The passenger pigeon. Vol. 63, No. 3 Fall 2001

Madison, Wis.: Wisconsin Society for Ornithology, Fall 2001

THE PASSENGER PIGEON
Vol. 63 No. 3
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JOURNAL OF THE WISCONSIN SOCIETY FOR ORNITHOLOGY

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The Passenger Pigeon (ISSN 0031-2703) is published quarterly (Spring, Summer, Fall, and Winter) by The Wisconsin Society for Ornithology, W330 N8275 West Shore Drive, Hartland, WI 53029, with additional mailing offices at Lawrence, KS 66044. Subscription rates are: Individual, $30 per year; Family, $35 per year; Sustaining, $75 per year; Life (Single), $600; Life (Couple), $700; Patron, $1,000; Library (*Passenger Pigeon* only), $25 per year. Foreign destinations require $5 additional postage. Back issues may be obtained for $8 each. Send back issue and change of address requests to Memberships, W330 N8275 West Shore Drive, Hartland, WI 53029.

Send all manuscripts, and correspondence to the Editor. Information for "Seasonal Field Notes" should be sent to the Associate Editor or the appropriate Field Note Compiler. Manuscripts that deal with Wisconsin birds, ornithological topics of interest to WSO members, and WSO activities are considered for publication. For detailed submission guidelines, see pages 3–5 of the Spring 2000 issue (Vol. 62, No. 1) or contact the Editor. As a general guide to style, use issues after Vol. 60, No. 1, 1998.

The Reels—A Great Catch

In 1996, volunteers Christine and Don Reel took over the WSO Book Store. They will run it for the last time at the 2002 annual convention in Ripon, for they are retiring from the position this year. We have been very, very fortunate to have had the Reels' expertise over these past several years.

It has been a transition time for the Book Store lately, gradually changing over from maintaining a large stock of books on hand to being more internet-based. The Reels expertly researched and implemented this transition towards the on-line Book Store, just as they expertly have done all the things that go into running a successful *off*-line book store.

The work has been difficult, especially in keeping close track of every little thing, in physically moving the many heavy boxes of books back and forth to WSO conventions, in mailing out orders, and in myriad other ways. It can be hard to know about and deal with everything associated with a venture like this, but Don and Christine have always had a handle on *every* aspect of the Book Store, and have done an absolutely excellent job with it. They also were thoughtful and very down to earth—and, therefore, very helpful—when discussing issues unrelated to the Book Store at WSO Board meetings. They certainly will be missed, both as expert and hardworking store managers and as friendly and helpful Board members.

One of the Reels' last tasks is to find a volunteer or volunteers to replace them. As this is being written, they are diligently interviewing and explaining the workings of the Store to several who have expressed interest. They are working very hard at this task, doing their job as if they were actually being paid! But that's not unusual—that's Christine and Don Reel.

They were a *great* catch!

President

Cooper's Hawk *by Robert Huebner*

A "Thank You" to the Regan Family

Judging by the comments I've received, the color photographs of Wisconsin rarities from the fall of 2000 that appeared in the last issue of the journal (Spring/Summer 2001) were a big hit. Color photos are expensive and add substantially to the cost of producing an issue, so it pleases me to be able to say that both the latest photos and those that appeared in the Summer 1999 issue were completely funded by generous donors.

The source of the $750 needed to print the recent photos is an especially poignant one—they came from monies donated by the Regan family in memory of their son John, who died last summer. Their sponsorship of these images is truly fitting, for it was John who originally discovered and identified one of the birds pictured—the Ash-throated Flycatcher. The remainder of the Regan's $2,000 donation was allocated by the WSO Board of Directors to the Sam Robbins Shorebird Endowment Fund, reflecting John's interest in shorebirds and providing for the long-term benefit of birds in Wisconsin. I know that all readers of the journal will join me in thanking the Regans for their thoughtful generosity to WSO on behalf of their son.

I'd also like to take this opportunity to welcome Karl David as our new Spring Field Notes Compiler. With his debut spring seasonal report on p. 187, Karl joins a distinguished company of spring reporters, which in recent years has included Allen Shea, Laura Erickson, and Jerry Smith.

Lastly, a couple of corrections are necessary regarding the last issue (Vol. 63, Nos. 1&2, 2001). First, the date for Kent Hall's Long-billed Dowitcher report from Portage County (p. 50) in "The Fall Season: 2000" should read October 21 (not November 21). Second, the beginning paragraph of the article on "The WSO 2001 Awards" (p. 121) should note that the awards were presented at the annual convention banquet in Stevens Point (not Baraboo).

R. Tod Highsmith, Editor

Broad-billed Hummingbird, Dodge County, Wisconsin, October 2000 *by Dennis Malueg*

Wayward Hummers: Questions and Concerns about Late Fall Migrant and Vagrant Hummingbirds in Wisconsin

by R. Tod Highsmith

A spate of late fall hummingbirds in Wisconsin in recent years has many birders asking questions. What are these out-of-range species and tropical vagrants doing here? Are we helping them or hindering them by keeping hummingbird feeders up into late autumn? What action should I take if a bird at my feeder appears sick, injured, or unable to withstand the cold?

This article is in response to a request received by the WSO Board of Directors to provide information on the wisdom of feeding hummingbirds in autumn and on the legalities of "rescuing" sick or injured birds.

What Are They Doing Here?

Reports of late fall hummingbirds in the eastern United States have multiplied in recent years, from the Great Lakes and Northeast all the way down to the Gulf Coast. These are not our local Ruby-throated Hummingbirds, the only species that regularly nests east of the Mississippi River, but rather species native to the western U.S., along with a smattering of rare vagrants from the southwestern states and Central America. Though their occurrence seems to be increasing, these wayward birds are still rarities in the East, and are a source of immense delight for those feeder-watchers or banders who discover them.

More than a dozen hummingbird species have been recorded in the eastern U.S. over the years, but the most commonly encountered of these fall wanderers are birds of the genus *Selasphorus*, which includes both Rufous and Allen's Hummingbirds. Experts believe that Rufous Hummingbirds make up the vast majority of sightings, but the extreme difficulty of separating female and immature birds of these two species means that many individuals are identified only to the genus level.

A review of recent fall hummingbird sightings in Wisconsin shows the variety of species that are being seen:

- In October 1998, the first state record of Green Violet-ear, a Central American species, appeared in La Crosse (color photos in the Summer 2000 *Passenger Pigeon*).

- In October 1999, a *Selasphorus* sp. hummingbird was found in Crawford County in southwestern Wisconsin.
- In the fall of 2000, *Selasphorus* sp. hummingbirds were reported in Ozaukee, Milwaukee, and Washington Counties, with several other unconfirmed reports as far north as Vilas County. In October, a Rufous Hummingbird was identified in Winnebago County, and the first state record of Broad-billed Hummingbird was found in Dodge County (color photos in the Spring/Summer 2001 *Passenger Pigeon*).

The fall of 2000 was a banner period for unusual hummers not just in Wisconsin, but throughout the Midwest and eastern U.S. According to one observer's tally (S. Peterson, fide J. Williams), apparent *Selasphorus* hummingbirds were reported from 204 counties in 26 states east of Colorado during this period. Some observers credit prolonged southwesterly winds and drought conditions in the southwestern part of the country for the influx of birds.

In general, however, no one is completely sure why sightings of late fall hummers are becoming more common in our area. One explanation is that certain western species—particularly Rufous (Calder 1993), Allen's (Mitchell 2000), and Black-chinned (Baltosser and Russell 2000)—may be expanding their winter ranges and altering migration routes. Instead of heading for traditional haunts in Mexico, increasing numbers of these birds are apparently choosing to overwinter in the southeastern U.S., and some individuals may overfly Wisconsin en route from West Coast and Pacific Northwest breeding areas.

It also is possible that these birds have been passing through our region for many years, but we just haven't noticed. We're finding them now, the argument goes, because of the booming popularity of hummingbird feeding and an ever-growing number of birders armed with the latest field guides.

Whether or not the phenomenon is recent, banding data provide evidence that at least some individuals of western species have established migration routes across the upper Midwest. Consider the case of a hatch-year male Rufous Hummingbird captured in North Carolina in December 2000 (Michigan HummerNet 2002). The following November, the bird was caught again, this time as an adult in Michigan—it was quite possibly on its way back to the Southeast for its second winter.

On the other hand, some hummingbirds are likely true vagrants that end up in Wisconsin more or less by accident. The Green Violet-ear, for example, is an altitudinal and short-distance migrant within its Central American breeding range, but is not known to undertake long-distance migrations (Howell and Webb 1995, Stiles 1999), so the individual that visited La Crosse may have been blown north by a storm or had a genetic defect that caused it to wander. Similarly, the Dodge County Broad-billed Hummingbird may be what is known as a reverse migrant. Instead of heading southeast from its Arizona or Mexican breeding grounds, a neurological problem may have caused this bird to migrate northeast and set it on a course for Wisconsin.

The Feeder Question

Whatever the reason for the appearance of these birds in Wisconsin, some

birders have raised questions about the welfare of these tiny travelers while the birds are visiting our state. Some worry that providing an artificial food source for hummingbirds into the late fall and winter months is a disservice to the birds, enticing them to stick around when they should be on their way to somewhere warmer. While all birders delight in seeing rarities at their feeders, no one wants to lure a bird into staying until it is threatened by freezing temperatures or until a lack of natural food prevents it from moving on.

The U.S. Fish and Wildlife Service (USFWS) recommends that birders in the upper Midwest not keep their hummingbird feeders up past the middle of September. By that time, notes Bob Russell, a Migratory Bird Biologist at the Service's Region 3 office in Fort Snelling, Minnesota, most Ruby-throated Hummingbirds—the species most midwestern birders put up their feeders to attract—have already migrated south. The Service's concern, says Russell, "is that natural food along the birds' migration route may be killed off by a major Midwestern freeze and natural stepping-stones of forage to the south would be unavailable, trapping the birds, as it were, in the north." In addition, some birders have suggested that taking down feeders as cold weather arrives makes it less likely that a late migrant or tropical vagrant will be lulled by access to an easy food source into staying until the weather turns dangerous.

Others, including author and hummingbird researcher Nancy Newfield, urge a different approach. Newfield suggests not taking your feeder down until at least one week after you've last seen a hummingbird using it. "That way," she notes in her book *Hummingbird Gardens* (p. 29, 1996), "any stragglers will be able to refuel. Indeed, biologists note that those hummingbirds that lag behind migration are invariably weak and undernourished. By leaving your feeders out, you may give such a bird the boost it desperately needs—and you may even save its life."

Still others feel there is no reason to take down feeders at all, citing a lack of scientific evidence that feeders actually encourage hummingbirds to forego migration or that they act to waylay healthy migrants already on their journey. As the web site of Cornell University's Laboratory of Ornithology says: "Some people believe they should stop feeding hummingbirds right after Labor Day because the birds' southward migrations will be interrupted. However, a bird's migratory urge is primarily triggered by day length (photoperiod), and even a hearty appetite won't make a bird resist that urge. In fact, your feeder might provide a needed energy boost along a bird's migration route."

Of course, removing feeders will do nothing to prevent off-course wanderers from arriving in the state in the first place. "No feeders does not mean no problem," as one birder puts it, "it just means no evidence of a problem since the strays are less likely to be seen."

On the positive side, feeders provide our best means of gathering information on the frequency and distribution of fall hummingbirds in Wisconsin, and our knowledge of the movements of western migrants and tropical vagrants would be much poorer without them. Feeders also have the benefit of allowing very close observation of birds that can be exceedingly difficult to identify, making accurate documentation more likely.

After reviewing the arguments pro and con, the WSO Board decided at its April 2001 meeting not to recommend a specific take-down date for hummingbird feeders in Wisconsin.

Should We "Rescue" Wayward Hummers?

What of hummingbirds that linger until temperatures turn extreme or that become sick or injured? Some birders believe we have a responsibility to ensure the survival of these birds. Concerned individuals have sometimes captured ailing hummingbirds and taken them to wildlife rehabilitators for care and feeding. Others have gone so far as to place birds in botanical domes to overwinter or even schemed to have them flown south by a cooperative airline.

Unfortunately, recent attempts to capture and rehabilitate fall hummingbirds in Wisconsin have not had a high rate of success. Both the La Crosse Green Violet-ear and the 1999 *Selasphorus* from Crawford County died while under the care of experienced rehabbers. Would it have been better to leave these birds in the wild to fend for themselves? Just as no one knows the fate of those birds that were not taken into captivity—such as the Dodge County Broad-billed, which simply stopped coming to its feeder after a week or so and was never seen again—it is impossible to say.

What is clear is that those who would intervene to save wayward hummers often face difficult logistical considerations and no guarantee of success. Suppose, for example, that a tropical hummingbird, one clearly ill-equipped by evolution to deal with Wisconsin winters, shows up at your feeder. Exactly when is the best time to capture it? A rule of thumb used by some rehabbers is that a bird is in danger if temperatures force it to come to a feeder every three minutes or less. But what if the bird is so weakened by that point that the trauma of capture and transport endangers its chances for recovery? Would a better approach be to grab the bird while it's still healthy? Perhaps, but a frisky hummingbird may be more likely to become injured during handling than a weakened one. And many birders would bristle at the idea of taking an apparently healthy, free-living bird into captivity and depriving it of the opportunity to survive on its own.

As do so many issues regarding the welfare of wild animals, questions concerning attempts to rescue hummingbirds inevitably come down to a birder's personal ethics and emotional relationship to the birds. Those in favor of intervention may do so based on the belief that every individual animal is worth trying to save. Others may be particularly moved to help hummingbirds, which they may perceive as more vulnerable and more beautiful than other species.

Those disinclined to intervene offer a variety of reasons, from the philosophical to the practical. Why, some ask, should we treat hummingbirds differently than we do other species? Many more chickadees and kinglets die from the cold every year in Wisconsin than do visiting hummingbirds, they point out, but we don't capture and attempt to save them. Nor is there generally a clamor to rescue other rarities, such as Fork-tailed Flycatchers or Great Tits, that are just as unlikely to find their way home as a vagrant hummingbird.

In addition, some believe that saving those very individuals that demonstrate a susceptibility to cold or disease, or whose navigational abilities are compromised, may not make sense from a wildlife health standpoint. Although it makes us feel good to help these individuals, they argue, is it really best for the species to release these birds back into the wild where they may spread disease or pass on their maladaptive traits to offspring?

Beyond all these considerations, legal matters also come into play. Technically, notes Bob Russell, it is illegal to capture and transport a migratory bird without the proper permit. Although the USFWS has issued permits in the past allowing the capture of hummingbirds for transport to rehabilitators, the Region 3 office, which oversees wildlife issues in Wisconsin and seven other north-central states, has recently revised its policy. When questions arose about "rescuing" an Anna's Hummingbird that showed up at a Minneapolis-area feeder in late November 2001, the Service announced that they would no longer "be issuing permits for people to capture late-lingering hummingbirds . . . or any other late-lingering birds for the purpose of rescuing those birds or safe-harboring them in a zoological park, botanical dome, or putting them on an airplane south or west to sun country."

The Service's position is that "the birds likely got here on their own," Russell explains, and "they need to find their own way to a wintering locale if they can. In the case of a species that has somehow undergone reverse migration and ended up in the north country at the wrong time of year, we feel the best thing is to leave the bird alone. A lot of these birds continue northward and eventually die when they hit extremes of weather. If such movements are caused by a genetic defect, the Service does not believe it would be in the best interests of the species to invoke extraordinary measures to save these birds. Though this may seem cruel, it is nature's way of eliminating such birds from the gene pool."

The Legal Situation

Birders frequently have questions about the legalities of transporting sick or injured birds or the salvaging of a dead bird. They may also wonder what ultimately happens to birds that die under the care of a rehabilitator. At WSO's request, Bob Russell of the USFWS provided answers to these questions.

What are the general laws regarding the possession of migratory birds? "Anyone who possesses a migratory bird must be authorized to do so by law. This includes everyone from hunters who legally take migratory game birds during established hunting seasons to scientific collectors who have permits authorizing their collecting activities. For the specific action of capturing and transporting or holding a 'wayward hummer,' one needs a permit issued by the Service. Legally permitted wildlife rehabilitators may only possess sick or injured birds. Persons authorized to band birds may capture and band or mark birds as indicated by their banding permit, and may salvage and temporarily retain birds that die during their normal banding operations, but they are not authorized to capture, hold, or transport migratory birds for other purposes."

When a birder finds a dead or injured bird, may they legally transport it to a museum or rehabilitator? "Individuals are prohibited from possessing migratory birds for the purpose of transporting or caring for them unless they have the required federal permit, and, usually, a similar state permit. Generally, however, this regulation is not rigidly enforced if one is clearly in possession of a sick or injured migratory bird solely for the purposes of transporting it to a federally permitted wildlife rehabilitator.

"As far as dead birds go, again, technically, you're not supposed to have those in your possession, but people often put them in their freezer and then turn them over to a sanctioned museum, like the University of Wisconsin-Madison or the Bell Museum in Minneapolis. As long as they are basically en route to such a place, we don't enforce the law, but they really shouldn't stockpile them in their freezer; they should turn them directly over to a museum that has a permit for handling birds like that. If they find a dead Snowy Owl, for example, we're not going to nail them to the wall, but if they go out to get it mounted, that is illegal without a permit."

How are decisions made about the ultimate disposition of birds that are turned in? "The disposition of birds that die in the possession of a rehabilitator is up to the discretion of the Fish and Wildlife Service. When we're dealing with uncommon or rare birds, we usually consult with the appropriate state department of natural resources to cooperatively decide where the remains of that bird should be curated. Normally, as a matter of propriety, we would offer it to the state where it was found. We have eight different states in Region 3, and we're not trying to favor one or the other. In the case of the Green Violet-ear, the museum at UW-Madison indicated they had no problem with the bird going to the Bell Museum at the University of Minnesota, where there were researchers with a particular interest in hummingbirds."

Acknowledgments

The author thanks Bob Russell for his time and patience, along with the following people who participated in an e-mail discussion on the topic of wayward hummingbirds: Noel Cutright, Laura Erickson, Dave Freriks, Marge Gibson, Kent Hall, Bettie Harriman, Anthony Hertzel, John Idzikowski, Fred Lesher, Nancy Newfield, and Jim Williams.

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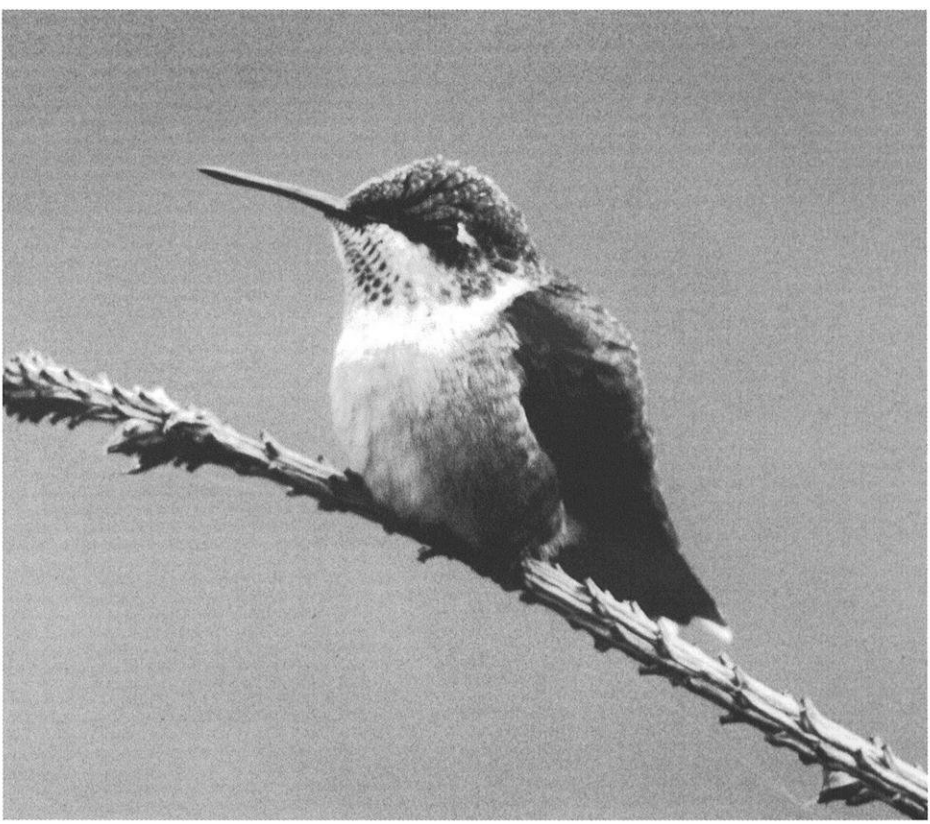
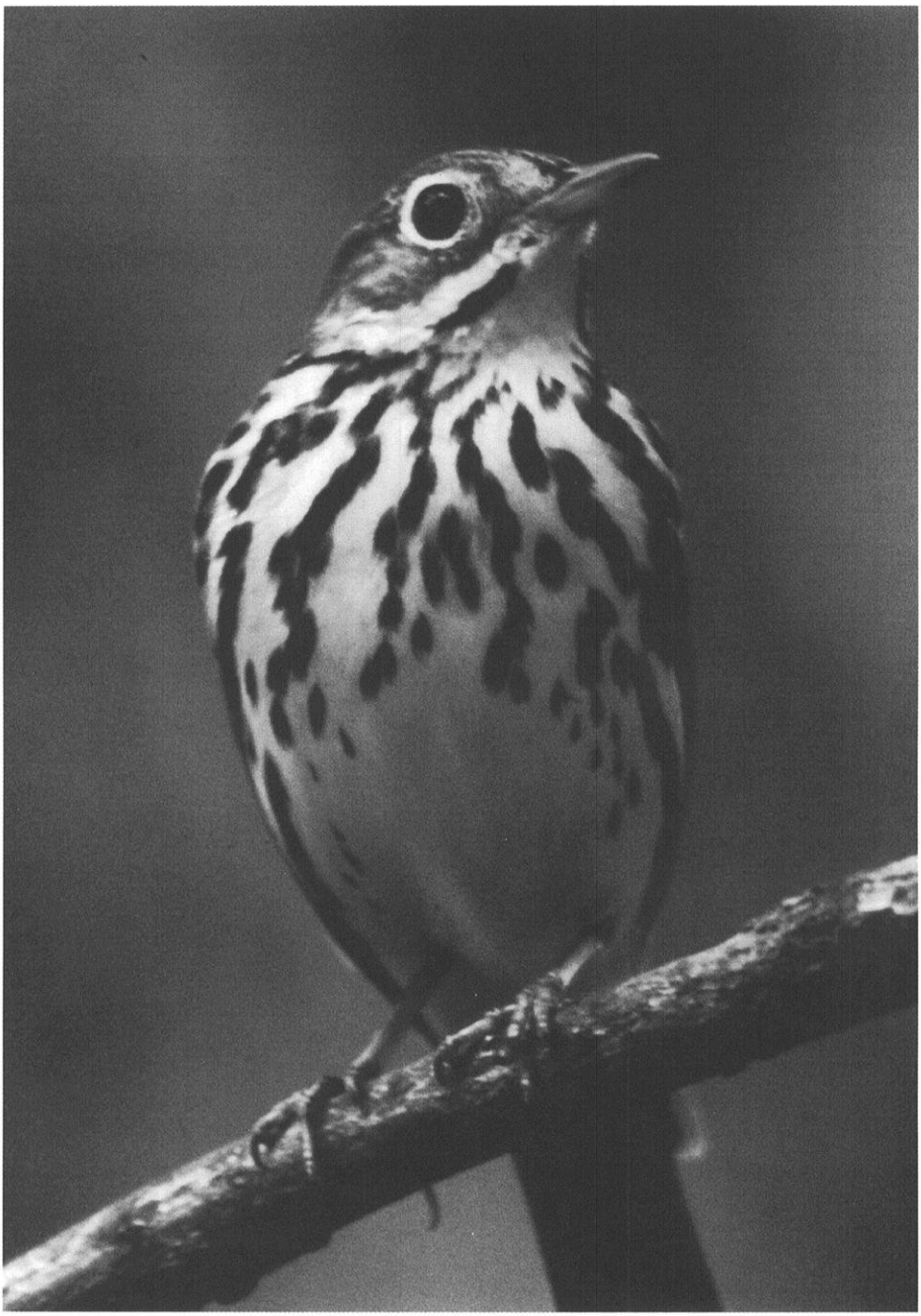


Ruby-throated Hummingbird (immature) *by Dennis Malueg*



Ovenbird *by Dennis Malueg*

Habitat Relationships of Migratory Songbirds in North-Central Wisconsin

We studied songbird habitat relationships over four spring and four fall migration seasons in Price County, Wisconsin. We found that songbirds used a mosaic of 15 habitats during migration, but that wetland habitats attracted more individuals and species than all other habitats combined. Given the diversity of species using these habitats, including many neotropical migrants and species of management concern, we feel it prudent to conserve, restore, or develop a mosaic of communities to serve as songbird refuges during migration.

by Thomas H. Nicholls, Leanne Egeland, Joan Elias, and Margaret J. Robertsen

Songbird declines have been attributed to destruction of wintering grounds in the tropics and to fragmentation of breeding grounds. More recently, concern has developed about the places in between—the pockets of forest that provide essential food, water, and shelter during migration, and the landscape corridors that provide vital life links between wintering and breeding grounds (Moore and Simons 1992, Moore et al. 1993).

Moore et al. (1993) state that habitat use during migration has profound consequences on birds' abilities to satisfy energy requirements, their vulnerability to predators, and their exposure to environmental stress. How migrants respond to contingencies that arise during migration affects their survival and reproductive success. Thus, there is a need to develop methods to monitor songbirds and their migration habitats if we are to understand the ecological consequences of habitat loss to migratory songbird populations.

Many songbird migration studies have been conducted in areas where birds congregate or funnel through, such as islands, along river corridors, peninsulas, or large ecological barriers such as mountains, ocean coastlines, the Great Lakes, or the Gulf of Mexico, to mention a few. However, fewer studies have been done in large, contiguous forest tracts to determine what

habitats are used by birds as refueling and resting stops during spring and fall migration.

Little is known about critical community and habitat relationships of many songbird species during migration: what kinds of habitats are important to them, where conservation of migration habitat is needed to minimize migratory stress, and how much songbird migratory habitat is being lost and where. To help address part of this problem, we designed a study to obtain information on community and habitat relationships of songbirds in a contiguous forested landscape in north-central Wisconsin during eight migration seasons from 1989 to 1992.

Study Area

Study Site—Our study site was located 0.25 miles west of Fifield, Price County, Wisconsin (45° 52′ 24″ N, 90° 25′ 49″ W), on about 100 acres of private forest land that had not been logged for over 50 years (Figure 1). Logging done previous to that time was done selectively, so artificial habitat fragmentation due to logging was minimal.

This area is part of the glaciated Northern Highlands Physiographic Region, and consists of level to gently rolling topography of relatively low relief with an elevation of about 1,450 feet. Due to its glacial history, the forest is naturally fragmented and contains a rich variety of patchy habitats characteristic of the Northern Highlands. Our study area falls within Partners in Flight (PIF) Physiographic Area 20 (boreal and hardwood forest transition) and The Nature Conservancy's Superior Mixed Forest Ecoregion. The study area contains a mosaic of communities and habitats made up of mixed deciduous and coniferous trees and distinct stands of mixed sugar and red maples, paper birch, quaking and big-tooth aspen, red pine, tamarack, white pine, black spruce, hemlock, and shrubby wetlands. Eleven acres of grasslands border the eastern edge of the study area.

Community and Habitat Descriptions—The main study area was 100 acres in size and contained five general community types (Figure 1) with 15 easily identifiable habitats named for their dominant tree species. The vegetation in each habitat was quantitatively measured using the method of James and Shugart (1970). Scientific and common names of trees and plants mentioned in this article are provided in Appendix 1. The five general community types are described below; for detailed descriptions of the associated habitats in which mist nets were placed, see Appendix 2.

Upland Deciduous Community. The upland deciduous community was the largest community type, with 47.5 acres containing four habitat types: Aspen, Aspen Road, Northern Hardwoods, and Paper Birch. These four mesic forest stands contained pole- and sawtimber-sized deciduous canopy trees and a mixed deciduous and coniferous understory, or shrub layer. This community type was structurally complex, with all forest vegetation layers well developed. The ground flora was typical of northern dry-mesic forests (sensu Curtis 1959).

Lowland Conifer Community. The lowland conifer community was the second largest community type, at nearly 26 acres. It was composed of four habitat types: Black Spruce, Tamarack,

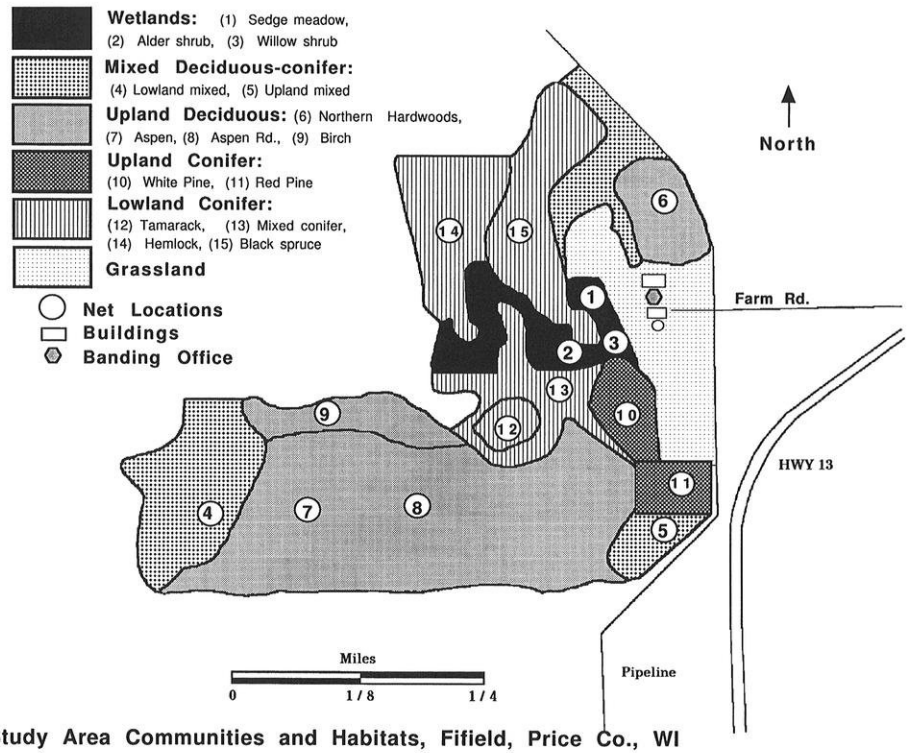


Figure 1. Fifield bird study area, net locations, and communities,1989–1992, Price County, Wisconsin.

Hemlock, and Mixed Conifer. The black spruce and tamarack stands were growing on sphagnum moss where the soil was saturated most of the year. The hemlock and mixed conifer stands were on slightly drier ground where the soil was saturated during snow melt and generally after heavy rains. Except for low shrubs like Labrador-tea and leatherleaf, there was very little understory and structural diversity.

Mixed Deciduous-Conifer Community. The mixed deciduous-conifer community (13.5 acres) occurred on both lowlands and uplands, and included two habitat types: Lowland Mixed Deciduous-Conifer and Upland Mixed Deciduous-Conifer. The species composition of the canopy was diverse. Dead standing and downed trees and a dense shrub layer contributed to the structural complexity.

Wetland Community. The wetland community (Figure 2) was 7 acres in size and contained three habitat types: Alder Shrub, Willow Shrub, and Sedge Meadow. These habitats were composed of dense, scrubby shrubs with scattered pockets of small conifer and deciduous trees, or, in the case of Sedge Meadow, an open-canopy wet meadow. Soils were usually saturated, and standing water was present during and after snow melt and heavy rains.

Upland Conifer Community. The upland conifer community consisted of 7

Figure 2. This shrubby wetland community was used by the greatest number of species, more long-distance neotropical migrant species, and largest number of individuals, 1989–1992, Price County, Wisconsin.

acres in two habitat types: White Pine and Red Pine (Figure 3). Both stands consisted of dense, pole-sized trees, with little structural and tree species diversity.

Methods

Mist netting, Banding, and Biological Data—From 1989 through 1992, birds were trapped during the spring (about mid–April to the end of May) and fall (about mid–August to the end of September) migration periods. We used up to 45 standard mist nets (12 meters × 2.6 meters of 36 millimeter mesh) totaling 504 meters (1,800 feet) in the 15 different habitats to monitor species movement, habitat relationships, and condition of resident and migrant birds as they used the forest.

Three mist nets were placed in a row at the same location within each habitat and were monitored throughout the course of the study. Nets were opened from dawn to dusk during favorable weather, and were checked for birds every hour or less. All mist net capture data were converted to birds per 1,000 net hours of operation to standardize sample effort among habitats for comparative purposes. Our sample unit was the "net hour": one 12 meter × 2.6 meter mist net open for 1 hour. Birds were removed from mist nets, placed in cloth bird bags, and transported to an on-site banding office for processing. We recorded the time of capture and habitat type in which each bird was captured.

Once in the banding office, the following data from each bird were en-

Figure 3. This red pine plantation was the least used by bird species and individuals of all 15 habitats studied due to its lack of vegetative and structural diversity, 1989–1992, Price County, Wisconsin.

tered directly into a computer: date, time, habitat location, band number, and biological data such as age, sex, weight, and wing length. After being checked for ticks and banded with an official U.S. Fish and Wildlife Service numbered band, each bird was released from the banding office. Ticks removed from birds were put in vials with a small piece of moist filter paper and refrigerated until examined. Some birds (N = 106) were released unprocessed, except for identification, when there was a high volume of birds that could not all be kept long enough and processed safely without causing them undue stress.

Migratory Bird Classification—We classified migrant species according to Partners in Flight Research Working Group (1992) lists. The PIF "A" list refers to neotropical species that breed in North America and spend their nonbreeding period primarily south of the United States, and are referred to in our study as "long-distance neotropical migrants." Species on PIF's "B" list breed and winter extensively in North America, but some populations winter south of the United States, and are referred to in our study as "short-distance migrants." We classified permanent residents and questionable species as "O" (other). Scientific and common names and migratory status of birds we studied are provided in Table 1.

Versatility Rating—A versatility rating is a good measure of how adaptable a

Table 1. Species, migratory class, and number of birds trapped, spring and fall combined, 1989–1992, Price Co., Wisconsin.

Common Name	Latin Name	Migratory Class[1]	No. Birds
Sharp-shinned Hawk	Accipiter striatus	A	26
Broad-winged Hawk	Buteo platypterus	A	2
Ruffed Grouse	Bonasa umbellus	O	2
American Woodcock	Scolopax minor	O	5
Black-billed Cuckoo*	Coccyzus erythropthalmus	A	2
Northern Saw-whet Owl	Aegolius acadicus	B	8
Whip-poor-will*	Caprimulgus vociferus	A	2
Ruby-throated Hummingbird	Archilochus colubris	A	3
Yellow-bellied Sapsucker	Sphyrapicus varius	B	25
Downy Woodpecker	Picoides pubescens	O	18
Hairy Woodpecker	Picoides villosus	O	23
Black-backed Woodpecker	Picoides arcticus	O	1
Northern Flicker	Colaptes auratus	B	13
Pileated Woodpecker	Dryocopus pileatus	O	3
Olive-sided Flycatcher*	Contopus borealis	A	1
Eastern Wood-Pewee*	Contopus virens	A	2
Yellow-bellied Flycatcher	Epidonax flaviventris	A	1
Alder Flycatcher	Epidonax alnorum	A	8
Least Flycatcher	Epidonax minimus	A	23
Eastern Phoebe	Sayornis phoebe	B	1
Great-crested Flycatcher*	Myiarchus crinitus	A	3
Blue-headed Vireo	Vireo solitarius	A	7
Philadelphia Vireo*	Vireo philadelphicus	A	1
Red-eyed Vireo	Vireo olivaceus	A	55
Gray Jay	Perisoreus canadensis	O	10
Blue Jay	Cyanocitta cristata	O	37
Tree Swallow	Tachycineta bicolor	B	19
Black-capped Chickadee	Poecile atricapillus	O	289
Red-breasted Nuthatch	Sitta canadensis	O	43
White-breasted Nuthatch	Sitta carolinensis	O	7
Brown Creeper	Certhia americana	B	89
House Wren	Troglodytes aedon	A	1
Winter Wren	Troglodytes troglodytes	B	1
Golden-crowned Kinglet	Regulus satrapa	B	44
Ruby-crowned Kinglet	Regulus calendula	B	42
Eastern Bluebird	Sialia sialis	B	25
Veery*	Catharus fuscescens	A	9
Gray-cheeked Thrush	Catharus minimus	A	44
Swainson's Thrush	Catharus ustulatus	A	303
Hermit Thrush	Catharus guttatus	B	366
Wood Thrush*	Hylocichla mustelina	A	2
American Robin	Turdus migratorius	B	38
Gray Catbird	Dumetella carolinensis	A	6
Brown Thrasher	Toxostoma rufum	B	1
Cedar Waxwing	Bombycilla cedrorum	B	3
Tennessee Warbler*	Vermivora peregrina	A	236
Orange-crowned Warbler	Vermivora celata	A	1
Nashville Warbler*	Vermivora ruficapilla	A	202
Northern Parula	Parula americana	A	1
Chestnut-sided Warbler*	Dendroica pensylvanica	A	20
Magnolia Warbler*	Dendroica magnolia	A	126

(*continued*)

Table 1. (*continued*)

Common Name	Latin Name	Migratory Class[1]	No. Birds
Cape May Warbler*	Dendroica tigrina	A	22
Black-throated Blue Warbler	Dendroica caerulescens	A	1
Yellow-rumped Warbler	Dendroica coronata	B	284
Black-throated Green Warbler*	Dendroica virens	A	56
Blackburnian Warbler*	Dendrocia fusca	A	8
Palm Warbler	Dendroica palmarum	A	97
Bay-breasted Warbler*	Dendroica castanea	A	34
Blackpoll Warbler	Dendroica striata	A	61
Black-and-white Warbler	Mniotilta varia	A	31
American Redstart*	Setophaga ruticilla	A	49
Ovenbird*	Seirus aurocapillus	A	355
Northern Waterthrush	Seirus noveboracensis	A	11
Mourning Warbler*	Oporornis philadelphia	A	7
Common Yellowthroat*	Geothlypis trichas	A	39
Wilson's Warbler	Wilsonia pusilla	A	4
Canada Warbler*	Wilsonia canadensis	A	5
Scarlet Tanager*	Piranga olivacea	A	3
Chipping Sparrow	Spizella passerina	A	30
Savannah Sparrow	Passerculus sandwichensis	B	2
Fox Sparrow	Passerella iliaca	B	9
Song Sparrow	Melospiza melodia	B	26
Lincoln's Sparrow	Melospiza lincolnii	A	47
Swamp Sparrow	Melospiza georgiana	B	6
White-throated Sparrow	Zonotrichia albicollus	B	378
Harris's Sparrow	Zonotrichia querula	B	1
White-crowned Sparrow	Zonotrichia leucophrys	B	2
Dark-eyed Junco	Junco hyemalis	B	136
Northern Cardinal	Cardinalis cardinalis	O	2
Rose-Breasted Grosbeak*	Pheucticus ludovicianus	A	11
Indigo Bunting*	Passerina cyanea	A	2
Common Grackle	Quiscalus quiscula	B	5
Brown-Headed Cowbird	Molothrus ater	B	2
Purple Finch	Carpodacus purpureus	B	40
White-winged Crossbill	Loxia leucoptera	O	1
Common Redpoll	Carduelis flammea	O	2
Pine Siskin	Carduelis pinus	B	45
American Goldfinch	Carduelis tristus	B	13
Evening Grosbeak	Coccothraustes vespertinus	O	4

*Species declining or of management concern (Partners In Flight scores of 3 or greater) in the Midwest (Thompson et al. 1993)

[1]A = Long distance Migrant, B = Short distance Migrant, and O = Other (Partners in Flight Research Working Group 1992)

species is to habitat change or loss. The more habitats a species uses, the more versatile it is; the fewer habitats it uses, the less versatile it is (Benyus et al. 1992). In this study, our 15 habitat types were aggregated into five community types and our measure of versatility was based on those five community types. Bird species were divided into three groups based on the number of communities they used on the study area; low (1–2 communities used), intermediate (3–4 communities used), and high (all 5 communities used). Only those species (36 out of 89 total) for which more than 20

individuals were captured were included in the analysis. Restricting the analysis to these 36 species means that, for example, the chance of assigning a 'high' species to the 'intermediate' category is less than 5%.

Results

Bird Capture and Tick Data—Mist nets were operated for 186 days in up to 15 habitats for a total of 58,856 net hours over eight migration seasons from 1989 to 1992 (Table 2). We trapped and banded 4,031 individual birds of 89 species (Table 2) and had 1,315 recaptures of our own previously banded birds.

More individuals (2,874) and species (75) were captured during fall migration than in spring (1,157 individuals; 70 species). Capture rates (birds trapped per 1,000 net hours) for all communities and years combined were also higher in fall (102.6) than in spring (37.5). Fifty-six species (63%) were common to both spring and fall, whereas 13 species were captured only in spring and 20 only in fall. The following six species (listed in order of abundance) made up 50% of the spring captures: Hermit Thrush, White-throated Sparrow, Ovenbird, Black-capped Chickadee, Nashville Warbler, and Pine Siskin. The following seven species made up 50% of the fall captures: Swainson's Thrush, White-throated Sparrow, Tennessee Warbler, Ovenbird, Black-capped Chickadee, Hermit Thrush, and Magnolia Warbler.

Of 1,184 ticks removed from 335 birds of 26 species, 60 rabbit ticks (*Haemaphysalis leporispalustris*) from eight species of birds were found to be infected with the Lyme disease spirochete, *Borrelia burgdorferi* (Nicholls and Callister 1996).

Bird Community/Habitat Relationships—All community types were used by a wide variety of species, but some were used much more than others (Table 3). The highest capture rate occurred in the wetland community type (170 birds per 1,000 net hours) (Figure 4c). Comprising only 7% of the study area, this community was used by migrating birds far in excess of its acreage proportion (Figure 4c). More individuals were netted in the Wetland community (54% of all new captures) than in the other four community types combined.

Table 2. Mist net trapping summary for eight migration seasons, spring and fall, 1989–1992, Price Co., Wisconsin.

Year	Trapping Period	Days Nets Open	Net Hours	New Birds	Retrap Birds	Total Birds
1989	4/21–5/26	28	9165	311	165	476
	8/24–10/6	24	6609	574	122	696
1990	4/25–6/1	23	6883	254	151	405
	8/21–9/27	29	9773	717	204	921
1991	4/22–5/30	23	7556	181	158	339
	8/27–10/3	27	6074	800	173	973
1992	4/28–5/21	17	7241	411	192	603
	8/26–9/17	15	5555	783	150	933
Totals		186	58856	4031	1315	5346

The Wetland community also had the highest species richness, with 77 out of the 89 total species captured (Figure 5); over half (54.5%) of those species are classified as long-distance neotropical migrants (Figure 5). The Upland Deciduous community had the second highest species richness (46), with over half (54.4%) of those species classified as long-distance neotropical migrants. The Lowland Conifer (45 species) and Mixed Deciduous-Conifer communities (41 species) followed, with long-distance neotropical migrants comprising 48.9% and 46.3%, respectively. The Upland Conifer community had the least number of species (16), of which 43.8% were long-distance neotropical migrants. Generally, more species were captured (Figure 6), and higher capture rates of long-distance neotropical migrants occurred (Figure 4a and b), in fall rather than in spring.

All three wetland habitats—Alder Shrub, Willow Shrub, and Sedge Meadow—contributed to the high capture rate within the Wetland community. These three habitats each attracted more individual birds (Figure 7) and more species (Figure 5) than any of the other 12 habitats.

Versatility Rating—Our quantification of the number of communities a bird species used represents the adaptability of that species to community change or loss. Eight species fell in the low versatility group that used only one to two communities, 14 fell in the intermediate group using three to four communities, and 14 fell in the high group using all five communities. These results indicate that while some of the species in the study area tended to specialize in a few communities rather than many, most species seemed to be habitat generalists during migration.

Migratory Bird Classification—Of the 89 species captured, most are classified as long-distance neotropical migrants (46), followed by short-distance migrants (28) and other birds (15). We found species from all three migration categories in every habitat type.

Of the 4,031 individuals captured, most were long-distance neotropical migrants (48.6%), followed by short-distance migrants (40.3%) and other birds (11.1%). More individuals of long-distance neotropical migrants (55.7%) than short-distance migrants (33.7%) were captured in fall, whereas the opposite was true in spring when more short-distance (56.6%) than long-distance neotropical migrants (31%) were captured. The percentage of other birds was slightly higher in spring (12.4%) than in fall (10.6%).

Discussion

Methods Used—Small birds in dense vegetation are usually difficult to census, especially outside of the breeding season when few individuals are singing. Mist netting, one of the most efficient methods of censusing birds, can be used to assess habitat use of small bird species, with certain reservations related to net mesh size, bird size, degree of shading, vegetation height, and time of day (Jenni and Leuenberger 1996). Our mist nets, open from dawn to dusk, could not cover the entire vegetation height in most habitats because many trees were up to 80 feet tall. As a result, we undoubtedly missed some birds that prefer higher vegetation strata. Point counts (Hutto et al. 1986)

Table 3. Species presence or absence by community type, spring and fall, 1989–1992, Price County, Wisconsin

	Wetland		Upland Deciduous		Mixed Decid. Conifer		Upland Conifer		Lowland Conifer	
Species	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
American Woodcock	X	X			X					
Sharp-shinned Hawk	X	X	X	X	X	X			X	X
Broad-winged Hawk					X					
Ruffed Grouse			X							X
Black-billed Cuckoo*		X								
Northern Saw-whet Owl	X	X			X				X	X
Whip-poor-will*	X		X							
Ruby-throated Hummingbird	X	X								
Black-backed Woodpecker										X
Downy Woodpecker		X		X	X	X				
Hairy Woodpecker	X	X	X	X		X		X	X	X
Pileated Woodpecker						X			X	
Yellow-bellied Sapsucker	X	X	X	X	X				X	X
Northern Flicker	X	X						X	X	X
Great-crested Flycatcher*			X			X				
Olive-sided Flycatcher*	X									
Eastern Wood-Pewee*			X							
Eastern Phoebe	X									
Least Flycatcher	X	X	X	X		X				X
Alder Flycatcher	X	X								X
Yellow-bellied Flycatcher		X								
Tree Swallow	X									
Blue Jay	X	X	X	X	X	X		X	X	
Gray Jay	X								X	X
Black-capped Chickadee	X	X	X	X	X	X		X	X	X
Brown Creeper	X	X	X	X	X	X			X	X
Red-breasted Nuthatch	X	X	X	X	X	X		X	X	X
White-breasted Nuthatch			X	X						X
House Wren		X								
Winter Wren						X				
Golden-crowned Kinglet		X	X	X	X	X			X	X
Ruby-crowned Kinglet	X	X	X	X	X				X	
Eastern Bluebird								X		
Wood Thrush*									X	
Veery*	X	X	X		X				X	
Swainson's Thrush	X	X	X	X	X	X		X	X	X
Gray-cheeked Thrush	X	X	X	X		X		X	X	X
Hermit Thrush	X	X	X	X	X	X	X	X	X	X
American Robin	X	X	X	X	X	X		X	X	X
Gray Catbird	X	X								
Brown Thrasher		X								
Cedar Waxwing		X								
Solitary Vireo		X			X				X	
Red-eyed Vireo		X	X	X		X				
Philadelphia Vireo*		X								
Tennessee Warbler*	X	X		X	X	X				X

(*continued*)

Table 3. (*continued*)

	Wetland		Upland Deciduous		Mixed Decid. Conifer		Upland Conifer		Lowland Conifer	
Species	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall
Orange-crowned Warbler		X								
Nashville Warbler*	X	X	X	X	X	X			X	X
Northern Parula		X								
Black-and-white Warbler	X	X	X	X		X			X	X
Black-throated Blue Warbler		X								
Black-throated Green Warbler*	X	X	X	X	X	X	X		X	X
Blackburnian Warbler*	X	X								X
Chestnut-sided Warbler*	X	X		X	X	X				
Cape May Warbler*		X								X
Magnolia Warbler*	X	X	X	X	X	X	X	X		X
Yellow-rumped Warbler	X	X	X	X	X	X		X	X	X
Bay-breasted Warbler*		X		X		X		X		X
Palm Warbler	X	X							X	X
Mourning Warbler*		X		X						
Canada Warbler*	X	X	X							
Wilson's Warbler	X	X								
Ovenbird*	X	X	X	X	X	X	X	X	X	X
Northern Waterthrush	X	X	X						X	
Common Yellowthroat*	X	X	X							
Blackpoll Warbler		X		X						X
American Redstart*	X	X	X	X		X		X		X
Rose-breasted Grosbeak*	X	X								
Northern Cardinal	X				X					
Indigo Bunting*		X			X					
Savannah Sparrow		X								
Song Sparrow	X	X	X							
Chipping Sparrow	X	X							X	
Dark-eyed Junco	X	X	X	X		X			X	X
Harris' Sparrow		X								
White-throated Sparrow	X	X	X	X	X	X			X	X
White-crowned Sparrow	X									
Fox Sparrow	X	X		X						X
Lincoln's Sparrow	X	X		X						
Swamp Sparrow	X	X								
Brown-headed Cowbird			X		X					
Common Grackle		X		X		X				
Scarlet Tanager*		X	X							
Pine Siskin	X								X	
American Goldfinch	X	X								
White-winged Crossbill									X	
Common Redpoll	X									
Purple Finch	X	X	X		X					
Evening Grosbeak	X									
Total Number of Species	55	67	37	34	29	30	4	15	32	35

*Species declining or of management concern (scores 3 or greater) in the Midwest (Thompson et al. 1993)

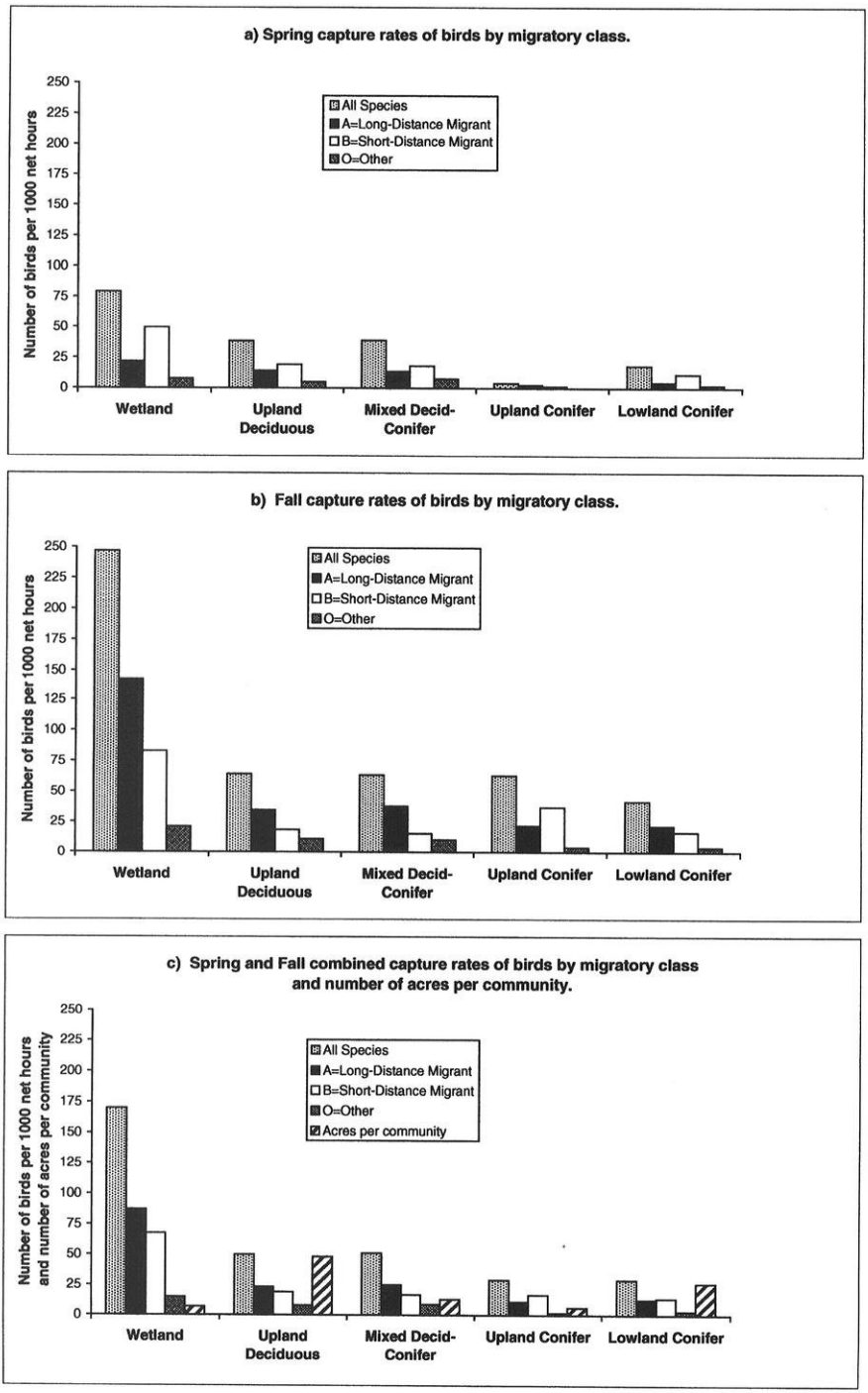


Figure 4. Capture rates of individual birds (N = 4031) by community type, season, migratory status, and acres available, 1989–1992, Price County, Wisconsin.

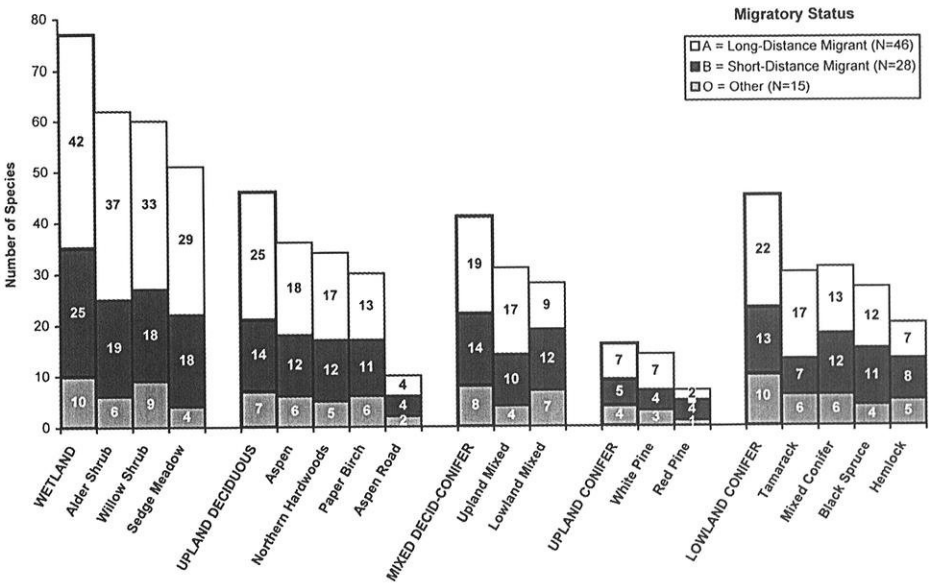


Figure 5. Total number of bird species (N = 89) captured by community and habitat type and migratory status, 1989–1992, Price County, Wisconsin.

that record all birds seen or heard during the count period in spring, in combination with mist netting, would provide a more complete census of birds using an area during migration. We, in fact, tested this idea in spring (unpub. data) and found that we detected some birds with mist nets that we did not detect with point counts, and vice versa. Point counts used in combination with mist netting to census fall birds would be much less useful because most point-count birds are heard rather than seen and fewer birds are singing in the fall.

Mixed Species Flocks—Migratory songbirds form mixed species flocks together with resident birds while at migration stopovers. It was not unusual for us to capture some of these mixed species flocks in mist nets as they moved about the habitats while feeding, especially in the Wetland community. In fact, we once caught 11 species of birds in one mist net. Mixed species flocks confer the advantage of more predator-detecting eyes and ears looking and listening for predators. And, if migrating songbirds that stop to refuel join resident birds—such as Black-capped Chickadees and Red-breasted Nuthatches—who know local food sources, habitats, and potential predators in the area, their feeding is likely more efficient and safer even though there may be more competition for food resources.

Importance of Wetlands—Based upon our mist net results, the Wetland community (Figure 2) was by far the most used community in our study area, and was characterized by having the greatest number of species, more long-distance neotropical migrant species, and the largest number of individuals. A preliminary analysis of our spring

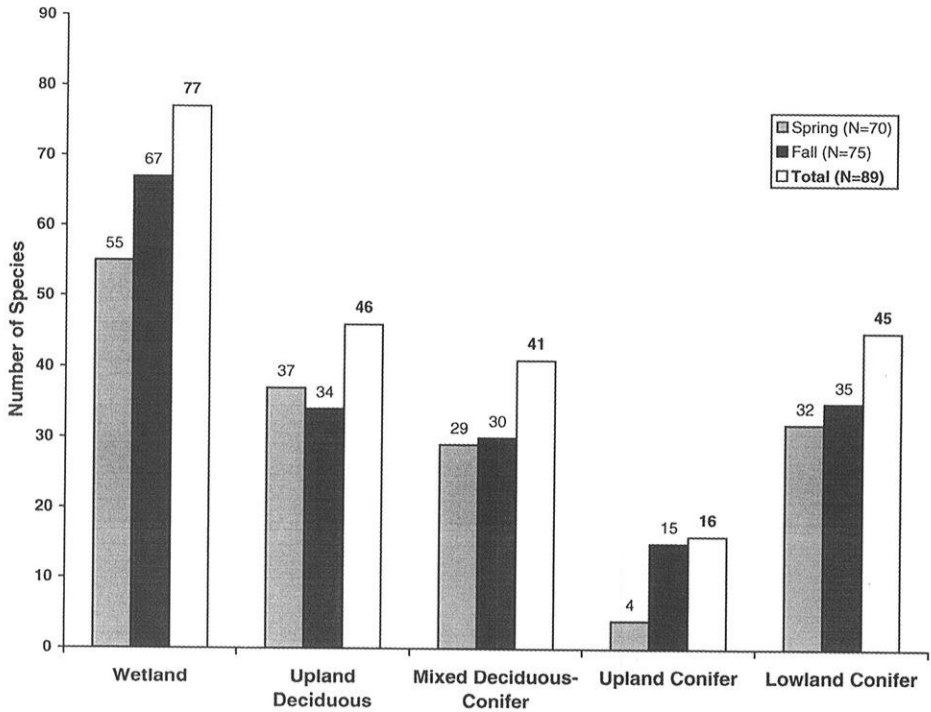


Figure 6. Number of bird species (N = 89) captured by community type and season, 1989–1992, Price County, Wisconsin.

point count data indicated a similar pattern, with a high number of migrant species and individuals found in the Wetland community (unpub. results).

Many of the birds normally found in the upper canopy, such as Red-eyed Vireos and Blackburnian Warblers, were frequently caught in wetland habitats, often in mixed species flocks. When frequent foggy conditions brought down migrants over a forest area, the wetlands attracted birds like a magnet, probably because there was an abundant food supply of insects and berries, accessible water, and dense vegetation that offered protection from bad weather and predators. Even the agile, bird-eating Sharp-shinned Hawk had a difficult time penetrating the dense, shrubby wetland habitats (pers. obs.).

Although the value of wetlands to wildlife has sometimes been underestimated by land managers in the past, our study shows that wetlands play an extremely important role as en route refueling and resting sites for migratory songbirds. Fortunately, there are numerous scattered, shrubby wetlands in the forested landscape of northern Wisconsin that serve as important songbird migration refuges.

Wisconsin has already lost 47% of its original 10 million acres of wetlands since European settlement (Wisconsin Department of Natural Resources 1995), with greater loss in the southern

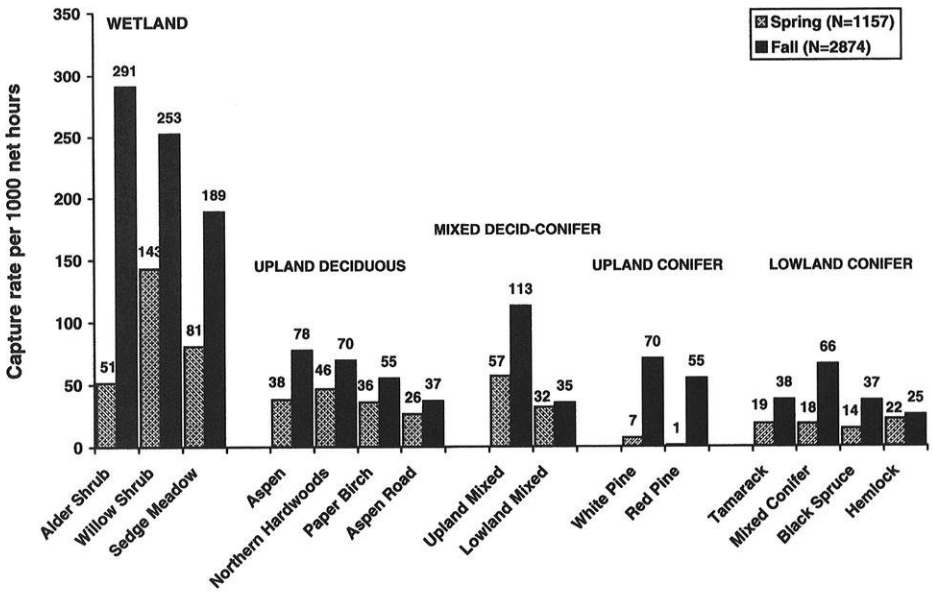


Figure 7. Seasonal capture rates of individual birds (N = 4031) by habitat type within each community, 1989–1992, Price County, Wisconsin.

than the northern part of the state due to development and drainage for agriculture. About 40% of Wisconsin's over 400 recorded bird species live in or use wetlands—no other habitat type comes close in terms of importance. The Wisconsin Department of Natural Resources plays the lead role in preventing wetland loss through an aggressive regulatory program involving local, state, and federal governments. Laws require that new wetlands be created to replace those being lost (wetland mitigation) through development, but the value of these mitigated wetlands to migratory songbirds remains unstudied. We feel it is important to study mitigated, as well as natural, wetlands to determine their value as songbird habitat and to protect and conserve remaining wetlands throughout Wisconsin so they may serve as songbird migration refuges as well as habitat for a wide variety of other life forms.

Songbird Refuges—Conserving and managing songbird refuges can be more difficult than first meets the eye. Management of habitat is a first step for bird conservation, but species interactions and biogeographic factors inevitably complicate simple management prescriptions (Howe et al. 1996). Also, variable weather patterns influence the movement of migrants, so use of stopover sites can change dramatically from year to year and season to season (Moore et al. 1993). While songbird refuges that provide life-giving vital links to migratory birds may not be used every year or every season, key refuges must be conserved and protected in a variety of habitats and geographical areas along migratory

pathways so they are available when birds need them.

Migratory Status Comparison with Other Wisconsin Studies—Our study was just a snapshot in time and space. We recorded only a sample of the birds using the area, and only during spring and fall. If one were to multiply the number of birds we found using our 100-acre study area by the thousands of acres of similarly diverse habitat across northern Wisconsin, one could calculate how important these northern forest habitats must be to our neotropical migratory songbirds.

As examples, 51.7% of the 89 species and 48.6% of the 4,031 individuals in our study were neotropical migrants. Weisbrod et al. (1993), in a mist net study during spring and fall along the St. Croix River in Burnett County, about 120 miles west of our study area, found that neotropical migrants comprised 66% of the 118 species they captured and 72.7% of all individuals (N = 16,527). In a breeding bird point count study about 50 miles north of our study area in Ashland County, Elias (1997) observed 80 species, of which 47.5% were neotropical migrants, representing 68.8% of the total number (N = 3,147) of birds observed.

These studies show how important these northern habitats are to neotropical migrants. There is concern, however, that these habitats may become more fragmented though logging and development, resulting in a serious loss of habitat quality. If this does happen, we expect that competition for resources will increase, leading to more declines in bird populations that depend upon these resources.

Bird-Tick Diseases—While habitat loss of wintering grounds, breeding grounds, and resting and refueling habitats are thought to contribute to declines of some migratory bird populations, little is known about the impact zoonotic diseases (diseases transmitted between humans and animals) may have on declining bird populations.

Our bird-tick disease results confirm that birds are important disseminators of ticks carrying Lyme disease. If a tick feeds on an infected bird, it could carry the bacterium to another animal, including a human. An infected tick could also hitch a ride on a bird and then drop off somewhere along the migration route, possibly setting up a new infection center or contributing to a center already established. This may explain, in part, how this disease has been able to move rapidly throughout the United States and across short and long distances.

Birds may also be competent reservoir hosts for Lyme disease spirochetes. For example, Richter et al. (2000) recently found that captive American Robins infected with the Lyme bacterium become as infectious for vector ticks as do reservoir mice, but infectivity in robins wanes more rapidly. However, robins remain susceptible to reinfection, became infectious again, and permitted repeated feeding by vector ticks. Research is needed to determine whether robins and other birds are important disease reservoirs under natural conditions.

In a more recent study on our Fifield study site, Larson (2000) reported the first evidence of granulocytic ehrlichiosis (GE) infection of two Dark-eyed Juncos, one American Goldfinch, and 40 rabbit ticks removed from birds. His

results suggest that migratory birds may play a role in the geographic expansion of GE and that rabbit ticks may be important in maintaining enzootic cycles of GE in northern Wisconsin. We suggest that more work needs to be done on the role migratory birds play in the dissemination of tick-borne zoonotic diseases and the potential impact they may have on bird populations themselves.

Vegetation Structure—In general, we found that the more diverse a community or habitat was in plant species composition and physical and foliage structure, the more bird species and individuals we found using it. This was certainly true in our Wetland, Mixed Deciduous-Conifer, and Upland Deciduous communities, the complexity of which allowed many individual birds and species to utilize available resources to help meet their energetic requirements. This does not mean that less complex communities, such as our Lowland and Upland Conifers were unimportant, as they also served some species well, as illustrated by the Red Pine habitat.

Red Pine habitat (Figure 3) had by far the least vegetative diversity and structure of all of the 15 habitats and, as a result, we expected little use of that habitat. In fact, it was used very little except by flocks of migrating Eastern Bluebirds in the fall that were caught in the middle of the plantation while feeding on sawflies that were feeding on pine needles. One normally expects bluebirds to be feeding out in open grasslands with scattered shrubs and not in the middle of a dense conifer plantation. But the bluebirds were opportunistic and versatile enough to utilize the sawfly outbreak to their refueling advantage.

Versatility—In songbird management, we must consider that species range from generalists to specialists. The less versatile a species is, the less the margin for errors in management. When managing habitats for migrating birds, it is important to provide all of the resources each species needs to refuel and to successfully complete its migratory journey. Given the diversity of migratory species, each with their own, often unique, resource requirements, it seems prudent to conserve, restore, or develop a mosaic of communities that accommodate the needs of all songbirds during migration.

Habitat Conservation—Stopover habitat conservation is important because, unless habitat requirements during migration are met, conservation measures that focus on temperate breeding grounds and neotropical wintering areas will be compromised (Dunne et al. 1989). Migratory songbirds have a three-part life cycle that includes time in their wintering area, their breeding area, and time spent in between these two areas (Craves 1997). They spend about 30% of their time on breeding grounds and the rest of their time on wintering grounds and in migration. Many neotropical migratory birds fly over 1,000 miles from wintering to breeding grounds. The energy used to make such a trip requires that birds stop to rest and refuel several times before they reach their destination. As more and more migration habitats are lost, birds must use extra energy to find suitable habitat for refueling; if they can't find quality habitat to refuel, they won't survive the trip. If they do make

it to their destination, they may arrive in such poor condition that they will be unable to set up territories, breed, nest, and raise young.

The rigors of migration often place birds close to their physiological limits in unfamiliar landscapes where they do not have the luxury of selecting alternative habitats (Moore et al. 1993). Migrant birds have to choose habitats repeatedly during migration, often finding themselves in different habitats day to day and year to year. Migration is something akin to Russian roulette: making the wrong choice can be disastrous, especially for inexperienced hatching-year birds migrating for the first time.

For many species, adults migrate at different times than young of the year, so the young often do not have the benefit of adult experience. Death during migration can take a heavy toll; it has been estimated that up to half of all migrants heading south in fall will not return to breed the following spring (Craves 1997). A comprehensive plan to reduce en route migration mortality and reproductive failure has been outlined by Moore et al. (1993, 1995). Their plan provides guidelines and recommendations for migratory bird habitat conservation and management according to geographical scale that can be used to plan much-needed migration habitat conservation efforts. Our study supports these efforts, having shown that protecting wetland habitats in northern Wisconsin, in particular, and a mosaic of habitats, in general, will be important to the conservation of songbirds during migration.

Acknowledgements

This study was funded by the USDA Forest Service, North Central Research Station, St. Paul, MN. We wish to thank the many people who helped us with this study. Thanks to all those who helped to trap and band birds: Gail Buhl, Judy Larson, Kathy Ward, Sheri Decora, and Jane Wiedenhoeft. In addition, we thank Kevin Nimerfro for creating a helpful data entry computer program, Dave Rugg and Dick Buech for statistical help, and Gail Sindt for computer support services. We also thank Dean Granholm, Juan Vargas, and Mike Spreeman of the Chequamagon-Nicolet National Forest for logistical support, and Dick Weisbrod, formerly of the National Park Service, for helpful advice. Steve Callister of the Microbiology Research Center at the Gundersen Medical Foundation and Russell Johnson of the Department of Microbiology at the University of Minnesota identified ticks and analyzed them for the Lyme bacterium. We thank the Neotropical Migratory Bird Conservation Program of Partners in Flight that encouraged this study. Also, a special thanks is due to Mary Lou Nicholls for wonderful, hardy meals prepared for the field crew. Most of all, we dedicate this paper to, and are forever grateful for, the late Louella Cory, whose generosity and hospitality made this research not only possible but enjoyable.

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Appendix 1. Common and scientific names of all plant species mentioned in the text. Scientific names are according to Voss (1972, 1985, and 1996) for monocots and dicots, and according to Morin (1993) for Pteridophytes and Gymnosperms.

Common Name	Scientific name
Balsam fir	Abies balsamea
Barren strawberry	Waldsteinia fragarioides
Beaked sedge	Carex rostrata
Bebb's willow	Salix bebbiana
Big-tooth aspen	Populus grandidentata
Black cherry	Prunus serotina
Black spruce	Picea mariana
Blue bead lily	Clintonia borealis
Blueberry	Vaccinium angustifolium, V. myrtilloides
Blue-joint grass	Calamagrostis canadensis
Bracken fern	Pteridium aquilinum
Bunchberry	Cornus canadensis
Canada mayflower	Maianthemum canadense
Chokecherry	Prunus virginiana
Small cranberry	Vaccinium oxycoccus
Creeping snowberry	Gaultheria hispidula
Dewberry	Rubus hispidus
Goldthread	Coptis trifolia
Hazlenut	Corylus americana, C. cornuta
Hemlock	Tsuga canadensis
Labrador tea	Ledum groenlandicum
Lady fern	Athyrium filix-femina
Large-leaved aster	Aster macrophyllus
Leatherleaf	Chamaedaphne calyculata
Leatherwood	Dirca palustris
Meadow willow	Salix petiolaris
Meadowsweet	Spiraea alba
Orange hawkweed	Hieracium aurantiacum
Paper birch	Betula papyrifera
Partridgeberry	Mitchella repens
Pennsylvania sedge	Carex pensylvanica
Pink lady's slipper	Cypripedium acaule
Princess pine	Lycopodium obscurum
Quaking aspen	Populus tremuloides
Red maple	Acer rubrum
Reed canary grass	Phalaris arundinacea
Round-lobed Hepatica	Hepatica americana
Running pine	Lycopodium lagopus
Soft rush	Juncus effusus
Speckled alder	Alnus rugosa
Sphagnum moss	Sphagnum spp.
Starflower	Trientalis borealis
Sugar maple	Acer saccharum
Tamarack	Larix laricina
Three-leaved Solomon's seal	Smilacina trifolia
Violet	Viola sp.
White cedar	Thuja occidentalis
White pine	Pinus strobus
White spruce	Picea glauca
Wild sarsaparilla	Aralia nudicaulis
Wintergreen	Gaultheria procumbens
Wood fern	Dryopteris intermedia
Wool grass	Scirpus cyperinus
Yellow birch	Betula alleghaniensis

Appendix 2. Detailed descriptions of specific habitats within the Fifield study area's five general community types. See Figure 1 for location within the study area.

Upland Deciduous Community:

Aspen (19 acres) was a mature stand of quaking and big-tooth aspens with an understory of sugar maple, balsam fir, leatherwood, and black cherry. The dominant ground cover vegetation consisted of large-leaved aster, barren strawberry, round-lobed Hepatica, and sugar maple seedlings.

Aspen Road (19 acres) was also a mature stand of quaking and big-tooth aspen. However, it had a more open understory than Aspen, consisting of hazelnut, scattered balsam fir, and leatherwood. The ground cover was predominantly composed of sugar maple seedlings, starflower, barren strawberry, Pennsylvania sedge, bracken fern, and large-leaved aster.

Northern Hardwoods (5 acres) consisted of a mature stand of sugar and red maples and yellow birch, with a dense understory of balsam fir, white pine, maple, hazelnut, and choke cherry. The ground cover consisted mostly of Pennsylvania sedge, large-leaved aster, round-lobed Hepatica, Canada mayflower, bunchberry, and sugar and red maple seedlings.

Paper Birch (4.5 acres) was a mature stand of paper birch with a dense understory of hazelnut, balsam fir, sugar maple, and black cherry. The ground cover consisted primarily of large-leaved aster, round-lobed hepatica, partridgeberry, red and sugar maple seedlings, and bracken fern.

Lowland Conifer Community:

Black Spruce (9 acres) was a well-spaced stand of pole-sized black spruce with a few scattered tamarack on a site where the soil was saturated most of the year. There was essentially no understory. The ground cover consisted predominantly of Sphagnum moss, with creeping snowberry, three-leaved Solomon's seal, blueberry, small cranberry, pink lady's slipper, wintergreen, and scattered patches of Labrador-tea.

Hemlock (8.75 acres) was a dense, closed-canopy stand of hemlock with scattered big-tooth aspen occurring as super-canopy trees. The sparse ground cover consisted of princess pine clubmoss, lady fern, Canada mayflower, blue bead lily, and aspen seedlings. The soils were slightly drier than those of other lowland conifer stands, except after winter snow-melt and heavy rains.

Mixed Conifer (6.5 acres) was a stand of balsam fir, white cedar, hemlock, white spruce, and white pine, bordered on three sides by an alder shrub swamp. The dense understory was predominantly speckled alder, hazelnut, and willow. Sphagnum moss, princess pine clubmoss, running pine clubmoss, goldthread, and bunchberry were the most common ground cover vegetation.

Tamarack (1.5 acres) consisted of a stand of mature tamarack with scattered black spruce and no understory. The ground cover was predominantly Sphagnum moss, Labrador-tea, blueberry, and creeping snowberry.

Mixed Deciduous-Conifer Community:

Lowland Mixed Deciduous-Conifer (11 acres) was a mixed stand of balsam fir, quaking aspen, and scattered white pine, with an understory of balsam fir, sugar maple, hazelnut, and black cherry. Bunchberry, wood fern, blue bead lily, dewberry, and barren strawberry were the dominant ground cover species.

Upland Mixed Deciduous-Conifer (2.5 acres) was a mixed stand of big-tooth and quaking aspen, paper birch, and red maple with an understory of white pine, balsam fir, hazelnut, and choke cherry. The ground cover was primarily composed of red and sugar maple seedlings, Pennsylvania sedge, bracken fern, large-leaved aster, and barren strawberry. A seasonal creek flowed through the area.

Wetland Community:

Alder Shrub (5 acres) consisted mostly of dense speckled alder with scattered, slow-growing sapling and pole-sized paper birch, tamarack and black spruce. Sphagnum moss, leatherleaf, blue-joint grass, and the beaked sedge, were the primary ground cover species.

Willow Shrub (1 acre) was a dense shrubby habitat containing mostly Bebb's willow, with some alder and pockets of black spruce and tamarack trees. Ground cover consisted of primarily blue-joint grass, reed canary grass, wool grass, Sphagnum moss, bunchberry, and common blueberry.

Sedge Meadow (1 acre) was an open meadow of blue-joint grass, reed canary grass, soft rush, three-leaved Solomon's seal, and Sphagnum moss. Thickets of meadowsweet, alder, and Bebb's and meadow willows bordered the open canopy wet meadow.

(*continued*)

Appendix 2. (*continued*)

Upland Conifer Community:

White Pine (3.5 acres) was a naturally-regenerated, approximately 26-year-old stand of white pine with a few balsam fir and paper birch. The sparse understory consisted of a few younger white pine and balsam fir. The ground cover was mostly needle litter with a few Canada mayflower, orange hawkweed, violets, wild sarsaparilla, and bracken fern where some light penetrated to the forest floor.

Red Pine (3 acres), which was hand planted in 1960, consisted of rows of red pines approximately 6 ft apart. There was no understory, and needle litter covered the ground.

Northern Saw-whet Owl *by Dennis Malueg*

Numbers and Distribution of Breeding Black Terns in Southeastern Wisconsin During 2000

The marsh-nesting Black Tern may be declining in numbers as a breeding bird in North America, including Wisconsin. In 2000, 80 wetland sites were surveyed to determine distribution and numbers of Black Terns in five southeastern Wisconsin counties. Regional numbers, estimated at ≥ 195–239 adults, were comparable to counts in a similar survey in 1979.

by Terri Beth Peters

Because of perceived declines in its North American breeding population, the marsh-nesting Black Tern (*Chlidonias niger*) is now listed as an endangered or threatened species within six U.S. states, including Illinois and Indiana. It is a species of "special concern," "conservation concern," or "vulnerable" status within 18 additional states or Canadian provinces, including Wisconsin (USFWS 1999). Roadside breeding bird counts administered by the U.S. and Canadian wildlife services, although not well suited to surveying marshland birds, suggest that the Black Tern's continental breeding population has dropped to approximately one-third of initial levels during 1966–96 (Peterjohn and Sauer 1997, Dunn and Agro 1995).

The Wisconsin Department of Natural Resources (WDNR) and its Bureau of Endangered Resources (BER) currently rate the Black Tern as a species of "special concern." This nonstatutory designation implies that it may be declining in numbers and/or contracting in range as a breeding bird within the state (Robbins 1977, Tilghman 1979, Mossman 1983, Graetz and Matteson 1996, Robbins et al. 1996). This tern may soon be recommended as a candidate for possible listing as an officially threatened species in Wisconsin during BER's ongoing review of potential additions to the state's catalog of endangered and threatened resources (S. Matteson pers. comm.).

During the 2000 breeding season, I surveyed numbers and distribution of Black Terns at 80 wetland sites in a five-county area of southeastern Wisconsin, and compared my results to a previous study of most of the same sites in this survey area (Tilghman 1979).

Study Area and Methods

I chose Kenosha, Racine, Walworth, Waukesha, and the eastern half of Jefferson Counties as a feasible study area (ca. 5,000 square kilometers) because recent information (Tilghman 1979) and historical data (e.g., Hoffman 1954) on potential Black Tern breeding sites were available. I listed 21 known or probable sites where nesting evidence of ≥ 3 breeding-season terns had been reported in one or more years since 1970, and 59 historical, possible, or seemingly suitable sites not meeting the above criteria for known or probable sites. These survey sites were identified using data from Tilghman (1979), Southeastern Wisconsin Regional Planning Commission (1997), unpublished information in the 1995–99 Wisconsin Breeding Bird Atlas (B. Harriman pers. comm.), files of BER's Natural Heritage Inventory (E. Epstein pers. comm.), unpublished data by J. Bielefeldt (pers. comm.), personal 1998–99 observations, and knowledgeable local observers.

Previous surveys (Tilghman 1979) were based on a minimum of 5 minutes of shoreline observation per site. For comparative purposes, I conducted counts with 5 minutes of initial observation and an additional 15 or more minutes of extended observation, which often yielded larger numbers of terns. These extended observations allowed me to make judgments about which terns were believed to be onsite residents and which were assumed to be foraging non-residents (Tilghman 1979, Dunn and Agro 1995). As presented here, site counts are near-instantaneous totals derived from rapid but thorough scans of completely visible marshlands, or aggregate tallies from spatially separated sections of more extensive marshes. I made a total of 115 visits from 21 May to 23 July 2000 to these 80 sites, with two or more visits to all but three of the 22 sites where Black Terns were detected. Eight sites were surveyed by boat and 72 sites by shoreline observations. A complete list of survey sites, dates, and methods is on file with WDNR-Southeast Region (Milwaukee) and WDNR-BER (Madison) as well as with the Southeastern Wisconsin Regional Planning Commission (Waukesha).

Results and Discussion

Black Terns were detected at 22 sites (of 80 sites surveyed) in eastern Jefferson (3), Kenosha (2), Racine (2), Walworth (5), and Waukesha (10) Counties. However, on the basis of extended observations in which birds were not consistently detected and/or were seen departing to or arriving from elsewhere, I judged nine of these 22 sites to involve foraging birds (Table 1) and not onsite residents. In 2000, Black Terns were therefore known or presumed to breed at 13 sites in three counties on the study area (Table 1). I detected no known or presumed breeding sites in Kenosha or Racine Counties in 2000.

Maximum counts of adult terns in extended observations (≥ 20 minutes) during multiple visits to 13 known or presumed breeding areas totaled 177–191 birds (Table 1). However, even such tallies in extended and repeated visits seem likely to be incomplete counts at some and possibly most sites. At one small marsh, for example, seven nests and seven incubating birds were detectable in a shoreline survey that

Table 1. Counts of adult Black Terns at known/presumed breeding sites and nonbreeding/foraging sites (marked by asterisk) in southeastern Wisconsin in 2000. In Methods column, S denotes shoreline count and B denotes boat count.

	Town/Range/Section	Dates	Method	Count
Jefferson County (eastern half)				
Golden Lake*	7-17-30,31; 7-16-25	5/31	S	2
Goose Lake	7-16-22,23,26,27	6/24	S	1
		6/29	S	≥ 2
Rome Pond	6-16-15,16,17,21,22	6/24	S	≥ 4
		6/29	B	≥ 40
		7/16	B	≥ 50–58
Kenosha County				
Bong				
Twin Ponds Parking Lot G*	2-20-17,18	6/10	S	1
		7/1	S	0
Wildlife Tower Pond*	2-20-17	6/10	S	2
		7/1	S	0
Racine County				
Hwy 20 and D Marshes*	3-19-1	5/21	S	1
		6/16	S	0
		7/7	S	0
Wind Lake*	4-20-3,4,8,9,10	6/4	B	4
		7/9	B	0
Walworth County				
Haf's Pond	1-18-2,11	6/15	S	4
		6/30	S	7
		7/23	S	0
Lake Como	2-17-26,27,28,29,32,33	6/17	S	3
Swift Lake	4-17-8	6/19	S	6
		7/3	S	8
		7/23	S	0
Territorial Road Marsh	3-15-4	6/17	S	11
		7/3	S	4
Townline Pond*	2-18-33	6/15	S	4
		6/30	S	3
Waukesha County				
Beaver Dam Marsh	5-17-6	6/2	S	4
		6/27	S	8
		7/12	S	2
Big Muskego Lake	5-20-14,15,21,22,23,26,27,28,33,34	6/9	B	≥ 25–33
		7/13	B	≥ 41–47
Larkin Lake	6-17-15	6/2	S	10
		6/27	S	7
		7/12	S	0
Lower Nemahbin Lake*	7-17-24	6/29	B	1
Lower Phantom Lake	5-18-27	6/3	B	14
		7/4	B	18
Old World Marsh	5-17-21,28	6/2	S	3
		6/27	S	5
School Section Lake	6-17-16,17	5/29	S	2
		6/27	S	2
Vernon Marsh				
Benson Avenue*	5-19-5,6	6/1	S	1
		6/26	S	0
Frog Alley-North*	5-18-12	6/1	S	2
		6/26	S	2
		7/19	S	0
Frog Alley-South	5-18-13,14	6/1	S	12
		6/26	S	9
		7/2	S	2
		7/19	S	0

indicated nesting numbers of ≥ 14 birds, but the maximum onsite count over 45 minutes (including incubating birds) was only 11 birds or ≤ 79% of presumed numbers. Had the nests and incubating birds been less easily detected or undetected (as presumably the case in other shoreline surveys), the count at this site might have been as small as four birds, or ≤ 29% of presumed numbers. Tilghman (1979) reported that extended counts of adults were 64% of the presumed population as based on nest discoveries at four sites. M. Mossman and J. Bielefeldt (pers. comm.) gave a similar figure (67%) for adult detection in extended observations during a single visit to one marsh with ≥ 24 nests in 1983.

Using maximum counts totaling 81 adults in repeated visits as a minimum measure of actual populations at nine known or presumed breeding sites in 2000, I calculated that mean detectability of adults during extended visits was ≤ 80–82% in both early season and late season counts. Corresponding detectability figures for the initial 5-minute counts at the same sites were ≤ 51–61%. If such maximum detectability estimates are used as correction factors to adjust observed numbers, they will accordingly yield minimum estimates of adult population size.

I estimated the adult breeding population on my study area in two ways (with later caveats):

1. Maximum observed numbers (excluding fledglings) during extended observations at 13 known or presumed breeding sites (177–191) plus observed numbers at 9 presumed nonbreeding sites (18) on the assumption that these foraging birds were breeding elsewhere. These counts total 195–209 adults.
2. Maximum observed numbers as corrected by detectability factors of 0.64–0.81 at 11 known or presumed breeding sites (86 / 0.64–0.81 ≥ 106–134 birds) plus maximum observed ranges of numbers in presumably complete counts at Rome Pond (50–58) and Big Muskego Lake (41–47). Counts at nine nonbreeding sites are excluded from this calculation because correction factors are assumed to account for their absence at breeding sites. These estimates total ≥ 197–239 adults.

Although these two calculations are not entirely independent, they do agree on a population size ≥ 195–209 to ≥ 197–239 breeding or presumably breeding adults on the study area in 2000.

Counts used in these calculations are provisional at five sites:

- At Goose Lake (Jefferson County), where shoreline or other access was inadequate, counts are probably minimal.
- At Rome Pond (Jefferson County), a maximum count of 50–58 adults on 16 July might conceivably include some post-breeding birds from other nesting sites. For example, breeding Black Terns at Beaver Dam Marsh, almost 8 kilometers distant, are believed to forage at Rome Pond in some years (J. Bielefeldt pers. comm.), and fledgling and adult dispersals to nonbreeding sites elsewhere in the study area were underway by 25–30 July 2000. However, ≥ 40 adults were also counted at Rome pond on 29 June.
- At Lake Como (Walworth County), potential nesting areas at the southwest end of the lake were inaccessible

to shoreline survey, so counts may be deficient.

- At Big Muskego Lake (Waukesha County), where Black Terns nest and forage at multiple sub-sites in a 1,300-hectare marsh, my conservative counts may have underestimated or overlooked part of the actual adult population.
- At Vernon Marsh (Frog Alley—South) in Waukesha County, drawdowns and dike reconstruction in late June and early July impaired access and late-season counts. The maximum count was performed on 1 June and may underestimate numbers more severely than later counts might have done.

The only comparable survey of Black Terns on this study area occurred in 1979 (Tilghman 1979), when approximately 31 observers detected 201 birds at 27 sites in approximately 116 visits to 79 sites. In the present study, a single observer detected 195–209 birds at 22 sites in 115 visits to 80 sites in 2000. Median survey dates in the two years were nearly the same at both occupied sites (22 June 1979 vs. 22 June 2000) and unoccupied sites (18 June 1979 vs. 22 June 2000).

Both tern counts and counting effort therefore seem similar in 1979 and 2000, but this supposition may be complicated by uncertainties about other measures of effort in 1979. My tally of observed tern numbers in 2000 is based upon extended observations ($\geq$ 20 minutes) at all sites and included extended boat work (30–360 minutes) at eight off-road sites. Protocols in the 1979 surveys allowed such extended observations, but asked for only a minimum of 5 minutes of single-visit roadside or shoreline counting per site (Tilghman 1979). Site-specific survey methods and durations were not reported for the 1979 counts. Many counts may have been limited to the single-visit 5-minute minimum, but it is known that some 1979 counts did involve repeat visits (Tilghman 1979) and extended visits that included boat work at some sites (J. Bielefeldt pers. comm.). The mean number of survey visits to occupied Black Tern sites was 2.0 and 2.3 in 1979 and 2000, respectively.

Of the 79 sites surveyed in 1979, 24 (with eight Black Terns at three sites in 1979) were deemed unsuitable or inaccessible and were therefore not resurveyed in 2000. Conversely, 25 sites (with one Black Tern at one site in 2000) were visited in 2000 but not in 1979. Judgments about numbers of nonbreeding versus known or presumed breeding sites in the 1979 surveys are not possible. However, of the 55 sites surveyed in both years, 24 and 21 yielded detections of Black Terns in 1979 and 2000, respectively. Five of the 13 known or presumed nesting sites in 2000 (Goose Lake, Big Muskego Lake, School Section Lake, Larkin Lake, and Old World Marsh), with $\geq$ 60–66 total birds observed in 2000, had no Black Tern detections in the 1979 surveys. Although a somewhat lower investment of observational time and effort may have depressed tern counts at some—but not all—sites in 1979 as opposed to 2000, neither total counts nor numbers of occupied sites appear to show a decrease (or increase) on the study area over the past 20 years.

However, observed numbers at several individual areas were substantially different in 1979 (Tilghman 1979) than in 2000. At four to five sites within Bong State Recreation Area (Kenosha

County), as many as 40 adults were counted on 30 June 1979, but only 3 terns, presumably nonbreeding, were counted on 10 June–1 July 2000. At Rome Pond (Jefferson County), a single-visit shoreline count found only two terns on 25 June 1979, while two boat counts yielded 40–58 adults on 29 June–16 July 2000. At Big Muskego Lake (Waukesha County), where Black Terns were abundant in the 1920s and 1930s (Hoffman 1954), boat counts on 28 June–1 July 1979 detected no birds, but ≥ 25–33 adults (9 June) and ≥ 41–47 adults (13 July) were seen in 2000 after fisheries and wetland restoration work had begun at Big Muskego in 1995 (J. Jackley pers. comm.).

Single-visit 5-minute shoreline counts at preselected and consistent sites, including 30 sites in Waukesha and Kenosha Counties, have been used to index population trends of the Black Tern in Wisconsin (e.g., Mossman 1983, Graetz and Matteson 1996). Segregated single-visit 5-minute initial counts in 2000 detected only 67% of the adults seen in extended (≥ 20 min) single-visit counts, and only 51–61% of the adults seen in maximum counts in multiple visits with extended observations. Although useful as indices in *trend* analysis, brief single-visit counts do not entirely portray onsite or regional population sizes as estimated here for five southeastern counties. Population *size,* as well as trend and other factors (e.g., distributional and habitat breadth), is an important element in evaluating conservation and management concerns.

Acknowledgments

I thank the Wisconsin Society for Ornithology for a Charles and Mary Nelson research award in support of this work. Waukesha and Racine County Parks, City of Muskego Parks (C. Anderson), Old World Wisconsin (T. Woods), Salem Utility District, and the Girl Scouts of Milwaukee graciously allowed access to survey sites. K. Hale and E. Zimmerman provided data from two sites. E. Epstein, J. Jackley, M. Mossman, R. Kurowski, and S. Matteson at the Wisconsin Department of Natural Resources; D. Penttila at the U.S. Fish and Wildlife Service (Horicon); and B. Harriman at the Wisconsin Breeding Bird Atlas gave logistical help. L. Carpenter, M. Gross, J. Huf, S. Kulinski, A. Moretti, H. Pugh, P. Ryall, and P. and K. Taugher helped in identifying survey sites. I thank Jerry Ortiz, Milwaukee Area Technical College, Environmental and Pollution Control Technology program, who said, "Sounds like a three-credit field study project." And Linde.

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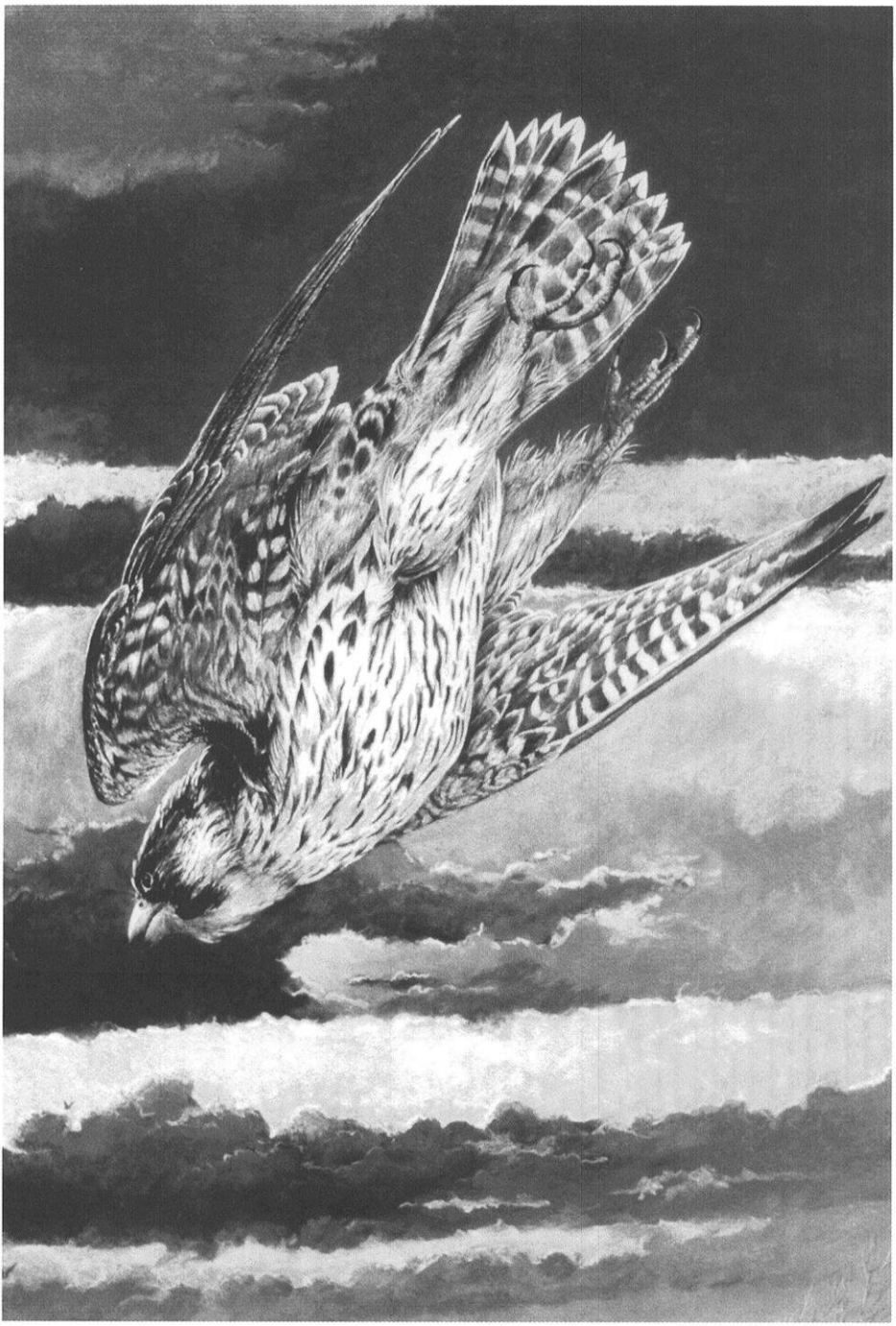
Black Tern fledgling, Hook Lake, Dane County, Wisconsin, *by Mike Boehm*



Peregrine Falcon *by David Kuecherer*

The Spring Season: 2001

by Karl H. David

The early birds were late, and the late birds were early. That may be the most pertinent thing to say about spring migration 2001 in Wisconsin, a migration that most observers found about as close to "normal" or "average" as it gets (which, by definition, should be the case most of the time!). Only Sandhill Cranes were already moving in appreciable numbers on March 1. And as observers impatiently watched Red-winged Blackbirds and the like take their own sweet time in arriving, predictions on the Wisconsin Bird Net (Wisbirdn) in early March that the dam would soon break were followed by predictions in late March that the dam would soon break. Some active observers in the northerly reaches of the state didn't have their proverbial first robin of the spring until dangerously close to April 1; in fact, with Eastern Bluebird bucking the trend somewhat, there may have been more bluebirds than robins in the state as late as March 15. Or so it seemed, as we waited, and waited.

The birds did arrive, of course, and with a vengeance: an astonishing 30 of the 36 warbler species recorded had already checked in by April 30. A significant date in this accelerated process was April 7, the first "breakout" warm day, with temperatures hitting 80° in southern Wisconsin for the first time. As pertinent, surely, were the accompanying 50+ mph southerly winds. The consequences can be seen by noting the number of species in the accounts that follow with arrival dates, often in several counties simultaneously, in the April 6–8 range. Ruby-crowned Kinglet set the tone with statewide first arrival on April 6 in five counties. And consider what the winds left behind in the way of eye-opening early arrivals—two Eastern Kingbirds and two Baltimore Orioles on April 8!

But by the middle of May, it was all over but the shorebirds, at least in the minds of most observers. An exception were the Brassers in Sheboygan County, for whom a warbler wave on May 26 produced their first Magnolia, Black-throated Blue, Blackburnian, Pine, and Blackpoll Warblers of the year. Still, the generally cool and wet conditions toward the end of the month helped give the overall impression that the season had ended with a

whimper, not a bang. "I hope you had a better look for warblers than we did," lamented Alta Goff in Barron County. In contrast, Patricia Parsons in Walworth County had "my most exciting spring for 'firsts'!" Two extremes—take their average, and there you have the hit-or-miss nature of the season in a nutshell. In a word, "normal."

Weather and Birds

I am indebted to Jerry and Karen Smith (among others) for an excellent summary of the season's weather. Temperatures seesawed in March, causing ice to thaw and refreeze and, thus, put the waterfowl migration temporarily on hold. Winds often northeast or northwest may help explain the tardiness of the early passerine migration. They switched to predominantly southerly at month's end, helping put Randy Hoffman in the right place (Waunakee, Dane County) at the right time (March 31) to record Long-eared, Short-eared, and Northern Saw-whet Owls, and to be well ahead of the curve on Virginia Rail and four sparrow species, three of which were not seen again until a full week later.

April was again highly variable, starting with snow and wind "from all directions" and ending with 80° temperatures and southerly winds again. The "Southern Express" of April 6–8 has already been noted. A highlight of the season was a WSO field trip to White River Marsh in Green Lake County on April 28. Birds seen on this amazing expedition included Eared Grebe, both bitterns, Cattle Egret, Northern Bobwhite, Virginia Rail and Sora, American Golden-Plover, Black Tern, Whip-poor-will, and Henslow's and Le Conte's Sparrows. Oh, to have been there!

May began warm and wet, with 1.5 inches of rain on May 2 in Oconto County and a high of 80° there by May 12. A major warbler fallout was noted on Wisbirdn at Picnic Point in Madison on May 3, with 17 species recorded. This made up for April 30, when Milwaukee—but not Madison—had a similar event. As mentioned earlier, the month ended on a distinctly cool and wet note, with about 2.5 inches total of rain and highs sometimes only in the 50s from May 21–25 in Oconto County. This failed, however, to dampen the enthusiasm of the attendees at the WSO Annual Convention (and preconvention bus tour) in Stevens Point on May 25–27. Least Bitterns, Greater Prairie-Chickens, and Laughing Gulls, among many others, rendered the rain immaterial. Many thanks to the organizers, Kent and Sue Hall, and the WSO for a highly successful event to end the season.

Rarities

Eared Grebe has already been mentioned; every time you turned on the computer, it seemed another one had appeared in another part of the state. The final count was eight counties, with some birds staying for weeks. Competing with it as a sort of "signature" bird for the season were Yellow-breasted Chat and Summer Tanager. One could almost speak of an infestation of the former: Kay Burcar had eight in one day (May 15) in two counties, five in Dane and three in Green. Summer Tanagers were found as far north as Brown County, with two birds in downtown Milwaukee simultaneously. One, struck by a car, was suc-

cessfully rehabilitated and released by the Wisconsin Humane Society Wildlife Rehabilitation Center (photographs, Scott Diehl).

In fact, species of southern affinities in general put in a strong showing. White-eyed Vireo; Northern Mockingbird; and Yellow-throated, Prairie, Worm-eating, Kentucky, and Hooded Warblers were widespread. They were not just confined to the southern parts of the state either, as witness a White-eyed Vireo in Manitowoc County; Northern Mockingbird in Jackson, Oconto, and Burnett Counties; Prairie Warbler in Marathon County; and Hooded Warbler in Dunn and Douglas(!) Counties.

Stray wading birds included Little Blue Heron, Tricolored Heron, and Glossy Ibis. Waterfowl highlights were Ross's Goose (with six or so reports, can this still be considered a rarity?), Barrow's Goldeneye (acrophobic observers reluctant to brave the bluffs at Virmond Park in Ozaukee County for a distant view had an alternative, up-close and personal, bird in Milwaukee Harbor), and, most unusual of all, King Eider. American Avocets had an extremely strong showing: a record early date of April 13 (Milwaukee County), with 78 birds combined at two locations in that county on April 25.

Hooded gulls were the main larid attraction. Good numbers of Franklin's and Bonaparte's Gulls were augmented by at least two Laughing Gulls that spent the season wandering up and down the Michigan lakefront. Only one Little Gull was found in its usual Manitowoc County haunts, but in compensation the much rarer Black-headed Gull was spotted in Milwaukee and Racine Counties on successive days (perhaps the same bird?).

On the owl front, many Snowies lingered late, the last paradoxically in the southernmost reporting county (Iowa, May 15). In addition, two overwintering Northern Hawk Owls made it into March (Vilas and Douglas Counties).

Miscellaneous rare birds not yet mentioned included Brown Pelican (Grant County, May 16), Black-throated Sparrow (Dane County, March 1–10), Lark Bunting (Milwaukee County, May 3), and Blue Grosbeak (Burnett County, May 13). Read more about them in the species summaries!

Early Birds

Rarities get the lion's share of the attention, but an equally interesting story this spring was the number of early-arrival records that were set. The bar was lowered for Glossy Ibis, American Avocet, Willet, Dunlin, Golden-winged Warbler, Brewster's Warbler, Yellow-throated Warbler, Pine Warbler, and Prothonotary Warbler. Moreover, the Eastern Kingbird and Baltimore Oriole dates were as extraordinary as any of the others, even if they only became second-earliest arrival dates. Consider the kingbird: the record is an unbelievable March 25, 1939 (a bird that was also blown up on strong southerly winds). Until this year, the next date wasn't until April 13, so that a five-day gap is created between the second- and third-earliest records. God knows how many standard deviations that first date is from the mean!

Statistics

A total of 306 species was reported for spring 2001. In addition, hybrids reported were Eurasian × American

Wigeon, Blue-winged × Cinnamon Teal, and the two recognized forms of Blue-winged × Golden-winged Warbler. In the exotic/escape category, Fred Lesher reported a Whooper Swan from Buffalo County on March 24. And then there were the Whooping Cranes! This extraordinary story is included in the species accounts, even though the WSO Records Committee judged it unlikely that the birds were wild.

I arbitrarily decided that a county received a "minimal" level of coverage if at least one report with about two dozen or more species was received. By this criterion, 51 of Wisconsin's 72 counties received at least minimal coverage, with a total of 106 such reports. Ozaukee County had the most (8), followed by Dane and Milwaukee (7 each), Dodge and Sauk (5 each), and Grant and Winnebago (4 each). Twelve more counties had at least one (sometimes very interesting!) bird reported. For example, the complete list of species submitted from Juneau County is: Loggerhead Shrike, Varied Thrush. That leaves nine counties with literally zero coverage: Monroe, Menominee, Marinette, Taylor, Price, Iron, Rusk, Sawyer, and Polk. Ninety-two people submitted written reports. An additional 55 people are cited, mostly from reports gleaned from Wisbirdn, for a total of 147 contributors and cited observers.

The Accounts

An invaluable aid in performing this daunting task the first time was Samuel D. Robbins, Jr.'s *Wisconsin Birdlife* (University of Wisconsin Press, 1991). In the following accounts, this will be referred to simply as "*Wisconsin Birdlife*." It is my loss to have moved to Wisconsin too late to meet Sam Robbins, but I felt I got to know him just a little while reading his graceful, flowing prose. See the Ruby-crowned Kinglet account for a delightful tiny snippet.

Twenty-three widespread, common species are not included in the species accounts. For those that are migrants, I felt not enough information was received (for example, from hawk watches) to be able to say anything of value. The excluded species are: Canada Goose, Mallard, Red-tailed Hawk, American Kestrel, Ring-billed Gull, Herring Gull, Rock Dove, Mourning Dove, Great Horned Owl, Red-bellied Woodpecker, Downy Woodpecker, Hairy Woodpecker, Blue Jay, American Crow, Horned Lark, Black-capped Chickadee, White-breasted Nuthatch, European Starling, Cedar Waxwing, Northern Cardinal, House Finch, American Goldfinch, and House Sparrow.

Abbreviations: BOP = beginning of period; EOP = end of period; TTP = throughout the period; Wisbirdn = Wisconsin Bird Net.

Reports (1 March–31 May 2001)

Red-throated Loon.—Strictly a Great Lakes bird, with reports from Milwaukee, Ozaukee, Sheboygan, Manitowoc, and Douglas Counties. Earliest March 17 in Manitowoc County (Tessen); latest 3 birds on May 9 in Douglas County (R. Johnson). Three birds were also found in Milwaukee May 1 (Boldt).

Common Loon.—First reported on March 17 in Dane County (Ashman). Found in 36 counties throughout the state. Berner counted 61 in Portage County on April 9. Present at EOP in northern counties, including Marathon (WSO Convention).

Pied-billed Grebe.—BOP in Milwaukee County (Boldt) and March 6 in Ozaukee County (Uttech), with three more reports by mid-month

(Winnebago, Kenosha, and Dane Counties). Widespread: reports from 42 counties.

Horned Grebe.—Appeared in Walworth (Parsons), Dane (Ashman), and Milwaukee (Boldt) Counties on March 17. A high count was 62 in Portage County on April 22 (Berner). Reports from 26 counties; few remained into May.

Red-necked Grebe.—Reported from 12 counties roughly on a southeast to northwest track. The first bird appeared March 30 in Marathon County (Belter). R. Johnson had "hundreds" in Douglas County on April 18. Birds remained at EOP in Burnett (Tessen) and—remarkably—Dane (Burcar) Counties.

Eared Grebe.—See introduction. The first bird, found by Tessen, also stayed the longest: March 17 to April 7 in Milwaukee County. A Walworth County bird was present April 13–28 (Rohde et al.). Fred Lesher provided photos of a La Crosse County bird found by "Matt Paulson, age 15." There was one multiple sighting, with 4 birds in Ozaukee County on May 5 (Tessen). The last report was of a Dunn County bird on May 18 (Polk). This species also seemed to track from southeast to northwest.

American White Pelican.—Highest counts as expected from southwestern counties, e.g., 400 on April 8 in Crawford County (P. Bridge). But J. Hansen counted 60 birds in Brown County on May 1, as the species strengthens its presence in northeastern Wisconsin as well. Reported from 16 counties, with Grant, Dodge, and Brown getting the first reports on April 1 (Domagalski, Wood, and B. Howe).

Brown Pelican.—A doubtless astounded Burcar and Hewitt observed two flying with an American White Pelican along the Mississippi River at Wyalusing State Park (Grant County) on May 16. This sixth state record was accepted by the WSO Records Committee.

Double-crested Cormorant.—Another bird that overwintered in Milwaukee County (Boldt); first other reports from Manitowoc (Sontag) and Ozaukee (Uttech) Counties on March 10 and 11. Sontag had 585 (Manitowoc County) on May 9.

American Bittern.—First found on the relatively early date of March 21 by Ziebell (Winnebago County). The next report was not until April 17 in Kenosha County (Hoffmann). Reported from 18 counties. The Brassers (Sheboygan County) watched a bird that turned up in a neighbor's backyard on May 25 as it ate night crawlers.

Least Bittern.—First reported from Portage County (Hall) on April 15. Fourteen counties, mostly in the southeastern quarter of the state, filed reports. Ziebell tallied 6 in Winnebago County on May 12.

Great Blue Heron.—No indication of successful overwintering. Appeared in nine counties March 10–19, the earliest being La Crosse (Lesher). Not detected in Ashland (Verch) or Washburn (Haseleu) Counties until March 30.

Great Egret.—Turned up April 1 in Grant County (Domagalski), then way up in Burnett County April 5 (Hoefler). Domagalski counted 17 in Trempealeau County on May 11. Few reports from central or northeastern counties.

Snowy Egret.—Reported from six counties, starting with Milwaukee (Lubner) on May 2. All reports were from the eastern part of the state except for a La Crosse County bird May 17 (Jackson).

Little Blue Heron.—One report: April 25–28, Milwaukee County (Lubahn et al.).

Tricolored Heron.—A May 17–22 Dane County bird (Rattenborg et al.) was accepted by the WSO Records Committee. The bird's discoverer found it to be a "good birding exercise" to take meticulous notes on a bird whose identity was never in doubt while he waited for other birders to arrive. The result is an excellent example of describing "exactly what was seen in the field."

Cattle Egret.—First found in Dane County on April 8 (E. Hansen). A Waukesha County visitor stayed April 16–24 (Mann). Tessen had 5 in Fond du Lac County on May 17. Reported in 11 counties.

Green Heron.—First reported in Kenosha County on April 13 (Hoffmann); the next birds were on April 21 in Dane (Jiardinis) and Winnebago (Ziebell) Counties. Blanketed the state.

Black-crowned Night-Heron.—An April 2 bird reported by Tessen in Winnebago County was the first. An out-of-range bird was in Ashland County on May 21 (Verch).

Yellow-crowned Night-Heron.—The only report came from Walton on April 30 (Jefferson County).

Glossy Ibis.—The state's seventh accepted (and earliest seasonal) record came from an Oconto County sighting on May 2 (Peterson and Tessen).

Turkey Vulture.—Appeared in Kenosha, Walworth, and Washington Counties on March 13 (Hoffmann, Gross, and Domagalski). Slowly fanned out over the entire state. Reached Ashland County on April 7 (Verch).

Greater White-fronted Goose.—Appeared March 7 in Walworth County (Parsons). Eventually turned up in ten counties, concentrated in the south-central part of the state. High count was 65 in Dodge County on March 28 (Tessen); late were 3 birds in Brown County on May 8 (J. Hansen).

Snow Goose.—Gustafson's Waukesha County bird on March 10 was the first. Evanson had 85 on March 25 in Fond du Lac County. Ashland and Burnett County reports were the only ones from northern counties. In all, found in ten counties.

Ross's Goose.—Approximately 6 birds reported from five counties: Dodge, Columbia, Manitowoc, Portage, and Marathon. Earliest was a March 27–April 3 guest in Portage County (Borchardt et al.). Last were Columbia and Marathon County birds on April 14 (Burcar, Belter). One observer declared: "I am tired of documenting this species!"

Mute Swan.—Found in 16 counties, 13 of them below a line drawn from Iowa to Oconto Counties. The others were three contiguous counties bordering Lake Superior.

Trumpeter Swan.—The "right" human-aided swan (see previous species) continues to solidify its position in the state, being reported from nine counties. Of a pair of BOP birds in Portage County, one was captured, treated for a parasite infection, and released to rejoin its mate (Hall). Evanson spotted the first returning migrants on March 24 in Dane County. Reported at EOP from Burnett County (12 birds, Tessen).

Tundra Swan.—This elegant harbinger of spring graced 28 Wisconsin counties this season, peaking at about 4,000 individuals in Outagamie County on March 27 (Tessen). Numbers there rapidly fell to 62 by April 12. First reported March 14, again by Tessen, with 3 birds in Columbia County. The final report came on May 26 from Douglas County (R. Johnson). Generally scarce in the southeastern part of the state.

Wood Duck.—At BOP in at least one county (Ozaukee, Uttech). Four more reports by March 10.

Gadwall.—Earliest report on March 3 in Milwaukee County (Gustafson). Parsons had 35 in Walworth County four days later, and about 100 were in Dane County by March 19 (Bridges).

American Wigeon.—At BOP in Winnebago County (Ziebell). No unusually large numbers reported anywhere.

Eurasian × American Wigeon.—Wood reported a hybrid male from Dodge County on April 22. It gave the Eurasian Wigeon call and superficially resembled one, but the face was paler and browner than it should be in that species, and the sides graded from gray (the Eurasian's color) to brown (the American's) moving toward the breast.

American Black Duck.—May 12 seemed a latish departure date for Milwaukee County (Gustafson). EOP in Oconto, Ashland, and Douglas Counties.

Blue-winged Teal.—No overwintering suggested; earliest date given was March 14 in Columbia County (Tessen). Appeared in all parts of the state.

Blue-winged × Cinnamon Teal.—Found by Fare in a flooded field the morning of April 12, very near the intersection of Dodge, Jefferson, and Waukesha Counties (probably Jefferson from the description). Appearing to be a male Cinnamon Teal at first, close study revealed the facial crescent and flank patch of a Blue-winged Teal in faint outline. Idzikowski had another apparent male Cinnamon Teal in Milwaukee County the afternoon of the same day(!), but the look was too brief for the observer to be satisfied it was not a hybrid. About seven hours separated the reports, certainly enough time for these to have been the same bird.

Northern Shoveler.—Tessen and Columbia County again share the first arrival, on March 3. Not reported again until March 10 (Winnebago County, Tessen). Widely reported.

Northern Pintail.—Noticeably fewer reports than of the previous two species; this observer, among others, missed it. Frank had one on March 1 in Ozaukee County, and the Brassers had one on March 2 in Sheboygan County. No further reports until March 10.

Green-winged Teal.—Identical first-report data as for Blue-winged Teal, but slightly fewer counties represented overall.

Canvasback.—First three reports all from Ozaukee County (March 1–7, Frank, Bontly, and Tessen). Evanson had one in Dane County on March 8, where the Bridges counted 345 on March 19.

Redhead.—At BOP in Milwaukee (Boldt) and Ozaukee (Frank et al.) Counties. First other reports from Door (Stover) and Dane (Evanson) Counties on March 8. Distribution similar to Canvasback's.

Ring-necked Duck.—Another member of the BOP Virmond Park raft in Ozaukee County. Next reported on March 5 in Dane County (Burcar). Numbers peaked at about 4,000 birds in Manitowoc County on April 14 (Tessen). Found in Burnett County EOP.

Greater Scaup.—Far more strongly lacustrine in distribution than the next species. Sontag estimated 4,000 in Manitowoc County on March 18; 500 in Winnebago County on March 23 was a good inland count (Tessen).

Lesser Scaup.—Representative counts included 400 in Dane County on March 31 (Ashman) and 430 in Portage County on April 20 (Berner).

King Eider.—The female first found by Lubahn in Milwaukee County on March 9 continued to be seen by many observers until March 24; this constitutes just the fourth accepted spring record. Another(?) female appeared somewhat later (April 14) at Virmond Park in Ozaukee County (Gustafson et al.).

Harlequin Duck.—Reports came from Harrington Beach in Ozaukee County between March 11 and April 1 (Tessen et al.). A different location was in Sheboygan County on May 18 (Brigham). Both were of single birds.

Surf Scoter.—All three scoters were available for viewing throughout March at Harrington Beach in Ozaukee County. Tessen also had a scoter "slam" in Milwaukee County on March 24. Wood counted 18 of this species on April 1 (Ozaukee County). A Lake Superior bird was found by R. Johnson on May 1 (Douglas County).

White-winged Scoter.—Wood found 3 on April 1 (Ozaukee County). Verch had 2 in Ashland County on May 16.

Black Scoter.—Not found on Lake Superior. Apparently never more than one bird in any location (Ozaukee and Milwaukee Counties) along Lake Michigan.

Long-tailed Duck.—As for the previous five species, no inland reports, and none from Lake Superior. Tessen counted a maximum of 250 in Ozaukee County on March 7. A lone Kewaunee County bird on April 4 was the final report (K. Smith). Also seen in Milwaukee County.

Bufflehead.—Late reports from more southerly parts of the state were received from Brown (J. Hansen) and Dane (Hilsenhoff) Counties on May 23 and 25.

Common Goldeneye.—Lingered as long as May 17 in Ozaukee County (Frank), but most birds were gone by early April. Persisted in Douglas County to EOP (R. Johnson). Ziebell had 1,000 or so in Winnebago County on March 17.

Barrow's Goldeneye.—The veteran Ozaukee County bird was still present as late as April 15 (Wood). Another male appeared in Milwaukee County on March 24 (Lubahn), staying until at least April 19 (Idzikowski). There was some discussion that this bird might be a hybrid, but the WSO Records Committee accepted it as a pure Barrow's.

Hooded Merganser.—BOP in Milwaukee County (Boldt); next report on March 4 from Dane County (Ashman, Bridges). Widespread already by March 15.

Common Merganser.—Another bird followed through the winter by Boldt in Milwaukee County. Other reports the first week of March came from Sauk, Dane, and Walworth Counties. Ziebell had 500 in Winnebago County on March 16.

Red-breasted Merganser.—Found at BOP in all Lake Michigan counties, and at EOP in Douglas County (R. Johnson). Found in Dane County as late as May 19 (Evanson).

Ruddy Duck.—First recorded on March 8 by Stover in Door County. Ziebell had 800 in Winnebago County on April 5. In Racine County on May 31 (Domagalski, Frank).

Osprey.—Thirty-one counties filed reports, beginning with Portage County on April 5 (Berner). Five more counties checked in during the next four days. R. Johnson had 6 on April 25 (Douglas County).

Bald Eagle.—High counts included 63 and 115 in Crawford (Furr) and Douglas (R. Johnson) Counties, March 3 and 20. A total of 35 counties filed reports.

Northern Harrier.—Among early reports, March 1 in Dane County (Burcar) could have been an overwintering bird, but March 6 in Ashland County (Verch) seems far less likely. A total of six reports the first ten days of March indicates that migration was in fact well under way soon after BOP. Overall, 38 counties reported this species.

Sharp-shinned Hawk.—One of the few reports received that appears to reflect deliberate hawk-watching activity is a count of 18 birds in Ozaukee County on April 14 from Tessen. Reported TTP in 28 counties.

Cooper's Hawk.—Tessen tallied 8, same time and place as above. Reports received from 36 counties; little difference discernible in distribution compared to the previous species.

Northern Goshawk.—Ten reports from ten counties TTP. Two were southern: Ozaukee County on March 24 (Uttech) and Waukesha County on April 13 (Gustafson).

Red-shouldered Hawk.—Twenty counties represented in the count. Reported at BOP in Iowa County (Burcar). The next report came on March 7 from Richland County (Duerksen). Seemed well on the move by mid–March.

Broad-winged Hawk.—A single March report: March 30 in Brown County (Erdman). Numbers peaked in mid–April, with tallies of 165 in Portage County (Berner) and 161 in Ashland County (Verch) on the 21st and 24th. A Kenosha County report on May 23 (David) was late in that the species does not breed in that part of the state.

Swainson's Hawk.—Found on May 10 in Racine County (DeBoer) and on May 12 in Milwaukee County (Gustafson).

Rough-legged Hawk.—March reports indicated this winter visitor was well distributed in the state this year. Berner had 51 in Portage County on March 20. Still in Door (Lukes) and Barron (Goff) Counties at EOP. One other May report: May 9 in Clark County (Decker).

Golden Eagle.—R. Johnson had 5 in Douglas County on March 20. Next was an Oconto County bird on April 15 (Smiths). A final report came on May 5 from Ozaukee County (Tessen).

Merlin.—Found TTP in Ashland County (Verch). In more southern counties, migrants ranged from March 30 to May 11, both at the Coast Guard Impoundment in Milwaukee County (David). Reported from 13 counties.

Peregrine Falcon.—Found in 13 counties throughout the state TTP. Nesting was noted in Buffalo County on May 11 (Domagalski).

Gray Partridge.—Reported from the species' stronghold in Manitowoc and Kewaunee Counties. Also found in Dane and Iowa Counties. Reported TTP, possibly nesting, in Kenosha County (Hoffmann).

Ring-necked Pheasant.—Robbins' *Wisconsin Birdlife* gives roughly the southern two-thirds of the state as the species' range. This season, more northerly reports came from Vilas, Ashland, Burnett, and Douglas Counties.

Ruffed Grouse.—Reported from 22 counties in its normal range, with no reports to the southeast of a Dane-Manitowoc County axis.

Spruce Grouse.—Just a single report TTP in Ashland County (Verch).

Sharp-tailed Grouse.—Two reports: TTP in Burnett County (Hoefler) and 2 birds in Douglas County on May 29 (Tessen).

Greater Prairie-Chicken.—Hall counted 130 in the Buena Vista Grasslands, Portage County, on March 3. Berner found 90 there on March 20. Also reported from Marathon County (WSO Convention, May 26).

Wild Turkey.—Like Ring-necked Pheasant, range considerably expanded since 1991. Only

unreported from a U-shaped region bordered by Burnett, Barron, Portage, and Florence Counties.

Northern Bobwhite.—Reported from Kenosha, Sauk, Richland, Green Lake, Portage, and Dunn Counties.

Yellow Rail.—Ziebell reported one on May 12 in Winnebago County, and Hoffman had 4 at Comstock Bog in Marquette County on May 19.

King Rail.—First reported on April 25 from Brown County by Schilke. Further reports from Dane County on May 5 (Burcar), Winnebago County on May 12 (Ziebell), Iowa County on May 16 (Burcar), and Waukesha County on May 30 (Peterson).

Virginia Rail.—Hoffman's March 31 report (Dane County) is the third-earliest on record. Next recorded on April 13 in Kenosha (Hoffmann) and Winnebago (Bruce) Counties. The Fishers counted 10+ in Oneida County on May 29.

Sora.—Earliest reports from Kenosha County on April 12 (Hoffmann), Winnebago County on April 13 (Bruce), and Dane County on April 14 (Burcar).

Common Moorhen.—Reported from eight southeastern counties, as far west and north as Dane and Winnebago Counties. April reports were Kenosha County on April 24 (Hoffmann) and Dodge County on April 29 (Smiths). *Wisconsin Birdlife* includes the lower Mississippi River Valley counties as part of the range, but there were no such reports.

American Coot.—Clearly designated as BOP only in Milwaukee and Ozaukee Counties, though there were March 3 reports from Dane (Tessen) and Waukesha (Gustafson) Counties. High count was 7,800 on April 24 in Dunn County (A. Holschbach). Ubiquitous.

Sandhill Crane.—Migration already well in progress at BOP. Found by just about every observer filing any but the most cursory report. A good count was 180 on March 18 in Walworth County (Parsons).

Whooping Crane.—Nothing like it has been seen in Wisconsin in well over a century: reports from five observers in three counties! Only one previous sight record since 1878 has been officially accepted (O. J. Gromme, Waukesha County, April 17, 1959). The complicating factor now is the attempt to establish a sedentary flock in Florida; apparently the migratory instinct has not been completely eradicated, as two of these birds turned up in Michigan in 2000. In addition, the appearances of this year's birds came well before the time the wild flock wintering in Texas undertakes its journey north. As a consequence, the WSO Records Committee concluded the likelihood that any of these birds were truly wild was too small to accept the records as official. Nonetheless, Whooping Cranes were sighted as follows: Flood and Niehaus independently reported two flying individuals at different times of day on March 13 in Ozaukee County. The very next day Krogman was greeted with the sight of a single flying bird at the other end of the state, in Buffalo County. Then, sometime in early April, a pair turned up in Winnebago County (Galow). Apparently they stayed, because Zimmer saw them there on May 4 and 11, obtaining some footage on video. No leg bands or other marks were noticed on any of the birds.

Black-bellied Plover.—Appeared first on April 30 in Dane County (Ashman), followed by Oconto County on May 1 and Kenosha County on May 7. Hoffmann counted 85 in Kenosha County on May 7. Still in Racine at EOP. Twelve counties were represented in all.

American Golden-Plover.—Six reports; from Dodge, Green Lake, Sheboygan, Door, Oconto, and Douglas Counties. The first report, on April 26 in Dodge County (Tessen), was also of the highest number of individuals (6). The latest report came on May 26 from the Brassers in Sheboygan County.

Semipalmated Plover.—Uttech had the first on April 20 in Ozaukee County. There were three more April reports. Ashman had a high of 30 in Dane County on May 16. Found at EOP in Racine County. Sightings came from 20 counties.

Piping Plover.—Three were discovered in Green Bay, Brown County, on April 25 (Schilke). R. Johnson found a single bird on May 10 in Douglas County.

Killdeer.—The earliest reports came on March 3 (Ashman) in Dane County and on March 6 (Frank) in Ozaukee County. Arrived mid-month in most southern counties.

American Avocet.—A banner year: see introduction. Boldt's Milwaukee County bird on April 13 broke the April 14 record set just last year, which itself was matched when 6 birds

showed up that day for Domagalski (Washington County). Maximum of 78(!) distributed over two locations in Milwaukee County on April 25 (Boldt). The other reporting counties were Manitowoc (Sontag) and Barron (Carlsen). Idzikowski found the final bird on May 18 in Milwaukee County.

Greater Yellowlegs.—First-arrival honors were shared between Dodge, Dane, and Grant Counties on April 1 by Strelka, Hoffman, and Domagalski. Thirty-three counties hosted the bird, with a high count of 40 in Calumet County on April 13 (Tessen). Still being seen in northern Wisconsin near EOP.

Lesser Yellowlegs.—Appeared in 38 counties, five more than the previous species. First reported in Sheboygan County on April 4 (Frank), with four more reports by April 8. Highest number reported was 60 in Dane County on May 2 (Ashman).

Solitary Sandpiper.—An early arrival on April 6 in Dodge County (Andre) tied for fourth-earliest ever. The next report wasn't until April 16 (Evanson, Dane County). Evanson counted 24 there on April 29. Reports came from 34 counties. No EOP reports.

Willet.—Sontag found one on April 10 in Manitowoc County, lowering the early-arrival record by four days. The same county hosted a late bird on May 25 (Tessen). A whopping 49 were counted by Fare in Racine County on May 6. Reports came from nine counties, with Dane County the only one away from the Great Lakes.

Spotted Sandpiper.—Franke's April 8 Milwaukee County bird was ten days ahead of the next report (Washington County, Domagalski). Solidly established by the end of April.

Upland Sandpiper.—"Uppies" were reported from 15 counties representing all parts of the state. Earliest were 11 in Kenosha County on April 17 (Hoffmann) and a single bird in Ozaukee County on April 19 (Bontly).

Whimbrel.—Sontag's May 13 Manitowoc County arrival was only five days off early-record pace. He had another one there on May 24. The Holschbachs had one on May 22 in Douglas County, and David had 4 in Racine County on May 28.

Hudsonian Godwit.—The first report came from Tessen in Brown County on May 2. Ultimately the bird showed up in eight counties, the last being on May 23 in Manitowoc County (Wood). Verch had 3 in Ashland County on May 18.

Marbled Godwit.—Tessen's 2 birds in Fond du Lac County on April 26 were the first of six reports, including 11 individuals found May 17–19 in Dane County (Ramsden). A Manitowoc County sighting of a single bird on May 25 was the last (Peterson). The other sightings (all of singles) were from Manitowoc, Winnebago, and Douglas Counties.

Ruddy Turnstone.—Reported from seven Lake Michigan, three Lake Superior, and four inland counties. Earliest sighting came on May 8 in Winnebago County (Ziebell). Sontag's May 29 census in Manitowoc County came up with 260 birds.

Red Knot.—Reported four times: Sheboygan County, May 19 (Brassers); 25 individuals in Oconto County, May 20 (Smiths); Vilas County, May 27 (J. Baughman); Racine County, May 31 (Domagalski, Frank).

Sanderling.—Ironically, hit the beaches first on Lake Superior, with 4 birds spotted in Ashland County on May 2 by Verch. Then appeared in Winnebago County on May 15 (Bruce) and in Dane County on May 16 (Ashman, Burcar) before finally putting in a showing in all the reporting Lake Michigan counties (except Door) between May 16 and EOP. Also reported in Douglas County.

Semipalmated Sandpiper.—The April 16 arrival date (Dane County, Evanson) was on the early side, with only three earlier records. The next sighting wasn't until April 27 (Kewaunee County, K. Smith). A final April sighting came the next day (Dodge County, Tessen). Reported in 15 counties altogether; at EOP in Racine County.

Western Sandpiper.—The lone report of a single bird came from Tessen in Columbia County on May 17.

Least Sandpiper.—Burcar's Green County bird on April 8 ties the second-earliest arrival date (earliest is April 4). Next reports came on April 14 (Calumet County, Tessen) and from Burcar again in Sauk County on April 15. Reported from 25 counties throughout the state.

White-rumped Sandpiper.—Seen in 13 counties, first in Brown County on April 25 (Schilke). A second bird quickly followed on April 27 in Kenosha County (Hoffmann). A May 31 report came from Manitowoc County (Holschbachs).

Baird's Sandpiper.—Appeared on April 26 in Dane County (Tessen) and on April 28 in Ozaukee County (Uttech). Six reports in all, the last from Ashland County on May 20 (Verch).

Pectoral Sandpiper.—Fourteen individuals in Dodge County on April 6 constituted the earliest report (Tessen). Ashman had 55 in Dane County on April 19.

Dunlin.—E. Hansen's March 29 Dane County bird eclipsed the previous record early date of March 31, which itself had just been set in 1999. The great majority of the subsequent reports from 21 additional counties came during May and continued to EOP, with Tessen estimating 500 birds in Oconto County on May 22.

Stilt Sandpiper.—Sixteen birds (unusual for spring) were well described by Hoffmann in Kenosha County on May 3 for the first report. There were four more: Columbia County, May 10 (Burcar and Domagalski); Dane County, May 11 (Betchkal et al.); Chippewa County, May 16 (A. Holschbach); and Milwaukee County, May 24 (Boldt).

Short-billed Dowitcher.—Surprisingly, no April reports, with simultaneous first detection on May 2 in Dane, Brown, and Ashland Counties (Ashman, Tessen, and Verch). Appeared in nine of ten Lake Michigan counties reporting and in ten other counties throughout the state.

Long-billed Dowitcher.—Singles reported from Manitowoc County on May 2 (Sontag) and Calumet County on May 15 (Tessen). The Smiths heard the reassuring call notes from a flock of 3 in Oconto County on May 20.

Common Snipe.—Seen throughout the state, with about five late–March reports, beginning with March 26 observations in Milwaukee (Goodman) and Portage (Berner) Counties.

American Woodcock.—Most observers must make a special effort to renew their acquaintance with this cryptic species every year, because very few comprehensive reports failed to include it. The earliest reports were on March 12 (Hoffmann) in Kenosha County, about March 13 (Madison hotline) in Dane County, and March 17 (Uttech) in Ozaukee County.

Wilson's Phalarope.—Appeared in 12 counties, missing only the southwestern part of the state. Ashman had the first in Dane County on April 21. Seven were in Brown County on May 10 (J. Hansen). The last report came from Vilas County on May 27 (J. Baughman).

Laughing Gull.—See introduction. The peregrinations of at least two birds (adult and immature) through five Lake Michigan counties read as follows (you may want to pull out a map): May 1, Racine (Fare) and Ozaukee (Uttech); May 3, Milwaukee (Gustafson); May 6, Manitowoc (Stutz et al.); May 21, Milwaukee again; May 22, Manitowoc (Tessen); May 23, back to Milwaukee; May 25, Sheboygan (Brassers, Holschbachs).

Franklin's Gull.—The first of nine county appearances was in Sauk County on April 6 (Burcar), the last in Racine County on May 28 (David). Four Lake Michigan, five inland counties represented, all in the southern half of the state.

Little Gull.—A single report (low) of a subadult bird from Manitowoc County on May 16–19 (Sontag, Holschbachs).

Black-headed Gull.—See introduction. The WSO Records Committee accepted reports of single adult birds in Milwaukee County on May 28 (Boldt et al.) and Racine County on May 29–30 (Lubahn et al.). Of Wisconsin's nine previous records, only one (April 28, 1985) had been in the spring. Note: the Racine bird is to be thanked for most of the EOP shorebird reports!

Bonaparte's Gull.—Idzikowski's March 21 sighting of a single bird in Milwaukee County was the only one in that month. Large numbers tallied included 4,000 in Ozaukee County and 15,000 in Sheboygan County on the same day (May 5, Tessen). Appeared throughout the state.

Thayer's Gull.—Reported from six counties: four Lake Michigan, one Lake Superior, and one inland (Calumet) counties. The earliest was in Manitowoc County on March 7 (Tessen), the latest in Ozaukee County on May 14 (Diehl).

Iceland Gull.—Found on March 18 in Ozaukee County (Lubahn), March 29 in Milwaukee County (Frank), April 6 in Manitowoc County (Sontag), and April 9 in Calumet County (Tessen). Two birds were identified as adult and one as second-winter.

Lesser Black-backed Gull.—Three reports: Sheboygan County, March 8 (S. Baughman); Dane County, March 29–April 8 (Wood et al.); Racine County, April 8–19 (E. Howe et al.).

Glaucous Gull.—Reports from nine counties, including two April and one May reports. Tessen had 8 in Winnebago County on March 6. The final sighting was on May 3 (Brassers, Sheboygan County).

Great Black-backed Gull.—Reported from Milwaukee, Sheboygan, Manitowoc, Brown, Door, and Douglas Counties as it continues to spread through the western Great Lakes. As many as 8 individuals were in Manitowoc County. The latest report was of an adult in Douglas County on May 21 (Holschbachs).

Caspian Tern.—Entered the state in three places on April 8: Racine, Milwaukee, and Sheboygan Counties (DeBoer, Boldt, Brassers). Ended up being reported from 21 counties statewide. Tessen estimated 100 birds in Sheboygan County on May 5.

Common Tern.—Appeared first in Ozaukee County on April 14 (Tessen), showing up in 16 counties by May 31.

Forster's Tern.—As usual, appeared earlier than the previous species, with an April 6 showing in Sauk County (Burcar). Had already appeared in six counties by mid-month; the final count was 26 counties.

Black Tern.—Debuted in Kenosha County on April 23 (Hoffmann); an additional April sighting was on the 28th in Green Lake County (WSO field trip). Appeared statewide, with a count of 175 individuals from Domagalski in Dodge County on May 26. He also had 38 in Waukesha County on May 9.

Eurasian Collared-Dove.—This bird may be here to stay in Wisconsin, with the White Potato Lake (Oconto County) pair reported again by Evanson and the Smiths TTP.

Black-billed Cuckoo.—A very good spring for this species, with reports from 21 counties beginning with a May 5 arrival in Dane County (Ashman). Parsons had 3 in Walworth County on May 19.

Yellow-billed Cuckoo.—This more southerly cuckoo made it to the far northern counties of Bayfield and Vilas; eight other counties were represented as well. Earliest was a May 11 Ozaukee County bird (Frank). Three observers had both cuckoos on the same day.

Eastern Screech-Owl.—Reported from only nine counties, including one far northern one (Burnett). The others were Kenosha, Milwaukee, Ozaukee, Winnebago, Brown, Dane, Grant, and Portage.

Snowy Owl.—See introduction. Reported from 12 counties, including the southern inland counties of Dane and Iowa. Last reported in Iowa County on May 15 (Wisbirdn, fide C. Sykes). The highest number reported in one location was 3 around the Clark/Marathon County border (Decker).

Northern Hawk Owl.—Two overwintering birds continued into March. The Douglas County bird was reported only on March 3 (A. Holschbach). Reardon followed the Vilas County bird until the comparatively late date of March 27 (only two April dates and the state's only nesting record [1963] are later).

Barred Owl.—Though the range is presented as statewide in *Wisconsin Birdlife*, no birds were reported this season from the four most southeastern counties. The rest of the state was well represented (30 counties). Domagalski had 9 in Grant County on May 2.

Long-eared Owl.—Reported from Kenosha County on March 8 (Hoffmann) and Dane County on March 31 (Hoffman).

Short-eared Owl.—Reported from Dane, Racine, Milwaukee, Ozaukee, Portage, Oconto, Oneida, and Burnett Counties. Particularly conspicuous in early April, e.g., 39+ birds in Milwaukee County on April 8 (Boldt) and 12 birds in Racine County on April 9 (Fare). Reports spanned the period from March 20 (Ozaukee and Portage Counties, Uttech and Berner) to May 27 (Portage County, WSO Convention).

Northern Saw-whet Owl.—Three reports the first week of March: Ozaukee County, March 2 (Uttech); Sauk County, March 4 (Burcar); Outagamie County, March 7 (Tessen). Five other reports (Dane, Shawano, Marathon, Vilas, and Douglas Counties), with the Vilas County report coming on May 30 (J. Baughman).

Common Nighthawk.—Arrived in Kenosha County on May 2 (Hoffmann, 6 birds) and in Dane County on May 3 (Evanson). Reported

from 21 counties, and specifically singled out as scarce by a number of observers.

Whip-poor-will.—Reported from 14 counties, including Kenosha and Milwaukee Counties in the southeast, where it seldom breeds. Earliest report came from Dane County (Fallow) on April 19.

Chimney Swift.—Flying reconnaissance for the first escadrilles, which arrived April 23–24, were birds in Ozaukee County on April 7 (Panetti) and in Winnebago County on April 19 (Ziebell).

Ruby-throated Hummingbird.—Three April reports: April 26 in Jefferson County (Hale); April 29 in Sheboygan County (Maki); April 30 in Ozaukee County (Uttech). No comments on scarcity or abundance.

Belted Kingfisher.—Reported at BOP only in Portage County (Berner). Reports followed from Dane (Schirmacher) and Richland (Duerksen) Counties on March 7 and 12. There were at least two other March reports.

Red-headed Woodpecker.—BOP reports (or nearly so) from Richland County (Duerksen), Waupaca County (Tessen), and Portage County (Berner). Later March reports from Vernon, Kenosha, and Lafayette Counties, in that order. Reports from 28 counties altogether, with Oconto the most northeasterly and Burnett the most northwesterly.

Yellow-bellied Sapsucker.—Not specifically described as BOP on any reports, though a Wisbirdn report on March 9 from Dane County (Hinebaugh) is a likely suspect. A fair number of later March sightings. Reported everywhere.

Black-backed Woodpecker.—Reports came from Douglas County on March 17 (4 birds, R. Johnson), Vilas County on May 6–27 (J. Baughman), and Douglas County again on May 28 (Tessen).

Northern Flicker.—Possible overwinterers would include March 4 and March 7 birds in Washington (Domagalski) and Winnebago (Ziebell) Counties. Stutz had 20 in Grant County on April 29.

Pileated Woodpecker.—Ozaukee, Washington, Columbia, Dane, and Green Counties delimited the species' southeasternmost occurrences.

Olive-sided Flycatcher.—Two birds showed up at opposite ends of the state on May 5: Dane County (Ashman) and Douglas County (R. Johnson). It wasn't reported again until May 12 in Milwaukee County (Gustafson). Reports near end of month in Racine (David) and Douglas (Tessen) Counties. Found in ten counties.

Eastern Wood-Pewee.—Early reports from Grant County on May 3 (Lesher), Portage County on May 6 (Tessen), and Dane County on May 8 (Ashman). Reports ranged over the entire state.

Yellow-bellied Flycatcher.—A number of active observers missed this species, but nonetheless it was recorded nine times in eight counties, beginning May 12 in Ozaukee County (Frank) and ending May 29 in Douglas County (Tessen).

Acadian Flycatcher.—David ventured an identification based only on sight in Milwaukee County on May 10. For the skeptical, the next report was on May 13 (Burcar) in Iowa County. Reported from nine counties, all in the southern third of the state except for a May 22 bird in Shawano County (Peterson). Burcar counted 16 in Grant County on May 19.

Alder Flycatcher.—This and the following species ran counter to the passerine early arrival trend, with the first Alder Flycatcher not reported until May 15 in Calumet County (Tessen). The Fishers reported 20+ by May 27 in Oneida County. Reported from 16 counties.

Willow Flycatcher.—See previous species. Earliest date May 9 (Uttech) in Ozaukee County, with three more reports north to Winnebago County over the next four days. Reported from 22 counties, including one far northern report from Douglas County on May 29 (Tessen).

Least Flycatcher.—The first of a number of very common passerine species with a remarkably narrow first-arrival window. Nine counties reported this bird on April 29 or 30, including Vilas and Burnett Counties in far northern Wisconsin. In fact, the only "forerunner" to this widespread simultaneous invasion was one bird, again in Burnett County, on April 27 (Hoefler).

Eastern Phoebe.—In contrast to the previous species, first county-arrival dates were strung out all through the latter half of March and early April, starting with a Green Lake County sighting on March 19 (Christensen).

Great Crested Flycatcher.—At least seven reports before the end of April, two on April 24 tying for the earliest: Kenosha County (Hoffmann) and Rock County (Ramsden).

Eastern Kingbird.—Amazingly, two extremely early reports on the same day, April 8 (see introduction). Fare had one in Racine County while Heagle was watching another in Dunn County. The next report wasn't until April 23 (Hutcheson) in Dane County.

Loggerhead Shrike.—Reported from Milwaukee, Ozaukee, Juneau, Oconto, Dunn, and Bayfield Counties, with nesting possible in Ozaukee (Bontly), Oconto (Smiths), and Dunn (A. Holschbach). The first of two April reports was on the 8th in Milwaukee County (Franke).

Northern Shrike.—Residual evidence of a good invasion year, with reports from 14 counties. Southernmost were Dane, Dodge, Washington, and Ozaukee Counties; no Mississippi River Valley counties were included. Last reported on April 15 from Portage County (Berner).

White-eyed Vireo.—Found in six counties as far north as Manitowoc County (May 11, Sontag; May 16, Tessen) and as far west as Dane County (April 30, Peterson). First observed April 29 in Milwaukee County (Strelka and Thomas). The May 16 report was the last.

Bell's Vireo.—Found in its usual southwestern haunts of Iowa, Grant, and La Crosse Counties. Made an additional appearance in Dane County (May 17, Peterson). The earliest sighting was on May 5 (Burcar, Iowa County).

Yellow-throated Vireo.—Another bird with a fairly narrow arrival window: seven county "hits" between April 28 and May 2. The April 28 counties were Columbia (Domagalski) and St. Croix (Persico).

Blue-headed Vireo.—Scattered early arrivals on April 20 (Manitowoc County, Sontag), April 22 (Waukesha County, Szymczak), and April 26 (Portage County, Berner), then the main body beginning April 28.

Warbling Vireo.—Scouts noted on April 24 in Kenosha County (Hoffmann) and in Dane County on April 25 (Stutz); then appeared in seven counties April 28–29. Covered the state.

Philadelphia Vireo.—This most northerly of the vireos passed through the state at a leisurely pace, visiting 11 counties from April 29 on. April reports came from Winnebago County on the 29th (Zimmer) and Brown County on the 30th (Paulios). Tessen counted 10 in Manitowoc County May 16.

Red-eyed Vireo.—Surprisingly for such a common species in an early neotropical migrant year, it barely made the April arrival list with just two sightings on the 30th, in Dane (Hilsenhoff) and La Crosse (Lesher) Counties.

Gray Jay.—This boreal specialty was reported from Forest, Vilas, and Douglas Counties, mostly from near the beginning (three reports) or near the end (two reports) of the period.

Common Raven.—Revisiting *Wisconsin Birdlife* ten years after its 1991 publication, this spring saw birds south of the range mapped there in Dunn, Portage, Kewaunee, Adams, Calumet, and Fond du Lac Counties. Berner had 17 in Portage County April 10, which was 10 more than his previous high there. Tessen had one perform a county hat trick for him on March 24, as he watched a bird soaring in Calumet, Brown, and Outagamie airspace. Most surprising was a bird seen moving north along the lakefront at Concordia College, Ozaukee County, on May 27 (Cowart). The species is considered extirpated in Illinois . . . hmmm!

Purple Martin.—Early reports were: April 4, Winnebago County (Bruce); April 5, Milwaukee County (Idzikowski); April 9, Iowa County (Burcar). Any absences tended to be on northern county reports.

Tree Swallow.—Two were reported in Dodge County on March 17 (Winter). After a Winnebago County bird on March 21 (Ziebell), not reported again until March 28 (two more counties) and 31 (another two). The rest of the map was mostly filled in by mid–April. Tessen reported 1,000+ on April 12 in Outagamie County.

Northern Rough-winged Swallow.—This small bird with the long name was definitely one of the April 6–8 contingent (see introduction), with April 7 reports from Dane (Ashman) and Winnebago (Ziebell) Counties and three more counties the next day. More consistently found in northern counties than Purple Martin.

Bank Swallow.—The most likely swallow to be missed, though still widespread. Two counties tied for first on April 12: Ozaukee (Uttech) and Outagamie (Tessen).

Cliff Swallow.—Bontly's April 8 Ozaukee County sighting was just ahead of those in Winnebago, Portage, and Dunn Counties the next day. An amazing sight greeted Berner on May 12 in Portage County: "The 2,200 Cliff Swallows reflect the reality of three bridges up and running across the Wisconsin River, as well as the chilly morning to facilitate detection."

Barn Swallow.—The tedium of listing six counties and observers for first-arrival status on April 8 was avoided by the single report of an April 7 bird (Milwaukee County, Boldt). An interesting exercise was to find the next "spike" in the arrival pattern. Four more reports came on April 9, but only five over the next three days. Then, eight observers reported their first arrival on April 13.

Boreal Chickadee.—Just one report, March 12, from Vilas County (Reardon).

Tufted Titmouse.—Is this crested cutie extending its range in the state? The number of reporting counties has increased from 10 in 1999 to 13 in 2000 to 20 this year. Fairly well represented south of a line from Barron to Adams to Winnebago County, though only southwestern Wisconsin achieved total saturation. Domagalski had 28 in Grant County on April 1.

Red-breasted Nuthatch.—This observer found none this spring in southeastern Wisconsin, so was glad to discover this unpredictable, irruptive species reported from 30 counties statewide, with only the southernmost tier of counties poorly represented (Kenosha County only, Hoffmann).

Brown Creeper.—BOPish reports from Walworth, Columbia, Portage, Vilas, and Douglas Counties—the last two somewhat eye-opening, though winter records exist for most northern counties (*Wisconsin Birdlife*). A gap in reports between the first week of March and a March 20 report in Rock County (Klubertanz) suggests the latter may have been a true migrant.

Carolina Wren.—This cheery but reluctant southern visitor to Wisconsin was reported twice. Domagalski was favored with a Grant County bird on April 1. The other bird stayed the season (beginning March 20) in Hale's Jefferson County backyard, helping her with her spring gardening chores.

House Wren.—A Sheboygan County bird on April 8 (S. Baughman) was the first, but a bird way up in Burnett County on April 10 (Hoefler) wasn't far behind (or ahead?). Three more reports by mid-month, then everywhere.

Winter Wren.—Two March reports: March 18, Winnebago County (Tessen) and March 26, Portage County (Berner). The main body of reports once again began April 6–8 with four counties reporting those three days. A total of 23 counties submitted reports.

Sedge Wren.—Two April 23 reports: Ozaukee (Bontly) and Portage (Berner) Counties. Two more on April 24: Kenosha (Hoffmann) and Dane (Hutcheson) Counties. J. Hansen counted 25 in Brown County May 19. Widespread.

Marsh Wren.—Distinctly fewer reports than for the previous species (a phenomenon this transplanted birder from the northeastern states is still getting used to!), but still well-represented (21 counties). Two reports were a bit ahead of the pack: Burnett County on April 16 (Hoefler) and Kenosha County on April 17 (Hoffmann).

Golden-crowned Kinglet.—Three BOP reports (Washington, Dodge, and Portage Counties) and three reports the first week of March (Columbia, Ashland, and Douglas Counties). Birds on March 13 and 18 in Dane and Winnebago Counties may have been early migrants. A bird moving along the lakefront at the Coast Guard Impoundment in Milwaukee County on March 30 (David) definitely was.

Ruby-crowned Kinglet.—A really tight arrival schedule: eight counties from April 6–8, with six reports on April 6 (Rock, Cederstrom; Dane, Stutz; Washington, Domagalski; Ozaukee, Bontly and Frank; and Manitowoc, Sontag). Eventually "jitterbugged" (*Wisconsin Birdlife*) its way through the state to the tune of 38 reporting counties.

Blue-gray Gnatcatcher.—Arrived on the "Southern Express" (see introduction) April 8 in Ozaukee County (Bontly). Next sighting on April 11 in Rock County (Cederstrom). No reports from counties north of the range shown in *Wisconsin Birdlife*. So, a total of 34 reporting counties shows it was rarely missed, if ever, in breeding counties.

Eastern Bluebird.—Arrival often preceded that of American Robin in a given county report. Earliest four reports: March 2, Crawford County (Jacobs); March 10, Walworth County (Burcar);

March 11, Waukesha County (Lammers); March 14, Columbia County (Tessen).

Townsend's Solitaire.—Tessen had one in Calumet County on April 13 by "pure luck"—it flew up from the roadside as he drove by and their paths paralleled long enough for him to get a good look. The observer may or may not have been aware that the date was in fact not just the thirteenth, but Friday the Thirteenth!

Veery.—Just made the April cutoff with a Brown County bird on April 30 (Paulios). Then four counties on May 1: Dane, Winnebago, Outagamie, and Portage. Covered the state.

Gray-cheeked Thrush.—Seemed scarce: reported from only eight counties, compared to 18 in 1999 and 16 in 2000. As in those years, absent from northern counties, with Buffalo and Outagamie the northernmost this year. Just missed the April cutoff with a May 1 debut in Grant County (Domagalski). Oddly for a relatively late migrant, the overwhelming majority of sightings were in the first half of the month.

Swainson's Thrush.—The perception on the part of some observers that this and the previous species were scarce may have been reality: reported from only 14 counties, fully half as many as in 1999 (26 in 2000). The single April report came on April 28 from Outagamie County (Anderson and Petznick). Many early May reports. Just two reports late in the month from the species' breeding range in the state (Vilas and Douglas Counties).

Hermit Thrush.—Hit-or-miss: some wondered at their absence, others choked on them. A Dane County bird on March 2 (C. Bridge) and a Winnebago County bird on March 10 (Zimmer) may have overwintered. The next report came on March 22 (Strelka) from Milwaukee County. Two final March reports followed before the main wave. Found in at least Oneida and Ashland Counties at EOP.

Wood Thrush.—Three-way tie on April 30 for first-arrival honors: Grant (Domagalski), Dane (Burcar), and Brown (Paulios) Counties. Domagalski had 23 in Grant County just two days later. In most southern counties by May 5. Missed by active observers in Vilas, Oneida, Forest, and Florence Counties.

American Robin.—Designated BOP in only a handful of reports, but including Ashland County (Verch). Many arrival dates well into March, approaching April in the more northern counties.

Varied Thrush.—Two winter feeder guests dallied into the spring: a Chippewa County female last seen on April 1 (Hatleberg), and a Juneau County bird reported on March 19 (Lesher).

Gray Catbird.—Scattered early reports: April 14, Jefferson County (Kearnses); April 17, Kenosha County (Hoffmann); April 24, Washington County (Domagalski). Widespread soon thereafter. Notably early for the latitude was an April 29 bird in Ashland County (Verch).

Northern Mockingbird.—A good season, with 11 counties scattered across the state reporting. Interestingly, no March reports, the earliest coming from Milwaukee County on April 14 (Boldt). Northernmost reports were from Oconto (Walton) and Burnett (Hoefler) Counties.

Brown Thrasher.—First report on April 6 in Portage County (Hall), then on April 8 in Racine County (David) and three southern-tier counties (Walworth, Rock, Green) the next two days. Covered the state.

American Pipit.—Not too common; found in only ten counties, beginning March 30 in Eau Claire County (Betchkal). Reports scattered throughout April and early May; as late as May 12 in Douglas County (R. Johnson).

Bohemian Waxwing.—R. Johnson reported 7 in Douglas County on March 11. Berner estimated 170 in Portage County on March 30. A flock of 60 was in Vilas County on April 11 (J. Baughman), and Goff submitted the last report on May 27, from Barron County.

Blue-winged Warbler.—Made an early appearance in Dane County on April 23 (Hutcheson). Then appeared in Rock County on April 26 (Ramsden) and Grant County on April 29 (Domagalski). Burnett, Barron, Portage, Outagamie, and Oconto Counties roughly defined the northern border of contributing counties; missed by few below that line.

Golden-winged Warbler.—Karlson's April 24 Dane County bird broke the early-arrival record by two days. Two more birds were seen at month's end in Milwaukee (Bontly, Zehner) and Grant (Domagalski) Counties. Appeared in 27 counties statewide.

Brewster's Warbler.—Two reports of this Blue-winged × Golden-winged Warbler hybrid, with Berner's May 1 Portage County sighting lowering the first-arrival record by three days. Decker had another such bird in Clark County on May 12.

Lawrence's Warbler.—The rarer recognized form of Blue-winged × Golden-winged Warbler was reported once, from Outagamie County on May 24–25 (Green).

Tennessee Warbler.—An April 29 sighting in Dane County (Ashman) just preceded three reports on April 30 from Crawford, Milwaukee, and Brown Counties. Tessen had one as late as May 26 in Marathon County.

Orange-crowned Warbler.—Nooker's April 23 Milwaukee County bird was first. Then appeared in three counties on April 26: Rock (Cederstrom), Columbia (Burcar), and Dunn (A. Holschbach). Reported from 21 counties; in Racine County as late as May 13 (David).

Nashville Warbler.—Showed up first in Winnebago County on April 25 (David Kuecherer). Six more counties had received visits by month's end. Very few counties were missed.

Northern Parula.—Highsmith recorded the first arrival in Dane County on April 25. Columbia County was next on April 28 (Domagalski). Milwaukee and Manitowoc Counties followed on April 30. Missed by a few of the more active observers.

Yellow Warbler.—The flood began April 18 in Dane County (Tessen). About four more counties were added in the week that followed. Frank presumably had an easy time counting 38 in Dodge County on May 10.

Chestnut-sided Warbler.—With 41 counties reporting it, probably one of the four or five most recorded warblers. First seen on April 23 (Schirmacher) in Dane County, then on April 27 (Berner) in Portage County before becoming widespread by April 30 (four more counties that day).

Magnolia Warbler.—Reported from but 29 counties (compare to previous species); this observer consistently finds this species one of the most common migrant warblers in southeastern Wisconsin. Made the April arrival list by virtue of a single sighting, April 29 in Dane County (Bridges). Absent from several northeastern county reports (Oconto, Florence, Forest, and Oneida).

Cape May Warbler.—Present in 24 counties, a good showing, with Berner tallying 17 in Portage County on May 9. Three April 30 counties were the earliest represented: Dane, Milwaukee, and Brown (Ashman, K. Johnson, and Dennis Kuecherer).

Black-throated Blue Warbler.—A relatively uncommon migrant, with reports from 14 counties, starting with Kenosha County on May 2 (Hoffmann) and Milwaukee County on May 4 (Gustafson). West of Ashland, Portage, and Dane Counties, only Douglas County was represented.

Yellow-rumped Warbler.—A single March report, from T. Sykes in Outagamie County on the 31st. Infiltrated at least six more counties the first third of April, then quickly became widespread. Berner counted 170 in Portage County on May 6.

Black-throated Green Warbler.—An individual made it all the way to Ashland County before Verch spotted it on April 14 to form the first record for the season. Another early bird in Waukesha County the next day was photographed (Alsup). It then took a good week before reports started coming in from throughout the state.

Blackburnian Warbler.—Three April reports: Dane (Ashman) and Milwaukee (Strelka) Counties on April 29, and Brown County on April 30 (Dennis Kuecherer). Still in Winnebago County, south of normal breeding range, until at least June 6 (Bruce—"for real!"). Poorly represented in southwestern Wisconsin.

Yellow-throated Warbler.—Now seems firmly established in the state. Not surprisingly, therefore, a new record early date was set of April 21 (2 individuals in Sauk County, Peterson), edging out the old record by a day. The Grant County birds were first seen on April 28 (Domagalski). Also reported in Dane County on May 6 (Marrari). Nesting activity at Baxter's Hollow (Sauk County) was underway by mid-May (Burcar).

Pine Warbler.—The all-time early arrival was advanced one day by Evanson's April 8 Dane County bird (a report on Wisbirdn of another Pine Warbler that day was not substantiated). Slightly later arrivals on April 13 in Dane (T. Jiardini) and Shawano (Peterson) Counties. Also on April 15 in Portage County (Berner); then a gap

until near the end of April. Represented by 24 counties distributed statewide.

Prairie Warbler.—Ramsden's Rock County bird on April 26 was but one day off from tying the earliest record. Another April bird showed up on the 28th (Milwaukee County, Strelka et al.), thus doubling the number of all-time April sightings! May reports came from Marathon (Teukes), Ozaukee (Cutright and Nooker), and Jefferson (Walton) Counties, the last to EOP.

Palm Warbler.—Two reports of this abundant little tail wagger considerably ahead of the main body came from Dane County on April 13 (Fallow) and Sauk County on April 15 (Burcar and Domagalski). The majority of first reports came in the last week of the month. Still in northern counties at EOP. On May 5, two observers (presumably independently) came up with the idea to count individuals in Dane County; Evanson counted 29, Hilsenhoff 34. The next day, also in Dane County, Ashman upped it to 35.

Bay-breasted Warbler.—The lone April report came from K. Johnson in Milwaukee County on the 30th. Recorded in 22 counties. Like a few other warblers this season, scantily reported from southwestern counties.

Blackpoll Warbler.—This observer is still getting used to such early arrival dates—in the northeastern U.S., it's generally the last warbler through. An April 30 first date in Wisconsin, however, doesn't seem particularly early (Milwaukee County, Bontly and Zehner), with five more counties represented by May 4. Seen in 22 counties. Still in Burnett County on May 23 (McInroy).

Cerulean Warbler.—Seen on April 29 in Grant County (Stutz) and on April 30 in Milwaukee County (Bontly). Domagalski counted 17 in Grant County by May 2, but then Stutz had already had 12 on April 29! Seen in 17 counties, north to Dunn, Portage, and Brown Counties.

Black-and-white Warbler.—Traditionally one of the earlier warblers to appear, but this year Hoffmann's April 13 Kenosha County sighting remained alone until April 22, when Bontly had it in Ozaukee County. It then appeared in six more counties by month's end. Seen everywhere in the state.

American Redstart.—Exploded onto the scene the first week of May, with just two April 30 reports heralding the invasion: Grant (Domagalski) and Manitowoc (Sontag) Counties. Seemed to be everywhere at once: Williams in Burnett County already had his first of the year on May 1.

Prothonotary Warbler.—A new record early date was set (by three days) with the appearance at the U.W. Arboretum in Madison (Dane County) of an individual on April 13 that stayed for approximately a week (Fallow et al.). April 29 and 30 arrivals followed in Grant (Stutz) and La Crosse (Lesher) Counties. The number of counties eventually reached ten, including the counties of Dodge, Kenosha, and Milwaukee to the east of its breeding range.

Worm-eating Warbler.—An excellent season, with five reports: April 23, Fond du Lac County (Volkert); May 3, Calumet County (Tessen); May 14, Lafayette County (Burcar); May 15, Sauk County (A. Holschbach); and May 17, Adams County (Burcar).

Ovenbird.—Well ahead of the pack was an April 14 Dane County bird (Schirmacher). Next were Kenosha (Hoffmann) and Burnett (McInroy) County birds on April 25 and 26. The number of counties reporting it (47) suggests it was almost impossible to miss.

Northern Waterthrush.—Very concentrated arrival pattern, arriving in eight counties on April 23–25. Earliest were Dane (Hutcheson) and Richland (Duerksen) County reports from April 23. Brown and Dunn were the northernmost counties in this initial wave.

Louisiana Waterthrush.—The scarcer of the two waterthrushes was reported from five of the southwestern counties where it breeds. There was a gap in south-central Wisconsin, with reports coming again from the southeastern counties of Waukesha, Milwaukee, Ozaukee, and Sheboygan. Of considerable interest here is a report of nesting in Waukesha County (Domagalski) for the second straight year. Earliest report came from Grant County on April 8 (P. Bridge).

Kentucky Warbler.—Stutz's April 29 report (Grant County) is only the second ever for April. After reading his description, it will be hard not to think of "a crying Tammy Faye Bakker's mascara" around the bird's eye the next time it's seen (see "By the Wayside"). The species was also seen in Adams, Dane, Rock, and Ozaukee Counties, with a final report May 27 from Walworth County (Rohde).

Connecticut Warbler.—Just missed the April cut (see introduction), with the first sighting in Milwaukee County (K. Johnson) on May 1. There wasn't another until May 10 in Columbia County (Burcar and Domagalski). Reported from 14 counties, a respectable showing. High counts on territory were 6 birds in Burnett County on May 23 (Wood) and 10 birds in Douglas County on May 29 (Tessen).

Mourning Warbler.—There are no accepted April records for this species; this would have been a good year for it, but the best that could be done were May 3 birds in Kenosha (Hoffmann) and Milwaukee (Thomas) Counties. The other early-ish report was again in Milwaukee County on May 9 (Gustafson). Recorded in 22 counties, with no reports to the southwest of Sauk County.

Common Yellowthroat.—Detected in eight counties before May 1, starting with Waukesha (Gustafson) and Brown (Tessen) Counties on April 25. Frank counted 57 in Dodge County on May 10.

Hooded Warbler.—Appeared in Dane County on April 21 (Clark). The other April report was on the 25th from Milwaukee County (Thomas). Reported from 14 counties, as far north as Shawano, Dunn, and even Douglas Counties, where R. Johnson had one on May 27, her third ever for the county!

Wilson's Warbler.—Earliest report on May 2 (Rock County, Cederstrom). Filtered in rather slowly the first third of May. Reported from 24 counties, which seems low for such a rather common but late migrant. Might this reflect decreased observer activity towards the end of the season?

Canada Warbler.—Tied with Mourning Warbler for dead last among the warbler species to arrive, not showing up until May 3 in Milwaukee County (Thomas). Next reports were on May 8 (Winnebago County, Ziebell) and May 9 (Washington County, Domagalski). Reports heavily biased towards eastern Wisconsin: except for three extreme northwestern counties, found no farther west than Vilas or Sauk Counties. Reported from 19 counties total.

Yellow-breasted Chat.—See introduction. The invasion was heralded by birds on May 2 in Milwaukee County (Gustafson) and May 3 in Walworth County (Rohde). When it was over, it had been reported in eight counties, all southern except Waupaca County (May 22, Peterson). Three Dane County birds were still present on May 30 (Wood).

Summer Tanager.—Another prominent passenger on the "Southern Express," its first of eight county visits was to Dodge County on April 25, where Freriks reported it had already been present "at least two days" when he saw it. Reports continued at regular intervals until May 16, with the final report from Brown County (Paulios). In between, it was seen in Racine, Milwaukee (2 birds), Ozaukee, Columbia, Winnebago, and Calumet Counties.

Scarlet Tanager.—Seven reports April 26–30, the first in Kenosha County (Hoffmann). Not missed by many observers—seen in 42 counties all over the state.

Eastern Towhee.—No suggestion of overwintering, with April 8 the earliest reported date, when it was seen in Dane (Evanson) and Milwaukee (Wiskowski) Counties. Went about repopulating the state at a very leisurely pace, with first county arrival dates all through April. Domagalski counted 35 in Grant County on May 2.

American Tree Sparrow.—Latest departure date recorded was May 12 from Florence County (Strelka). More surprising was a bird lingering in Milwaukee County almost as long (May 10, Bontly).

Chipping Sparrow.—Two documented birds overwintering at a Dane County feeder persisted into March. Otherwise, no "pre-echo" of the main invasion: arrived in four counties April 7, three more on April 8. For the record, the April 7 sightings were in Jefferson (Hale), Milwaukee (Boldt), Ozaukee (David), and Winnebago (Bruce) Counties.

Clay-colored Sparrow.—An Oconto County bird was first on April 23 (Smiths). They were in Dane and Dunn Counties on April 24, and Ozaukee County on April 25. Widely found (35 counties).

Field Sparrow.—One overwinterer was identified (Dane County, Burcar). A March 16 bird in Ozaukee County (Uttech) could have been a very early migrant; a second Dane County report on April 4 by a different observer (E. Hansen) presumably was. In any event, the April 6–8 weather brought it in for sure, starting with Rock County on April 6 (Klubertanz); Walworth, Milwaukee, and Ozaukee Counties on April 7; and Grant, Winnebago, and Barron Counties on April 8.

Vesper Sparrow.—Another April 6–8 club member (one county on April 6, two on April 7, and two on April 8), though these were all prefigured by Hoffman's Dane County bird on March 31. Good to see this attractive, but never very numerous, sparrow represented by a 34-county count.

Lark Sparrow.—True to form, this specialty of the southwestern portion of the state was reported only from six counties within its breeding range (*Wisconsin Birdlife*). Two reports were from April: Pepin County on the 25th (A. Holschbach) and Sauk County on the 26th (Tessen).

Black-throated Sparrow.—Wisconsin's seventh record, a bird at a Dane County feeder present since January, lingered until at least March 10 (Wood et al.).

Lark Bunting.—Gustafson observed an adult male at close range for 40 minutes at the Coast Guard Impoundment, Milwaukee County, on May 3. Accepted by the WSO Records Committee.

Savannah Sparrow.—Timetable similar to Vesper Sparrow: outliers on March 24 (Bontly) and again on March 31 (Hoffman) in Ozaukee and Dane Counties, then nothing until the April 6–8 event. Ubiquitous soon thereafter.

Grasshopper Sparrow.—First arrivals widely spaced: Racine County, April 15 (David); Sauk County, April 22 (Burcar); Milwaukee County, May 3 (Gustafson). Reported from 15 counties, none northerly.

Henslow's Sparrow.—Reported from 13 counties, starting with Richland on April 26 (Duerksen). No great push to the northeast or northwest, i.e. only Marathon, Shawano, Portage and counties to their south were represented.

Le Conte's Sparrow.—Seen in nine far-flung counties, beginning with Milwaukee County on April 7 (Lubahn) and Racine County on April 19 (Fare). Two birds appeared to be on territory at EOP in Oneida County (Fishers).

Nelson's Sharp-tailed Sparrow.—A prized find in spring migration, accomplished this season only once, by Boldt and Lubahn in Milwaukee County on May 26.

Fox Sparrow.—Appeared on March 22 in Dane County (Burcar) and March 30 in Ozaukee County (Uttech). Widespread throughout April. Rather late for a southern county was a May 9 bird in Walworth (Parsons). This was later than the departure date in Ashland County (Verch) of May 7, which is more normal.

Song Sparrow.—Many active observers in the southern half of the state still didn't have one by the middle of March; Boldt's date of April 1 for Milwaukee County may be an extreme example. Reached Douglas County for R. Johnson on April 11. There were TTP birds reported from Waukesha and Milwaukee Counties (both Gustafson), as well as several reports for very early March from Dane County.

Lincoln's Sparrow.—First turned up in Washington County on April 27 (Domagalski), then in Grant, Dane, and Douglas(!) Counties on April 29. Reported from 19 counties.

Swamp Sparrow.—A virtual replay of the Vesper and Savannah Sparrow scenarios: a lone Hoffman bird in Dane County on March 31, then three counties on April 7 and two more on April 8.

White-throated Sparrow.—With mid–April given as the beginning of the migration period in *Wisconsin Birdlife*, the three March reports on the 6th, 11th and 21st in Ozaukee (Uttech), Portage (Berner), and Pierce (O'Keefe) Counties probably represent overwinterers. David monitored an urban concentration in a small downtown Milwaukee park; it built from 35 to 75 birds between April 24 and May 1. He also had about 15 window-killed or stunned birds, the vast majority of them White-throated Sparrows, for the same period, most coming on one single foggy morning.

Harris's Sparrow.—Dane County leftovers from winter feeding were being reported periodically throughout March on Wisbirdn, so the number of individuals is unclear, but reports were posted as late as March 25 (Evanson et al.). The first migrant was noted in Milwaukee County on April 30 (Idzikowski), the last in Ashland County on May 17 (Verch). Reports came in from nine counties, the northeastern quarter of the state being completely unrepresented.

White-crowned Sparrow.—Birds on March 3 in Dane County (Evanson) and March 26 in Ozaukee County (Uttech) surely overwintered. Not reported again until April 24, when Hoffmann had 4 in Kenosha County. Notable for its location was the next report on April 28 in

Florence County (Burcar). Widespread, but least common in the Mississippi River Valley.

Dark-eyed Junco.—May 10 seemed a late departure date for Racine County (E. Howe). In Ashland (Verch) and Vilas (J. Baughman) Counties at EOP. An "Oregon" form stayed at the Smith's feeder in Oconto County until April 15.

Lapland Longspur.—No specific sightings attributed to March; reports of flocks from 14 scattered counties spanned the period from April 1 (Portage County, Berner) to May 25 (Manitowoc County, Sontag). Only two mega-flocks reported: 1,000+ birds in Portage County on April 4 (Hall) and in Dodge County on April 28 (Tessen).

Snow Bunting.—Appeared in 11 counties roughly aligned on an axis from Waukesha in the southeast to Douglas in the northwest, with final sightings on April 18 in Kewaunee (K. Smith) and Douglas (R. Johnson) Counties. The Kewaunee flock numbered about 140. An Outagamie County flock discovered on March 10 contained 100+ birds (Tessen).

Rose-breasted Grosbeak.—Fourteen reports in the last third of April; earliest were April 20 and 24 in Rock (Cederstrom) and Dane (Burcar) Counties, respectively. High counts were 25 in Portage County on May 16 (Berner) and 23 in Oconto County on May 6 (Smiths). Reported widely from 45 counties.

Blue Grosbeak.—Unson and Heikkinen got it in two states for the price of one when on May 13 they observed (and photographed) an adult male flying back and forth over State Line Road, marking the Minnesota-Wisconsin border in Burnett County. Accepted by the WSO Records Committee.

Indigo Bunting.—Gross's April 19 Waukesha County individual was well in advance of the main body, which arrived en masse in six more counties on April 30 or May 1. Not easily missed soon thereafter.

Dickcissel.—Easily the latest-arriving regular passerine species, with May 17 the earliest report (Grant County, Tessen). The only other sightings were: May 25, Dunn County (Heagle); May 26, Dane County (Ashman); May 28, Fond du Lac County (Evanson); May 30, Green County (Peterson).

Bobolink.—First arrival on April 26 in Ozaukee County (Frank), with two additional April reports two days later in Dodge (Tessen) and Manitowoc (Geiger) Counties. No gaps in statewide distribution noted.

Red-winged Blackbird.—No claims of overwintering; birds on March 1 in Kenosha (David) and Racine (DeBoer) Counties weren't there the day before. Didn't make it to Ashland (Verch) or Washburn (Haseleu) Counties until a full month later. Even in southern counties, numbers were small until the third week of March.

Eastern Meadowlark.—March 10 (Waukesha County, Gustafson) constituted the first report. Arrival was leisurely, with only three more southern counties logging arrivals before March 20, when the pace began to pick up. Appeared in 43 counties statewide.

Western Meadowlark.—Designations in *Wisconsin Birdlife* as "abundant" or "common" are sadly out of date, though the bird still made 14 county lists, reaching the Michigan "lakeboard" in Ozaukee and Kewaunee Counties. K. Smith, concluding the Wind Farm Project in the latter county, reported it outnumbered 30 to 3 by Easterns. First report came from Columbia County on March 14 (Tessen). Burcar had both meadowlarks in both Dane and Iowa Counties on March 20.

Yellow-headed Blackbird.—Zimmer's March 31 Winnebago County bird became the eighth March arrival record, though the overwintering Ozaukee County bird (itself only the fifth such record) was seen March 7 (Tessen). Next arrivals were on April 9 and 10 in Dane and Iowa Counties (Burcar). Made appearances in 24 counties.

Rusty Blackbird.—Appearances in 19 counties, the first in Waukesha on March 10 (Gustafson). Columbia (March 14, Tessen) and Dane (March 17, Evanson) were the other counties hosting migrants before late March, when reports began to accelerate. In Milwaukee County as late as April 30 (Gustafson).

Brewer's Blackbird.—Considerably more widespread (27 counties) than the previous species. Reported on March 12 in Kenosha County (Hoffmann) and on March 14 in Manitowoc County (Geiger). Tessen had 50 in Portage County on May 6.

Common Grackle.—Quite late, and slow to arrive in numbers. For example, the earliest date given was as late as March 7 (Winnebago County, Ziebell); yet Knispel, active in the same county, noticed his first only on March 24. Only three other counties (Kenosha, Waukesha, and Ozaukee) had reported in by March 10.

Brown-headed Cowbird.—Hard to judge, but migration did not seem later than the previous species, contrary to the usual pattern. Early dates were March 3 and 7 in Ozaukee County (Frank, Tessen); March 6 in Kenosha County (Mann) and Walworth County (Parsons); and March 7 in Winnebago County (Ziebell).

Orchard Oriole.—The goodly number of reports made sense in a southern invasion year. Especially impressive was the early feeder buildup. After preliminary reports from Ozaukee County (Huebner) on April 28 and Grant County (Stutz) on April 29, numbers at the Panetti feeder in Ozaukee County went from 3 on May 1 to 8 on May 5. Present in 19 counties, north to Dunn and Oconto Counties.

Baltimore Oriole.—Zimmer (Winnebago County) had two males on the extraordinarily early date of April 8 (see introduction), thus establishing the second-earliest arrival date ever (the record is April 2, 1976). Also noteworthy were the number of subsequent arrivals during the last third of April—nine, versus only one in 1999, for example. The first of this spate came on April 24 in Outagamie County (Anderson and Petznick).

Pine Grosbeak.—Reported from BOP to March 17 in Douglas County (R. Johnson).

Purple Finch.—Though it hadn't seemed like a "finch winter," this species was still recorded from 34 counties all through the state, including many southern counties. Domagalski had 13 in Washington County on March 30, for example. Recorded as late as May 5 (Gustafson) and May 12 (Frank) in Waukesha and Ozaukee Counties.

Red Crossbill.—Reports from Portage, Forest, Oneida, Vilas, Ashland, and Douglas Counties. They nested in Vilas County (J. Baughman), and R. Johnson had 9 in Douglas County on May 19.

White-winged Crossbill.—Reports from Portage, Forest, Vilas, and Douglas Counties. E. Howe had both crossbills in the Nicolet National Forest, Forest County, in mid–March (Wisbirdn). The Vilas County birds were TTP (J. Baughman).

Pine Siskin.—A bird about which few, if any, generalizations are safe. No correlation, for example, between time of season and latitude in which birds were found was apparent; birds seemed equally likely in northern counties early and southern counties late. For example: BOP in Douglas County (R. Johnson) and EOP Dane County (Hilsenhoff). Reported from 21 counties.

Evening Grosbeak.—Found in Oneida and all northern-tier counties submitting reports. Farther south, reports from Portage (Hall, April 14) and Shawano (Tessen, May 24) Counties.

Corrigenda

Clerical errors resulted in incorrect first-arrival dates for three species in the Spring 2000 report (Vol. 62, Nos. 3&4). The correct first-arrival dates are May 7 for Great Crested Flycatcher (p. 299), April 30 for Cliff Swallow (p. 301), and April 25 for Barn Swallow (p. 301).

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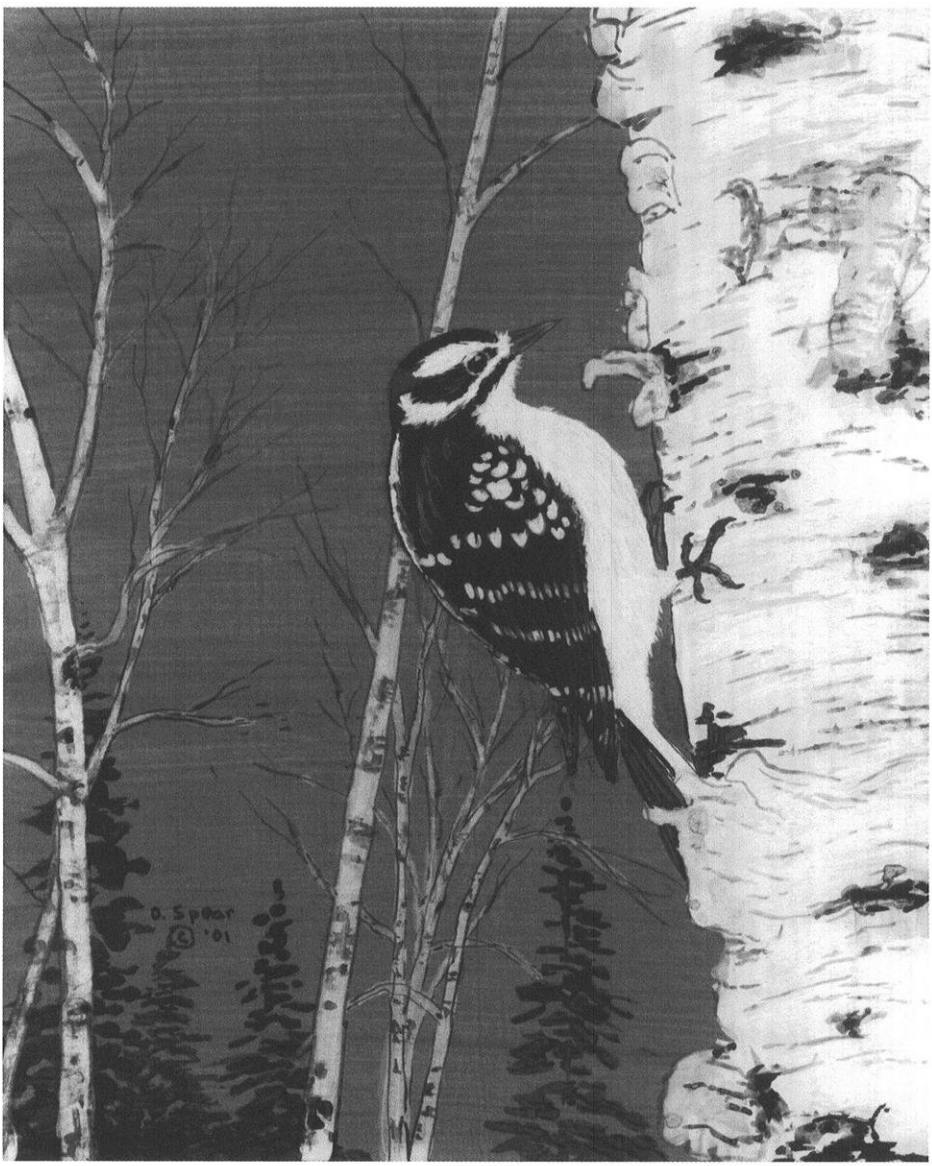


Downy Woodpecker *by David Spear*

"By the Wayside"—Spring 2001

Rare species documentations include Eared Grebe, Brown Pelican, Tricolored Heron, Glossy Ibis, King Eider, Whooping Crane, Piping Plover, American Avocet, Willet, Black-headed Gull, Loggerhead Shrike, Carolina Wren, Kentucky Warbler, Summer Tanager, Lark Bunting, and Blue Grosbeak.

EARED GREBE (*Podiceps nigricollis*)

April 13, 2001, Lake Geneva, Walworth County—The grebe engaged in frequent diving ("jump" diving), remaining on or under the water with a single exception (the bird was seen in flight, low over the water, once); it also occasionally pulled feathers from its body and ate them. The Eared Grebe appeared more "alert" and "nervous" than the Horned Grebes, quickly turning its head from side to side, especially when watercraft were in the area.—*Wayne Rohde, Walworth, WI.*

April 14, 2001, Barkhausen Waterfowl Preserve, Brown County—The bird was first swimming along the shore of a small island, and then surprisingly climbed onto the island standing upright and sort of dug with its feet in the dirt.—*Paul Schilke, Green Bay, WI.*

BROWN PELICAN (*Pelecanus occidentalis*)

May 16, 2001, Wyalusing State Park, Grant County—[Jan Hewitt and I] were scoping the Mississippi River looking from an overlook at Wyalusing State Park. I observed three large flying birds, one that was white with black wing tips and a large orange bill. This bird was identified as an American White Pelican. Then, as I studied the two brown birds that were flying in front of it, I realized that they were pelicans as well. I observed the almost uniform brown tones of the wings and body, the large dark bill, and the wingbeat that corresponded with that of the white pelican. The area in front of the bill on the head appeared to be just a bit lighter than the brown of the wings and body. The two brown birds were about three-fourths the size of the larger one. The three pelicans were flying south above the treetops along the Mississippi River. Since the lookout where we were observing was about halfway down the slope, the birds were just about straight out from our vantage point.—*Kay Burcar, Cross Plains, WI.*

TRICOLORED HERON (*Egretta tricolor*)

May 17, 2001, Nine Springs Treatment Plant, Madison, Dane County—In the

field, I referred to the *Birds of North America* guide (National Geographic Society, 2nd edition). At home, all of the major guides were consulted. However, since first spotting the bird, the identification was never in question. In fact, given the duration and close range of my observation, I actually noted field marks that conflicted with those portrayed in *Birds of North America* for the "breeding" Tricolored Heron, including a bluish bill, rather than the yellowish bill depicted. Consulting the Sibley guide and others at home confirmed that, unlike the *Birds of North America*, but like the bird observed, the bill is usually bluish during the breeding season. Finally, all of the details described above were actually observed in the field and not assumed based on post hoc consultation of field guides. Being aware that this bird would require documentation, and despite being certain of its identification, I carefully noted as many traits as possible, including those not needed to clinch the identification, while I waited for other birders to arrive. Actually, this proved to be a good birding exercise!—*Niels Rattenborg, Madison, WI.*

Glossy Ibis (*Plegadis falcinellus*)

May 2, 2001, Oconto Marsh, Oconto County—While looking out over the marsh from the gate, I said to Daryl Tessen, "There's something different." He looked in the direction I was looking and said, "Oh, my gosh," and then went to get his scope. This bird, through binoculars, was dark gray and about the same height as the nearby Canada Geese. The bill was long, dark gray, and down-curved. Through the scope at 40× the bill was dark gray and the eye was dark. No red could be seen. There was a narrow whitish "vee" from the eye to the base of the bill and back to the other eye. The plumage from the top of the head on down the neck to the breast and back had a purplish-maroon sheen. The sides, tail area, and feathered part of the legs had a greenish sheen. The legs were a dark tannish-gray color. The bird fed actively and occasionally disappeared behind vegetation.—*Mark Peterson, Bartlesville, OK.*

King Eider (*Somateria spectabilis*)

March 13, 2001, Milwaukee, Milwaukee County—Offshore from rocky point between Bradford Beach and the old gun club site; bird was swimming approximately 60–80 meters offshore during time of observation. Heavy bodied, about the same body build as a White-winged Scoter, approximately 3–4 inches longer than many nearby Common Goldeneyes, and considerably heavier of build than the goldeneyes. Overall mottled brown plumage (not grayish or buff-brown, nor rufous as is illustrated for various geographic races of Common Eider). Black bill, with feathering along the sides of bill extending only one-third of the bill length. At the distal end of this feathering, a prominent whitish patch was noted that contrasted with the overall brown color surrounding it. Feathering extended down the front of bill, exposing an area of bill between the side feathering and top feathering (an "extension" of the bill). Rounded rear of crown; relatively steep forehead (unlike illustrations of Common Eider female). Bird sat upright to flap its wings while on the water, again revealing its stocky build and relatively short wings

in relation to body size.—*Steve Lubahn, Milwaukee, WI.*

March 13, 2001, Milwaukee, Milwaukee County—While searching for the eider, I almost missed a brown duck next to a drake Mallard close to the shoreline. They were about the same size, but when I saw the brown duck dive, I knew I had found the female eider. Long, close looks at this duck revealed the following traits: overall color a warm brown throughout plumage; size close to Mallard (heavy body); dove often with nearby Common Goldeneyes (smaller); scaly pattern on breast, scapulars, and especially on flanks with distinct "vee" markings (not bars, as on Common Eider); bill black and somewhat stubby looking for an eider; feathering at base of bill extended only slightly forward at sides but further forward along the top center; eye dark; and wing fairly uniform gray/brown. On the second sighting, I looked for and noted the slightly upturned "gape" mentioned by Sibley.—*Dennis Gustafson, New Berlin, WI.*

WHOOPING CRANE (*Grus americana*)

March 14, 2001, Durand, Buffalo County—At first glance, I thought I was seeing a swan because of the white color and size. I immediately concluded it was not a swan but rather a crane because of the long black legs extending beyond his body and the long stretched-out neck and I could easily see some red on the head. I had my scope on a window mount, so I quickly secured it to my window to get a closer look. I could see more red on top of the head and some on the face. I looked for a neck band (none). I took a quick look at the legs because he was starting to turn but could not see any bands there either. I have been a volunteer with the Alma Swan Watch program for six years and I look for banded swans and report their numbers. As the crane was turning to the east, I had a very good look from underneath. He was all white, except the wing tips were black with the black extending into the wing about a foot.—*Gary Krogman, Eau Claire, WI.*

PIPING PLOVER (*Charadrius melodus*)

April 28, 2001, Ken Euers Nature Area, Green Bay, Brown County—Decided to do a little birding at Ken Euers before giving a talk to a class at UW-Green Bay. On west end while scanning the shorebirds and gulls on mudflats, a crow chased a Willet in from the far west shore. This caused me to scan the smaller shorebirds running around—among others, eight Semipalmated Plovers and *three* Piping Plovers with them. Same size as the Semipals, but pale gray, one single dark band, orangish legs and bill (tipped in black). Also present was a White-rumped Sandpiper (early!). Was able to call others to see the Piping and White-rumped but the Willet had departed.—*Daryl Tessen, Appleton, WI.*

AMERICAN AVOCET (*Recurvirostra americana*)

April 22, 2001, Manitowoc, Manitowoc County—Only a single individual was seen this year in the lakeshore area of Manitowoc. I guess they decided Milwaukee was preferable! The bird was feeding on the shoreline in the containment, wandering among the Ring-billed and Bonaparte's Gulls that shared the area. It was not difficult

identifying this large, long-legged shorebird: long upcurved bill, orangish head and neck on a white body. The wings are mostly black with white scapulars. The feet were dark.—*Charles Sontag, Manitowoc, WI.*

Willet (*Catoptrophorus semipalmatus*)

April 21, 2001, near Belgium, Ozaukee County—A Willet sighting is not complete without a look at the wing pattern, and this bird did not disappoint me. Eventually, it flew a short distance to another puddle and I saw the striking black-and-white wing tips. I drove past this pond about two hours later and it was totally vacant, so something must have disturbed the Willet and other birds that were using the pond.—*Thomas Wood, Menomonee Falls, WI.*

Black-headed Gull (*Larus ridibundus*)

May 28, 2001, Milwaukee Coast Guard Impoundment, Milwaukee County—This bird got my attention right away by its size—nearly as big as a Ring-billed Gull standing five feet from it. The mantle was almost the same shade as the Ring-billed, but just a bit lighter. The hood was brown and angled up the back of the head, higher than on a Bonaparte's. One subadult Bonaparte's Gull was in the area, too, and two or three times swam near the Black-headed, providing a good comparison. The Black-headed pretty well dwarfed the Boni. On several occasions, its posture accentuated its size, standing with its neck stretched, and making it seem small-headed and barrel-chested compared to the Boni. The bird was very skittish—whenever a Ring-billed would land nearby or try to take its perch away, the Black-headed was up. During several of these flights it was possible to get excellent looks at the black underside of the primaries, with what appeared to be extremely large windows on the outer two; looking at books after the fact, it seems these two feathers are almost wholly white underneath, but are divided by a thin strip of black, which certainly made them look like windows in the field. In flight, it didn't have quite the buoyant ternlike quality of a Boni. The bill and legs were very dark with a reddish cast, certainly not as bright red as pictured in some of the books I checked out.—*Brian Boldt, Milwaukee, WI.*

Loggerhead Shrike (*Lanius ludovicianus*)

May 23, 2001, Highway J and Chicken Shack Road, Oconto County—Unfortunately, there was no shoulder, the bird was in a private yard, and there was frequent movement of construction equipment along the road. I moved to the northwest corner where there was a gravel entrance to a farm field and scoped from the car window. This seemed to bother a local resident who thought I was spying on his neighbor, although he allowed that "a rare bird was in that yard last year." Although I assured the gentleman that I was only a birder, not a spy, he seemed unhappy, so I watched only long enough to observe the pertinent field marks.—*Thomas Wood, Menomonee Falls, WI.*

Carolina Wren (*Thryothorus ludovicianus*)

March 20–May 30, 2001, 517 Tower St., Lake Mills, Jefferson County—This bird showed up in our yard, singing, on

March 20. I got a good look at it the following day: larger than a House Wren, longer tail, slightly decurved bill, white eye line, lighter throat and darker lower breast and belly area. It came to the feeder at least twice. After hearing it for three days, there was no sign of it for five days. Then we heard it singing and calling, sometimes off and on all day long, and sometimes only once (for instance, at dusk, almost daily until May 30). That day, I heard it sing twice at 6:15 A.M., but haven't heard it since despite my working in the garden or otherwise being outside often (it's now June 5). There was also a Carolina Wren here last summer from June 22 to July 30.—*Karen Etter Hale, Lake Mills, WI.*

KENTUCKY WARBLER (*Oporornis formosus*)

April 29, 2001, Wyalusing State Park, Grant County—The first indication that the bird was present was a song not unlike a Northern Cardinal's repeated a few times: "huh-three, huh-three, huh-three . . . " The bird called infrequently, and after waiting a long period atop a bluff-side trail, my wife saw some movement 35 feet below our location. I quickly swung my binoculars to where she was looking and found the Kentucky Warbler. The warbler was foraging in the leaf litter initially and was often obscured by various plant matter, but after observing the bird for some time it finally moved out into the open. The first field marks I noticed were the black markings around the bird's eyes—much like the paint on a professional wrestler or a crying Tammy Faye Bakker's mascara. At times, the black markings looked like a helmet. I noticed that inside the black markings the bird had yellow eye rings. The bird was olive-backed with gray, black, and olive markings washed together on the bird's cap. Underneath, the bird was completely yellow—this extended all the way to the bird's throat. The striking markings on this bird have always made it a personal favorite.—*Aaron Stutz, Madison, WI.*

SUMMER TANAGER (*Piranga rubra*)

May 10, 2001, Wittman Airport, Winnebago County—I was graced by two tanager sightings two days before our count. I was at Burnwood Drive (the woods at Wittman Airport) when I heard a Scarlet Tanager singing nearby. Deciding to "pish" for it, I drew in warblers, flycatchers, and this tanager. Its wings were not black (just darker than its pinkish-orange color), the bill was pale and thick, and it called a little bit—it was somewhat harsh and it sounded like "pitchy-chy-chuck." Also, of important note, the bird was a subadult male, sporting a light olive-green patch on the lower belly.—*Paul Bruce, Oshkosh, WI.*

LARK BUNTING (*Calamospiza melanocorys*)

May 3, 2001, Milwaukee Coast Guard Impoundment, Milwaukee County—I heard that Clay-colored and Le Conte's Sparrows were seen the previous day, so I hiked out there at first light. Song was enthusiastic, with many sparrow and warbler species singing. As light increased, I noticed a dark bird only about twelve feet from me, hopping over some bare spots in a grassy area. As it fluttered its wings, I saw white and knew even before raising my glasses that I was watching an adult

male Lark Bunting. The glasses at close range confirmed this: an all-black bird, of slightly larger bulk than sparrows, but much smaller than Red-winged Blackbirds. The only other color was bright white wing patches, solid across the shoulder, then more streaked across the secondaries. Typical finch traits of short forked tail and heavy dark conical bill. It frequently fluttered its wings, showing off the white patches. The wings seemed a little short and the beat was brief (short) in flight. I saw the bird off and on for the next 40 minutes, usually on relatively open ground. It was last seen perching on the top of a small sapling, then flying off towards the west. I had waved Scott Franke in just before it disappeared and he was able to watch it very briefly just before it flew off.—*Dennis Gustafson, New Berlin, WI.*

BLUE GROSBEAK (*Guiraca caerulea*)

May 13, 2001, State Line Road, Burnett County—The bird was about seven inches long, deep blue in color, with a heavy, large silvery bill. The black at the base of the bill was apparent, and two rufous wing bars could easily be seen. Delia even saw the small white patches on the outer corners of the tail feathers as it flew. The bird foraged on the roadside on the ground and in the flowering bushes adjoining the road, which were part of a hedgerow along the paved two-lane road. When it flew to the Wisconsin side, it alighted for a short time in the evergreens clustered there, but seemed to prefer the bushes on the Minnesota side.—*Delia Unson and Chuck Heikkinen, Madison, WI.*

WSO Records Committee Report—Spring 2001

The WSO Records Committee reviewed 51 records of 20 species for the spring season; 35 of the reports were accepted. In addition, six records from spring 2000 were reviewed, with four of those accepted. Observers were notified of the committee decisions by postcard in the case of accepted reports and by personal letter in the case of reports not accepted.

Accepted

Brown Pelican—

#2001–008 Grant Co., 16 May 2001, Hewitt.

Three pelicans were observed flying south along the Mississippi River. The trailing bird was an American White Pelican, but the other two birds were a bit smaller, entirely brown, and flew with synchronized wing beats with the white pelican. The brown bills were thick at the base, tapering toward the tip. The bill length was perhaps one-third the total length of the bird. In addition, the feet were noted to be dark in color.

Tricolored Heron—

#2001–009 Dane Co., 17 May 2001, Rattenborg; 17 May 2001 Stutz; 18 May 2001, Ashman; 18, 20 May 2001, E. Hansen.

This heron was noticeably smaller than the Great Egrets in the vicinity, but larger than the Green Herons. It was overall a dark blue-gray with an obviously white lower breast. The back showed some tannish coloration. The foreneck was white from the throat to the lower breast area. Also noted were the cream-colored plumes down the back of the neck. The straight bill was gray with a dark tip. In flight, the underwing linings were white, with dark flight feathers.

Glossy Ibis—

#2001–010 Oconto Co., 2 May 2001, M. Peterson, J. Smith.

This very large shorebird was slightly smaller than a night-heron and had a large, decurved bill. The body was rusty and greenish in color. The facial skin was dark gray with a faint white line along its ventral border. The eye was dark in color, as were the legs. As an

adult bird, the dark eye, facial skin, and legs, as well as the thin, white line under the facial skin, identify this as a Glossy Ibis. A White-faced Ibis would have pink facial skin, a red eye, pinkish legs, and a thick white bordering line to the facial skin.

This is Wisconsin's seventh Glossy Ibis record, only the second in the past 25 years.

Ross's Goose—

#2001–011 Portage Co., 27 March–3 April 2001, Borchardt; 28 March 2001, Berner.

#2001–012 Manitowoc Co., 9 April 2001, Sontag.

#2001–030 Dodge Co., 28 March 2001, Tessen.

These white geese were noticeably smaller than Canada or Snow Geese, with black primary tips. The heads were more rounded and the neck shorter than the other geese. The stubby, pink bill lacked the grin patch typical of a Snow Goose. Also mentioned were pink legs.

King Eider—

#2001–014 Milwaukee Co., 11, 18, 24 March 2001, Domagalski; 13 March 2001, Lubahn; 13, 15 March 2001, Gustafson; 18 March 2001, Wood.

#2001–014 Ozaukee Co., 14 April 2001, Gustafson.

Overall, this bird was a mottled brown color. It was noticeably heavier and larger than adjacent Common Goldeneyes. The dark bill had feathering extending into the side for approximately a third of its length. The most distal point of this feathering onto the bill was paler in color than the rest of the brown on the bird. The caudal aspect of the bill curled into an "upturned gapeline." The forehead sloped up more quickly than a Common Eider, although there is variation in the degree of slope among various subspecies of Common Eiders. In closer views, the position of the nostril well in front of the most forward point of the cheek feathering was diagnostic of a King Eider. Also reported was a pale line extending from the caudal aspect of the eye down the back of the lateral aspect of the neck.

Barrow's Goldeneye—

#2000–079 Ozaukee Co., 15 April 2001, T. Wood.

#2001–015 Milwaukee Co., 1, 14 April 2001, Gustafson; 18 April 2001, Idzikowski (photo).

This drake goldeneye had the black of the back extending farther down the flanks than on a Common Goldeneye. In addition, this black enclosed white spots; this in contrast to the white of the flanks enveloping black spots on a Common Goldeneye. Also evident on this bird was a deeper ventral extension of the black of the flanks at the shoulder. The dark head was bluish as opposed to greenish in color. The forehead rose more steeply than that of a Common Goldeneye. The white facial spot was crescent-shaped rather than circular. The dark bill appeared stubbier than a Common Goldeneye's bill.

The presence of the Ozaukee bird in the midst of all of the Milwaukee bird observations suggests there were two individuals present on the Lake Michigan shoreline instead of just one, as previously suspected.

Common Black-headed Gull—

#2001–020 Milwaukee Co., 28 May 2001, Idzikowski, Boldt.

#2001–020 Racine Co., 29, 30 May 2001, David; 30 May 2001, Tessen.

This individual was slightly larger than adjacent Bonaparte's Gulls, and had a slightly lighter gray mantle. The black-brown hood did not extend as far down the back of the head as on a Bonaparte's Gull. The legs and bill were both dull reddish in color. Some observers were able to witness the bird in flight and observed extensive black on the underside of the outer primaries, with a large white area on the underside of the outer two primaries.

Lesser Black-backed Gull—

#2001–022 Dane Co., 8 April 2001, T. Wood.

#2001–021 Racine Co., 14 April 2001, Howe.

The birds were adults, slightly smaller than a Herring Gull and slightly larger than a Ring-billed Gull. The markedly darker gray mantle contrasted slightly with the black primary wing tips. A yellow bill and yellow legs completed the descriptions. The bill was yellow, as were the legs. The distal part of the lower bill had a red spot.

Northern Hawk Owl—

#2000–107 Vilas Co., 3 March 2001, T. Wood.

#2001–032 Douglas Co., 3 March 2001, J. Holschbach, A. Holschbach.

This dark brown owl was relatively long-tailed. The borders on the facial disks were black. The back of the head exhibited two whitish patches. It was between an American Kestrel and American Crow in size. The belly was barred, the head rounded, without ear tufts. The eyes and bill were yellow.

Golden-winged Warbler—

#2001–024 Dane Co., 24 April 2001, Karlson.

This warbler had a bright yellow patch on the wing, a yellow patch on the crown, and a black eye patch and throat patch. The back and wings were otherwise grayish.

This beat the previous earliest spring date of 43 years ago for this species by two days.

Yellow-throated Warbler—

#2001–025 Sauk Co., 21 April 2001, M. Peterson; 15 May 2001, J. Holschbach, A. Holschbach.

#2001–026 Grant Co., 28, 29 April 2001, Stutz.

This warbler was singing from an exposed perch. The throat was bright yellow, the black face mask extended down the side of the neck, and the supercilium was white. The white underparts had black streaks on the sides. White wing bars also were seen.

Blue Grosbeak—

#2001–029 Burnett Co., 13 May 2001, Heikkinen, Unson (photo).

This bird was larger than anticipated for an Indigo Bunting, deep blue in color with two rufous wing bars. The heavy bill was silvery in color, with a black area in the feathering around its base. In flight, the outer corners of the tail feathers had small white patches.

Black-throated Sparrow—

#2001–006 Dane Co., 3 March 2001, Tessen; 10 March 2001, T. Wood.

This sparrow had a gray cap and back contrasting sharply with a white supercilium. A faint, white eye ring was noted as well. Another white stripe

coursed through the malar region. The throat and upper breast were black. The base of this black came to a point on the upper breast. The unmarked breast and belly were white.

This is Wisconsin's seventh record, and only the second one in the past 18 years.

Lark Bunting—

#2001–027 Milwaukee Co., 3 May 2001, Gustafson.

This blackish bird was a bit larger than adjacent sparrows, but smaller than the Red-winged Blackbirds. The black color was broken only by a white shoulder patch. The short tail was slightly forked. The bill was conical.

This is Wisconsin's eleventh record, only the second one in the past 13 years. The most recent record was in 1992, also by Gustafson.

Not Accepted

Brown Pelican—

#2001–008 Grant Co., 16 May 2001.

This report is of the same two individuals accepted above. This report lacked much description other than to say these two birds were pelicans and they were brown with large, dark bills. In such instances, the report is very probably accurate, but the description left out details such as bill shape that would support the identification.

Glossy Ibis—

#2001–010 Oconto Co., 2 May 2001.

This is also a report of an individual bird accepted above. This individual report did not mention the color of the facial skin nor did it specifically describe the location of the white border to the facial skin other than to say it was "not significant." Without those important details, this report only describes a *Plegadis* ibis, not a Glossy Ibis.

Ross's Goose—

#2001–012 Manitowoc Co., 10 April 2001.

The limit of this documentation was to report a small white goose without the "black lips of a Snow Goose." It is essential to report the black primaries to differentiate the Ross's Goose from hybrid ducks or geese. In this case, the color of the bill would also be needed.

Cinnamon Teal hybrid—

#2001–013 Milwaukee Co., 12 April 2001.

This five-second look at a flying duck in a flock of Blue-winged Teal noted the bird to be the same size with the same dorsal pattern as the Blue-winged Teal. There was a more rufous breast noted and there was not a white facial crescent evident. Even with a more extensive look, it could be difficult to determine the parentage of a suspected hybrid bird. With the limited look and description, there may not be enough here to definitively say a Cinnamon Teal is part of the genetic makeup of this individual. If the bird had permitted a longer look, including a swimming view, there could have an interesting discussion.

The other point to be taken away from this is that observers should always keep in mind that some birds just aren't identifiable. There are occasionally aberrant or hybrid plumages involved.

King Eider—

#2001–014 Milwaukee Co., 13 March 2001; Ozaukee Co., 14 April 2001.

These reports described a large, squat, brownish duck. V-shaped markings were noted on the flanks. Unfortunately, the distance precluded a look for the gapeline, pale facial streak, or nostril position reported by other observers. Without that information, this can only be identified as an eider, not labeled down to a species.

Gyrfalcon—

#2001–023 Winnebago Co., 1 April 2001.

The description was limited to a large, falcon-shaped raptor. The wings were then described as being like that of an Osprey. This would be contradictory to the falcon-shape previously mentioned, as an Osprey would have long, rounded wings rather than pointed wings. No indication of color was supplied other than to suggest the bird was heavily speckled on the entire ventral surface. The tail was described as coming to a dull point.

In addition to the inconsistency in the wing shape, the size of the described bird was inappropriate for a Gyrfalcon. The observer suggested that flocks of Common Mergansers were observed overhead, with the nearby raptor more than twice their size. This size comparison might be more in line with an eagle. Observers should be reminded that the shape of a raptor's wings can change while in flight, and that they may appear more pointed when slightly contracted in a forward sail.

These inconsistencies in the report do not allow an identification of this bird.

Whooping Crane—

#2001–016 Buffalo Co., 14 March 2001, Krogman (1 bird).

#2001–017 Ozaukee Co., 13 March 2001, Flood, Niehaus (2 birds).

#2001–018 Winnebago Co., ? April 2001 (2 birds).

These reports were of birds that were flying, landing, or taking flight no more than 50 yards away! The extended neck and long, black trailing legs were reported on these large white birds. One observer mentioned seeing the red crown, another the long orange bill. All noted the black wing tips. Identification of the species appears accurate.

The origin of these birds is in question, however. The Texas flock apparently were all present and accounted for at the time of the March sightings, as were any birds in the possession of the International Crane Foundation. Of interest is a report from Michigan of two birds from the Florida "nonmigratory" flock in the summer of 2000. Radio transmitters allowed identification of those birds. One reportedly returned to Florida and was still there at the time of the Wisconsin sightings. The other bird apparently failed to return to Florida. The location of birds in this flock is apparently less well documented. This flock is comprised of recently released birds and thus is not of a reproductively sustaining nature. By American Birding Association standards, these birds are thus not "countable," much as escaped birds of any species would not be countable. With the release of Whooping Cranes in Wisconsin in an attempt to create another migratory flock, Wisconsin birders will have to be patient before officially counting this species.

Common Black-headed Gull—

#2001–019 Sheboygan Co., 21 April 2001.

Within a flock of Bonaparte's Gulls, a larger hooded gull was noted. The hood was described as incomplete and more "crescent-shaped." The bill and legs were reddish. Instead of being lighter in color than a Bonaparte's Gull, the mantle was indicated to be darker, more consistent with a Laughing Gull. No indication of the relative length and shape of the bill was given to rule out a Laughing Gull. The undersides of the wings were not seen to assess them for color patterns.

Great Gray Owl—
#2001–031 Bayfield Co., 20 May 2001.

Although there is minimal doubt about the identification, the report does not reflect the identification. A large gray-brown owl with yellow eyes and a white moustache does suggest a Great Gray. Without indication of the presence or lack of ear tufts, a Great Horned Owl could also fit this description.

Yellow-throated Warbler—
#2001–025 Sauk Co., 9 May 2001.

Identified by song only, the description only reports a series of six to seven slurred, descending call notes. The song of a Yellow-throated Warbler is strikingly similar to a Louisiana Waterthrush. Without a more thorough description of the sound and a comparison/contrast to the Louisiana Waterthrush's song, it is difficult to determine the identity of this individual.

Western Tanager—
#2001–031 Waukesha Co., 27 April 2001.

At close distance, it may be easy to identify a male Western Tanager. However, the written report only tells us that the bird had a yellow body, black wings, and red on top of the head. No suggestion of size, bill shape, wing bars, etc. was supplied.

Rose-breasted Grosbeak—
#2001–028 Waukesha Co., 11 April 2001.

This bird was at a feeder, standing adjacent to a female House Finch. The bird in question was "brown overall" and "larger" than the House Finch. It also had white wing bars, a white stripe above the eye, and a white malar patch. The bill was larger and paler than a House Finch's bill. The observer eliminated a female Purple Finch because of the presence of wing bars and bolder facial striping. A Purple Finch will, in fact, have wing bars, but they are not as white as suggested here. Without any indication of breast streaking and overall breast color, a Black-headed Grosbeak is also a possible identification at this unusual date.

Accepted—2000

Snowy Egret—
#2000–115 Bayfield Co., 13 May 2001, Lind.

This medium-sized white egret had long flowing feathers. It had a black bill, black legs, and yellow feet. The area immediately in front of the eye appeared reddish.

This is the northernmost record for Wisconsin.

Ivory Gull—
#2000–119 St. Croix Co., 13 March 2000, Rodewald.

An all-white gull was seen flying, circling, and landing on water from a distance of 50–100 yards. Both the upper and lower wing surfaces were void of any color. In comparison to the asso-

ciated Ring-billed Gulls, this bird was slightly smaller, its body "stubby." Also reported were black legs, seen in flight as well as when extended to land on the water. Notation of bill color was not made.

This bird was initially seen in Wisconsin, but observed more closely and identified from the Minnesota side of the St. Croix River.

Blue-headed Vireo—

#2000–116 Dane Co., 13 April 2000, Fallow.

This vireo had a bluish head, white spectacles, yellowish flanks, a white belly, and a white throat. It was noticeably larger than the associated kinglets and slower in movement.

This is Wisconsin's earliest spring record, eclipsing the 26-year-old previous date by four days.

Northern Parula—

#2000–117 Dane Co., 9 April 2000, Kozlovsky.

This warbler had a bluish body and wings with a green patch on its back. A yellow throat and two white wing bars were also reported. A rusty area on the breast below the folded wing was also noted.

NOT ACCEPTED—2000

Northern Waterthrush—

#2000–118 Milwaukee Co., 2 April 2000.

The upper body on this warbler was dark brown, the underside a light cream with heavy streaking. The observer felt the light cream color was rather uniform throughout the breast. As this bird walked, it bobbed its tail. The supercilium was "light-colored," but the relative width was not indicated. The presence or lack of streaking on the throat was not noted. The throat markings and the supercilium width would be helpful marks for separation of this species from a Louisiana Waterthrush. No vocalizations were heard to aid the identification.

Chipping Sparrow —

#2000–114 Lincoln Co., 9 March 2000.

This bird was briefly described as having a red cap, black line through the eye, no white on the wing bars, a cream-colored throat, and a dark brown body and tail. No overall size or bill shape was supplied to categorize this individual, nor was the breast color and presence or lack of streaking on the breast. A Chipping Sparrow *should* have white wing bars and a white throat. More consistent with this red cap, lack of wing bars, and cream throat would be a Swamp Sparrow.

Jim Frank
WSO Records Committee Chair

Long-tailed Duck *by Steve Lubahn*

Wisconsin Big Day Counts: 2001

By Jim Williams

Big Day reports for 2001 include nine limited to a single county, which means you can work the same territory during the same month during 2002 and see if you can better the mark. I mean, what good is a Big Day without a goal, especially someone else's list?

Let's begin in the far northwest, in Douglas County. Except for Wisconsin Point, this county undoubtedly does not receive the birding attention it deserves from the rest of us. Residents Robbye Johnson and Shaun Putz showed what can be found there on one good day by running a total of 150 species on a clear, warm May 12.

They drove 261 miles and hiked maybe two while working Moose Lake, the upper portions of the Brule and St. Croix Rivers, Wisconsin Point, and some wetland mitigation sites. All of these are in northern Douglas County. Hundreds of square miles were untouched.

What they found included 19 waterfowl species; American Bittern; seven raptor species; two grouse species (no, not Spruce!); 11 species of shorebirds, including Marbled Godwit; seven species of terns and gulls; three owl species; seven species of woodpecker, including Black-backed (good bird!); four species each of vireo and wren; 19 species of warbler; 12 members of the sparrow family; nine members of the Icteridae family (this is a test); and Red Crossbill.

Robbye Johnson is the big gun in Douglas County, and her personal mark this day (149) bested her old county one-day record by six birds. She said in her report that she and Shaun did not plan the day, but got off to a good start and kept going. Planning, she said, might have added three or four more species.

One county to the south, in Burnett, Susan Anderson and Jim Williams had 128 species on May 15. This was in spite of losing 90 minutes (and $85) midmorning when Jim backed his van off East Refuge Road and hung it over the western edge of the famed Yellow Rail marsh. The tow-truck driver was so impressed with what he saw that he took photos before dragging the car back into the race.

If you want to consider the potential here, the pair missed 15 species that

can be considered regular at this time of year. A one-day count of 150 is possible in Burnett.

Birding alone in the county, Jim counted 99 species on May 8, including a Lark Sparrow; 64 species on August 9, including four Red-necked Grebes; and 33 species on December 16.

In Oconto County, on July 29, Karen and Jerry Smith worked from Little Suamico north to the town of Brazeau, finding 115 species along the way, an excellent number for the time of year.

"We normally do a county route that gets about 80 species without trying real hard," Jerry wrote on his report form. "It is amazing what a difference just a week or less made. Three days before I still had a Winter Wren and Ovenbird singing. A week earlier and we would have had five or six more warbler species. If we had gone 15 miles farther north, we probably could have gotten another five species for the day," he said.

They found a Eurasian Collared-Dove at White Potato Lake; had 276 Ring-billed Gulls; 273 Mourning Doves; a Loggerhead Shrike; eight species of sparrow, including 63 Song Sparrows; and an Orchard Oriole.

Julie and John Woodcock stayed within Manitowoc County on May 18 for 123 bird species, putting 17 hours and 30 minutes into the effort. They had a Mute Swan, one of seven reported by Big Day participants. That would seem to indicate that this problem bird is spreading in Wisconsin.

The Woodcocks had 12 species of shorebird, Peregrine Falcon, Gray Partridge, four species of tern, Loggerhead Shrike, all the swallows plus Purple Martin, Brown Creeper, and 11 species of warbler.

John was out by himself the next day, for a shorter effort of just under nine hours (yawn). He stayed in the Woodland Dunes area, finding 958 individuals of 78 species. He noted in his report that his list contained only resident birds, no migrants.

He had counts of over 30 individuals for Barn Swallow, American Robin, European Starling, Canada Goose, Song Sparrow, Red-winged Blackbird, Common Grackle, American Goldfinch, and House Sparrow (no surprises there). Perhaps more interesting were 18 Chimney Swifts, two Eastern Wood-Pewees, a Sandhill Crane, and four Wild Turkeys.

Jim Frank did a single-county Big Day in Ozaukee County on May 12. He checked off 143 species. He had 14 species of waterfowl; six of raptor, including Peregrine Falcon; 11 species of shorebird; six of gull and tern; a Loggerhead Shrike; four of our five regular wrens (no Carolina); 20 warbler species; and 10 of sparrow.

On May 12, Sean and John Fitzgerald worked Walworth, Jefferson, Columbia, Sauk, and Dane Counties for a total of 77 species. They found a Northern Mockingbird, Least Bittern, Mute Swan, Wild Turkey, Bell's Vireo, filled on martin and swallows, and had eight warbler species including Connecticut. They got photos of their mockingbird.

Wayne Rohde was out the same day, in Cadiz State Park in Green County, in the Nine Springs area of Madison, at Devil's Lake State Park, Goose Pond and Schoeneberg Marsh in Columbia County, and Horicon Marsh. He scored 137.

He found six members of the Ardeidae family, including Cattle Egret and Black-crowned Night-Heron, 15 species of waterfowl, Virginia Rail, 11

shorebird species, four tern species, both cuckoos, six species of swallow, six of thrush, and 17 of warbler.

He missed 12 species he had seen on a scouting trip four days before (don't you hate it when that happens?). The highlight of the day, he wrote in his report, was a second-year Bald Eagle at Cadiz Springs, and a scope view that held Caspian, Common, Forster's, and Black Terns at the same moment.

"Wow," he wrote. We agree: Wow!

Jim Frank was afield two more times, once solo, once with Scott Diehl. He worked the Lake Michigan shoreline in Milwaukee and Ozaukee Counties on April 4. He probably would not mention a total species number of 63—except 26 of them were waterfowl, 27 if you want to count his Canada Goose.

Run your finger down the WSO Big Day report form from Wood Duck clean through to Ruddy Duck, then add Barrow's Goldeneye and Harlequin Duck, and that's what he had. The three scoter species are in there, with three merganser species and Long-tailed Duck. Now, there is a list for you to try to better.

The team of Frank and Diehl on May 17 poked the rushes and bushes in Cedarburg Bog, Waubedonia Park, Fredonia, Harrington Beach State Park, Port Washington harbor, Horicon, the Milwaukee Coast Guard impoundment, and places along the way for 152 species.

They had American Bittern, Cattle Egret, and Black-crowned Night-Heron, and 10 species of duck. They get extra points for being the only reporters to scratch out Oldsquaw and write in the new proper name, Long-tailed Duck, which they saw. They had a Peregrine Falcon among five raptor species, Virginia Rail, and Common Moorhen, the only one in this series of reports.

They found 15 species of shorebird, seven of gull and tern, eight species of flycatcher, the swallows, four of wren, 18 species of warbler, and a Yellow-headed Blackbird, among others. They did this in 303 miles, one percent of that on foot.

Harold and Mark Peterson were out for 16 hours on May 22, finding 160 species in the Navarino Wildlife Area, Stockbridge Indian Reservation, Ken Euers Natural Area, Bay Beach Wildlife Sanctuary, and the Manitowoc Impoundment.

Highlights for them included Snowy Egret and Black-crowned Night-Heron among six bitterns-egrets-herons, nine species of raptor including Peregrine Falcon, three species of rail including King, 14 species of shorebird including Hudsonian Godwit, a Thayer's Gull, four tern species, seven woodpecker species, eight flycatcher species including Acadian, a fill on swallows, and 26 warbler species. The latter category included both waterthrushes, Worm-eating, Prothonotary, Hooded, and Yellow-breasted Chat.

Daryl Tessen, who never has met a Big Day he didn't like, submitted four field cards, all marked at the top "Impromptu." His driving on those four days came to 1,490 miles, easily the longest spur-of-the-moment trips I've heard of since friends and I were cruising the Friday night streets of Minneapolis in the 1950s.

Daryl cruised for birds on May 5 from Rat River Wildlife Management Area, to the Coast Guard Impoundment, to Virmond Park, to Harrington Beach, to Sheboygan and Cleveland and points beyond, listing 125 species.

He had three Red-throated Loons, four grebe species (no Western), 175 Long-tailed Ducks, a Mute Swan, and all three scoters among 28 waterfowl species. He bombed on rails, but did find 17,000 Bonaparte's Gulls, counting them, we assume, one by one. He had four other gull species, including Thayer's and Glaucous.

He found Caspian, Common, and Forster's Terns; all five of our swallows; House, Sedge, and Marsh wrens; and 13 species of warblers, among other birds.

He was out again on May 11, touring Horicon and the A&W ponds for 126 species. He did better on rails this time (Virginia, Sora), but was skunked on Bonaparte's, as you might expect. Black Terns were back now, and he found three Yellow-throated Vireos. He filled on swallows again, added Purple Martins for good measure, had 21 species of warblers, and 700 Lapland Longspurs (one, two, three, four . . .).

Six days later, May 17, out the door at 2 A.M., Daryl did Rat River, Wyalusing, Baxter's Hollow, Mud Lake Wildlife Management Area, Horicon Marsh, Manitowoc, and points between for a total of 195 species, not bad for an impromptu effort. (Why does a guy get up before two in the morning if he has no plan, that's what I want to know?)

He had six egret-heron species; 15 species of waterfowl; stuck a King Rail to the list; found 21 species of shorebird, including both dowitchers; had seven gull/tern species; eight species of flycatcher; all seven regular vireo species; six species of thrush; 31 species of warblers, including chat; and 12 species of sparrow. He was home by 8 P.M. and in bed at 8:01.

Taking a week off, he was back at it on May 24, this time in the northwest corner of the state, starting at Stone's Bridge, hitting Wisconsin Point and Crex Meadows, then back to Appleton. He rang up 134 species. He had four species from the Galliformes order; only three species of shorebird but 25 Dunlin among them; nine flycatcher species; 18 species of warblers, including 10 Connecticut and 10 Mourning; and nine species of blackbirds and orioles.

A last note: there are 72 counties in Wisconsin multiplied by 12 months, giving us all 864 different single-county Big Day possibilities. Go ahead, set a record somewhere. Or break one.

(When you write your report, tell us some of the highlights of your day, bird-related or otherwise, so these reports can be something other than just lists of numbers and species. And if you want your totals by family included, please add them up for us [15 species of waterfowl, 16 species of shorebird, etc.]. Many thanks.)

WSO Big Day Count Rules

For those unfamiliar with the rules for WSO Big Day Counts:

1) Count must be taken between May 1–31.
2) Count must be taken within a 24-hour calendar day (midnight to midnight).
3) Count must be taken within the state boundaries, but it may cover as many parts of Wisconsin as birders can reach in the time limit.
4) All participants must be within direct conversational contact at all times during the birding and trav-

eling periods. This excludes meal and rest stops if birding is not conducted during these times. This limits the number of parties involved to **one** and participants to that number safely and comfortably contained in one vehicle (1–6?).

5) Areas can be revisited during the day.
6) Counting individuals is **optional**.
7) The same areas may be covered on **different** Big Day Counts.
8) No fees are involved in conducting the counts.
9) An official Big Day Count Form (available from the associate editor) should be filled out for each count. It is critical that all unusual species—whether they be late sightings or rare species—be completely documented. Capitalized species on the form may be documented on the back of the form. New additions to the form should be documented on the traditional WSO Exceptional Record Documentation Form with probable review by the WSO Records Committee.

50 Years Ago in *The Passenger Pigeon*

The Supply Department (now Book Store) has been a very important service provided by the WSO for many years. In 1951, books and pamphlets were handled by N. R. Barger from Madison, stationery and pictures by Chester Krawczyk from Green Bay, and feeders and houses by J. L. Diedrich from Milwaukee.

Postpaid books advertised included Pough's *Water Bird Guide* for $3.50, Sutton's *Mexican Birds* for $10.00, Saunders' *A Guide to Bird Sounds* for $3.00, and Kumlien and Hollister's *The Birds of Wisconsin* for $3.00. Bird song records included *New American Bird Songs* by Kellogg and Allen, which included five 12-inch Vinylite Records that will play on 78 rpm machines. The album included the songs of 51 species and sold for $10.50. Prices for feeders ranged from $1.70 to the most expensive $8.00 weathervane feeder that turned with the wind and had glass sides.

A 96-page appointment calendar for 1952 with 14 full-color paintings of songbirds by Roger Tory Peterson was offered for $1.00, and a set of 32 song bird postcards also was $1.00.

(Excerpts from Vol. 13, No. 3, 1951)

Northern Harrier *by Jack Bartholmai*

Wisconsin May Counts: 2001

by Jim Frank

The 13 May Counts held in 2001 and 2000 are the fewest in recent memory (Table 1), a trend developing for the past five years. In the past decade, counts had numbered in the low twenties.

Leading the way in participation, as usual, was Winnebago with 30 participants, followed by Portage with 25 birders, and Marathon with 22 birders. Winnebago remained on the top of the species list with their usual spectacular total of 190 species. Milwaukee/Ozaukee produced a very impressive 180, with Marathon right behind at 179 species. Portage reported a record high for them of 159 species.

The total species list of 246 compares to an average of 244 over the past 11 years. In general, the numbers of species were average. Reported in higher than anticipated frequency were Tufted Titmouse (4 counts), Orange-crowned Warbler (7 counts), and Red Knot (4 counts). Lower than anticipated numbers were recorded for Semipalmated Sandpiper (3 counts), Magnolia Warbler (8 counts), and Wilson's Warbler (6 counts). For species of note, see Table 2.

Jim Frank
10524 O'Connell Lane
Mequon, WI 53097

Table 1. The 2001 Wisconsin May Counts.

Count	Date	Time	Sky	Wind	Temp	Observ.	Party	Species
Vilas	5/27	03:30–22:45	Pt. Clo.	NW 12	41–60	2	1	131
Ashland	5/21	04:00–16:00	Rain	NE 6	57–48	19	5	153
Burnett	5/21	04:20–21:00	Cloudy	NW 15	48–63	2	1	121
Waupaca	5/12	03:30–21:00	Clear	Calm		5	4	131
Marathon	5/12	03:30–21:30	Clear	N 5	35–65	22	15	179
Portage	5/12	04:00–22:00	Pt. Clo.	SW 5	32–65	25	5	159
Mosquito Hill	5/19	04:30–19:00	Clear	Calm	62–76	3	2	78
Winnebago	5/12	03:30–21:00	Clear	NE 8	41–60	30	16	190
Waukesha	5/19	06:00–17:00	Clear	NE 8	40–60	19	8	142
Sheboygan	5/19	04:00–17:00	Clear	Calm	44–62	11	6	113
Milwaukee/Ozaukee	5/12	03:00–17:00	Clear	NE 15	43–57	13	10	180
Racine/Kenosha	5/12	02:00–23:00	Pt. Clo.	E 12	45–64	16	10	152
Kenosha	5/02	06:00–19:30	Clear	SW 6	70–82	1	1	173

Table 2. Species of note seen on Wisconsin May Counts in 2001.

Species	Count(s) seen
Red-necked Grebe	Winnebago, Ashland, Burnett
American White Pelican	Kenosha, Ashland, Winnebago
Snowy Egret	Kenosha
Cattle Egret	Winnebago, Kenosha
Trumpeter Swan	Burnett, Marathon
Tundra Swan	Winnebago
Harlequin Duck	Sheboygan
Long-tailed Duck	Milwaukee/Ozaukee
Common Goldeneye	Ashland, Milwaukee/Ozaukee
Northern Goshawk	Marathon
Red-shouldered Hawk	Waupaca, Kenosha, Portage
Swainson's Hawk	Milwaukee/Ozaukee
Rough-legged Hawk	Sheboygan, Marathon, Portage
Merlin	Ashland
Peregrine Falcon	Portage, Winnebago, Milwaukee/Ozaukee
Gray Partridge	Kenosha
Sharp-tailed Grouse	Ashland
Greater Prairie-Chicken	Marathon, Portage
Northern Bobwhite	Portage, Kenosha
Yellow Rail	Winnebago
King Rail	Winnebago
Black-bellied Plover	Ashland, Kenosha
Willet	Waukesha, Ashland
Hudsonian Godwit	Kenosha
White-rumped Sandpiper	Vilas, Ashland, Kenosha
Baird's Sandpiper	Sheboygan
Long-billed Dowitcher	Waukesha
Laughing Gull	Racine/Kenosha
Black-backed Woodpecker	Vilas
Acadian Flycatcher	Waukesha
Willow Flycatcher	Winnebago
Loggerhead Shrike	Milwaukee/Ozaukee
White-eyed Vireo	Milwaukee/Ozaukee, Racine/Kenosha
Bell's Vireo	Waukesha
Gray Jay	Vilas
Northern Mockingbird	Burnett
American Pipit	Kenosha
Cerulean Warbler	Winnebago, Milwaukee/Ozaukee
Louisiana Waterthrush	Marathon, Kenosha
Kentucky Warbler	Winnebago
Connecticut Warbler	Mosquito Hill, Vilas, Kenosha
Hooded Warbler	Racine/Kenosha, Waukesha
Yellow-breasted Chat	Racine/Kenosha
Summer Tanager	Milwaukee/Ozaukee, Racine/Kenosha
Henslow's Sparrow	Racine/Kenosha, Portage, Marathon, Waukesha, Winnebago
Le Conte's Sparrow	Ashland, Vilas, Marathon, Waukesha
Harris's Sparrow	Marathon
Lapland Longspur	Milwaukee/Ozaukee
Orchard Oriole	Winnebago, Waukesha, Racine/Kenosha, Milwaukee/Ozaukee
Red Crossbill	Vilas
White-winged Crossbill	Vilas

North American Migration Count 2001: Wisconsin

by Jim Frank

The eighth North American Migration Count took place on May 12, 2001, in numerous states and counties across the country. The count differs from Wisconsin's traditional May Counts in that this count attempts to determine the *individual numbers* of each species (as you do on Christmas Bird Counts) and the number of *party-hours* is also reported (again as on Christmas Counts). It differs from the Christmas Counts in that the count area is an entire county, not a 15-mile-diameter circle. In addition, this count is taken on the *same day* across the country to, in essence, take a "snapshot" of the spring migration in North America. The premise is that *numbers* of birds will create useful comparative data for the future, something the mere "ticking" off of species doesn't generate.

The count is always held on the second Saturday of May, a time when some of the northern states haven't reached their peak of migration, but still have lingering early migrants. The southern states may be past their peak, but late migrants may still be present. Because spring migration is so dynamic, counts have to be held on the same day to avoid repetitive counting. Obviously, nothing is foolproof; we all are aware of how far some birds can fly in one day's time if they are on the move.

Please note it is possible to conduct a traditional May Count on the same day as a Migration Count, as long as it occurs on the second Saturday in May and individuals are counted for the species. In the year 2002, the date of May 11 will be used for the Migration Count.

In examining the data from 2001 (Table 1) relative to the previous eight years, the later date is obviously an influence on the numbers. Even more of a factor this year was a very early push of neotropical migrants on the first couple of days in May. By the twelfth, many of the species normally starting to push into Wisconsin in the second week of May were quite numerous. Species not usually hitting Wisconsin until the third week of May were also present in record-setting numbers; in other years, they would have been scarce in the second week of May. As would then be expected, late April

Table 1. The 2001 North American Migration Counts in Wisconsin.

County	Species	Observers	Party-hours
Bayfield	115	24	39
Ashland	54	12	4
Vilas	113	3	25
Oneida	48	7	11
Clark	135	12	82
Marathon	179	22	133
Florence	92	2	14
Winnebago	190	25	127
Ozaukee	143	1	18
Milwaukee	52	7	5
Kenosha	116	3	22
Total	**219**	**118**	**480**

migrants that usually linger into the time of the Migration Count were recorded at lower than usual numbers because they, too, were pushing north at an accelerated rate.

Individually, Winnebago County, as usual, led the way with "an always amazing to the rest of the state" 190 species. Marathon County compiled an impressive list of 179 species. Winnebago's 25 observers inched past Bayfield's 24, and Marathon's 22.

Of note were Northern Goshawk (Marathon Co.), 3 Rough-legged Hawks (Marathon Co., 2; Bayfield Co.), Yellow Rail (Winnebago Co.), 2 King Rails (Winnebago Co.), Red Knot (Winnebago Co.), 2 Northern Saw-whet Owls (Bayfield Co., Florence Co.), Loggerhead Shrike (Ozaukee Co.), 2 Tufted Titmice (Marathon Co., Winnebago Co.), Northern Mockingbird (Bayfield Co.), Kentucky Warbler (Winnebago Co.), 5 Henslow's Sparrows (Winnebago Co., 2; Marathon Co., 2; Clark Co.), 6 Le Conte's Sparrows (Vilas Co., 5; Marathon Co.), 4 Harris's Sparrows (Bayfield Co., 2; Clark Co., Marathon Co.), 4 Orchard Orioles (all in Winnebago Co.), and 2 Red Crossbills (Ashland Co.).

The following species recorded the highest total numbers in nine years of Migration Counts: American White Pelican, 30; Great Egret, 237; Black-crowned Night-Heron, 517; Cooper's Hawk, 35; Wild Turkey, 147; Pileated Woodpecker, 35; Eastern Phoebe, 239; and Eastern Bluebird, 159.

The following were also recorded in their highest numbers in the nine years of Migration Counts, but seem directly attributable to the early May migration this year: Black-billed Cuckoo, 5 (7 total in the previous 8 years); Whip-poor-will, 26; Eastern Wood-Pewee, 81 (86 total in the previous 8 years); Least Flycatcher, 289; Great Crested Flycatcher, 165; Eastern Kingbird, 253; Yellow-throated Vireo, 33; Warbling Vireo, 149; Philadelphia Vireo, 4; Red-eyed Vireo, 268 (258 total in the previous 8 years); House Wren, 422; Sedge Wren, 461; Hermit Thrush, 122; Wood Thrush, 119; Yellow Warbler, 1,030; Mourning Warbler, 7; Common Yellowthroat, 824 (830 in the previous 5 years); Clay-colored Sparrow, 201; Rose-breasted Grosbeak, 698; and Baltimore Oriole, 618.

Only 11 Ruby-crowned Kinglets lingered long enough to appear on the

count (in the previous 8 years they ranged from 25–432). And 38 Forster's Terns compares unfavorably to the 66–157 found on the previous 8 counts.

Finally, these numbers just struck me as phenomenal. Finding 459 Yellow-headed Blackbirds and 641 Marsh Wrens is admittedly the norm in Winnebago County, but where else in the state could you find even half of those numbers? The 312 Ovenbirds in Clark Co., 293 Rose-breasted Grosbeaks in Marathon Co. (overshadowing the 224 in Clark Co.), and 183 Least Flycatchers in Marathon Co. also caught the eye.

The 2002 North American Migration Count is to be held Saturday, May 11. Compilers of the 2001 counts are listed below. If you are interested in joining one, contact them. Oneida Co. needs a new compiler. If you want to initiate a count yourself, contact Jim Frank, 10524 N. O'Connell Lane, Mequon, Wisconsin, 53097. Even if you count alone, the data are useful since they are analyzed by party-hours.

Bayfield Co.—Phyllis Johnson, P.O. Box 303, Cornucopia, Wisconsin 54827.

Ashland Co.—Dick Verch, 906 Ellis Ave., Ashland, Wisconsin 54806.

Vilas Co.—Bill Reardon, 1700 Open Acres Lane, Eagle River, Wisconsin 54521.

Oneida Co.—Rosemary Boxrucker, 4413 Highlander Rd., Rhinelander, Wisconsin 54501.

Florence Co.—Jean Strelka, 9418 N. Green Bay Rd., Apt. 138, Brown Deer, Wisconsin 53209.

Clark Co.—Ken and Jan Luepke, B894 Eau Pleine Rd., Spencer, Wisconsin 54479.

Marathon Co.—Dan Belter, 523 Mobile Ave., Wausau, Wisconsin 54403.

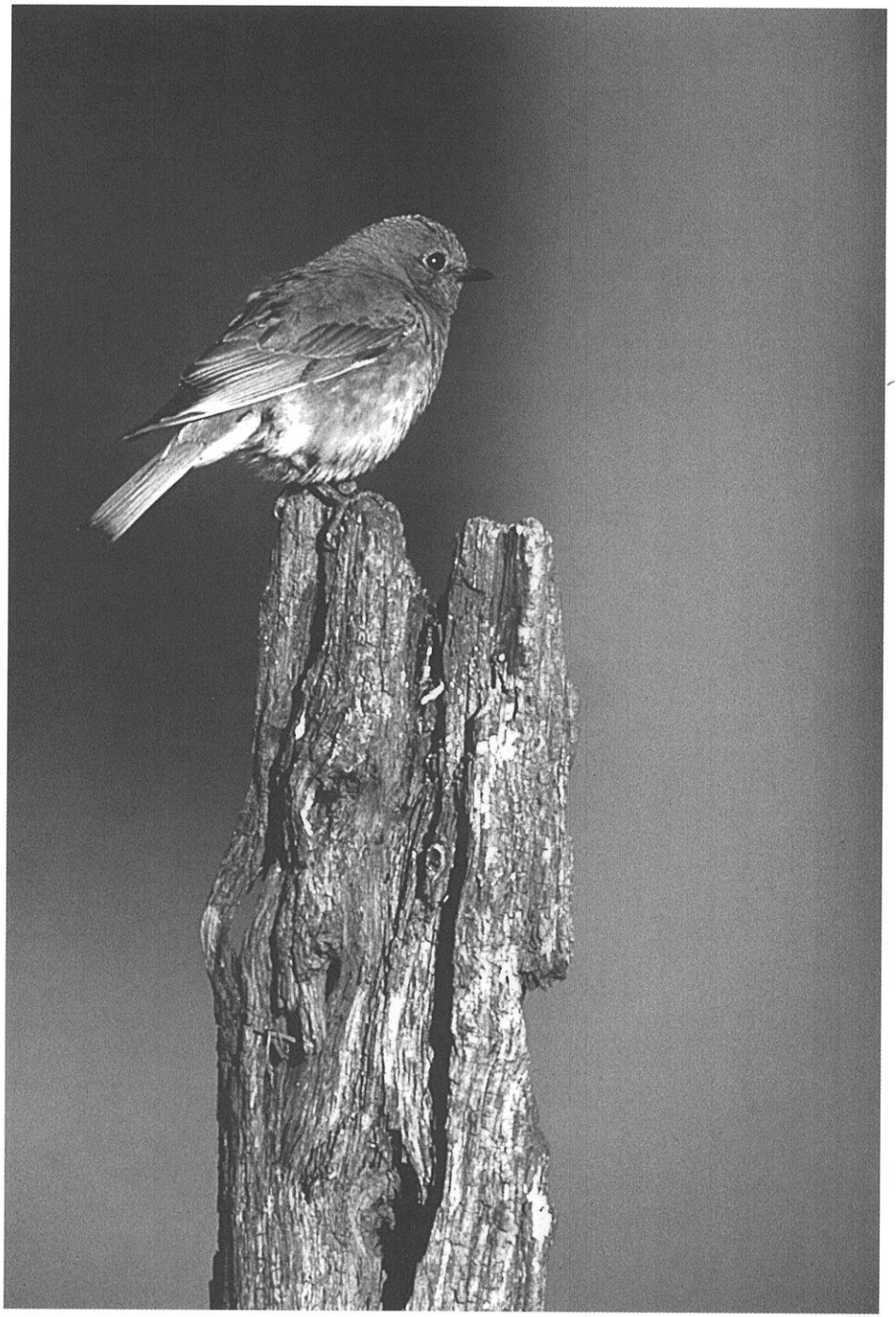
Winnebago Co.—Tom Ziebell, 1322 Ceape Rd., Oshkosh, Wisconsin 54901.

Ozaukee Co.—Jim Frank, 10524 N. O'Connell Lane, Mequon, Wisconsin 53097.

Milwaukee Co.—Jim Frank, 10524 N. O'Connell Lane, Mequon, Wisconsin 53097.

Kenosha Co.—Ron Hoffmann, Box 886, Kenosha, Wisconsin 53141.

Jim Frank
10524 O'Connell Lane
Mequon, WI 53097



Eastern Bluebird *by Jack Bartholmai*

ABOUT THE AUTHORS AND ARTISTS

Jack R. Bartholmai is an amateur wildlife photographer and wood sculptor. His current focus is photographing the birds of Dodge County, his stomping grounds since 1972. His photos appear frequently in local newspapers, travel brochures, calendars, and maps.

William S. Brooks is Professor of Biology at Ripon College, specializing in ornithology and ecology. He was involved with WBBA atlasing in Marquette, Waushara, and Green Lake Counties for six years, and wrote the grebe species accounts for the atlas book. He continues to be active in a 10-year wetland restoration project on Rush Lake, Winnebago County, the largest prairie pothole east of the Mississippi and the center of Red-necked Grebe distribution in the state.

Mike Boehm is a nature photographer and is Chair of the My Lai Peace Park Project. He lives in Madison.

Karl H. David is an Associate Professor of Mathematics at the Milwaukee School of Engineering. A serious birder since the early 1980s, he is a past president of the Cayuga Bird Club in Ithaca, New York. He also plays the piano and sings with the Choral Arts Society of Racine.

Leanne Egeland is a Biological Science Technician with the USDA Forest Service, North Central Research Station, in Grand Rapids, MN.

Joan E. Elias is an ecological consultant who lives and works in northern Wisconsin. She received her M.S. degree in environmental science from the University of Wisconsin-Green Bay, where her graduate research focused on avian communities and their response to forest edge in the Bad River Corridor.

Jim Frank has been one of WSO's most active contributors to Seasonal Field Notes. He now assists WSO by compiling and summarizing the annual May Day Counts and Migration Day Counts, and is the Records Committee Chair. He is a veterinarian in Milwaukee with an interest in avian medicine.

R. Tod Highsmith is a freelance environmental sciences writer and is editor of *The Passenger Pigeon.* He received a Ph.D. in Zoology from the University of Massachusetts at Amherst, where he

studied the vocal behavior of wood-warblers.

Robert Huebner is an amateur wildlife photographer who lives in Cedarburg in Ozaukee County. He enjoys traveling to Horicon Marsh and Wisconsin's many wildlife refuges and state parks with his camera in tow.

David Kuecherer retired after 30 years as a high school art teacher and began to paint birds. Encouraged as a child to respect and enjoy nature by his father, he now combines his artistic talent with a love of birdwatching. His work has been exhibited in the traveling "Birds in Art" show, and he looks forward to continuing his new-found pursuit at his home in Neenah.

Steve Lubahn graduated from the Milwaukee Institute of Art and Design in 1994. He has always been a nature lover, but recently became interested in birding and a member of WSO. He is currently working with acrylics, painting bird images in large format at his Milwaukee home.

Dennis Malueg is a serious amateur bird and wildlife photographer. Currently, he is working from his backyard photo studio, prairie, and 80-acre forest to capture images of birds native to Waushara County.

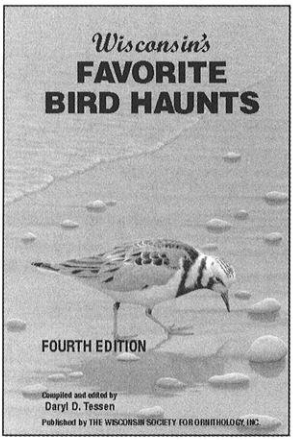
Thomas H. Nicholls was formerly Project Leader and Research Plant Pathologist and Wildlife Biologist, USDA Forest Service, North Central Research Station, in St. Paul, MN. He is now Director of the Nature Education Center in Fifield, WI.

Terri Beth Peters is a biology student at UW-Waukesha.

Margaret J. Robertsen is a Wildlife Biologist with the USDA Forest Service in the Superior National Forest. She received her M.S. degree in Wildlife Ecology from the University of Wisconsin-Madison, where her graduate research focused on the distribution of forest songbirds in the Baraboo Hills of Wisconsin.

David Spear is an artist who concentrates on natural landscapes of the Great Lakes and Canada, as well as bird and fish portraits. His home and studio are in Green Bay.

Jim Williams has seen 90% of his Wisconsin birds in Burnett County. When not afield, he works for the American Birding Association as associate editor of *Birding*, and as editor of *Minnesota Birding* and *Bluebird*, the latter published by the North American Bluebird Society.

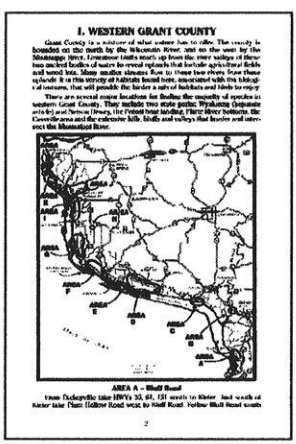


Wisconsin's Favorite Bird Haunts,

Fourth Edition (2000)

Compiled and edited by Daryl Tessen with contributions from birders throughout the state. Features artwork by Thomas Schultz, David Kuecherer, Rockne Knuth, Judith Huf and Jeannie Perry.

- Covers all 72 counties
- Contains 135 favorite haunts detailing more than 1,000 areas
- Includes detailed directions as well as a map for each location
- Features some 45 bird illustrations, 15 of them in color
- Includes a list of 400 valid Wisconsin state species and 15 hypothetical species (current as of January 2000)



This book, designed for durability and functionality, is printed on heavy coated paper and has a spiral binding so it lies flat when open.
6" by 9". 544 pages.

Contact WSO Bookstore for price and ordering information.
262-547-6128 or dcreel@execpc.com

THE WISCONSIN SOCIETY FOR ORNITHOLOGY

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