2 T. Pirro
2/25 W. Newbury 2 m R. Heil
Ruffed Grouse
1/6 Hingham 1 D. Peacock
1/8 E. Sandwich 4 D. Manchester
1/14 Sunderland 1 M. Williams
1/29 Westboro 1 S. Sutton#
2/9 Chesterfield 1 R. Packard
2/19 Lancaster 3 C. Caron
2/25 W. Boylston 2 S. Sutton
Wild Turkey
1/1 Hadley 26 H. Allen
1/5 Ipswich 40 J. Berry
1/5 Middleboro 62 D. Furbish
1/31 Erving 17 V. Yurkunas
2/thr Easton 13 K. Ryan
2/10 Lincoln 14 M. Rines
2/16 Athol 42 G. d'Entremont#
2/17 Templeton 80 T. Pirro
2/19 Sherborn 18 E. Taylor
2/24 Sheffield 32 K. + M. Conway
Virginia Rail
1/1 Nantucket 5 G. d'Entremont#
1/1 Northbridge 1 M. Lynch#
1/6 Marshfield 3 D. Peacock
Common Moorhen
thr Nantucket 1 imm fide E. Ray
American Coot
1/1 Nantucket 26 G. d'Entremont#
1/2 W. Boxford 30 T. Walker
1/6 Boston 18 BBC (R. Stymeist)
1/8 Arlington 56 O. Spalding
2/thr Lynn 6 R. Heil
2/10 Plymouth 27 BBC (G. d'Entremont)
2/11 Springfield 4 A. + L. Richardson
2/16 Worcester 7 M. Lynch#
2/23 Westport 6 E. Neilsen
Black-bellied Plover
1/1, 2/23 Chatham (S.B.) 45, 10 P. Flood
2/10 Boston H. 1 TASL (M. Hall)
2/23 Chatham (S.B.) 10 P. Flood
Semipalmated Plover
1/27, 2/10 Boston H. 1 TASL (M. Hall)
Killdeer
1/1 Salisbury 1 BBC (L. delaFlor)
1/6 Hingham H. 1 D. Peacock
1/12 Hadley 1 E. Labato
1/25 Brewster 3 J. Sones#
1/30 Randolph 1 T. Raymond
2/10 Plymouth 1 BBC (G. d'Entremont)
2/26 Topsfield 2 R. Heil
2/27 Bolton Flats 10 S. Sutton#
Greater Yellowlegs
1/1 Ipswich 1 J. Soucy#
1/6 Hingham H. 2 D. Peacock
Lesser Yellowlegs
thr Newbypt. H. 5 R. Heil
Ruddy Turnstone
1/1 Nantucket 1 G. d'Entremont#
1/24 Gloucester 8 R. Heil
1/27, 2/10 Boston H. 30, 26 TASL (M. Hall)
2/10 Fairhaven 48 W. Petersen
2/16 Sandwich 2 D. Manchester
2/18 Westport 5 J. Sweeney
Red Knot
1/1, 2/23 Chatham (S.B.) 1 P. Flood
2/24 Westport 8 A. Brissette
Sanderling
1/1, 2/10 Chatham (S.B.) 400, 300 P. Flood
1/1 Nantucket 155 G. d'Entremont#
1/1 P.I. 35 P. + J. Roberts
1/6 Bourne 30 SSBC (K. Anderson)
1/11 Harwich 100+ D. Silverstein#
1/27 Barnstable 700+ D. Manchester#
2/3 Nahant 600+ L. Pivacek
2/7 Revere (POP) 480 R. Heil
2/16 P'town (R.P.) 73 P. Flood
2/23 Westport 28 E. Neilsen
Least Sandpiper
1/1 Chatham (S.B.) 2 P. Flood
Purple Sandpiper
1/6 Scituate 140 D. Peacock
1/12 Marblehead 80+ K. Haley
1/27 Boston H. 142 TASL (M. Hall)
1/29 Rockport 700+ R. Heil
2/24 Westport 60 A. Brissette#
Dunlin
1/1, 2/23 Chatham (S.B.) 3500, 2400 P. Flood
1/18 Salisbury 100 J. Berry
2/3 Nahant 400+ L. Pivacek
2/3 Fairhaven 50 G. d'Entremont
2/7 Revere 190 R. Heil
2/14-20 Plymouth 140 E. Neumuth
2/18 Eastham (F.E.) 250 B. Nikula
2/23 Westport 200 E. Neilsen
2/24 Brewster 150 B. Nikula
2/24 Nauset B. 220 P. Flood
2/25 P.I. 22 R. Heil
Common Snipe
1/1 Northbridge 1 M. Lynch#
1/6 Marshfield 1 D. Peacock
1/6 Bourne 5 SSBC (K. Anderson)
1/12 Barnstable (S.N.) 1 M. Sylvia
1/13 Wayland 1 G. Long
1/30 Randolph 1 T. Raymond
2/16 Newbypt. 4 T. Wetmore
2/27 DWWS 1 D. Furbish

American Woodcock

1/1	Lakeville	1	R. Titus
2/19	DWWS	1	D. Furbish#
2/22	W. Tisbury	1	S. Bowman
2/22	Nantucket	10	J. Van Voorst
2/26	Burlington	5	M. Rines
2/26	Dedham	3	T. Raymond
2/26	W. Newbury	4 m	R. Heil

Pomarine Jaeger

2/18	Eastham (F.E.)	1	B. Nikula

Laughing Gull

1/6	P.I.	1	S. Moore#
2/10	Salisbury	1	B. Cormier

Little Gull

1/1	Nantucket	7	G. d'Entremont#

Black-headed Gull

1/1	Osterville	1 ad	B. Nikula#
1/1	Cotuit	1 ad	B. Nikula#
1/5	New Salem	1	W. Lafley
1/6	Brewster	1 ad	B. Nikula
1/12	Gloucester	2	BBC (J. Berry)
1/15	Newbypt.	1	J. Paluzzi
1/15	Plymouth	1	K. Anderson#
2/3	Milford	1	J. Hoye#
2/10	Salisbury	1 ad	M. Lynch#
2/14	Nantucket	1	E. Anderson

Bonaparte's Gull

1/1-31	Eastham (F.H.)	80	B. Nikula#
1/6	Salisbury	30	S. Moore#
1/13	Nantucket	2000	E. Ray
1/24	Gloucester	45	R. Heil
1/26	N. Scituate	13	G. d'Entremont

Thayer's Gull (details submitted) *

1/1	Nantucket	1 ph	F. Gallo + v.o.

Iceland Gull

1/1	Turners Falls	1	H. Allen
1/1	Nantucket	39	G. d'Entremont#
1/6	N. Truro	8	B. Nikula
1/6	Rockport (A.P.)	2	P. + F. Vale
1/19	Westboro	1 1W	M. Faherty
1/19	Northampton	1 1W	T. Gagnon
1/31	Gloucester	2	R. Heil
2/3	Wachusett Res.	3	M. Lynch#
2/14, 25	Newbypt.	6, 6	R. Heil
2/15	Lynn	1 ad	R. Heil
2/16	W. Boylston	2	T. Pirro#
2/18	Salisbury	2	P. + F. Vale
2/24	P'town (R.P.)	13	E. Nielsen

Lesser Black-backed Gull

thr	Boston	1	v.o.
1/1	Nantucket	10	O. Spalding#
1/2	Seekonk	1	D. Zimberlin
1/4	Plymouth	1	O. Spalding#
1/21	Katama	3	V. Laux
1/29	P'town	2	O. Spalding#
2/9	Orleans	1 ad	S. Mirick#
2/10	Chatham (S.B.)	1	P. Flood
2/24	Brewster	3	B. Nikula

Glaucous Gull

1/12	S. Boston	1	R. Donovan
1/21	Plymouth H.	1 1W	S. Moore
2/3	Wachusett Res.	1 ad	M. Lynch#
2/9	Chatham	1 ad	S. Mirick#
2/9	Gloucester	1	B. Machover
2/14	Northampton	1	B. Bieda
2/16	W. Boylston	1 2W	T. Pirro#
2/20	Boston	1 3W	M. Taylor#
2/24	Salisbury	1	J. Hoye#

"Nelson's Gull"

1/15	Lynn	1 1W	R. Heil
1/29	Gloucester	1 2W	R. Heil
2/21	Plymouth	1	R. Titus

Black-legged Kittiwake

1/1	Nantucket	10	G. d'Entremont#
1/1	Chatham (S.B.)	120+	P. Flood
1/23	Chappaquiddick	25	A. Keith
1/24	Gloucester	40 ad	R. Heil
1/26	P'town (R.P.)	170 ad	R. Heil
2/14	P.I.	12 ad	R. Heil
2/18	Eastham (F.E.)	60	B. Nikula
2/24	Nauset B.	25	P. Flood

Dovekie

1/19	W. Tisbury	1	A. Ben David
1/20	Rockport (A.P.)	4	O. Spalding#

Common Murre

2/3	Gloucester (E.P.)	1	D. Bates#
2/10	Chatham (S.B.)	1 dead	P. Flood
2/24	P'town (R.P.)	21	E. Nielsen

Thick-billed Murre

1/6	Scusset B.	2	D. Peacock
1/6	Scituate	1	D. Peacock
1/12	Gloucester (B.R.)	1	ABNC (M. Taylor#)
1/24	Magnolia	1	R. Heil
2/24	P'town (R.P.)	4	E. Nielsen

Razorbill

1/6	Scusset B.	8	D. Peacock
1/20	Nantucket	100	E. Ray
1/21	off Katama	200+	V. Laux
1/24	Gloucester	58	R. Heil
1/26	P'town (R.P.)	160	R. Heil
1/26	Rockport	55+	M. Lynch#
1/27	Boston H.	4	TASL (M. Hall)
2/10	Wellfleet	100	S. Mirick#
2/10	Chatham (S.B.)	5	P. Flood

Black Guillemot

1/1	Nantucket	3	G. d'Entremont#
1/6	Scituate	12	D. Peacock
1/26, 2/10	Marshfield	4, 2	G. d'Entremont
1/27	Boston H.	9	R. Stymeist#
1/29	Cape Ann	119	R. Heil
2/3	Nahant	2	L. Pivacek

PARAKEETS THROUGH FINCHES

New Year's Day was bright and sunny with near normal temperatures, a great day to start a new year of birding. The mild weather made this a good winter for this group of birds. Eighty-four species were recorded during January and February, 19 more than last year which also was on the mild side. One birder, Dennis Peacock, after starting out with a great pre-dawn day of owling on January 6, was inspired to try a "big day" after he found every midwinter target species he was seeking. The end result was a personal total of 111 species, surely a record number for the month of January!

All seven regularly-occurring owl species were noted during the period. At Logan Airport, Norman Smith had banded 22 Snowy Owls as of February 28, 21 of which were re-released on Duxbury Beach, and one bird was released on Plum Island. The first Snowy Owl appeared on

November 4, 2001 and the highest count for a single day was 12 individuals on January 18. The ongoing raptor extravaganza at Daniel Webster continued this winter with a maximum of seven Long-eared Owls hidden along the Secret Trail. A Short-eared Owl was found for the second winter in a row in the Connecticut River Valley, the only reports since 1993. There were better than normal numbers of Barred and Northern Saw-Whet owls reported during the period.

Birders had two Red-headed Woodpeckers to search for this winter: one found on the Boston CBC in Melrose continued throughout the period, and another was found at Great Esker Park in Weymouth. Red-headed Woodpeckers are irregular visitors to our area and often depend on a good crop of acorns or beech nuts over the winter months. The number of sapsuckers found in our area during the winter has been increasing each year, with nine reports during this period. Several consecutive mild winters have resulted in an increase in certain southern species that have expanded their range into Massachusetts. A comparison of Christmas Bird Count totals of two of these species is dramatic: in 1990 557 Carolina Wrens were reported; in 2001 this increased to 1185. In 1990 only 29 Red-bellied Woodpeckers were reported; in 2001 this increased to an astonishing 376.

The mild winters also tend to help many of our semihardy lingerers such as Eastern Phoebe, Ruby-crowned Kinglet, Eastern Bluebird, Hermit Thrush, Gray Catbird, and Eastern Towhee, all of which were well accounted for during this period.

The folks out in the western parts of our state also fared well with far less snow than normal; a count of 400 Horned Larks in Northampton was the largest number in the Connecticut Valley since 1985 and a count of 25 Fish Crows in West Springfield was the largest single flock reported from western Massachusetts in any season. Better numbers were also noted for Golden-crowned Kinglets, Eastern Bluebirds (21 reports was the best ever), and Field Sparrows.

This was a banner period for the unusual. A **Selasphorus** hummingbird was photographed in Chatham, a Western Kingbird was noted from Woods Hole on two separate days in January, the **Gray Jay** first found in December in Windsor remained through at least mid-January, and **Boreal Chickadees** were noted from five locations. A **Townsend's Solitaire** was found in Essex in February, undoubtedly the same individual that was discovered not far away on December 4. A **Varied Thrush** was noted from Belchertown and Bohemian Waxwings were noted from Truro and on Nantucket. Ten species of warblers were noted during the period as compared with just seven during the same period last year. A **Townsend's Warbler** photographed in Centerville takes top honors followed by a **Yellow-throated Warbler** that visited a Scituate feeder for two days in early February. Ovenbird and Northern Waterthrush have been very rare in winter, but this season produced two of each. These are robust *Seiurus* warblers and probably could survive a mild winter fairly easily. Still other noteworthy birds found this winter include Grasshopper Sparrow, Dickcissel, Baltimore Oriole, and **Yellow-headed Blackbird**.

Finches had a good year, but not as good as the fall flight would have suggested. The birds seemed to move in response to the modest food crop. Mark Lynch commented that looking for winter finches was the inland equivalent of pelagic birding; sometimes the birds are there in numbers, sometimes not. With a lot of territory and only a few birds, you have to move about in hopes of finding anything and be prepared to see nothing, just like a pelagic trip. *R. Stymeist*

Monk Parakeet				1/26	Ipswich	3	ECOC (P. Brown#)
thr	Somerset	2-6	J. Sweeney	2/thr	DWWS	3	D. Furbish
Barn Owl				thr	Reports of indiv. from 16 locations		
1/21	Nantucket	2	F. Gallo	Great Horned Owl			
Eastern Screech-Owl				1/26	Ipswich	2	ECOC (P. Brown#)
1/6	Marshfield	10	D. Peacock	2/23	Lexington	pr	M. Rines#

Great Horned Owl (continued)
2/24 Bolton Flats 3 M. Lynch#
2/thr DWWS 2 D. Furbish
thr Reports of indiv. from 15 locations
Snowy Owl
thr P.I. 1-4 v.o.
1/thr Chappaquiddick 2 V. Laux#
1/1, 2/10 Chatham (S.B.) 2, 2 P. Flood
1/1-23 Nahant 1 L. Pivacek + v.o.
1/2-16 New Bedford 1 J. DeMello
1/5 Gloucester (E.P.) 1 C. Nims
1/6 Duxbury 3 N. Smith
1/6 Lynn H. 1 D. Saffarewich
1/8 Ipswich (C.B.) 1 J. Berry#
1/18, 2/18 Boston (Logan) 12, 8 N. Smith
1/20 M.V. 1 imm J. Liller#
1/20 Salisbury B. 2 C. Buelow
1/26 P'town (R.P.) 1 R. Heil
1/29 Rockport 1 R. Heil
2/10 Edgartown 1 W. Smith
2/14-24 Plymouth 1 E. Neumuth
2/17 Nantucket 2 E. Ray
Barred Owl
1/4-31 Westminster 2 C. Caron
2/13 Westminster 2 C. Caron
thr Reports of indiv. from 17 locations
Long-eared Owl
1/1 Wayland 1 G. Long
thr DWWS 4-7 D. Furbish
Short-eared Owl
1/6 Duxbury 2 N. Smith
1/11 Newbypt. 1 P. Arrigo
1/17-2/9 Salisbury 3-4 v.o.
1/17-2/18 P.I. 1-2 v.o.
1/27 Northampton 1 T. Gagnon
2/thr DWWS 2 max D. Furbish
2/14-15 Plymouth 1 E. Neumuth
2/18 Boston (Logan) 5 N. Smith
2/24 Rowley 1 S. McGrath
Northern Saw-whet Owl
1/1 Douglas 3 M. Lynch#
1/5-2/28 Lexington 2 M. Rines
1/31 Ashfield 2 R. Packard
2/thr Chatham 2 R. Clem#
2/7 Sunderland 2 M. Williams
2/10 Marshfield 2 SSBC (D. Peacock#)
thr Reports of indiv. from 6 locations
Selasphorus species (details submitted) *
1/1-21 Chatham 1 ph S. Hertford + v. o.
Belted Kingfisher
1/6 Bourne 2 SSBC (K. Anderson)
1/8 Wachusett Res. 2 C. Buelow
1/11 Bolton Flats 3 T. Murray
1/19 Fairhaven 2 BBC (R. Stymeist)
2/3 Westport 2 G. d'Entremont
2/10 Newbypt. 2 S. Haydock
Red-headed Woodpecker
thr Melrose 1 D. + I. Jewell
1/1-26 Weymouth 1 S. Harrington + v.o.
Red-bellied Woodpecker
1/1 Wayland 3 G. Long
1/5 Weymouth 3 M. Hall
1/6 Boston 5 BBC (R. Stymeist)
Yellow-bellied Sapsucker
1/1 Windsor 1 S. Moore
1/1 W. Cummington 1 m S. Moore#
1/5 Newbypt. 1 T. Wetmore
1/6 Arlington 1 H. Hoffman
1/9 S. Middleboro 1 F. Sylvia
2/3 Gloucester 1 f ad D. Sandee#
2/17 Mt.A. 1 P. + F. Vale
2/19 Westfield 1 S. Kellogg
2/24 Westport 1 S. Moore#
Hairy Woodpecker
1/1 Wayland 3 G. Long
1/5 Groton 5 R. Stymeist
1/5 Royalston 4 P. + F. Vale
1/thr Maynard 3 L. Nachtrab
2/23 Boxford (C.P.) 3 P. + F. Vale
2/23 Falmouth 3 K. Ryan
2/thr Maynard 3 L. Nachtrab
Northern Flicker
1/6 Boston 6 BBC (R. Stymeist)
1/18 W. Gloucester 6 R. Heil
2/17 Mt.A. 8 P. + F. Vale
Pileated Woodpecker
1/5 Windsor 2 M. Lynch#
1/18, 2/15 Stoneham 2, 2 D. + I. Jewell
1/27 Royalston 2 S. Leonard
1/30 Sherborn 2 E. Taylor
Eastern Phoebe
1/10-20 W. Tisbury 1 S. Hickman
1/12, 23 Chilmark 1 A. Keith
1/14 Groton 1 M. Lane
2/21 E. Middleboro 1 A. Brissette#
Western Kingbird
1/10, 18 Woods Hole 1 G. Hirth
Northern Shrike
thr P.I. 1 ad v.o.
1/1-2/23 Windsor 2 v.o.
1/8 Sandwich 1 W. Lafley
1/12 Barnstable (S.N.) 1 M. Sylvia
2/19 Bolton Flats 2 T. Pirro
2/20 W. Townsend 1 T. Pirro
2/21 Sudbury 1 S. Perkins#
2/28 Amherst 1 I. Dukovski
Gray Jay
1/1-5 Windsor 1 v.o.
American Crow
1/13 Newton 3000 A. Joslin
1/thr Framingham 6000+ E. Taylor
2/19 Springfield 1000+ D. Norton
2/24 Newton 4000+ A. Joslin
2/thr Framingham 6000+ E. Taylor
Fish Crow
1/2 W. Roxbury 20+ G. Long
1/5 Weymouth 4 G. d'Entremont#
1/6 Boston 48 BBC (R. Stymeist)
1/12 Medford 2 R. LaFontaine
1/17 W Springfield 25 S. Kellogg
2/3 Southwick 1 S. Kellogg
2/15 Dedham 45 G. Long
2/16 Newton 21 G. Long
Common Raven
1/1 Cummington 1 S. Moore#
1/2 Becket 11 R. Laubach
1/3 Windsor 3 J. LaPointe#
1/5 Phillipston 1 F. Vale
1/5 Savoy SF 2 M. Lynch#
1/7 Erving 2 V Yurkunas
1/10 Belchertown 1 pr M. Faherty
2/3 Barre Falls 1 S. Hedman#
2/5 Sunderland 2 M. Williams
2/14 Mt. Tom 2 B. Bieda
2/20 Cambridge 1 K. Hartel
Horned Lark
1/6 Rochester 140 SSBC (K. Anderson)
1/10 P.I. 40 E.+. A. Slattery
1/12 Northampton 400 H. Allen
1/13 Salisbury 64 T. Raymond
1/20 Westport 60+ M. Lynch#
1/21 Cumb. Farms 200 K. Anderson#
2/2 Chatham (S.B.) 30+ C. Dalton
2/12 P'town (R.P.) 20 P. Flood
2/16 Bourne 16 P. + F. Vale
Boreal Chickadee
1/1-5 Windsor 1 v.o.
1/5 Savoy S.F. 1 M. Lynch#
1/23 Westford 1 B. Hoermann
1/29 Quabbin (G6) 2 B. Lafley
1/29 Belchertown 2 W. Lafley
Red-breasted Nuthatch
1/thr Ipswich 2 J. + N. Berry
1/1 Nantucket 2 G. d'Entremont#
1/1 Westminster 2 C. Caron
1/6 Salisbury 8 M. Lynch#

Red-breasted Nuthatch (continued)

1/26	Mt.A.	2	R. Stymeist
1/28	Windsor	4	H. Allen
2/5	Worcester	2	M. Lynch#
2/17	Boston	3	G. d'Entremont

Brown Creeper

thr	Medford	6	R. LaFontaine
1/1	Westminster	2	C. Caron
1/10	Woods Hole	2	G. Hirth
1/17	Maynard	2	L. Nachtrab
1/27	Northbridge	2	M. Lynch#
2/6	Dennisport	2	D. Silverstein
2/23	Boxford (C.P.)	6	P. + F. Vale
2/26	Northampton	5	H. Allen

Carolina Wren

1/thr	Sherborn	8	E. Taylor
1/1	Nantucket	6	G. d'Entremont#
1/6	Boston	9	BBC (R. Stymeist)
1/12	W. Newbury	3	R. Heil
1/12	Medford	4	R. LaFontaine
1/19	Fairhaven	34	BBC (R. Stymeist)
1/20	Westport	11	M. Lynch#
2/3	Shrewsbury	2	R. Stymeist
2/24	Westport	18	G. d'Entremont#

Winter Wren

1/3	Salem	2	R. Heil
2/3	Fairhaven	2	G. d'Entremont
2/19	Medford	2	M. Rines#

Marsh Wren

1/4, 2/24	Cumb. Farms	1	M. Faherty
1/4	W. Bridgewater	1	R. Titus
1/26	Cotuit	1	R. Heil
1/29, 2/25	Harwich	1, 1	B. Nikula

Golden-crowned Kinglet

1/5	Groton	22	R. Stymeist
1/6	Wachusett Res.	6	R. Lockwood
1/13	Wayland	7	G. Long
1/14	Sunderland	7	M. Williams
1/18	Pepperell	6	E. Stromsted
2/8	S. Quabbin	13	S. Sutton#
2/23	Boxford (C.P.)	10	P. + F. Vale
2/23	Windsor	20	K. + M. Conway

Ruby-crowned Kinglet

1/1	Nantucket	1	G. d'Entremont#
1/3	Boston	1	G. Tepke
1/4, 2/3	Nahant	1	L. Pivacek
1/6	Falmouth	1	D. Peacock
1/8	Taunton	1	J. Sweeney
1/12	Rochester	1	K. Anderson
1/12	Lakeville	1	K. Anderson
1/12	S. Middleboro	1	K. Anderson
1/19	Fairhaven	1	BBC (R. Stymeist)
1/24	Watertown	1	O. Spalding

Eastern Bluebird

1/2	DWWS	12	D. Furbish
1/3	Falmouth	25	C. Buelow
1/5	Groton	18	R. Stymeist
1/5	GMNWR	30	B. Volkle#
1/14	Cumb. Farms	12	K. Anderson
1/14	Berkley	12	J. Sweeney#
1/19	Ipswich	12	D. + I. Jewell
1/20	Truro	15	S. Hedman#

Townsend's Solitaire (details submitted) *

2/2-10	Essex	1 ph	J. Behnke + v.o.

Hermit Thrush

1/1	Medford	4	M. Rines#
1/1	Nantucket	2	G. d'Entremont#
1/4	W. Bridgewater	2	R. Titus
1/6	Hingham	2	D. Peacock
1/19	Fairhaven	7	BBC (R. Stymeist)
2/7	Essex	2	J. Berry#
2/19	Marblehead	2	K. Haley

American Robin

1/1	Nantucket	200	G. d'Entremont#
1/6	N. Truro	200	B. Nikula
1/12	W. Newbury	230	R. Heil
1/15	Maynard	200+	L. Nachtrab
1/18	W. Gloucester	510	R. Heil
1/19	Peabody	200+	D. + I. Jewell
1/26	Mt.A.	250+	R. Stymeist#
1/28	Pepperell	200	E. Stromsted
2/3	Williamsburg	322	R. Packard
2/3	Wachusett Res.	775	M. Lynch#
2/5	Worcester	750+	M. Lynch#
2/11	Bolton	200+	S. Sutton#
2/17	Templeton	200	T. Pirro
2/18	Templeton	200	T. Pirro
2/20	Athol	200	R. Coyle
2/20	Ipswich	200	J. Berry
2/26	Methuen	4500+	J. Hogan

Varied Thrush

2/19	Belchertown	1	T. O'Neil

Gray Catbird

1/1	Nantucket	5	G. d'Entremont#
1/1	Medford	2	M. Rines#
1/19	Fairhaven	9	BBC (R. Stymeist)
2/16	Gay Head	2	J. Young
2/20	Chatham	2	P. Donahue#
2/24	Westport	2	S. Moore#
2/24	Dartmouth	3	G. d'Entremont#
2/24	MNWS	1	K. Haley
2/24	Amherst	1	H. Allen

Brown Thrasher

thr	Wayland	1	G. Long
1/1	Osterville	1	P. Trimble#
2/5	WBWS	1	D. Silverstein#
2/25	Marblehead	1	K. Haley

European Starling

2/27	Methuen	10000+	J. Hogan

American Pipit

1/4	Cumb. Farms	35	M. Faherty
1/12-14	Marblehead Neck	1	K. Haley
1/13	Salisbury	1	T. Raymond
2/11	P.I.	1	P. Brown

Bohemian Waxwing

1/3	Nantucket	2	J. Papale
1/18-20	Truro	1	St. Miller

Cedar Waxwing

1/10	Royalston	45	J. Paluzzi
1/12	Newbypt.	275+	R. Heil
1/15	Maynard	56	L. Nachtrab
1/26	Westboro	30	S. Sutton#
1/29	Huntington	55	R. Packard
2/5	Southampton	50	H. Allen
2/10	N. Scituate	40	BBC (G. d'Entremont)
2/17	Worcester	300+	M. Lynch#
2/17	Orange	40	T. Pirro
2/27	Ipswich	30	J. Berry#

Orange-crowned Warbler

1/6, 27	Lynnfield	1	P. + F. Vale

Yellow-rumped Warbler

1/5	Sunderland	1	M. Williams
1/18	W. Gloucester	17	R. Heil
1/19	Fairhaven	18	BBC (R. Stymeist)
1/20	Westport	11	M. Lynch#
1/27	Nauset B.	100+	S. Finnegan#
2/6	Essex	20	R. Heil
2/10	N. Marshfield	3	BBC (G. d'Entremont)
2/16	Bourne	12	P. + F. Vale

Townsend's Warbler (details submitted) *

1/1-2/3	Centerville	1 ph.	S. Johnson + v.o.

Yellow-throated Warbler

2/5-6	Scituate	1	E. Burbank + v.o.

Pine Warbler

1/1	Nantucket	1	E. Andrews
1/5	Wellfleet	2	G. Ferguson
1/5	Groton	1	R. Stymeist
1/6	Hingham	1	D. Peacock
1/14	Berkley	1	J. Sweeney#
2/6	Dennisport	1	D. Silverstein

Palm Warbler

1/6	W. Sutton	1	A. + L. Richardson
1/11	Nantucket	1	J. Palale
1/20	Acoaxet	1	M. Lynch#
1/26	Rockport	1	M. Lynch#

Ovenbird			
1/16	Sagamore	1	R. Buckner
2/3	Chatham	1	J. Kenneally
Northern Waterthrush			
1/27	Bourne	1	St. Miller
2/10	N. Marshfield	1	BBC (G. d'Entremont)
Common Yellowthroat			
1/24	Cambridge	1	D. Cowell
2/28	DWWS	1	D. Furbish
Yellow-breasted Chat			
1/3	Gay Head	1	T. Day
1/7-13	Hamilton	1	P. Moroney
1/19	Brighton	1	R. Salvucci
1/20	W. Falmouth	1	R. Vanderpyl#
1/21	Nantucket	1	F. Gallo
1/23	Marblehead	1	F. Mayo
2/23	Falmouth	1	K. Ryan
2/23-24	Orleans	1	C. Ekroth#
Eastern Towhee			
thr	Westboro	1 m	S. Sutton#
1/6	S. Dartmouth	3	D. Zimberlin
1/6	Falmouth	3	D. Peacock
1/10	Woods Hole	5	G. Hirth
1/12	Mattapoisett	2	F. Smith
1/19	Fairhaven	8	BBC (R. Stymeist)
1/21	Rockport (H.P.)	1	J. Barber
1/21	Wendell	1	W. Lafley
1/27	W. Boxford	1	J. Berry#
2/9, 25	Marblehead	1	K. Haley
American Tree Sparrow			
1/4	Cumb. Farms	75	M. Faherty
1/6	Marshfield	190+	D. Peacock
1/13	Bridgewater	75+	J. Sweeney
2/25	W. Bridgewater	200	R. Finch
2/27	Bolton Flats	130	S. Sutton#
Chipping Sparrow			
1/3	Westford	1	L. Clark
1/8	W. Tisbury	4	A. Keith
2/3	Bridgewater	1	J. Sweeney#
2/17	Edgartown	2+	J. Young
2/22	Dennisport	1	D. Silverstein
Clay-colored Sparrow			
1/4	Cumb. Farms	1	M. Faherty
2/25	W. Bridgewater	1	R. Finch
Field Sparrow			
thr	Southwick	1	S. Kellogg
1/3	Salem	7	R. Heil
1/3	Falmouth	18	C. Buelow
1/11	Bolton Flats	4	T. Murray
1/23	Northampton	3	E. Labato
1/26	Cotuit	3	R. Heil
2/20	Woburn	4	R. LaFontaine
2/thr	Chilmark	2	W. Keith
Vesper Sparrow			
2/20	Cumb. Farms	1	R. Titus
Savannah Sparrow			
1/1	Nantucket	2	G. d'Entremont#
1/1, 2/10	Chatham (S.B.)	5, 8	P. Flood
1/3	Falmouth	7	C. Buelow
1/4	W. Bridgewater	28	R. Titus
1/4	Cumb. Farms	16	M. Faherty
1/6	Rochester	2	SSBC (K. Anderson)
1/19	Fairhaven	4	BBC (R. Stymeist)
2/20	Cumb. Farms	14	R. Titus
2/23	Marshfield	1	G. d'Entremont
2/28	Concord (NAC)	3	S. Perkins
"Ipswich Sparrow"			
1/1, 2/23	Chatham (S.B.)	2	P. Flood
1/12	Salisbury	2	R. Heil
Grasshopper Sparrow			
2/25	W. Bridgewater	2	M. Maurer
Saltmarsh Sharp-tailed Sparrow			
1/1	Eastham (F.H.)	6	P. Trimble#
Fox Sparrow			
1/3-23	Gay Head	4	T. Day#
1/21	E. Middleboro	2	K. Anderson
1/26	Mt.A.	2	R. Stymeist
2/28	Carlisle	2	J. Keskulla
thr	Reports of indiv. from 18 locations		
Swamp Sparrow			
1/4	Cumb. Farms	12	M. Faherty
1/4	W. Bridgewater	15	R. Titus
1/6	Marshfield	70+	D. Peacock
1/16	Northampton	4	R. Packard
2/3	Fairhaven	4	G. d'Entremont
2/16	Westboro WMA	6	M. Lynch#
White-crowned Sparrow			
1/1-21	Nantucket	1 imm	E. Andrews
1/4	W. Bridgewater	2	M. Faherty
1/10	Woods Hole	1	G. Hirth
1/15	Chilmark	3	T. Rivers
2/12	Lexington	1	M. Rines
2/20	Cumb. Farms	4	R. Titus
2/24	Westport	2 imm	G. d'Entremont#
Lapland Longspur			
1/6	P.I.	1	M. Lynch#
1/6	Bourne	1	SSBC (K. Anderson)
1/8-21	Northampton	2-5	B. Bieda
1/13	Salisbury	2	T. Raymond
2/18	P.I.	16	R. Packard
Snow Bunting			
1/1	Nantucket	20	G. d'Entremont#
1/1, 2/23	Chatham (S.B.)	26, 42	P. Flood
1/4	Salisbury	22	J. Berry#
1/8	Ipswich (C.B.)	45	J. Berry#
1/11	W. Dennis B.	28	D. Silverstein#
1/12	Northampton	2	H. Allen
1/26	Marblehead	17	K. Haley
1/27	Nauset B.	50+	S. Finnegan#
1/27	P.I.	41	R. Heil
2/9	Worthington	90	R. Packard
Dickcissel			
1/18-27	Ipswich	1 m	J. Berry + v.o.
2/3-9	Essex	1 imm f	T. Young#
Red-winged Blackbird			
1/4	W. Bridgewater	900	M. Faherty
1/6	Cumb. Farms	750	M. Faherty
1/6	Marshfield	165	D. Peacock
1/12	Lakeville	200	K. Anderson
1/22	Westport	2000	O. Spalding
2/4	Southwick	15	S. Kellogg
2/17	Williamsburg	3	R. Packard
2/24	Sheffield	1000	K. + M. Conway
2/26	Northampton	1000	H. Allen
2/27	Bolton Flats	2300	S. Sutton
Eastern Meadowlark			
1/2	DWWS	12	D. Furbish
1/12	Gloucester	2	BBC (J. Berry)
1/19	Fairhaven	42	BBC (R. Stymeist)
1/21	Rochester	8	W. Petersen
1/27	Chatham	4	B. Nikula
1/27	Barnstable	6	D. Manchester#
2/10	Chatham (S.B.)	5	P. Flood
2/16	Katama	55	J. Young
Yellow-headed Blackbird			
1/20	Westport	1 ad m	M. Lynch#
Rusty Blackbird			
1/3	Salem	13	R. Heil
1/6	Marshfield	35	D. Peacock
1/9	Norton	167	J. Sweeney
1/11	Bolton Flats	27	T. Murray
1/13	Wakefield	38	P. + F. Vale
1/27	Northfield	60	V Yurkunas
1/28	Ipswich	47	J. Berry#
1/30	Taunton	69	J. Sweeney
2/thr	DWWS	2	D. Furbish
Common Grackle			
1/6	Marshfield	2	D. Peacock
1/16	Southwick	1	S. Kellogg
1/17	Wenham	75+	J. MacDougall#
2/4	Northboro	8	B. Volkle
2/17	W. Harwich	5	B. Nikula
2/23	Westport	1500	E. Neilsen
2/24	W. Bridgewater	300	M. Faherty
2/24	Bolton Flats	2100	M. Lynch#
2/27	Methuen	8000+	J. Hogan

Brown-headed Cowbird			
1/4	W. Bridgewater	60	M. Faherty
1/10	Southwick	30	S. Kellogg
1/20	Westport	83	M. Lynch#
2/10	Concord	20	M. Rines
2/10	Fairhaven	150	W. Petersen
2/13	S. Hadley	40	H. Allen
2/24	W. Bridgewater	10	M. Faherty
Baltimore Oriole			
1/26	Belmont	1	B. Zinn
Pine Grosbeak			
1/1	Windsor	35	S. Moore
1/3	Plainfield	18	W. Lafley
1/5	Royalston	40	P. + F. Vale
1/5	Charlemont	8	C. Buelow
1/5	Peru	30	R. Lockwood#
1/5	HRWMA	16	R. Lewis
1/27	Middlefield	1	R. Packard
1/27	Chesterfield	10	R. Packard
2/3	Washington	5	E. Neumuth
2/6	Becket	18	R. Laubach
2/22	Royalston	30	J. Berry#
Purple Finch			
1/1	E. Middleboro	1	K. Anderson
1/5	Royalston	1	P. + F. Vale
1/6	Hingham	3	D. Peacock
1/14	Taunton	4	J. Sweeney#
1/19	Hamilton	4	D. + I. Jewell
1/23	Becket	8	T. Fiore#
1/26	Mattapoisett	1	F. Smith
2/3	Blandford	1	K. + M. Conway
2/6	DWWS	3	D. Furbish
2/10	Essex	2	M. Lynch#
2/19	S. Quabbin	6	H. Allen
2/20	Woburn	1	R. LaFontaine
Red Crossbill			
1/2	Salisbury	20	B. Lawless
1/25	W. Tisbury	13	S. Anderson
2/10	Salisbury	7	M. Lynch#
White-winged Crossbill			
1/1, 2/16	Nantucket	15, 8	F. Gallo
1/3	Newbypt.	3	T. Wetmore
1/6	Milton	30	J. Hatch
1/15	Windsor	5	W. Lafley
1/19	Salisbury	10	J. Berry#
2/1	Dover	1	R. Hunnewell
2/10	Westwood	30	M. Harvey
2/16	E. Harwich	25+	K. Goggins
2/21	E. Middleboro	12	P. Donahue#
Common Redpoll			
1/1	Woburn	43	M. Rines#
1/5	Groton	87	R. Stymeist
1/27, 2/25	P.I.	35, 5	R. Heil
2/3	Windsor	50	A. + L. Richardson
2/3	Malden	28	D. + I. Jewell
2/10	Quincy	80+	A. Joslin
2/10	N. Scituate	50	BBC (G. d'Entremont)
2/17	Northfield	100	T. Pirro
2/17	Upton	30+	N. Paulson
2/19	DWWS	28	D. Silverstein#
2/25	Norfolk	2	B. + B. Lawless
2/25	Waltham	8	J. Michaels
Pine Siskin			
1/1	Windsor	35	S. Moore#
1/6-7	Blandford	45	K. + M. Conway
1/11	Royalston	80	J. Morris-Segal
1/13	New Salem	75	W. Lafley
1/14	Northfield	10	M. Taylor
1/23	Becket	20+	T. Fiore#
1/29	Ashburnham	14	C. Caron
2/thr	Washington	40	E. Neumuth
2/thr	E. Middleboro	15-20	K. Anderson
2/1-5	Easton	5	K. Ryan
2/8	Hingham	5	C. Nims
Evening Grosbeak			
1/5	Windsor	124	R. Packard
1/11	Royalston	30	J. Morris-Siegel
1/14	Northfield	40	M. Taylor
1/24	Blandford	40	K. + M. Conway
1/24	Marlboro	2	B. Volkle
2/1-23	Washington	55	E. Neumuth
2/16	Royalston	47	M. Taylor
2/17	Templeton	5	T. Pirro

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 <marj@mrines.com>.

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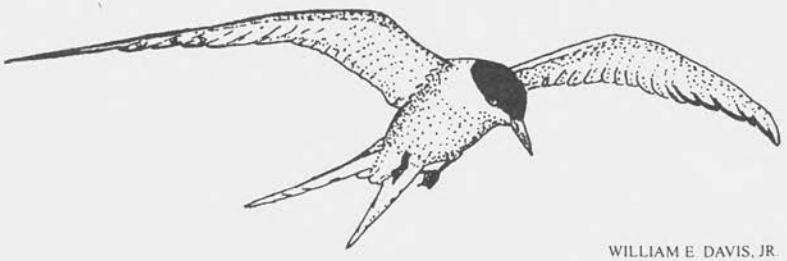
Bird Observer prints compilations of birds reported in Massachusetts and offshore waters. Our compilers select and summarize for publication reports that provide a snapshot of bird life during the reporting period.

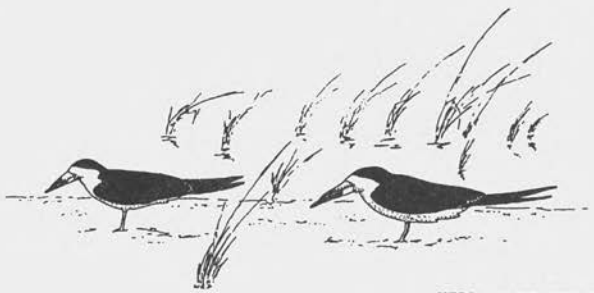
Sightings for any given month must be reported in writing by the eighth of the following month, and may be submitted by postal mail or e-mail. Send written reports to Bird Sightings, Robert H. Stymeist, 94 Grove Street, Watertown, MA 02172. Include name and phone number of observer, common name of species, 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/sightings/>.



WILLIAM E. DAVIS, JR.

LIST OF ABBREVIATIONS

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



WILLIAM E. DAVIS, JR.

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Bird Observer is created entirely by volunteers: people who want to give something back to the birding community. We have several opportunities available for you to join us. If you have extra time available, however limited, and would enjoy the chance to meet a new group of people, there may well be a position for you.

Managing Editor. Are you good at managing details, deadlines, and follow-up? You could be just the person we are looking for. Our editorial staff is responsible for bringing in and editing articles, but the Managing Editor pulls the pieces together and makes them into an issue of *Bird Observer*. It is definitely time consuming and requires excellent organizational skills. Preference will be given to someone with editorial experience, but it is not a necessity.

Mailing Manager. If you want to get involved but have limited time, this could be the job for you. The Mailing Manager works with the Production Editor, Circulation Manager, printer, and post office to see that each issue gets in the mail. Total time is roughly six hours every other month, and involves lifting heavy boxes of the printed journal. The printer, post office, and potential volunteers to help with the mailing are located in the Cambridge/Belmont area, so proximity is a plus.

Promotion Manager. We would like to see *Bird Observer* receive more attention from potential subscribers, sponsors, and advertisers. This is a new position, and we are looking for someone with imagination and creativity. Experience in promotion or advertising would be useful.

If you want to find out more, call or e-mail Marj Rines at 781-643-6128, marj@mrines.com.

MARJORIE RINES

Bald Eagle on the Charles River in Cambridge, MA, on January 17, 2002

ABOUT THE COVER

Blue-headed Vireo

The Blue-headed Vireo (*Vireo solitarius*) is a harbinger of spring, the first vireo to arrive on the northward migration. It is easily separated from the other eastern vireos by its blue-gray head with prominent white eye ring and lores — "spectacles" — white throat and underparts, and greenish upperparts and white wing bars. Its flanks are washed with yellow. The Blue-headed Vireo is the eastern species of the recently split Solitary Vireo complex that includes the western Plumbeous Vireo (*V. plumbeous*) and Cassin's Vireo (*V. cassinii*). The three had previously been considered subspecies of the Solitary Vireo, but recent molecular genetic studies indicated that they were better considered separate species, an opinion followed by the official AOU Checklist in 1997. The Cassin's Vireo lacks the contrast between the blue head and white throat and the Plumbeous Vireo is a drab bird lacking the greenish yellow color. All three species are closely related to the Yellow-throated Vireo. The Blue-headed Vireo has two recognized subspecies, *V. s. solitarius* over most of its range, and *V. s. alticola* from Maryland to Georgia.

The Blue-headed Vireo's breeding range extends across Canada from eastern British Columbia to southern Newfoundland and in the U.S. from the Great Lakes region east through New England. In the Appalachians its range extends south to Georgia. In Massachusetts it is considered a fairly common breeding species from Worcester County west, but rare to the east. Blue-headed Vireos winter from southeastern Virginia through Florida, west to Texas and south to Central America. In spring they reach Massachusetts in mid-April, and they are the last vireo to leave in the fall, with some remaining until mid-October.

Blue-headed Vireos are monogamous and produce a single brood per season. They prefer extensive tracts of coniferous or mixed coniferous/deciduous forest. They generally nest in remote areas and pairs are widely spaced, producing low densities of birds. Their song, which is similar to that of the Red-eyed Vireo, with whistled phrases and pauses between them, has been variously described as *teeyay, tayah, taweeto,* or *toowip*. The males song serves as territorial advertisement and mate attraction, and may play a role in maintaining pair bonds. The Blue-headed Vireo's song is mostly pure tone, while the Cassin's and Plumbeous have a buzzy quality. Blue-headed Vireos have been known to mimic other birds' songs, including White-eyed and Yellow-throated vireos and Yellow-bellied Flycatcher. They defend their nesting territory, chasing intruders, feathers ruffled, uttering scolding notes. They may be somewhat territorial in winter, although they sometimes join mixed species foraging flocks. The courtship is rapid. The male fluffs the yellow feathers of his flanks and bows, bobs, and sings to his prospective mate.

Before pairing, the male chooses a nest site and begins depositing nest material. The nest is usually 6-15 feet high in the top center of a sapling or shrub of either conifer or deciduous tree. Both birds contribute to the nest building. The nest is a

hanging cup suspended by its rim from a branch fork, and is composed of spider webs, lichens, bark and other plant fiber, and lined with dry grass. The clutch is usually four brown-blotched cream-colored eggs. The female has an incubation patch and the male a partial one. Both birds incubate for about two weeks until hatching, and both brood and feed the young for approximately two weeks until fledging. Blue-headed Vireos vigorously defend their nest and will attack jays or crows.

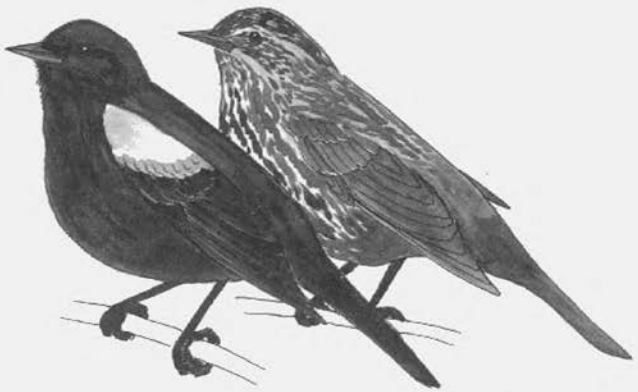
Blue-headed Vireos are versatile foragers, taking mostly medium- to large-sized insects. They forage primarily in the interior parts of trees, gleaning insects mostly from branches, less from leaves, and sometimes taking up to half their prey by "snatching" (sallying) insects from branches in flight. In winter fruit may constitute up to half their diet.

Blue-headed Vireos have been increasing in numbers during the past few decades as reforestation has occurred. They are, however, sensitive to forest fragmentation and human intrusion at the nest-building stage. Cowbirds frequently parasitize them, although if cowbirds lay eggs in their nest before they do, the vireos will build a new nest floor over the cowbird eggs. Their preference for large tracts of undisturbed forest may pose problems in the future as new rounds of deforestation occur, but for the moment they seem secure.

William E. Davis, Jr.

About the Cover Artist

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. His illustrations are part of an upcoming bird-finding guide to western Massachusetts. 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. To be notified when the guide becomes available, please send an e-mail to books@umext.umass.edu.



GEORGE C. WEST

AT A GLANCE

April 2002

ROGER S. EVERETT

Last month's mystery bird proved to be a sea duck, specifically a Surf Scoter. It may be remembered that among the distinguishing features of many sea ducks are relatively thick necks, chunky bodies, oftentimes broad-based bills, and in some species (e.g., scoters, Harlequin Duck, Long-tailed Duck), prominent facial markings. With this in mind, it should be fairly obvious that April's mystery species, while clearly another duck, is not another sea duck. Furthermore, the slim proportions and well-patterned feathers on the sides and flanks indicate that the bird is a puddle duck, rather than a diving duck such as a scaup, Ring-necked Duck, Redhead, or Canvasback.

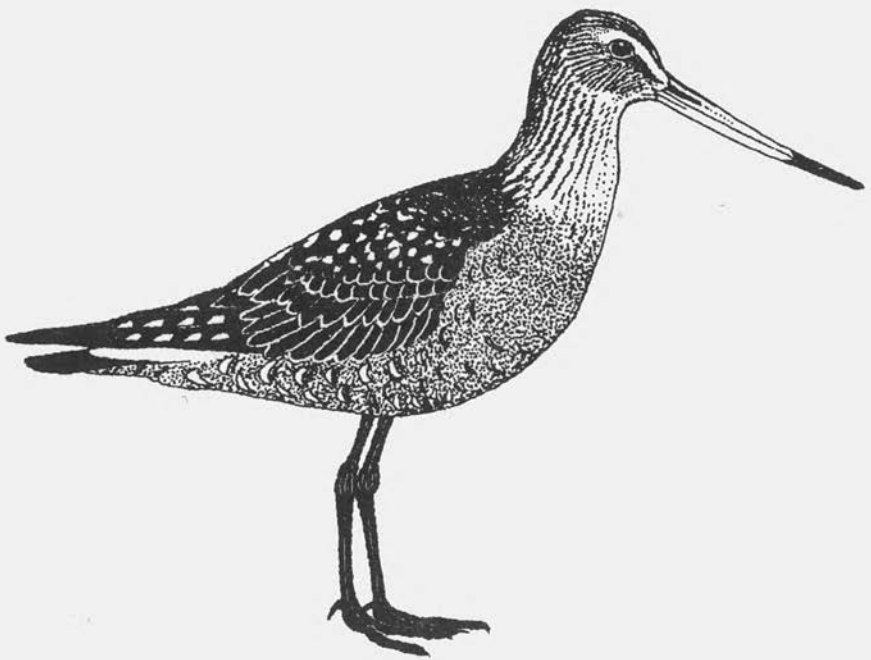
Armed with the knowledge that the bird is a freshwater puddle duck (e.g., Mallard), and the fact that it is not a drake in breeding plumage, it becomes necessary to look carefully at the overall shape, head pattern, and tail area to unravel the duck's identity. Concentrating first on the head, the bird shows a pronounced dark line through the eye, an obvious pale patch at the base of the bill, and a fairly large and somewhat broad bill. Despite the fact that the bird has its neck fully extended, the neck is not noticeably long in proportion to the body the way it would appear in a female Northern Pintail, which would also show an elongated and more pointed tail. A female Gadwall would display a decidedly angular head shape and would not have the distinct dark eye line and pale patch at the base of the bill shown by the mystery duck. A female Mallard would have distinct white outer tail feathers, while an

American Black Duck would appear heavier-bodied and darker overall, and would show a less contrasting face pattern.

Although there are several other puddle duck species regularly found in Massachusetts, only the females of the Blue-winged Teal and Green-winged Teal remain as good candidates. At this point identification becomes straightforward because the photograph clearly represents the salient points of distinction. Most important is the large and fairly broad, spreading-tipped bill, obvious eye line, and conspicuous pale patch at the base of the bill. When these are backed up by the absence of a pale streak near the under-tail coverts, the identification leaves only the Blue-winged Teal (*Anas discors*) as a candidate. Green-winged Teals are narrow-billed and dark-faced, and characteristically display a pale streak near their under tail coverts.

Blue-winged Teals are uncommon breeders in Massachusetts, but are regular spring and fall migrants in both fresh and salt marshes throughout the state. Roger S. Everett photographed the Blue-winged Teal in the picture on Cape Cod.

Wayne R. Petersen



GEORGE C. WEST

AT A GLANCE

DAVID LARSON

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

WHERE ARE THE WHIP-POOR-WILLS?

VOLUNTEERS NEEDED FOR A STATE-WIDE SURVEY!

Help us find the state's decreasing population of breeding Whip-poor-wills. Whip-poor-wills (*Caprimulgus vociferus*) are believed to have declined severely in the past 50 years. The purpose of the survey is to collect information on the abundance and distribution of breeding Whip-poor-wills in Massachusetts. These data will be used to track population trends and to identify areas where Whip-poor-wills may still be relatively abundant, in order to guide land protection efforts, habitat management, and future research.

Survey dates: Three surveys between May 25-June 20
Survey locations: Anywhere you pick them! Surveys are 4.5-mile car routes.
Survey time: Just after sunset for 90 minutes

For more information, survey instructions, and data forms, please go to: <http://www.massaudubon.org/iba> or contact:

Wayne Petersen
1-781-259-9506 x 7412
wpetersen@massaudubon.org

or

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This survey is a joint effort of Massachusetts Audubon Society, Massachusetts Division of Fisheries and Wildlife, and Manomet Center for Conservation Sciences.

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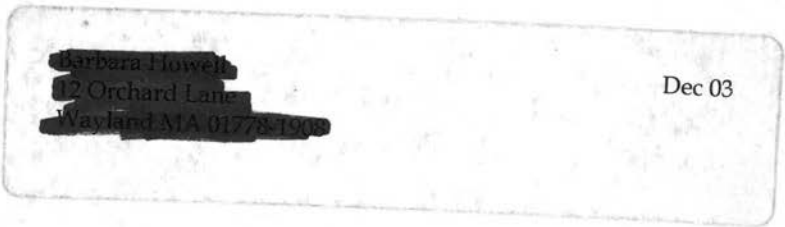

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