Magee
Anatomy of a Migrant Hotspot

All photos in this article are from spring migration at Magee Marsh Wildlife Area, Ottawa and Lucas counties, Ohio.

Kenn Kaufman
Black Swamp Bird Observatory
13551 West State Route 2
Oak Harbor, Ohio 43449
kenn.kaufman@worldnet.att.net

For years, migration was something that I glimpsed from a distance. Southern Arizona, where I lived, was fine for many natural history pursuits, but bird migration there was muted and subtle. For the spectacle of migration, I would grab trips elsewhere: Point Pelee, Cape May, the Gulf Coast.

For several springs, Victor Emanuel and I taught a weeklong migration course at High Island, Texas; we would scour the woodlots and pore over weather maps and radar pictures, trying to come to grips with the grand parade of migrants that was flowing past. Sometimes we would have one of those magical days when everything came together: birds everywhere, birders all together reveling in the experience. Then I would go home to

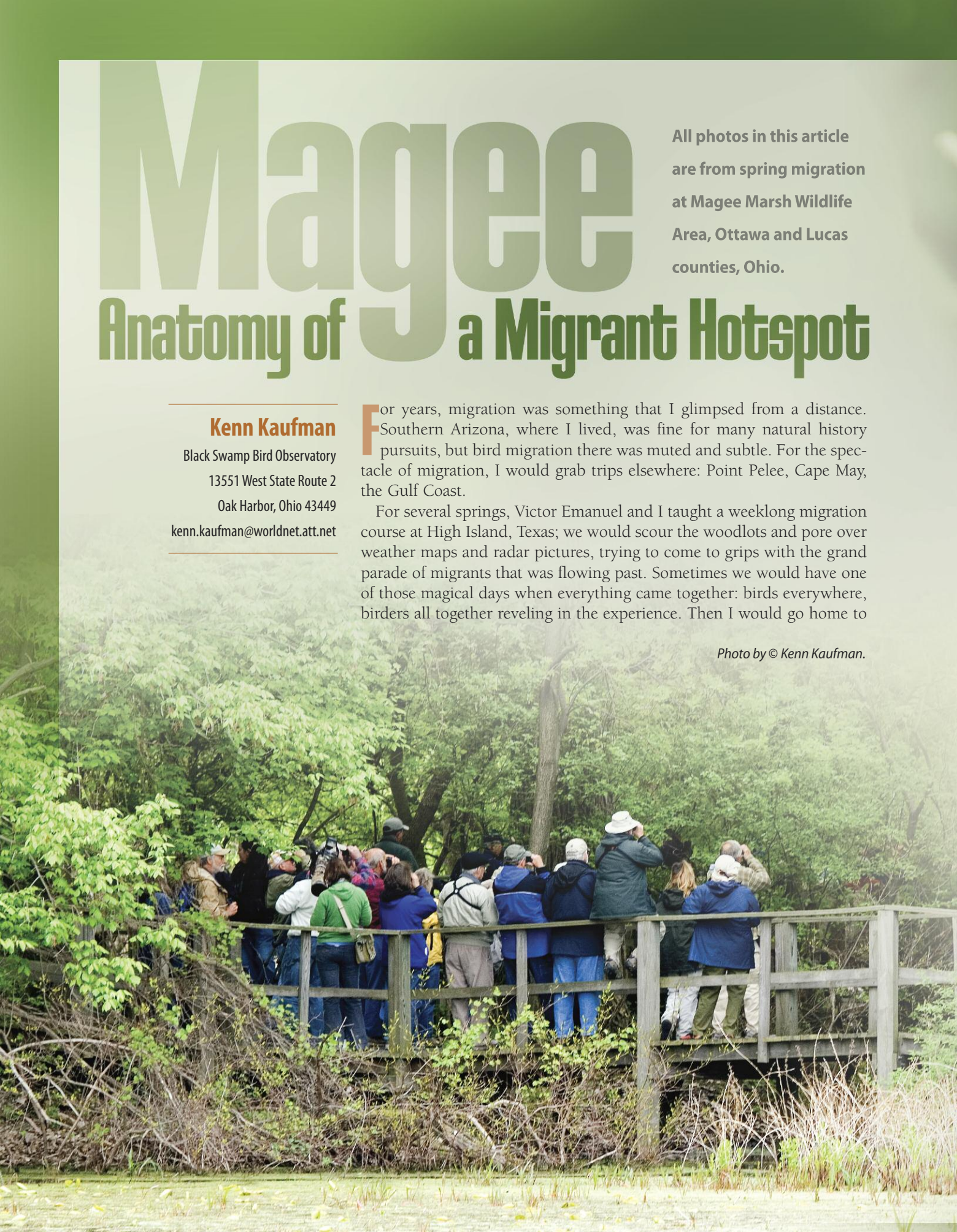


Photo by © Kenn Kaufman.

Canada Warbler. *Photo by © Brian L. Zwiebel.*

the desert, still feeling mystified about the whole thing.

My world changed abruptly in early 2005, when I moved from Arizona to northwestern Ohio. My new home was ten minutes' drive from the boardwalk at Magee Marsh, a site that was rapidly rising to prominence as one of the best migrant hotspots in eastern North America. My new friends were all associated with the Black Swamp Bird Observatory, the group that had been studying migration in this area for years. Suddenly, instead of wondering about migration from a distance, I was right in the middle of it.

Now, after five spring seasons in the area, I am still awed by the migration here, and just getting to the point where I can describe it. The area centered on Magee Marsh State Wildlife Area and Ottawa National Wildlife Refuge is extraordinary for close-up views of migrants, especially warblers. I seriously believe that during the month of May, more warbler photographs are taken in northwestern Ohio than in all the rest of the U.S. *combined*. There has been confusion, by the way, about what to call this area. Many birders still call it by the old name of "Crane Creek," while the new generation calls it "the Warbler Capital of the World," but in this article I'll just refer to the whole area by the affectionate name of "Magee."

Magee Marsh, on the south shore of Lake Erie in northwestern Ohio, has emerged in recent years as one of the prime birding hotspots in North America. In May, birders line up along Magee's boardwalk, where they get fantastic views of warblers and other migratory land birds. This article looks at the geographic, historical, and scientific factors that have made Magee one of the top birding destinations on the continent.

By the time spring migration has reached as far north as Magee, many species are in full song. On a typical day in mid-May, the woods around the boardwalk ring out with the songs of Black-throated Blue Warblers and more than a dozen other warbler species.

Photo by © Brian L. Zwiebel.

The Big Picture: Eastern Migration

The sheer volume of migration, especially of land birds, is much larger in the east than in the west. To understand why, spend some time looking at any North American field guide with distribution maps that show migratory routes as well as breeding ranges. There are scores of species that we think of as "eastern" that really are eastern *and northern* in summer, extending far to the west in Canada and even into Alaska. The western Canadian province of Alberta has major nesting populations of Bay-breasted, Magnolia, Cape May, Black-throated Green, Tennessee, Mourning, Connecticut, and Canada warblers, plus many other "eastern" warblers and other songbirds. If they flew straight south from Alberta in fall, they would hit Phoenix or Yuma, where they would cause wild excitement. But they don't fly south. They fly east-southeast, retracing a general route that takes them through the eastern U.S. every spring and fall. And Alberta is hardly the limit for this phenomenon. Central Alaska in summer is full of Alder Flycatchers, Gray-cheeked Thrushes, Blackpoll Warblers, and other "eastern" birds, all of which will have passed through the eastern half of the U.S. on their way north.

Of course there are exceptions, but songbird migrants through the western U.S. tend to be on shorter routes, going no farther than from southwestern Canada to western Mexico, and their sheer numbers are lower than in the east. Therefore, the west never witnesses massive fallouts of migrants of the sort that sometimes occur in the east.

Migrant birds enter the southeastern U.S. on a broad front in spring, but it's useful to think of them as following one of three basic routes:

1 • Through Florida. This is a logical route for birds wintering mainly on islands in the Caribbean, such as Black-throated Blue and Cape May warblers, but it is also followed by many birds coming from South America, such as Blackpoll and Connecticut warblers. These birds tend to be rare on the western Gulf Coast in spring, but they fan out to the west as they travel toward Canada.

2 • Across the Gulf. Huge numbers of birds depart from Mexico's Yucatan Peninsula in spring and fly north across the Gulf of Mexico, making landfall anywhere between western Florida and eastern Texas. Among the many examples are Golden-winged, Bay-breasted, Magnolia, and Chestnut-sided warblers. These birds fan out to both the east and west as they move northward from the Gulf states.

3 • Around the Gulf. An overland route, north through eastern Mexico and Texas, is naturally favored by birds wintering primarily in Mexico, such as Nashville Warbler. It is also followed by some birds wintering farther south, such as Mourning and Canada warblers, which add a considerable distance to their travel by coming all the way west around the Gulf. Some of these birds are consequently quite rare in Florida and the southeast in spring, but they spread eastward as they continue north, becoming common in eastern Canada in the breeding season.

Birds from all three of these entry routes spread out as they move north across the continent, and by the latitude of the Great Lakes they are freely mixed. Aside from a few southerners that barely get this far, all of the eastern warbler species occur in good numbers in northern Ohio.

The Setup: Geography and Magee

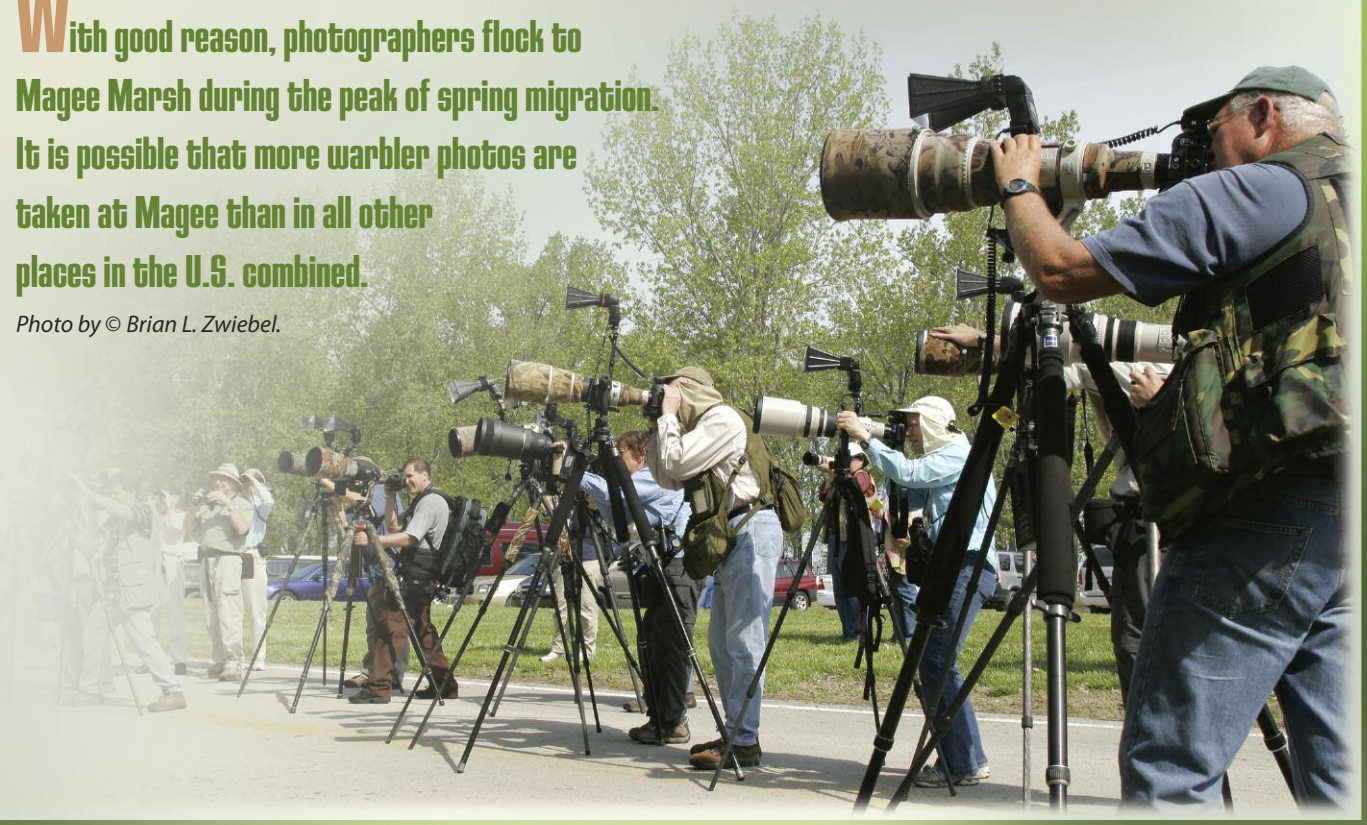
Birders who read about migration phenomena may be most familiar with the type of spring migrant "fallout" that occurs along the Gulf Coast. Typically, migrants leave the Yucatan Peninsula in good weather and fly north across the Gulf to the U.S., and if conditions remain favorable, most will fly many miles inland before they land. Only if they run into bad weather will the majority come down at first landfall. Clear skies and south winds over the Gulf, combined with storms right over the northern Gulf Coast, will put down massive numbers of birds, and the survivors will be "dripping from the trees" along the immediate coastline.

On the Great Lakes, something similar may happen at Point Pelee, Ontario, on the north side of Lake Erie. Migrants crossing the lake in spring may come down in droves if they run into bad weather before they reach the north shore. But the situation at Magee in spring is different. Night migrants moving north across Ohio, if they are anywhere near the lakeshore at first light, are likely to come down rather than continuing across the lake. If they find good foraging, they may stop over for several days, while more migrants pile up in the same areas. It doesn't require a big weather event to force the birds down.

Lake Erie is oriented very roughly on an east-west axis, forming most of the northern border of Ohio. In the Magee area, the shoreline trends toward the west-northwest. Many migrants apparently move along the shoreline in either

Although often thought of as treetop specialists, Cape May Warblers frequently forage at eye-level along the Magee Marsh boardwalk.

Photo by © Kenn Kaufman.

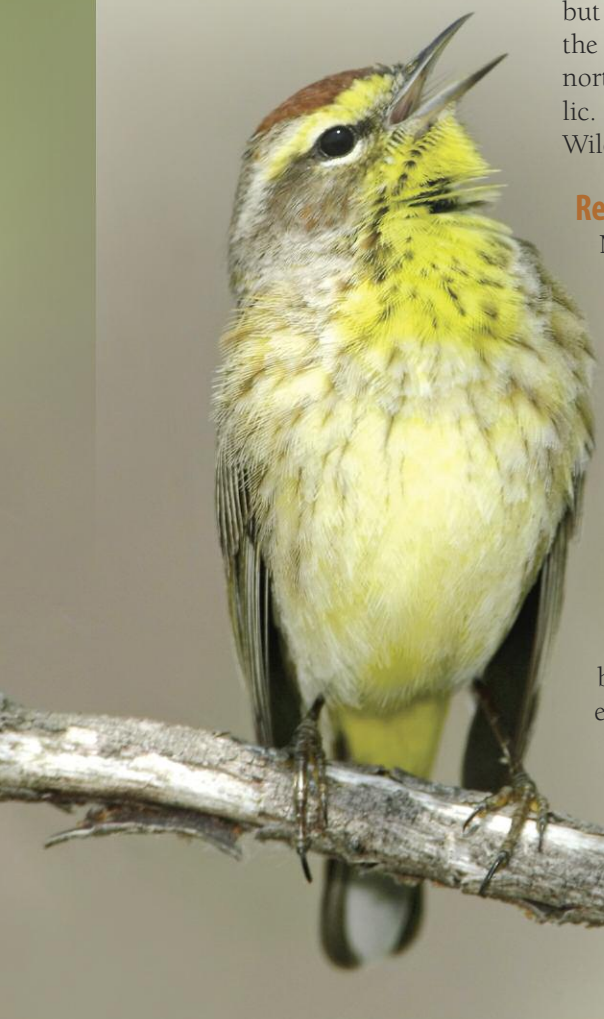


With good reason, photographers flock to Magee Marsh during the peak of spring migration. It is possible that more warbler photos are taken at Magee than in all other places in the U.S. combined.

Photo by © Brian L. Zwiebel.

The boreal breeding grounds of many warblers—the Palm Warbler, for example—are relatively inaccessible to many birders. Your best bet is often on spring migration at sites like Magee.

Photo by © Brian L. Zwiebel.



direction, some of them island-hopping north across the lake just to the east of the Magee region, some going around the west end of the lake at Toledo. Because so many of them move along the lakeshore, a patch of choice habitat close to the lake is much more likely to be inundated with migrants than a similar habitat farther inland.

The concentrating effect of woodlots near the lake is amplified by land-use practices in the surrounding area. As recently as two centuries ago, northwestern Ohio was mostly covered by forest, marshes, and the vast Great Black Swamp. Today most of the land has been drained and cleared for agriculture. The remaining woodlots are critical stopover habitats for migrants.

The once-vast western Lake Erie marshes were mostly drained, but some choice areas were saved by private duck-hunting clubs. Some of the best of those marshes, several thousand acres in extent, are now preserved at Ottawa National Wildlife Refuge, Magee Marsh Wildlife Area, and other nearby protected parcels. The proximity of marshland is a crucial factor in the stopover habitat. Midges—tiny insects in the family Chironomidae, suggesting weak-flying, non-biting mosquitoes—breed abundantly in the marshes. Huge emergences of adults during the spring fill the edges and undergrowth of nearby woods with an abundance of food for warblers and other small songbirds. These woods probably have about the same selection of other insects as other forests of similar size, but the addition of the midge swarms makes for a supercharged food supply that is not readily depleted by the waves of songbird migrants.

Any woodlot near the marshes may hold large numbers of midges in spring, but the concentrating effect for birds is greatest in the woods situated between the marshes and Lake Erie. Only a few such beach-ridge woods still exist in northwestern Ohio, and some of those that do remain are off limits to the public. The readily accessible woodlot at the northern edge of the Magee Marsh Wildlife Area has become the main birding destination almost by default.

Researchers, Birders, and Magee

Migration-watching has a long history on Ohio's Lake Erie shoreline. The first North American "big days" of more than 100 species were recorded here in the late 1890s by Lynds Jones and W. L. Dawson in Lorain County. They considered this pursuit to be ornithology, not birding, and they published accounts of their "work" in the *Wilson Bulletin*. A little farther west, birders from Toledo visited the lakeshore to look for migrants throughout most of the 20th century. When they lost access to some other shoreline sites, they began to focus their attention on the seven-acre woodlot on the north side of Magee Marsh, adjacent to what was then the beach at Crane Creek State Park.

Mark Shieldcastle, at the time a young biologist with the Ohio Division of Wildlife, began banding migrant songbirds at this site in 1978. Running a banding operation in the midst of growing numbers of birders proved to be a challenge, and Shieldcastle soon moved the banding station four miles east, to the Navarre Unit of Ottawa National Wildlife Refuge, a unit closed to the public. After enlisting the help of his wife, Julie Shieldcastle, and other skilled volunteers, he was able to expand the banding to seven days a week—essential for monitoring migration.

The banding station has been run every day (weather permitting), spring and fall, since 1989.

From 1992 on, it has been operated under the auspices of the Black Swamp Bird Observatory (BSBO). With its careful design and consistent coverage, this study has built up a remarkable picture of songbird migration through this region. The study documents the timing and makeup of the migration, and the fact that huge numbers of birds use the area. The study has shown that migrants may stop over for several days, putting on weight throughout their stay, building up fuel for the next leg of their journey.

In the meantime, birder visitation at Magee has continued to increase. For years this area was overshadowed by the better-publicized Point Pelee, Ontario, just across the lake, but most birders now feel that Magee is more consistently productive in spring. (In fall, Pelee is the more reliable site.) Now, literally thousands of birders visit Magee at least once during spring migration, and hundreds come from out of state to visit for several days at a time.

For hordes of migrants and crowds of birders to coexist here, a key element is the presence of the boardwalk. Famed naturalist Laurel VanCamp laid out the original "bird trail" (literally just a trail) through the woods at Magee in 1970, but by the mid-1980s, eager birders had trodden innumerable side trails and shortcuts throughout the woodlot. There was a danger that this essential stopover habitat for birds would be seriously degraded. Mark Shieldcastle went to higher-ups at the Ohio Division of Wildlife to propose a solution; ultimately his suggestion was adopted, and he was asked to lay out the route for the boardwalk.

Construction of the Magee Marsh boardwalk, meandering for a mile through the woods, was the first major project undertaken by the state's "non-game fund" tax checkoff. By any measure, it has been a spectacular success, allowing full access to the best birding areas while preserving the habitat. With human activity confined to a predictable corridor, birds seem willing to approach the boardwalk closely, and the views of migrants are often phenomenal. I suspect that many people have had a casual interest in nature converted to passionate commitment by the experience here, so the effect on conservation must extend far beyond this

A bright future lies ahead for Magee, the "Warbler Capital of the World." Human visitation continues to increase, the local business community is engaged, the media are starting to pay attention, and important ornithological research is being conducted onsite.

Photo by © Delores Cole.

Map by Kei Sochi, based on information from Kenn Kaufman.

seven-acre woodlot.

For those of us who live here, it's inspiring to see so many birders all along the boardwalk, everyone from seasoned experts to brand-new beginners, birders aged over ninety and under nine, families, bird clubs, young couples, all reveling in the experience. The level of courtesy and sharing is remarkable. At one point in May 2009, Jen Brumfield was showing a Golden-winged Warbler to nearly 200 people at once from the boardwalk, and Sam Woods told me that this individual bird was probably seen by more than a thousand people that day.

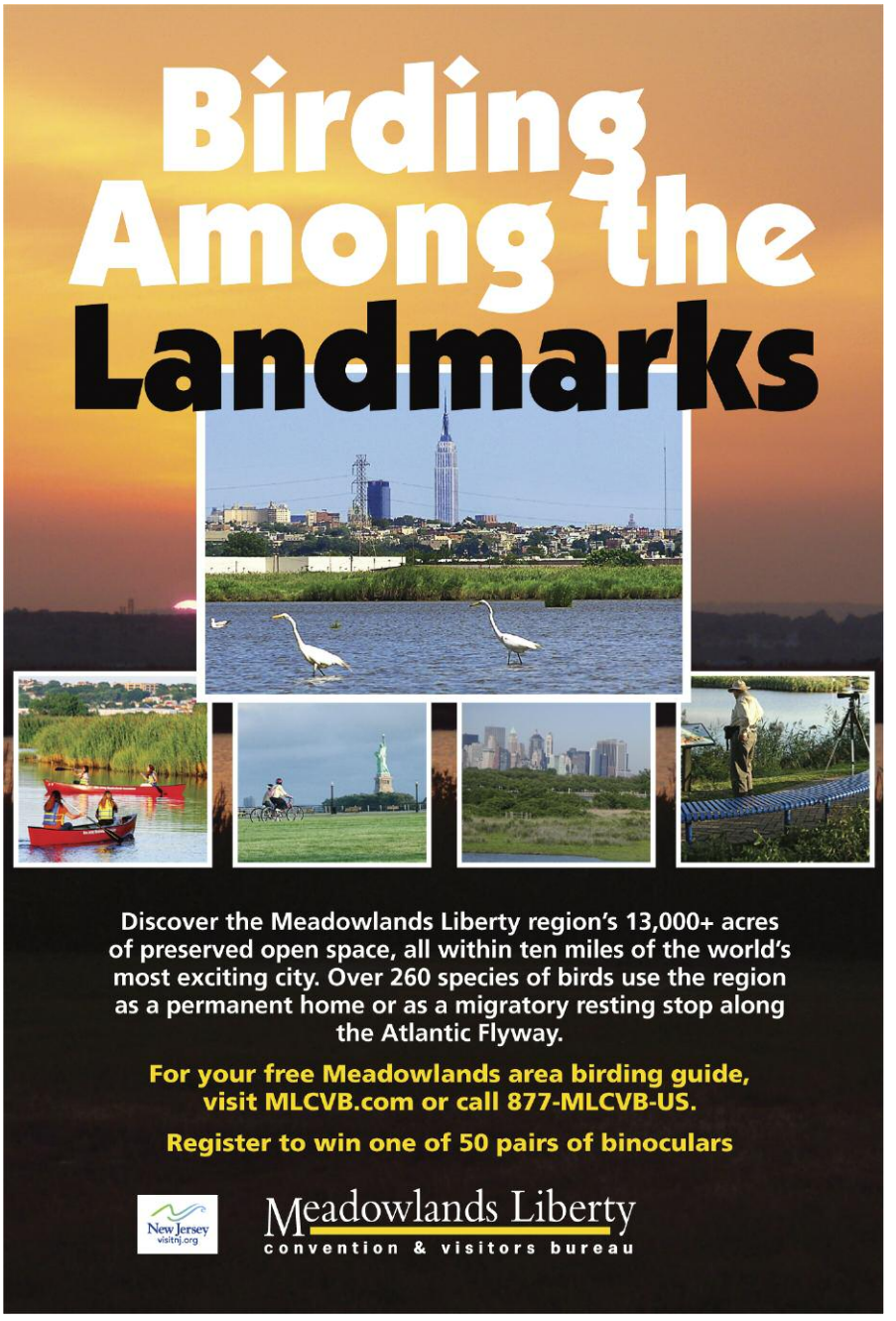
Only within the past few years have most local residents begun to realize the value of the migrant hotspot in their back yard. In her new role as executive director of BSBO, Kimberly Kaufman has reached out to the business community, and now many local hotels, restaurants, and other businesses are enthusiastic supporters of BSBO. Local TV stations and newspapers have started to cover the annual influx of birders. The amount of attention will probably increase again this year, when an event called "The Biggest Week in American Birding" will be centered on Magee in mid-May. The best thing about all this attention is that it reinforces, for local governments and businesses, the value of preserving wildlife habitat.

After years of feeling remote from migration, I now feel like a kid living in a candy store. Those magical days with birds and birders now happen to me all spring—and often in fall as well! Day after day, I get that experience of looking at a rainbow array of a dozen warblers while hearing the appreciative gasps of a dozen birders. And it's not just the birding. Research being conducted at Magee will help to ensure the long-term survival of migratory populations, and outreach and education efforts will lead to more public support for habitat protection. The candy-store analogy doesn't quite cut it: This is like living in a candy store *and* an organic farmers' market co-op at the same time. But you don't have to live here to experience it. I encourage you to make plans to visit Magee and see for yourself.

Visiting Magee

The good news is that, despite their increased popularity, birding areas around Magee are far from reaching the saturation point. Even at the boardwalk, even on a busy weekend, there are more than enough birds to go around. And other sites nearby are virtually as good and relatively unbirded. Visitors need not worry about fighting crowds to see birds.

Spring migration in the area begins with movements of waterfowl and American Woodcock in February, and winds down with the last northbound shorebirds in mid-June. But most birders come here between late April and late May, on the strength of Magee's reputation as the "Warbler Capital of the World." Birders planning a visit will find a wealth of information available through the website of the Black Swamp Bird Observatory, especially on its birding pages <bsbo.org/birding>. There you will find maps and directions to birding sites, more detail about the timing of migration, predictions on the best days for migrants, information about local lodging and restaurants, and links to many other resources.

Other internet resources for your visit to the Magee area include the following:

- **Ottawa National Wildlife Refuge** <http://tiny.cc/E9Qqa>
- **Magee Marsh Wildlife Area** <http://tiny.cc/anzKH>
- **The Biggest Week in American Birding** <http://tiny.cc/AP2NO>