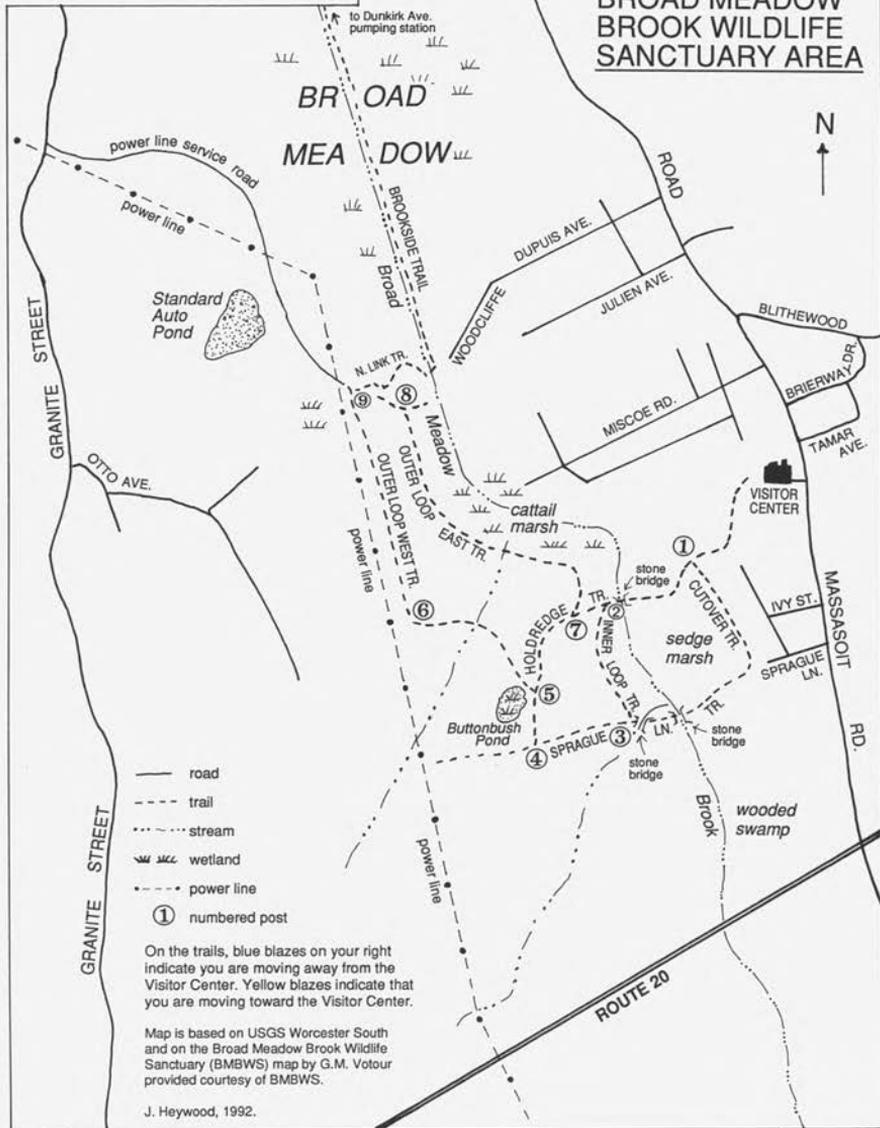


BROAD MEADOW BROOK WILDLIFE SANCTUARY AREA



BIRDING AT BROAD MEADOW BROOK WILDLIFE SANCTUARY

by Christopher Phillips and Mark Lynch

Broad Meadow Brook Wildlife Sanctuary, formed in 1990, is a 277-acre urban wildlife sanctuary operated by the Massachusetts Audubon Society in the southeastern part of the city of Worcester, near the Millbury line. It is the largest urban wildlife sanctuary in New England and is laid out with a north-south orientation around the central spine of Broad Meadow Brook, which runs south through the sanctuary. Broad Meadow's miniature watershed is nestled in a horseshoe of small hills between the Blackstone River and Lake Quinsigamond watersheds. Three large marshes and ten wooded swamps of varying size are found within the sanctuary, and there is an open pond on the nearby property of Standard Auto.

The eastern side of the sanctuary is characteristically wet, while the western half is rocky and well-drained. A power line runs north and south parallel to the brook on the west. Frequent fires keep areas along the power line in the condition of a meadow. The woods are otherwise dominated by second-growth oak forest and associated species. The Broad Meadow at the northern end of the brook has been continuously open. Ancient peat deposits indicate an open wetland history extending as far back as the last glaciation. Draining and channelling of the north brook have reduced the floodplain and encouraged the growth of phragmites.

A Walk Through the Sanctuary

All walks through the sanctuary begin with the trail that starts behind the Visitor Center. As the trail descends, you first pass through what was once a horse pasture. Plants here include poison ivy, black cherry, and aspen. Farther down the hill, one encounters older growth, with ashes, oaks, hornbeam, jack-in-the-pulpit, and nodding trillium.

When you reach the boardwalk, you will see to your left an open area called the Cutover Trail. This area is often worth a look during migration when a variety of warblers, thrushes, and vireos can be found working the edges of the trail. Woodpeckers and flycatchers also find the many dead snags along the Cutover Trail attractive. As you continue, you will pass close by several houses, some of which have feeders, but PLEASE be discreet (yes, it is okay to be here). Just before the Cutover Trail intersects with the Sprague Lane Trail, there is an area of fruiting trees with grapevines, a hot spot for fall migrants.

Taking a right onto the Sprague Lane Trail, one finds a pleasant, shaded, and grassy path. The plant life here is a real mix, including honeysuckle, a few remnants of an apple orchard, and red maples. Wood Thrush and Rose-breasted Grosbeak are often seen here.

As the trail crosses the brook on a small stone bridge and climbs a gentle slope, it passes through red maples, many ferns, oaks, a grove of sassafras, and a few birches. This area is very good for migrant thrushes in the spring. When the Sprague Lane Trail connects with the Holdredge Trail, you are in an area of mature oaks, and the woods thin out with consequent thicker undergrowth. Here you can find Northern Orioles, Great Crested Flycatchers, Scarlet Tanagers, and Rufous-sided Towhees.

Heading right on the Holdredge Trail, you will soon see the small Buttonbush Pond on your left. Plants in this area include highbush blueberry, maleberry, sweet pepperbush, and lots of wintergreen. Because the pond is fed by groundwater and water levels fluctuate dramatically, it is a pond in May and a swamp by August. Migrants are often in the vicinity of this pond.

Just past the pond on your left, you will find the Outer Loop West Trail. This trail takes you through a wet wooded area that has had some good waves of migrants. As you get near the power lines, look for a trail on the right. This is simply the continuation of the Outer Loop West Trail. Here the oaks are smaller and stunted in appearance. Watch for Rufous-sided Towhee, Prairie Warbler, and in the fall, White-throated Sparrow. Eventually you will cross the Outer Loop East Trail and continue on the North Link Trail.

The North Link Trail winds down a hillside to the brook. Ferns are common here including Christmas and maidenhair. Be particularly careful not to trample the maidenhair ferns because this is the only place they occur in the sanctuary. The trail crosses the brook over a culvert and swings left onto an asphalt walk where it becomes the Brookside Trail and continues through an area of significant disturbance. In the late summer and fall, watch closely for the tick-trefoil along this trail, or you will leave the sanctuary with pants covered with their tenacious seeds. Eventually the trail passes into the Broad Meadow with a small marsh on your right and a wet meadow on your left. Two stands of phragmites on your right are separated by a small woodlot. This entire area is good for migrant warblers and sparrows and should be worked thoroughly. The trail ends at the Dunkirk Avenue pumping station.

To return to the Visitor Center without completely doubling back, retrace your steps along the Brookside and North Link trails, and take the Outer Loop East Trail back. This trail is wetter than the Outer Loop West Trail and passes close by a small cattail marsh. Plants along this trail include witch hazel, alders, and cinnamon and interrupted ferns. Birding may be slow along this trail, but watch for Eastern Wood-Pewee and Black-and-white Warbler. The Outer Loop East Trail ends at the Holdredge Trail, and you turn left at the Holdredge Trail, which takes you back to the Visitor Center.

Birds at Broad Meadow Brook Wildlife Sanctuary

Broad Meadow Brook Wildlife Sanctuary has been utilized as a birding area for many years, particularly by members of the Forbush Bird Club. Local birders have watched the woodcock displays in the spring and checked the roosting blackbird flocks in both spring and fall. In July 1989 more systematic surveys of the sanctuary were begun, particularly during the migration seasons. Between July 6, 1989, and October 12, 1990, Mark Lynch conducted seventeen surveys of the birdlife of the sanctuary, the results of which have been computerized. A total of 129 species was noted during these surveys.

In 1991 much more intensive ecological monitoring of the birds in the sanctuary was done. A dedicated volunteer force of more than twenty-five birders completed 275 surveys of the sanctuary during both spring and fall migrations, increasing our knowledge dramatically of how migrants utilize this urban oasis, and pushing the total number of species seen at the sanctuary up to 147. All of these results are still in the process of being computerized. This ecological monitoring during the migration periods will continue as an ongoing project of the sanctuary.

In June 1991 the first yearly breeding bird survey took place, the results of which are discussed below. In 1990 and 1991 Broad Meadow Brook was thoroughly covered for the Worcester County Christmas Count, and these counts revealed a few surprises, also discussed below.

Spring. Spring slowly begins at the sanctuary at the end of February with the arrival of the first migrant blackbirds, mostly Redwings and Grackles, but with regular sightings of Rusty Blackbirds as well. These birds are best seen in the Broad Meadow in the vicinity of the phragmites as they come to roost from late afternoon until dusk, especially in March and April. The birder will also see enormous flocks of starlings roosting in the same area. Interestingly, this urban bird is less often seen in the sanctuary during the breeding period.

Besides migrant blackbirds, the month of March brings the few woodcocks that display on the sanctuary. As many as five woodcocks have been noted in the spring, seen most often near the Standard Auto Pond and the Broad Meadow. To date, we have not been able to confirm that these woodcocks breed on the sanctuary.

Broad Meadow Brook is not known for its waterfowl, but during March, Wood Ducks are regular, along with the more common Mallards and American Black Ducks around the wet areas. The Wood Ducks linger and seem to be attempting to breed. Green-winged Teal and American Wigeon have also been spotted in March at the Standard Auto Pond, but are not to be expected. Killdeer, which breed close by, are often seen or heard flying over beginning in March and continuing throughout the breeding season.

Hawk migration is not as good in the spring as in the fall, but some interesting species appear to be regular. Beginning in mid-March single

migrating Turkey Vultures may be seen while birding along the power line and in the Broad Meadow. Other regular raptors seen in small numbers in the spring include Sharp-shinned Hawk, Northern Harrier, Broad-winged Hawk, and American Kestrel. The resident pair of Red-tailed Hawks can be expected to put in an appearance.

Landbirds, other than migrant blackbirds and the typical permanent residents, are thin in March. There are still flocks of American Tree Sparrows feeding in the northern, more open areas of the sanctuary. Winter Wren has been spotted at this time along the stone walls of the Sprague Lane Trail. Finally, by the end of March, the first Eastern Phoebes appear.

April brings many changes to the bird population of the sanctuary as migration approaches the climax of May. The American Tree Sparrows leave and are replaced by Field Sparrows, seen regularly in the vicinity of the Standard Auto Pond and power line. Good numbers of Northern Flickers appear and can be seen and heard in most areas of the sanctuary. Small numbers of Tree Swallows, which breed, can be seen around the Standard Auto Pond and the Broad Meadow. Regular migrants seen in April in fair to good numbers include Hermit Thrush (wooded areas), Palm Warbler (power line area), Yellow-rumped Warbler (northern areas of the sanctuary), and by the end of the month, Black-and-white Warbler.

When May arrives, Broad Meadow Brook Wildlife Sanctuary comes alive with breeding and migrant birds. A walk through the entire sanctuary in the early morning, especially on weekdays when there are fewer visitors, can be very rewarding and takes about four hours. Key areas to hit for migrants include the Cutover Trail, the Sprague Lane Trail, the Buttonbush Pond, the power line, and the Broad Meadow.

Regular breeding migrants to expect in May include Eastern Wood-Pewee, Great Crested Flycatcher, Warbling Vireo, Red-eyed Vireo, Blue-winged Warbler (north end of the sanctuary), Yellow Warbler (the Broad Meadow), Common Yellowthroat, Scarlet Tanager, Rose-breasted Grosbeak (Sprague Lane Trail), and Northern Oriole. Regular nonbreeding migrants seen in varying numbers include Solitary Vireo, Tennessee Warbler, Northern Parula, Chestnut-sided Warbler (probably breeds nearby), Magnolia Warbler, Black-throated Green Warbler, Bay-breasted Warbler (on one occasion we had eleven in one tree!), Blackpoll Warbler, and American Redstart. Other regular migrants reported with much less frequency include Nashville, Black-throated Blue, Blackburnian, and Canada warblers.

Woodland thrushes are well represented at the sanctuary. Wood Thrushes are commonly seen and heard and remain to breed. Veery are commonly seen in May, and a few stay to breed. Swainson's Thrushes put in a brief but regular appearance in mid-to-late May, when as many as four birds on one outing have been noted. There are three records of Gray-cheeked Thrush. With a list like

this, Broad Meadow Brook is rapidly gaining a reputation among central Massachusetts birders as a pleasant alternative to the usual coastal hot spots.

Summer. An early-morning walk through the sanctuary in June and early July reveals a population of birds typical of upland deciduous forest and edge habitats. In the wooded sections of the sanctuary one finds Eastern Wood-Pewee, Great Crested Flycatcher, Veery, Wood Thrush, a few Red-eyed Vireos and Ovenbirds, Scarlet Tanager, and Rose-breasted Grosbeak. With luck you may even see one of the resident Ruffed Grouse with young.

Along the power line and into the Broad Meadow one finds additional common species such as Eastern Phoebe, Eastern Kingbird, Gray Catbird, Brown Thrasher, Common Yellowthroat, Red-winged Blackbird, and American Goldfinch. A few Prairie Warblers can be found along the power line, and Blue-winged Warblers and Indigo Buntings breed in small numbers in the northern areas of the sanctuary. One pair of Willow Flycatchers was found during the breeding bird survey in the Broad Meadow near the area of phragmites. At least one pair of Eastern Bluebirds has bred in the same general area. Orchard Orioles must have bred somewhere nearby, because birds carrying food were reported on several occasions from people looking for Blue Grosbeak. A male Blue Grosbeak was seen in the Broad Meadow and remained until the end of July 1991, and appeared to be defending a nesting female Indigo Bunting (see Field Notes in this issue of *Bird Observer*). Rounding out our list is up to three pairs of Carolina Wrens, one of which can often be heard along the Cutover Trail.

Autumn. Autumn is the most exciting time to bird Broad Meadow Brook Wildlife Sanctuary, especially between mid-September and mid-October. Several hawk species are regular migrants best observed from the power line near the Standard Auto Pond. Broadwings regularly pass over. On one occasion in September 1990, we saw 1096 Broad-winged Hawks migrating overhead during one hour. Normally, one must be satisfied with a much more modest count. Turkey Vultures, Ospreys, Sharp-shinned Hawks, and American Kestrel are also to be expected. Typically, one or more Sharpies can be found hanging around the sanctuary (especially along the power line) harassing and being harassed by the flocks of jays and migrating flickers.

Most of the regularly occurring migrant warblers, vireos, and thrushes can be found by repeatedly checking areas like the Cutover Trail, the power line, and the Broad Meadow. Even when things seem quiet, sometimes a screech owl call can bring at least some interesting birds into view. Good numbers of Palm and Yellow-rumped warblers turn up in late September and early October along the power line and in the Broad Meadow. Some of the most uncommon birds of interest that have been found on the sanctuary include: Yellow-bellied Sapsucker, Olive-sided Flycatcher, Yellow-bellied Flycatcher, Philadelphia Vireo, Connecticut Warbler (check along the power line and the Broad Meadow), and Orange-crowned Warbler. Winter Wren appears to be an

uncommon but regular migrant along the power line, stone walls, and small streams throughout the sanctuary.

Sparrows can be found in modest numbers in the Broad Meadow, along the power line, and near the Standard Auto Pond. One of the best places to check for sparrows is along the Brookside Trail first thing in the morning. By approaching quietly, one can often get good views of the several species of sparrows feeding right on the path. It was here that we found a Grasshopper Sparrow in 1991. Regular migrants include Field, Chipping, Song, Swamp, and White-throated sparrows. Lincoln's Sparrows, as many as four in one day, can be found with a little hard searching, and several Whitecrowns also turn up every year.

Winter. By the beginning of November, things have quieted down considerably in the sanctuary, and generally only the permanent residents remain. These include Hairy and Downy woodpeckers, Black-capped Chickadee, Tufted Titmouse, and White-breasted Nuthatch. Some unusual species we have seen are Common Snipe (along the more northern parts of the Broad Meadow Brook) and Eastern Bluebird (along the power line). A late-afternoon vigil at the phragmites in the Broad Meadow during the 1991 Christmas Count found a Red-winged Blackbird, several Common Grackles, and several Brown-headed Cowbirds all coming to roost. One or two Swamp Sparrows also lingered in the same area. Several Eastern Screech-Owls, which probably breed, and Great Horned Owls have been found on nocturnal outings.

Working peripheral areas of the sanctuary, where neighborhood feeders are close, like the Cutover Trail, can turn up the usual sparrows: Song, Tree, and White-throated sparrows, and Dark-eyed Juncos. Sharp-shinned Hawks may also turn up in these areas for obvious reasons. Small flocks of American Tree Sparrows can be found in the Broad Meadow and along the power lines.

Access to the Sanctuary

The Visitor Center, housed in a renovated barn at the gateway to the sanctuary, is located at 414 Massasoit Road, one-half mile north of Route 20 in Worcester. There is a twenty-car gravel parking lot. Other access points are available for seeing certain birds, or for wheelchair access with a personal attendant. For more information, call the Visitor Center at 508-753-6087.

Conclusion

Although the Broad Meadow Brook Wildlife Sanctuary is by no means a hot spot for rarities, its unique situation as a green island in an urban sea makes it very attractive to a wide variety of birds, especially migrants. In only a few years of monitoring the migration and breeding periods, the list of species found is quite impressive, and makes Broad Meadow Brook one of the more important birding areas of Worcester County.

CHRISTOPHER PHILLIPS is the director of the Broad Meadow Brook Wildlife Sanctuary. He is currently completing *Wilds of Worcester*, a collection of profiles of Worcester's open spaces.

MARK LYNCH is an ecological monitor for the sanctuary, where he also teaches an intensive "Beginning Birding" course. He is eternally grateful that a birding spot like Broad Meadow Brook now exists so close to home.

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