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Send all manuscripts and correspondence to the Editors. Information for "Seasonal Field Notes" should be sent to the Bird Reports Coordinator. 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 Editors. As a general guide to style, use issues after Vol. 60, No. 1, 1998.

Front Cover: Great Blue Heron reflected for Jack Bartholmai in Dodge County in April 1964.

Just Birding New Haunts

A changing of the guard maybe, but I consider it a birder birding new haunts. I've been a member of the WSO Board of Directors since 1987 as Field Trip Co-chair with Tom Schultz and spent this past year as Vice-President as well. It is now, with great pleasure, that I assume my new responsibility of President. WSO has been fortunate to have had excellent presidential leadership since its beginning; I just hope that I can continue that tradition.

I would like to thank Noel Cutright for stepping in as President this past year when Daryl Christensen could not assume that role because of personal commitments. While wearing many different hats, Noel has been a guiding force in our organization for many years. This was Noel's second stint as President and without hesitation he took on that responsibility when WSO needed it. This seems to be a common theme among WSO members. When there are roles/positions that need to be filled, our members have quickly stepped to center stage countless times. It's great to be a part of an organization whose members are so committed. Thanks again, Noel.

Well, who is Jeff Baughman and what does he bring to the table? Several of you know me from various WSO field trips I've led, but many of you don't so I'll give you a short biography. I grew up in Milledgeville, in northwestern Illinois and graduated from Coe College, Cedar Rapids, Iowa, in 1979. In the fall of 1979 I moved to Argyle, Lafayette County, Wisconsin where I taught Physical Education (my minor) and coached football and girl's basketball for three years. I moved to the Campbellsport area (Fond du Lac County) in 1982 where I've have been teaching Mathematics and for the last 14 years I've been one of the computer network administrators at Campbellsport High School. I was an assistant football coach for a number of years but when my own children became active in athletics, I retired from coaching so I could devote my time to them. Our family lives just north of Campbellsport; my wife is Jeanette and we have two children, Tamara (16) and Tyson (13).

I began birding in December, 1977, while home on break from college, thanks to my elder brother Jim, from Eagle River. Back then, there wasn't much to do while on break (no ESPN), so the brothers three, Jim, Scott (Sheboygan) and I, decided to go to White Pines State Park outside of Polo, Illinois. Jim, a forester by profession, wanted to spend some time hiking the park "identifying/keying" trees. It sounded interesting but didn't sound like much fun. Nevertheless, using a "Twig and Tree" guide, we began our quest for the elusive rare tree. Scott and I learned a little about trees that day but it was the woodpecker on one of those trees which prompted a new quest. As I recall, Scott said, "What is that bird?" Jim flipped us a "Golden" *Birds of North America* field guide and said, "Look it up." The "game" began! The remainder of that winter break and beyond was spent searching for birds.

I think most of us have similar stories to tell of who and how we got our start in "birding." You know I don't think I've ever thanked Jim for that introduction, so "Thanks Jim." Since that time the three of us, collectively and/or individually, have spent countless hours in the field padding our lists. Whether it was a Christmas or May Day count, Big Day Count, BBS route, Nicolet Bird Survey, Wisconsin Breeding Bird Atlas, yard, county, state, life or whatever list, we were doing it.

For a lot of us "listing" was the main reason for birding in those formative years. Then for me, in the late 1980s, a new generation of field guides and optics became available and I began looking at birds at a different level. I found out about variations in this or that species, learned additional behavioral traits, habitat preferences, species distribution, and their tendencies for vagrancy, and that you really could identify those "gulls" after all. Like most of you, I joined a local club or group and after a while I began giving programs on various aspects of birds and birding. As I began growing as a birder I discovered that I didn't really know as much about birds as I thought and that birding was a never-ending learning process. I believe that this process of learning is the main reason we are often birders for a lifetime, "the quest to know more so we can find more."

During my 26+ years of birding, as I mentioned above, I've been involved in many different bird counts. I've volunteered my time coordinating many of them too. For many years I've coordinated the Fond du Lac County Christmas and May Day Counts and for nearly 25 years the Carroll County (IL) Annual Spring Bird Count. I've been doing Breeding Bird Surveys for over 20 years and was regional coordinator for the Wisconsin Breeding Bird Atlas in Fond du Lac and Dodge Counties. For the past 17 years Tom Schultz and I have been WSO Field Trip Co-chairs, trying to expand and vary the field trip schedule annually.

I've given you a little snapshot of where I'm from and my birding background. Now, as far as my job as President, I'm NOT going to try and fix what isn't broken. We have a great organization, with a wonderful membership and a group of hard-working individuals on its Board of Directors. These board members know and do their jobs very well. I see my job as a facilitator only. I plan to allow these people to do their jobs, knowing that they have the best interests of the WSO and its members in mind.

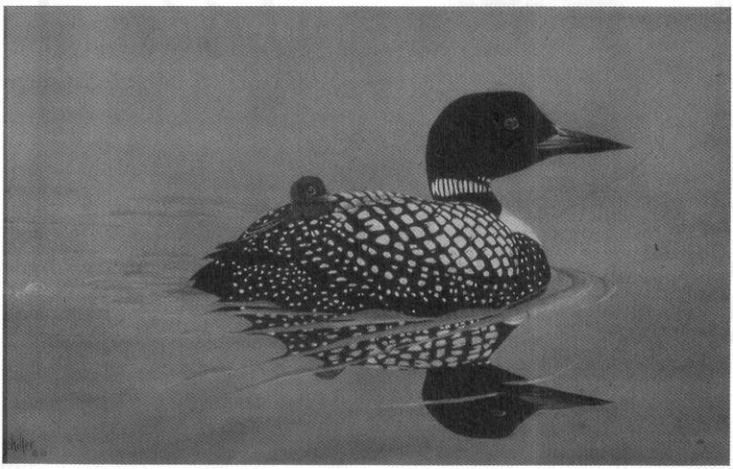
I do have one item on my agenda I'd like to see WSO pursue. Our annual convention is the major activity of the year and probably one of the best in the Midwest, if not the country. We have been fortunate, over the years, to have local clubs or groups host the annual convention every year. As VP, I spent this past year searching for a nontraditional 2005 convention site. As it happens, there are a lot of very good birding areas around the state that do not have a local organization or if there is one, they do not have the manpower to plan and host a WSO convention. What I would like to propose is that WSO create an Annual Convention Committee. I see this committee as having 4-5 members with one person acting as chairperson, plus a WSO board member. I will be outlining additional reasons for such a committee in the future.

If we generate such a committee, I ask that you consider volunteering your time to WSO in some capacity, either as a member of this committee or as a

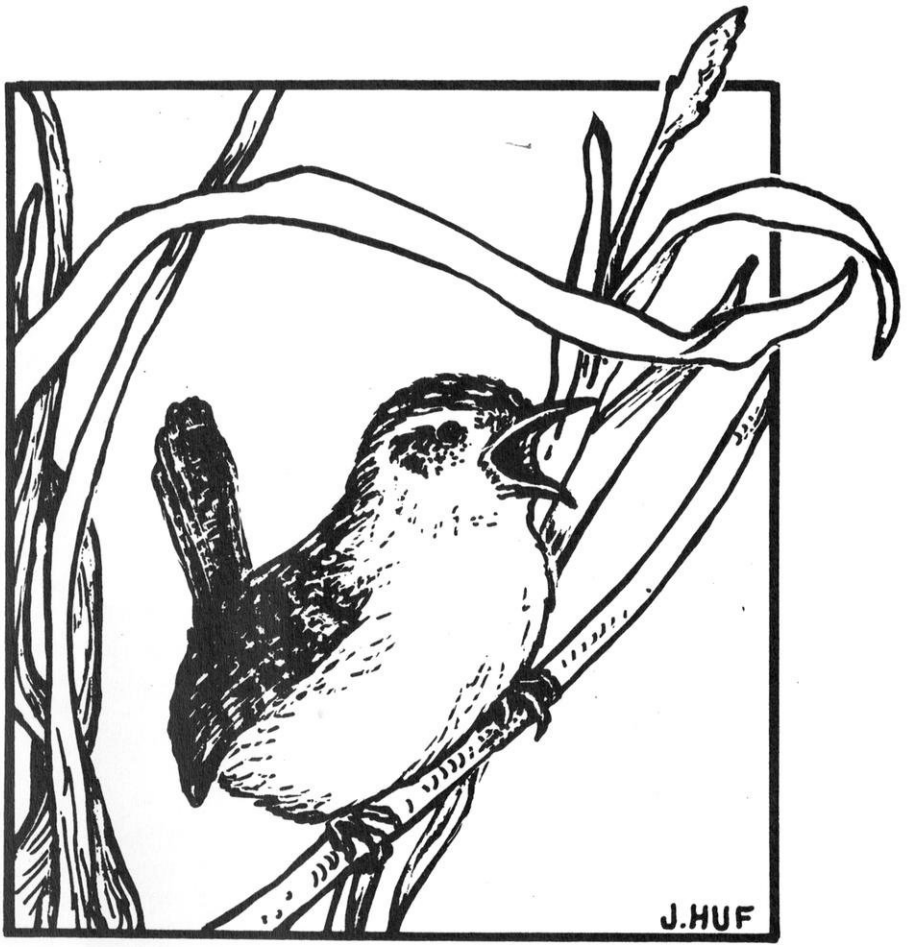
convention volunteer at the host site. If you think you or a friend may have a talent for organizing our annual convention, please contact a board member, all of whom are listed on cover 3.

I've gone on long enough. Thanks for being a part of this organization and for contributing to the knowledge and preservation of Wisconsin's birds. At some point I hope to meet you all. Thanks for your time.

President



Common Loon with young *by Scott Schiller*



Sedge Wren *by Judith Huf*

A Long-term Survey of the Breeding Birds of the Cedarburg Bog and Cedarburg Beech Woods State Natural Areas

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ABSTRACT

We report here on a long-term survey of the breeding birds of the Cedarburg Bog and Cedarburg Beech Woods State Natural Areas, located in southeastern Wisconsin. The Cedarburg Bog is a large, diverse wetland containing southern outliers of northern vegetation types, while the Cedarburg Beech Woods is a mature beech-maple upland forest. Notable species found included the state-threatened Acadian Flycatcher which bred in the Beech Woods and showed a 16.6% annual increase in abundance over the study period. The data suggested that birds with southern distributions were more likely than northern birds to show increases in numbers over time; recent climate warming could explain this result. Populations of long-distance migrants significantly increased over time in the Beech Woods, while

*Authors' note: This paper is a posthumous contribution by Charles Weise, who conceived the study and collected all of the data. The co-authors on this paper worked from Dr. Weise's data summaries to analyze and interpret the data.

short-distance migrants declined in both sites.

Introduction

Long-term records of bird populations are important to detect both natural and human-induced changes. Bird populations may fluctuate in response to changes in weather or food availability, and are increasingly affected by habitat destruction, habitat fragmentation, and climate changes. Birds that migrate long distances may be especially vulnerable to habitat loss, and several studies have raised concerns about population trends in long-distance migrants (Robbins et al. 1989, Maurer and Villard 1996). A new threat, the recently introduced West Nile virus, has the potential to affect many bird species (Friend et al. 2001). Historical long-term records from protected sites are valuable, as they can help to establish baselines to which current observations can be compared. Detailed datasets from individual sites can also complement nationwide efforts to monitor bird populations, such as the North American Breeding Bird Survey (USGS 2003).

We report here on a long-term survey of the breeding birds of the forested portions of the Cedarburg Bog and adjacent Cedarburg Beech Woods. These sites are both high-quality state natural areas located about 25 miles north of Milwaukee in Ozaukee County (Saukville Township). The Cedarburg Bog is one of the largest, most intact, and biologically interesting wetlands remaining in southeastern Wisconsin. A variety of vegetation types occur within its 810 hectares, including large expanses of conifer swamp forest dominated by northern white cedar (*Thuja occidentalis*) and tamarack (*Larix laricina*), hardwood swamp forest, shrub carrs, and marshes. Its most unusual feature is the presence of a string or "patterned" bog, which consists of ridges of stunted cedars and tamaracks alternating with flatter, wetter areas dominated by sedges. String bogs are typically found in boreal regions, and the Cedarburg Bog represents an extreme southern outlier for this vegetation type (Grittinger 1970). The Cedarburg Beech Woods consists of approximately 24 hectares of upland hardwood forest, dominated by American beech (*Fagus grandifolia*), sugar maple (*Acer saccharum*), white ash (*Fraxinus americana*), and basswood (*Tilia americana*). An adjacent 8 hectare parcel with similar vegetation is owned by The Nature Conservancy.

Both sites are currently relatively undisturbed and have a history of protection. State acquisition of the Cedarburg Bog began in 1946 with a 210 hectare purchase, and it is currently owned primarily by the DNR and the University of Wisconsin, with some private inholdings. Although the Cedarburg Bog is mostly state-owned, it does not receive much public use because access into the wetland is difficult and the interior of the bog is rarely visited. The Cedarburg Beech Woods was acquired by the University of Wisconsin in 1964. The Beech Woods had been selectively logged prior to its acquisition by the university; in some areas the impact of logging was minimal while other areas were cut more heavily (Dunnum 1972). The Cedarburg Beech Woods is not open to the public; access is controlled by the UWM

Field Station which manages the site to minimize impacts on the natural area. The area surrounding both sites is currently primarily agricultural, but this area will likely come under increasing development pressure in the future because of its proximity to Milwaukee.

Annual surveys of breeding birds were carried out from 1971–1996 in the Cedarburg Bog and from 1974–1996 (except for 1976 and 1980) in the Cedarburg Beech Woods by a single observer (C. M. Weise). Surveys were done away from roads, in the interior of each natural area. Surveys spanning this length of time, done away from roads by one observer, are unusual, particularly for a habitat like the Cedarburg Bog. A few similar studies have been conducted in upland, forested habitats (for example, Johnston and Hagan 1992, Holmes and Sherry 2001, and references therein). We are unaware of any other long-term studies in a wetland habitat with northern vegetation types occurring far to the south of their normal range.

Methods

Breeding Bird Surveys in the Bog and Upland Woods[1]

Breeding birds were censused using point counts. At a series of sampling points, all birds detected within about 300 feet of the point during a 5-minute period were recorded. Birds were detected by song, call, or sighting and were recorded in terms of probable pairs. Each singing bird was considered to represent a pair, as was a male and female bird together, or a visual record of a non-singing bird provided it was far separated from others of its species. Counts were conducted between May 13 and July 13, although the vast majority of counts occurred from May 26 to July 8. The counts were not corrected for detectability of different bird species and therefore represent relative abundance of each species over time and not absolute population estimates.

Three habitat types were surveyed in the Cedarburg Bog: bog conifer forest, dead bog conifer forest, and string bog. Bog conifer forest was closed canopy forest dominated by tall tamarack and cedar, dead bog conifer forest was areas of shrubs and thickets where the bog forest had died, and string bog was areas where open meadows of sedge and other herbaceous plants were interlaced with rows or strings of low stunted tamaracks and cedars (see Weise 1973 for further description). Point counts for these three habitats were summed in the analyses presented here. The number of points sampled per year ranged from 9 to 58 in the Cedarburg Bog (with a mean of 37) and from 8 to 23 in the Cedarburg Beech Woods (mean of 15). A different set of points was used in each year, with points chosen as randomly as possible, given the difficulties of moving around in the bog.

Each bird species was categorized as either a permanent resident of the study area, a short-distance migrant, intermediate migrant, or a long-distance migrant (AOU 1998). Permanent residents were considered to be

[1]Methods were reconstructed from Weise (1973) and Weise's data notes.

species in which all or most individuals are non-migratory, while short-distance migrants were those whose wintering ranges are within the United States or northern Mexico, and long-distance migrants were those whose wintering ranges are in southern Mexico, Central or South America or the Greater and Lesser Antilles. Intermediate migrants were species that could not be cleanly assigned as either long or short-distance migrants.

Data analysis

The analyses presented here were restricted to breeding birds that were reliably censused by these methods and that were reasonably abundant over the study period. We included only species that occurred in 5 or more years of the study in either the bog or the beech woods, and those whose maximum abundance was greater than 1.5 pairs per 40 ha. Because it can be difficult to separate Alder and Willow flycatchers (*Empidonax alnorum* and *E. traillii*) in the field, the counts for these two species were combined for analysis. The number of breeding pairs per point was converted to the number of pairs per 40 ha.

Analysis of trends over time followed methods presented by Holmes and Sherry (1988, 2001). A simple linear regression was calculated using the following model: ln (count + 0.05) = year (ln B) + ln A, where ln is the natural logarithm, count equals the number of pairs of a given species per 40 ha, 0.5 is an arbitrary constant added because ln (0) is undefined, year ranges from 1–26 depending on the year of the census, ln B represents the slope of the line describing change over time, and ln A equals the intercept of the line. To convert the slope of the line back from ln-transformed units, trends were calculated from the following formula:

$$\text{trend} = e^{(\ln B - 0.5\ \text{variance})}$$

where variance equals the square of the standard error of the slope. Percent annual changes were then calculated from the trends as follows: percent change = (trend -1)*100.

Wisconsin Breeding Bird Surveys

We examined data from the North American Breeding Bird Survey to determine whether trends observed at our study sites matched patterns seen for a larger region. We used data for Wisconsin for the period 1966–2000 (Sauer et al. 2001). The North American Breeding Bird survey is conducted by volunteer birdwatchers along permanent survey routes. Routes consist of a 24.5 mile long stretch of roads, with fifty stops located at 0.5 mile intervals along the route. During the breeding season, the route is driven and point counts are taken at each stop. All birds detected within 0.25 miles of the point are counted for 3 minutes (Sauer et al. 1997). These methods are very similar to those used in the present study, with the exception that our surveys used a 5-minute count rather than a 3-minute count and were conducted away from roads in the interior of each site. Trends are expressed in percent annual change, so they are directly comparable to the trends that we calculated.

Results and Discussion

A total of 45 species occurred on the study area in at least 5 years and were abundant enough for analysis (Table 1). Of these, 17 species were restricted to the bog, 14 species were found in the upland woods, and 14 occurred in both areas. Notable species found included the state-threatened (WDNR 2002) Acadian Flycatcher (*Empidonax virescens*) and Cerulean Warbler (*Dendroica cerulea*) in the Cedarburg Beech Woods. The Acadian Flycatcher showed a remarkable 16.6% annual increase in abundance over the survey period (Fig. 1A); no statewide data are available for comparison. The Acadian Flycatcher is still present in the upland woods: it was detected on additional breeding bird surveys carried out in 1999, 2000, and 2001 by several observers. The Cerulean Warbler was a sporadic but regular breeder in the upland woods (Fig. 1B), where it showed no significant changes in abundance over time. On a state-wide basis, however, this species has been in decline (Table 1). The Cerulean Warbler was not detected in the 1999-2001 surveys. One other state-threatened species, the Hooded Warbler (*Wilsonia citrina*), was found on rare occasions in the Cedarburg Beech Woods: it was recorded in 1982 and 1983, and then again in 1999. This species was too infrequent for any analyses of trends over time. The presence of these threatened species in the Cedarburg Beech Woods demonstrates the importance of this state natural area for birds. Mature beech-maple forest is a vegetation type that is increasingly hard to find in southeastern Wisconsin.

The breeding bird fauna of the Cedarburg Bog had a distinctly northern flavor and included such boreal species as the Brown Creeper (*Certhia americana*), Northern Waterthrush (*Seiurus noveboracensis*), Mourning Warbler (*Oporornis philadelphia*), and White-throated Sparrow (*Zonotrichia albicollis*). The Nashville Warbler (*Vermivora ruficapilla*) and Canada Warbler (*Wilsonia canadensis*), species of the coniferous-deciduous transitional forests, were also regular breeders (Fig. 2). The breeding populations in the bog are at the southern range limits for these northern species (Idzikowski 1982). This pattern of northern species reaching the southern limits of their range at the Cedarburg Bog also applies to plants and to mammals. Over 50 plant species are at or near their southernmost range

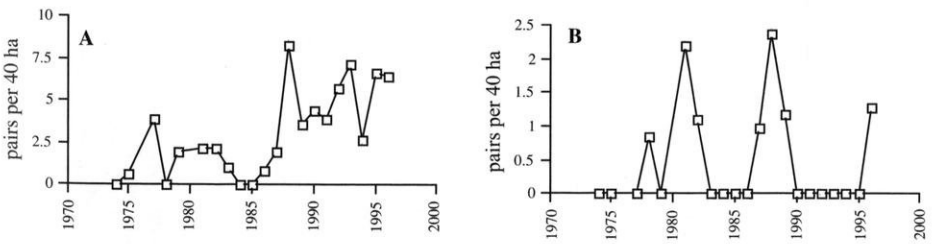

Figure 1. Trends over time for state-threatened species in the upland woods. A. Acadian Flycatcher, B. Cerulean Warbler.

Table 1. Mean abundance and trends over time for breeding bird species in the Cedarburg Bog and Cedarburg Beech Woods (upland). Abundance given in number of pairs per 40 ha. Migratory status: P = permanent resident, S = short-distance migrant, I = intermediate migrant, L = long-distance migrant. Stars indicate significance of trend: * = $p < 05$, ** = $p < .01$, *** = $p < 0.001$.

Bird Species	Migratory Status	Bog Mean ± SD	Upland Mean ± SD	% Change Bog	% Change Upland	% Change Wisconsin
Mourning Dove *(Zenaida macroura)*	P	2.11 ± 1.09		+1.26		+1.1
Black-billed Cuckoo *(Coccyzus erythropthalmus)*	L	0.39 ± 0.50	0.31 ± 0.59	– 1.04	– 2.99	+2.7**
Yellow-billed Cuckoo *(Coccyzus americanus)*	L		0.41 ± 0.73		– 5.51	+3.8*
Red-headed Woodpecker *(Melanerpes erythrocephalus)*	S		0.45 ± 0.93		– 15.42***	–4.8***
Red-bellied Woodpecker *(Melanerpes carolinus)*	P		2.31 ± 1.86		+18.93***	+5.1***
Downy Woodpecker *(Picoides pubescens)*	P	0.94 ± 0.70	3.34 ± 1.67	– 5.44	+0.16	+0.8
Hairy Woodpecker *(Picoides villosus)*	P	1.12 ± 0.57	1.79 ± 1.22	– 1.55	+10.21*	+1.1
Northern Flicker *(Colaptes auratus)*	S	0.96 ± 0.68	1.74 ± 1.59	– 2.36	– 7.14	n/a
Eastern Wood-Pewee *(Contopus virens)*	L	0.52 ± 0.47	10.61 ± 2.51	– 0.32	+0.90	– 0.3
Acadian Flycatcher *(Empidonax virescens)*	L		3.02 ± 2.60		+16.6**	n/a
Alder&Willow Flycatcher *(Empidonax alnorum & E. traillii)*	L	2.98 ± 1.94		+5.20**		+2.5**
Least Flycatcher *(Empidonax minimus)*	L		0.56 ± 0.90		– 10.11	– 2.4***
Great Crested Flycatcher *(Myiarchus crinitus)*	L	3.40 ± 1.28	4.61 ± 2.34	– 0.01	– 0.94	– 0.2
Yellow-throated Vireo *(Vireo flavifrons)*	L		0.38 ± 0.81		+6.99	+3.1*
Red-eyed Vireo *(Vireo olivaceus)*	L		22.82 ± 6.50		+3.55*	+2.2***
Blue Jay *(Cyanocitta cristata)*	S	5.56 ± 2.02	3.26 ± 1.70	– 1.89*	+3.03	– 0.1
Black-capped Chickadee *(Poecile atricapillus)*	P	10.10 ± 3.04	5.36 ± 1.71	– 1.79*	– 0.71	+2***
White-breasted Nuthatch *(Sitta carolinensis)*	P		3.07 ± 2.05		– 0.71	+0.5
Brown Creeper *(Certhia americana)*	S	1.01 ± 0.83		– 1.22		+4.9
House Wren *(Troglodytes aedon)*	S	3.80 ± 1.80	1.92 ± 2.02	– 5.06	– 17.16**	+1.0***
Blue-gray Gnatcatcher *(Polioptila caerulea)*	I	0.20 ± 0.48	0.63 ± 0.76	+2.43	+16.65**	+9.2***
Veery *(Catharus fuscescens)*	L	6.40 ± 2.02		– 1.69		– 2.4***
Wood Thrush *(Hylocichla mustelina)*	I		4.49 ± 2.23		– 2.69	+0.1
American Robin *(Turdus migratorius)*	S	1.81 ± 1.27	1.03 ± 1.36	+4.18	+4.25	+0.6***
Gray Catbird *(Dumetella carolinensis)*	I	1.82 ± 1.65	0.87 ± 1.40	– 4.79	– 19.25***	– 0.1
European Starling *(Sturnus vulgaris)*	P		3.22 ± 2.80		– 1.54	– 1.4***
Blue-winged Warbler *(Vermivora pinus)*	L	0.32 ± 0.71		– 2.69		– 2.2

Nashville Warbler *(Vermivora ruficapilla)*	I	4.45 ± 2.49		− 1.22		+1.7*
Yellow Warbler *(Dendroica petechia)*	I	0.97 ± 0.86		− 1.97		+0.9
Cerulean Warbler *(Dendroica cerulea)*	L		0.47 ± 0.76		+0.40	− 10.1*
Black-and-white Warbler *(Mniotilta varia)*	I	2.03 ± 1.48		− 7.51*		+0.4
Ovenbird *(Seiurus aurocapilla)*	I		17.44 ± 5.51		+1.09	+0.9***
Northern Waterthrush *(Seiurus noveboracensis)*	I	4.73 ± 1.86		− 0.32		− 0.6
Mourning Warbler *(Oporornis philadelphia)*	L	0.34 ± 0.44		− 5.55		+3.1***
Common Yellowthroat *(Geothlypis trichas)*	I	13.40 ± 3.40		+1.61*		+0.4*
Canada Warbler *(Wilsonia canadensis)*	L	2.67 ± 1.30		+4.38**		+0.6
Scarlet Tanager *(Piranga olivacea)*	L		3.60 ± 2.10		+2.70	+1.1*
Eastern Towhee *(Pipilo erythrophthalmus)*	S	0.44 ± 0.69		− 9.71**		− 1.7
Song Sparrow *(Melospiza melodia)*	S	6.56 ± 2.38		− 0.82		+0.2
Swamp Sparrow *(Melospiza georgiana)*	S	7.57 ± 2.66		− 1.00		+1.2
White-throated Sparrow *(Zonotrichia albicollis)*	S	12.57 ± 4.62		− 1.60		+0.2
Northern Cardinal *(Cardinalis cardinalis)*	P	2.66 ± 1.50	2.74 ± 1.50	+6.71***	+3.35	+3.0***
Rose-breasted Grosbeak *(Pheucticus ludovicianus)*	L	2.39 ± 2.29	0.67 ± 0.66	− 9.5**	− 5.25	+0.2
Indigo Bunting *(Passerina cyanea)*	I		1.16 ± 1.70		− 11.55	− 0.3
Red-winged Blackbird *(Agelaius phoeniceus)*	S	1.40 ± 1.57		− 1.76		− 0.8
Long Distance Migrants		19.78 ± 4.57	47.93 ± 8.79	− 0.90	+1.92**	
Short Distance Migrants		41.69 ± 9.04	8.71 ± 4.00	− 1.39**	− 5.46***	
Intermediate Migrants		28.07 ± 6.01	24.99 ± 5.06	− 0.30	− 0.90	
Permanent Residents		17.00 ± 3.53	21.83 ± 6.28	− 0.50	+1.40	
All Species		106.56 ± 17.38	103.46 ± 12.85	− 0.90*	+0.50	

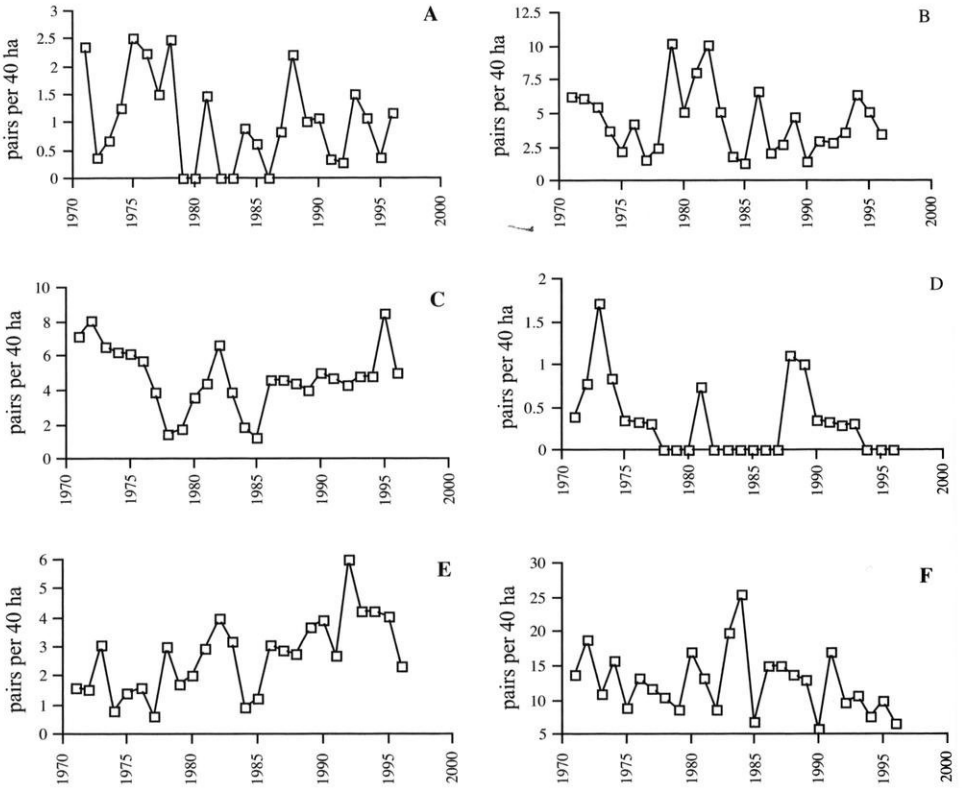

Figure 2. Trends over time for northern species breeding at the southern edge of their range in the Cedarburg Bog. A. Brown Creeper, B. Nashville Warbler, C. Northern Waterthrush, D. Mourning Warbler, E. Canada Warbler, F. White-throated Sparrow.

limit in the bog (Reinartz and Reinartz 1981, 1982), and populations of the red-backed vole (*Clethrionomys gapperi*), a boreal species that prefers coniferous forest (Kurta 1995), also are found in the bog. The Cedarburg Bog lies within the "tension zone" described by Curtis (1959), a zone where many northern and southern species reach their range boundaries and there is a high degree of mixing. In addition, the string bog in the Cedarburg Bog is typical of boreal regions and is not generally found so far south. The closest known string bog to the Cedarburg Bog occurs almost 200 miles north near Seney, in the Upper Peninsula of Michigan, and even there string bogs are not common (Heinselman 1965, Grittinger 1970). The presence of northern vegetation and the large area of the bog make it a suitable breeding site for the boreal and transitional-forest birds, probably one of the southern-most in the state for these species (Idzikowski 1982).

Northern species breeding at the southern edge of their range might be expected to be particularly sensitive to warming climates. There is abundant

evidence that the earth is becoming warmer and that these changes are affecting plants and animals (McCarty 2001, Karl and Trenberth 2003). For example, long-term phenological records from Sauk County, WI (1936-1998) show that spring flowering is starting earlier and that some migratory birds are arriving sooner (Bradley et al. 1999). The boreal and transitional-forest birds surveyed in the Cedarburg Bog held their own over the study period. They generally showed small but non-significant declines in abundance over time, with the exception of the Canada Warbler which significantly increased over the study period (Table 1, Fig. 2E). This result is encouraging, and suggests that the unique boreal character of the bog is not yet strongly affected by warming temperatures. Recent work in Great Britain suggests that current warming trends are allowing southern species to extend their ranges north, but there was no evidence that northern species were retreating north from their southern range limits (Thomas and Lennon 1999). It remains to be seen what effects climate change will have on northern species at their southern range limits as warming continues.

Population trends for species with primarily southern distributions were also examined. Idzikowski (1982) lists several southern species that were considered to be marginal or localized summer residents at the Cedarburg Bog or Beech Woods at the time of his publication, although none of these were at the extreme edge of their range. These species, the Red-bellied Woodpecker (*Melanerpes carolinus*), Acadian Flycatcher, Blue-gray Gnatcatcher (*Polioptila caerulea*), Yellow-throated Vireo (*Vireo flavifrons*), and Blue-winged Warbler (*Vermivora pinus*), generally showed increases over time for both this survey and statewide (Table 1, Fig. 3, Fig. 1A for Acadian Flycatcher). The only exception was the Blue-winged Warbler, which declined somewhat in both the bog and statewide. The trend of increasing abundance is particularly striking for the Red-bellied Woodpecker. Idzikowski (1982) notes that one or two pairs were known to breed in the the Cedarburg Beech Woods since 1960, but the survey data presented here show a dramatic increase after the mid 1980s. The Yellow-throated Vireo was listed by Idzikowski (1982) as irregular. It was found for the first time on the survey reported here in 1986, and occurred sporadically after that. It was recorded again in the Beech Woods in 2000. Idzikowski (1982) noted that the Blue-gray Gnatcatcher "should be watched for in the upland woods"; it was recorded there on the survey reported here in 1982 and after then was commonly found, and was first detected in the bog a few years earlier.

These trends support the idea that climate warming has benefited more southern birds (e.g., Thomas and Lennon 1999). However, other factors have certainly influenced population trends for these birds. For example, southeastern Wisconsin experienced a severe ice storm in March 1976, near the start of the survey period. Up to five inches of glaze was formed on tree limbs and wires in some areas, and approximately 35% of the canopy was lost in the Cedarburg Beech Woods (Bruederle and Stearns 1985). The ice storm must have affected the birds. For example, Acadian flycatch-

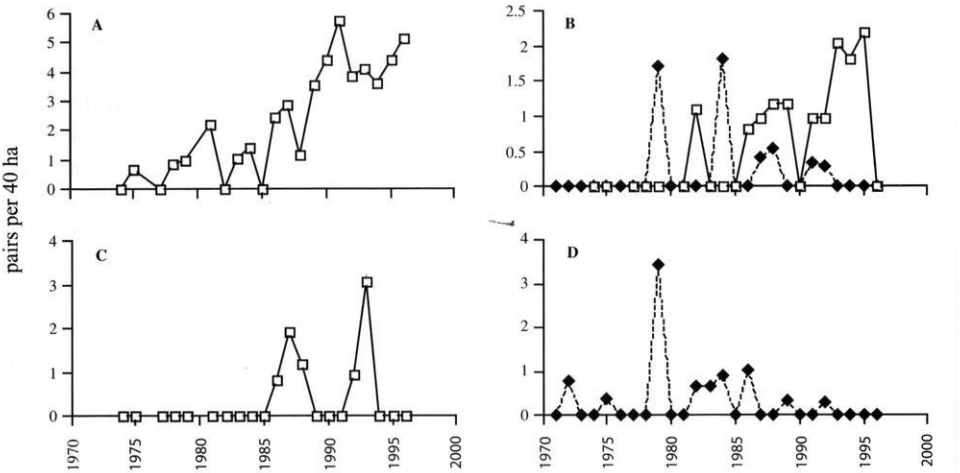

Figure 3. Trends over time for southern species in the Beech Woods (—□—), and the Bog (---◆---). A. Red-bellied Woodpecker, B. Blue-gray Gnatcatcher, C. Yellow-throated Vireo, D. Blue-winged Warbler.

ers had been regular breeders in the Beech Woods before the storm, but were noted to breed more erratically afterward (Reinartz 1986). Since the surveys in the Beech Woods presented here began in 1974, there is not much of a record of population sizes prior to the storm, and some part of the increase observed for this species could be recovery following the storm. Red-bellied woodpeckers may have benefited from the large volumes of dead wood that the ice storm created.

One species, the Red-headed Woodpecker (*Melanerpes erythrocephalus*), was lost from the Cedarburg Beech Woods over the period of the survey (Fig. 4). The Red-headed Woodpecker was recorded in 5 of the 7 years surveyed before 1983 and reached a maximum abundance of more than 3 pairs/40 ha in 1975 (Fig. 4). The data reported here represent relative abundances only, as they are not corrected for detectability. Gustafon (1976), using two methods that allow for absolute population estimates, found that there were 7–13 birds/40 ha in 1972 and 6–10 birds/40 ha in 1973. The Red-headed Woodpecker was not recorded after 1982. This pattern matches a statewide trend of decline for this species (Mueller 2002), and it is currently listed as a species of special concern in Wisconsin (WDNR 2002). The reasons behind declining populations of Red-headed Woodpeckers in Wiscon-

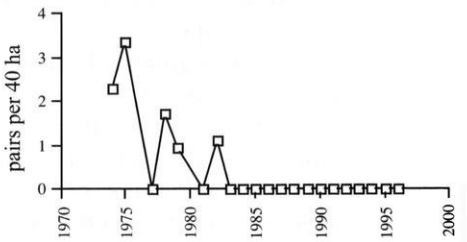

Figure 4. the decline and loss of the Red-headed Woodpoecker in the Beech Woods.

sin are not fully understood. Competition with other cavity-nesting birds, such as starlings, has been suggested as a reason for Red-headed Woodpecker declines (Mueller 2002), although some recent studies do not support this idea (Smith et al. 2000). Starlings do nest in the Cedarburg Beech Woods but their populations did not show any strong changes over time (Table 1). While another potential competitor, the Red-bellied Woodpecker, did increase dramatically over the study period, it is not generally believed that competition with Red-bellied Woodpeckers can explain Red-headed Woodpecker declines (Mueller 2002). It is more likely that Red-bellied Woodpeckers simply responded to the decreases in Red-headed Woodpeckers, instead of being a causal factor. Other factors that may be important include habitat loss, collisions with automobiles, and changes in populations of elms (Mueller 2002).

Population trends were also examined for species grouped by migratory status, and for all species found in each site (Table 1). There was no evidence for concern over population trends in long-distance migrants: numbers of long-distance migrants actually showed a significant increase over time in the Beech Woods, while a declining trend in the Cedarburg Bog was small and non-significant. In contrast, short-distance migrants showed significant declines in both habitats. The reasons behind these population changes for short-distance migrants are not clear. Trends for both intermediate migrants and permanent residents were generally small and non-significant. The total number of birds for all species grouped together held steady over time in the Beech Woods, but declined slightly in the bog (Table 1).

The results of this study demonstrate the importance of both the Cedarburg Bog and Cedarburg Beech Woods as significant state natural areas. The Cedarburg Bog is particularly valuable for its ability to support northern birds breeding at their southern range limits, while the Cedarburg Beech Woods offers habitat for birds dependent on mature forest and supports several state-threatened species. The long-term data presented here both reveal trends over time for many of the breeding birds of these two sites, as well as preserve a record of population sizes and trends for the period surveyed. This information will be important for monitoring these bird populations into the future, as the surrounding area develops and climate changes continue.

Acknowledgments

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Literature Cited.

American Ornithologists' Union 1998. Checklist of North American Birds, 7th edition. American Ornithologists' Union, Washington DC.

Bradley, N. L., A. C. Leopold, J. Ross, and W.

Huffaker 1999. Phenological changes reflect climate change in Wisconsin. Proceedings of the National Academy of Sciences 96: 9701–9704.

Bruederle, L. P. and F. W. Stearns. 1985. Ice storm damage to a southern Wisconsin mesic forest. Bulletin of the Torrey Botanical Club 112: 167–175.

Curtis, J. T. 1959. The Vegetation of Wisconsin. University of Wisconsin Press, Madison WI.

Dunnum, J. 1972. The upland hardwood forest of the Cedar-Sauk Field Station. Field Stations Bulletin 5(1): 17–23.

Friend, M., R. G. McLean, and F. J. Dein. 2001. Disease emergence in birds: challenges for the twenty-first century. Auk 118: 290–303.

Grittinger, T. F. 1970. String bog in southern Wisconsin. Ecology 51: 928–930.

Gustafson, D. K. 1976. Species composition and absolute population density of breeding birds obtained by two methods. Field Stations Bulletin 8(1): 1–4.

Heinselman, M. L. 1965. String bogs and other patterned organic terrain near Seney, Upper Michigan. Ecology 46: 185–188.

Holmes, T, and T. W. Sherry. 1988. Assessing population trends of New Hampshire forest birds; local vs. regional patterns. Auk 105: 756–768.

Holmes, T, and T. W. Sherry. 2001. Thirty-year bird population trends in an unfragmented temperate deciduous forest: importance of habitat change. Auk 118(3): 589–609.

Idzikowski, J. 1982. Summer birds reaching the margins of their range at the Cedarburg Bog and the UWM Field Station. UWM Field Stations Bulletin 15(1): 1–15.

Johnstown, D. W. and J. M. Hagan III. 1992. An analysis of long-term breeding bird censuses from eastern deciduous forests. pp. 75–84 in: J. M. Hagan III and D. W. Johnston, eds. Ecology and Conservation of Neotropical Migrant Landbirds.

Karl, T. R. and K. E. Trenberth. 2003. Modern global climate change. Science 302: 1719–1723.

Kurta, A. 1995. Mammals of the Great Lakes Region. University of Michigan Press, Ann Arbor, MI.

Maurer, B. A. and M-A. Villard. 1996. Continental scale ecology and neotropical migrant birds: how to detect declines amid the noise. Ecology 77: 1–2.

McCarty, J. P. 2001. Ecological consequences of recent climate change. Conservation Biology 15: 320–331.

Mueller, W. P. 2002. The biogeography and recent decline of the Red-headed Woodpecker in Wisconsin. M.S. Thesis, University of Wisconsin-Milwaukee.

Peterson, R. T. 1980. Eastern Birds, 4th edition. Houghton Mifflin Co., Boston MA.

Reinartz, J. A. and G. E. Reinartz. 1981. Vascular plants near the margins of their range in Cedarburg Bog. Part 1. Gymnosperms and Monocots. UWM Field Stations Bulletin 14(2): 1–13.

Reinartz, J. A. and G. E. Reinartz. 1982. Vascular plants near the margins of their range in Cedarburg Bog. Part II. Dicots. UWM Field Stations Bulletin 15(1): 16–21.

Reinartz, J. A. 1986. A guide to the natural history of the Cedarburg Bog: Part II. UWM Field Stations Bulletin 19(1): 1–53.

Robbins, C. S., J. R. Sauer, R. S. Greenberg, and S. Droege. 1989. Population declines in North American birds that migrate to the neotropics. Proceedings of the National Academy of Sciences 86: 7658–7662.

Sauer, J. R., J. E. Hines, G. Gough, I. Thomas, and B. G. Peterjohn. 1997. The North American Breeding Bird Survey Results and Analysis. Version 96.4. Patuxent Wildlife Research Center, Laurel, MD. Accessed online at http://www.mbr-pwrc.usgs.gov/bbs/genintro.html

Sauer, J. R., J. E. Hines, and J. Fallon. 2001. The North American Breeding Bird Survey,—Results and Analysis 1966–2000. Version 2001.2, USGS Patuxent Wildlife Research Center, Laurel, MD. Accessed online at http://www.mbr-pwrc.usgs.gov/bbs/specl00.html

Smith, K. G., J. H. Withgott, and P. G. Rodewald. 2000. Red-headed Woodpecker (*Melanerpes erythrocephalus*). In The Birds of North America, No. 518 (A. Poole and F. Gill, eds.) The Birds of North America, Inc. Philadelphia, PA.

Thomas, C. D. and J. J. Lennon. 1999. Birds extend their ranges northwards. Nature 399: 213.

USGS 2003. North American Breeding Bird Survey, Patuxent Wildlife Research Center. Accessed online at www.mp2-pwrc.usgs.gov/bbs/index.html

Weise, C. M. 1973. Breeding birds of the forested portions of the Cedarburg Bog. UWM Field Stations Bulletin 6(2): 1–9.

Weise, C. M. 1988. Long-term population trends in songbirds: evidence from a general netting program. Field Stations Bulletin 21(1): 1–9.

Wisconsin Department of Natural Resources 2002. Natural Heritage working list, as of December 2002. accessed online at http://www.dnr.state.wi.us/org/land/er/working_list/taxalists/birds.htm

The Effects of Lake Michigan on the Distribution of Breeding Birds in Eastern Wisconsin

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Introduction

The ornithological literature is rich in studies involving the effects of forest degradation and fragmentation on breeding birds (Bond 1957, Galli et al. 1976, Robbins 1979, Ambuel and Temple 1983, Lynch and Whigham 1984, Freemark and Merriam 1986, Askins et al. 1987). Few, if any, ornithologists today would argue that small woodlots are more important than large, continuous forests for the conservation of Neotropical migratory birds. In agricultural landscapes like those in east-central Wisconsin, however, large forest areas are scarce and small woodlots are abundant. Given the intensive agricultural practices that have been practiced here for decades and increasing pressure from housing developments, large forest tracts probably will never become abundant again in this region. Therefore, if we hope to maintain extensive populations of songbirds in agricultural landscapes of east-central Wisconsin, attention needs to be focused on the conservation of small woodlots. However, as Whitcomb et al. (1981), Villard et al. (1999) and others have pointed out, few studies have addressed forest fragmentation as a regional phenomenon. Furthermore, very little information exists concerning the influence of broader regional factors such as climate on the distribution of breeding songbirds.

This study explores the geographic effects of Lake Michigan on the distribution and abundance of breeding songbirds in forest fragments of east-

central Wisconsin. Specifically, we test two null hypotheses: 1) species richness and abundance of breeding birds are similar between woodlots located near Lake Michigan and woodlots located farther inland and 2) species richness and abundance of Neotropical migrant birds are similar between woodlots located near Lake Michigan and woodlots located farther inland. We are interested in the relative conservation value of woodlots in the vicinity of Lake Michigan and are motivated by the more general possibility that regional context and perhaps local microclimate might affect the distribution of breeding bird populations.

Methods

Forty woodlots were selected for this investigation (Figure 1). Twenty were located within 20 km of Lake Michigan ("lakeshore" woodlots) in Kewaunee (n = 15), Door (n = 4), and Manitowoc (n = 1) Counties. The other 20 "inland" woodlots were located 61-83 km from Lake Michigan in Outagamie (n = 16) and southern Shawano (n = 4) Counties. Habitat variables were controlled as much as possible except for the treatment: distance from Lake Michigan. All of the woodlots shared the following characteristics: 1) size ranged from 1.5–11 ha; 2) forest vegetation was dominated by upland deciduous tree species; 3) no streams or rivers flowed through the woodlot; 4) no recent logging, fire, wind damage, or other significant disturbance was evident; 5) the entire boundary was surrounded by agricultural fields; 6) shape was approximately square or circular; and 7) no severe slopes or ravines were present within the woodlot.

Standard, 10-minute unlimited-radius point counts (Howe et al. 1997) were conducted from 31 May to 25 July 1994. Each woodlot was visited three times, yielding a total of 120 counts. All counts were completed between sunrise and 0900 hours from a point as near as possible to the center of the woodlot. All birds seen or heard were recorded by JLB during a 10 minute period. No counts were conducted during rain or when winds exceeded about 10 km/h. See Appendix for bird species in this study.

Vegetation was evaluated in each woodlot during 1995. Because the woodlots were purposely chosen to be as similar as possible to one another, significant differences were not expected among the woodlots (Ambuel and Temple 1983, Howe 1984, Blake and Karr 1987). The woodlot was divided into four quadrants. Four points were selected at random within each quadrant, and at each point a 10 m transect was established in a random direction. At the beginning of the transect, canopy density was measured using a spherical densitometer (Lemmon 1956). A circular subplot was established around the 10 m transect. Standing at the center of the subplot, JLB estimated the percent of the circular area covered by leaves, forbs, grasses and sedges, moss, low woody plants, woody debris, open water, exposed rock, and bare ground. Shrub density and shrub species composition were estimated by JLB along the 10 m transect; all stems intercepted by outstretched arms (approximately 2 m width) were identified to species or genus and recorded. All trees intercepted by outstretched arms also were

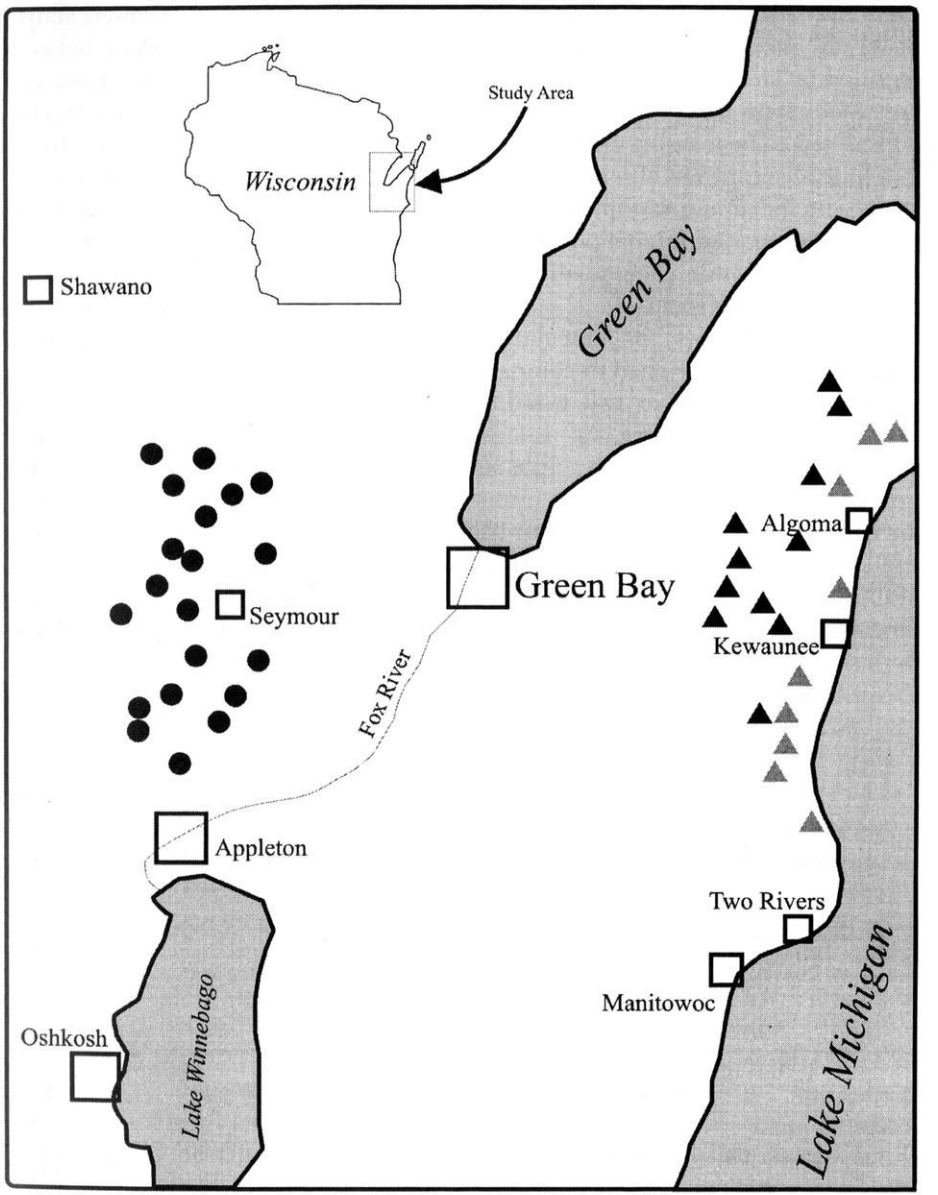

Figure 1. Map of study area. Inland woodlots are indicated by solid circles (●). Lakeshore woodlots are indicated by light (< 5 km from lakeshore) or dark triangles (▲).

identified and measured for diameter at breast height (dbh). As recommended by James and Shugart (1970), any woody stem < 8 cm in diameter was considered to be a shrub. During April (when leaf canopy was absent) JLB estimated the maximum canopy height directly above four additional points chosen randomly within each quadrant (n = 16 estimates per woodlot).

Chi^2 2 × 2 tests for association (Conover 1998) were used to compare frequencies of birds in two woodlot groups (e.g., lakeshore vs. inland sites). Standard t-tests and multiple regression analyses were used to evaluate differences in habitat variables. We used Principal Components Analysis (PCORD Version 4.0, McCune and Grace 2002) to illustrate differences in bird species composition among the woodlots.

Results

Altogether 48 species of birds were encountered during this study (Table 1). Only four of these showed statistically significant differences between the originally defined lakeshore and inland study areas. European Starling and Mourning Warbler were found significantly more frequently in lakeshore woodlots, whereas Hairy Woodpecker and White-breasted Nuthatch were significantly more frequent in inland woodlots. Alder Flycatcher, American Redstart, American Woodcock, Blackburnian Warbler, Cooper's Hawk, Chestnut-sided Warbler, Northern Waterthrush, Purple Finch, Ruffed Grouse, and Yellow-bellied Sapsucker were found only in lakeshore woodlots, but their numbers were too low to yield significant differences. Likewise, Pileated Woodpecker (1 site), Warbling Vireo (3 sites) and Yellow-billed Cuckoo (1 site) were found exclusively in the inland woodlots.

The total numbers of species, individuals, Neotropical migrant species, and Neotropical migrant individuals were not significantly different be-

Table 1. Average numbers (x) of species and individuals in lakeshore vs. inland woodlots in east-central Wisconsin. Distance indicates the groups of sites compared. P value indicates the level of significance in a t-test of sample means. Significant differences (P values) are indicated in bold. NTM = Neotropical migrant bird species.

Distance	Variable	0 near lake	0 inland	P
0–20 vs. 60–83 km	# Species	15.5	15.6	0.93
	# Individuals	24.4	25.6	0.54
	# NTM Species	5.6	6.0	0.47
	# NTM Individuals	8.6	9.7	0.28
0–5 vs. 5–83 km	# Species	17.7	14.9	**0.05**
	# Individuals	29.0	23.8	**0.02**
	# NTM Species	6.8	5.5	0.06
	# NTM Individuals	11.2	8.5	**0.02**
0–5 vs. 5–20 km	# Species	17.7	13.9	**0.02**
	# Individuals	29.0	22.8	**0.02**
	# NTM Species	6.8	5.3	0.06
	# NTM Individuals	11.2	8.4	0.06

Table 2. Habitat differences between woodlots near Lake Michigan (<20 km) and farther inland (>61 km). P value indicates the statistical probability of no difference between the means (t-test), where a value of P < 0.05 (in bold) indicates a statistically significant difference.

Variable	0 near lake	0 inland	P
Woodlot Area	5.95	5.89	0.94
Distance to Lake Michigan	71.4	7.2	**0.00**
Distance to Nearest Woodlot	0.4	0.4	0.75
Maximum Canopy Height	27.6	26.1	0.19
Average Canopy Height	22.0	20.8	0.27
% Canopy Closure	96.2	94.6	0.20
% Bare Ground	5.5	2.0	**0.00**
% Ground Cover Leaves	24.7	31.1	0.33
% Ground Cover Forbs / Herbs	27.1	31.5	0.30
% Ground Cover Grasses / Sedges	6.6	8.6	0.48
% Ground Cover Mosses	1.4	1.5	0.63
% Ground Cover Low Woody Plants	22.8	18.0	0.20
% Standing Water	1.0	1.0	0.99
% Ground Cover Woody Debris	10.7	6.1	**0.02**
% Ground Cover Rock	0.2	0.1	0.65

tween the original lakeshore and inland study areas ($p < 0.05$, t-test, Table 2). Two of the measured environmental variables (besides distance from Lake Michigan), % bare ground, and % woody debris, were significantly greater in the inland woodlots. Additionally, ordinations of tree species (Figure 2) and shrub species (Figure 3) reveal some important differences in the vegetation of inland vs. lakeshore woodlots. Sites with similar types of tree species and shrub species are located closer together in the ordination plots (Figures 2 and 3) than are sites with dissimilar tree species and shrub species. The inland woodlots tended to be fairly consistent in tree species compositions, while the lakeshore woodlots showed considerable variability. Dominant species in the inland woodlots include sugar maple (*Acer saccharum*), American beech (*Fagus grandifolia*), American basswood (*Tilia americana*), oaks (*Quercus alba/rubra*), green ash (*Fraxinus pennsylvanica*) and box elder (*Acer negundo*). The lakeshore woodlots contained many of these same tree species, but variability was increased with the addition of eastern hemlock (*Tsuga canadensis*), yellow birch (*Betula alleghaniensis*), paper birch (*Betula papyrifera*), quaking aspen (*Populus tremuloides*), white pine (*Pinus strobus*), northern white cedar (*Thuja occidentalis*), and balsam fir (*Abies balsamea*). Shrub species were quite variable within all groups of sites, but young balsam fir, winterberry (*Ilex verticillata*) and speckled alder (*Alnus incana*) tended to be more prevalent in the lakeshore woodlots. Gray dogwood (*Cornus racemosa*), Virginia creeper (*Parthenocissus quinquefolia*), and grapes (*Vitis sp.*) were generally more abundant in the inland woodlots.

Results from our initial analysis suggest that the "lake effect" is weak, if it exists at all. A second analysis, however, compared the 9 sites located closest to Lake Michigan with other lakeshore sites (5–20 km from the

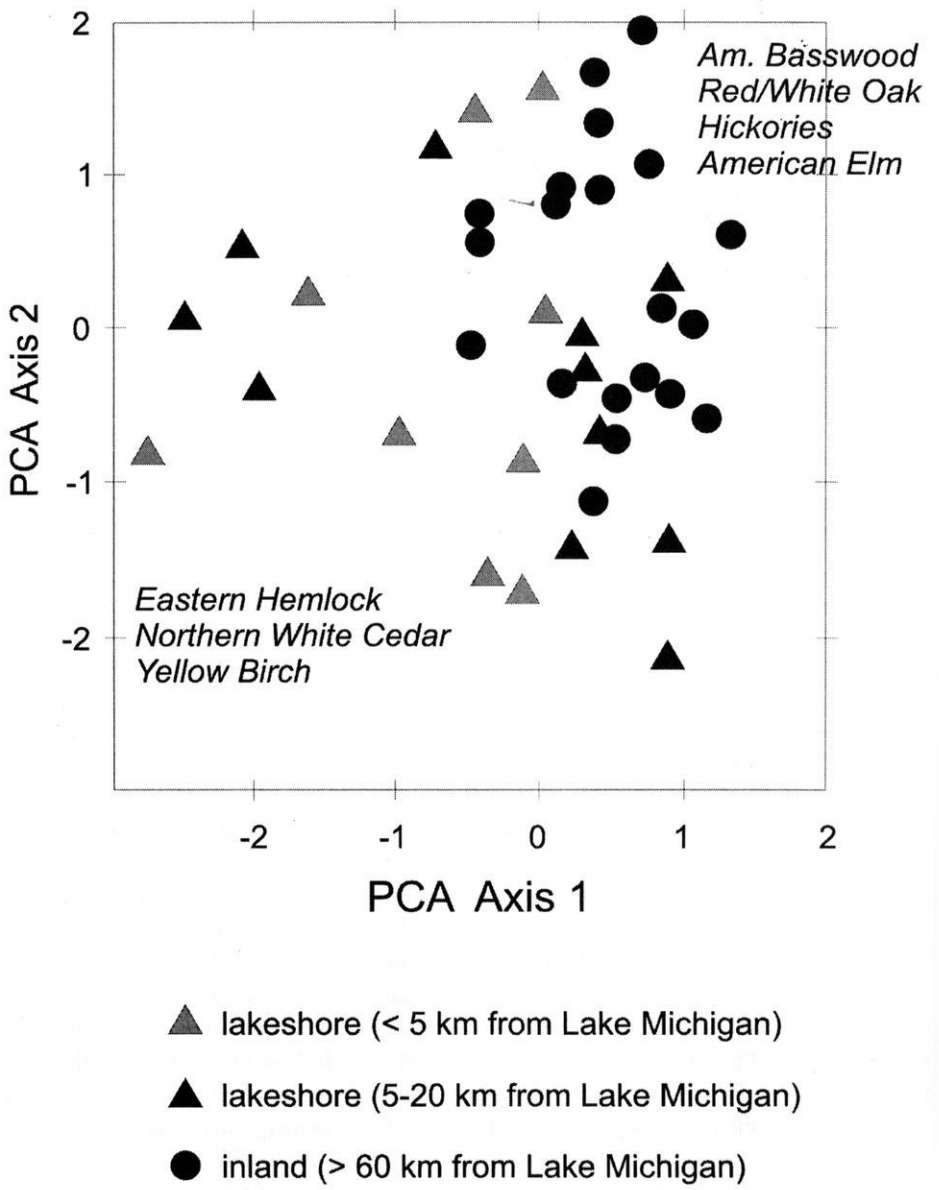

Figure 2. Principal Components Analysis (PCA) ordination of woodlots based on tree species composition. Symbols correspond with those in Figure 1. Woodlots that were similar in tree species composition are located close together in the ordination; dissimilar woodlots are far apart. Tree species shown in the ordination were highly correlated with the PCA axes and predominate in woodlots situated closest to the text.

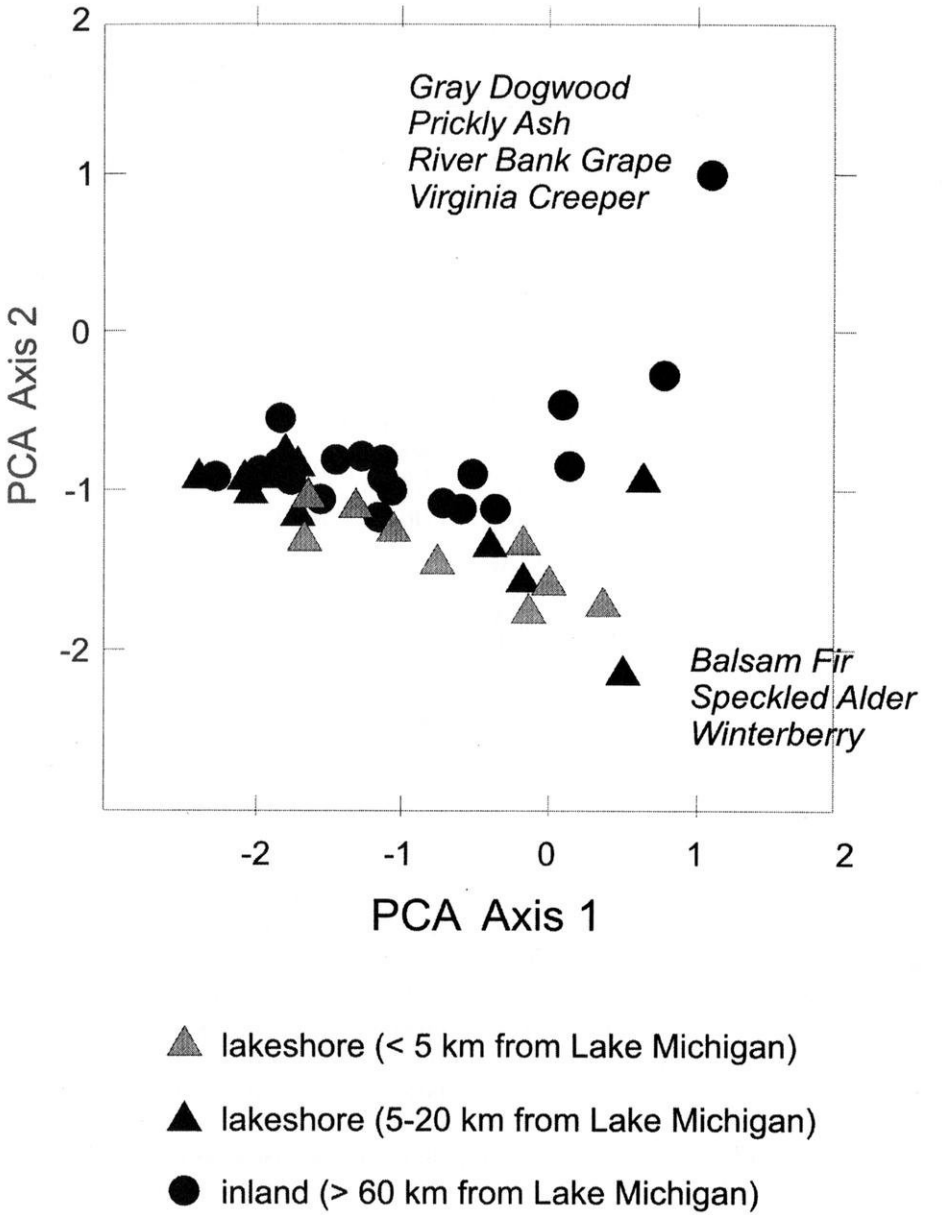

Figure 3. Principal Components Analysis (PCA) ordination of woodlots based on shrub/understory plant species. Symbols correspond with those in Figure 1. Woodlots that were similar in shrub species composition are located close together in the ordination; dissimilar woodlots are far apart. Plant species shown in the ordination were highly correlated with the PCA axes and predominate in woodlots situated closest to the text.

Table 3. Results of four stepwise multiple regression analyses with bird abundance (# individuals) or number of species (# species) as dependent variables. Non-signifiacnt variables are not included. P = level of statistical significance for regression model with just the single independent variable. PCA axes are from principal components analysis of tree or shrub species abundances.

Dependent Variable	Independent Variable	P
# Species	% Ground Cover Leaves	0.001
	% Canopy Closure	0.007
	% Ground Cover Rock	0.008
	% Ground Cover Forbs / Herbs	0.008
	Shrub PCA Axis 1	0.011
	Shrub PCA Axis 2	0.014
	% Ground Cover Grasses / Sedges	0.016
	Woodlot Area	0.029
# Individuals	% Canopy Closure (-)	0.003
	% Ground Cover Leaves (-)	0.005
	% Ground Cover Rocks (-)	0.013
	% Ground Cover Forbs / Herbs	0.019
	Shrub PCA Axis 1	0.022
	% Ground Cover Grasses / Sedges	0.037
# NTM Species	Woodlot Area	0.013
	% Ground Cover Rocks (-)	0.013
	Shrub PCA Axis 3	0.024
	% Ground Cover Leaves	0.030
# NTM Individuals	Woodlot Area	0.061
	% Ground Cover Rocks (-)	0.070
	Tree PCA Axis 4 (-)	0.077
	% Canopy Closure (-)	0.089

shore) and all sites farther inland (5–83 km from shore). Given these definitions, both the numbers of species and numbers of individuals were greater in woodlots near the lakeshore, and the higher numbers of Neotropical migrant species and individuals were nearly significant ($p = 0.06$, Table 3). Alder Flycatcher, Least Flycatcher, and Mourning Warbler were significantly more frequent in the 0–5 km lakeshore sites, while Rose-breasted Grosbeak and White-breasted Nuthatch were more frequent in the inland woodlots.

Irrespective of geographic location, the total numbers of species, individuals, Neotropical migrant species, and Neotropical migrant individuals were highly correlated with several habitat variables (Table 3). In general, bird numbers tended to be lower in smaller, more mature woodlots with a closed canopy and ground covered largely by leaves and rocks. Conversely, bird numbers were higher in larger, less mature woodlots with a more open canopy and ground cover of forbs, herbs, grasses, sedges, and shrubs. Woodlot area was the most important independent variable for Neotropical migrant species, in particular.

Discussion

Just as previous researchers have demonstrated that Lake Michigan in-

fluences plant distribution patterns in Wisconsin (Curtis 1959), our investigation documents a significant effect of the lake on bird distributions in remnant woodlots. This result was somewhat different than we had anticipated, however. Statistically significant increases in bird diversity and abundance were found only within 5 km of the lakeshore; the original grouping of sites (< 20 km vs. > 60 km from shore) yielded non-significant differences for most species and for overall species richness and abundance.

Climatic differences between the lakeshore and inland environments are well documented. Between 1961 and 1995 daily temperatures for June and July at Kewaunee (located directly on the shoreline) averaged 61.4°F (16.3°C) and 68.0°F (20.0°C), respectively; June and July averages for the city of Appleton (located near the inland woodlots) were 66.6°F (19.2°C) and 71.9°F (21.7°C), respectively. An even greater difference is evident in the number of cooling degree days (CDD), where one cooling degree day is accumulated for each whole degree that the daily mean temperature exceeds 65°F. For the period 1990–1995, the city of Kewaunee had a mean of 65 and 120 CDD for June and July, respectively, while the city of Appleton had 139 and 179 CDD for the same period (National Oceanic and Atmospheric Administration, http://www.noaa.gov/). In other words, daily temperatures during June and July are consistently cooler near Lake Michigan than they are farther inland. This difference is likely a direct or indirect cause of the differences in vegetation (Figures 2 and 3), which in turn are likely related to our observed differences in bird species assemblages. In addition to structural differences in the vegetation, presence of aquatic insects and other invertebrates that might be associated with the lakeshore also might help explain our findings. Additional research will be needed to isolate the factors associated with this avian lake effect.

Our results support the widely recognized maxim that "larger is better" for conservation of biodiversity in woodlots (Robinson 1992). In addition, the higher diversity and abundance of birds within 5 km of the lakeshore has implications for conservation of woodlots in the Lake Michigan basin. Although a direct cause of the "lake effect" has not been demonstrated, our findings suggest that conservation of forest tracts near the lakeshore is particularly important in eastern Wisconsin and perhaps elsewhere in the Great Lakes.

Acknowledgments

We thank all of the east-central Wisconsin landowners who allowed us access to their woodlots for this study. We also thank Richard Gonnering for his help in data collection, Gary Fewless for help with vegetation analysis, and Michael Morgan and David Jowett for their constructive insights during the course of this investigation. This work was completed as part of JLB's Master's thesis in the Environmental Science and Policy Program at UW-Green Bay.

Literature Cited

Ambuel, B. and S. A. Temple. 1983. Area-dependent changes in bird communities and

vegetation of southern Wisconsin forests. Ecology 64: 1057–1068.

Askins, R. A., M. J. Philbrick and D. S. Sudeno. 1987. Relationship between the regional abundance of forest and the composition of forest bird communities. Biological Conservation 39: 129–152.

Blake, J. G. and J. R. Karr. 1987. Breeding birds of isolated woodlots: area and habitat relationships. Ecology 68: 1724–1734.

Bond, R. R. 1957. Ecological distribution of breeding birds in the upland forest communities of southern Wisconsin. Ecological Monographs 27: 351–384.

Conover, W. J. 1998. Practical nonparametric statistics, 3rd edition. Wiley and Sons. New York, NY.

Curtis, J. T. 1959. Vegetation of Wisconsin. University of Wisconsin Press, Madison, WI.

Freemark, K. E. and H. G. Merriam. 1986. Importance of area and habitat heterogeneity to bird assemblages in temperate forest fragments. Biological Conservation 36: 115–141.

Galli, A. E., C. F. Leck and R. T. Forman. 1976. Avian distribution patterns n forest islands of different sizes in central New Jersey. Auk 93: 356–364.

Howe, R. W., G. J. Niemi, S. J. Lewis, and D. A. Welsh. 1997. A standard method for monitoring songbird populations in the Great Lakes Region. Passenger Pigeon 59(3): 183–194.

Lemmon, Paul E. 1956. A spherical densiometer for estimating forest overstory density. Forest Science 2: 314–320

Lynch, J. F. and D. F. Whigham. 1984. Effects of forest fragmentation on breeding bird communities in Maryland, USA. Biological Conservation 28: 287–324.

McCune, B. and J. B. Grace. 2002. Analysis of ecological communities. MJM Software Design. Corvallis, OR.

Robbins, C. S. 1979. Effects of forest fragmentation on bird populations. Pages 198–213 *in* R. M. DeGraaf and K. E. Evans, eds. Management of north central and northeastern forests for nongame birds. USDA Forest Service General Technical Report NC-51.

Robinson, S. K. 1992. Population dynamics of breeding Neotropical migrants in a fragmented Illinois landscape. pages 408–418 *in* J. M. Hagen and D. W. Johnson, eds. Ecology and conservation of Neotropical migrant landbirds. Smithsonian Institutiona Press, Washington, DC.

Villard, M.-A., Trzcinski, K. & Merriam, G. 1999. Fragmentation effects on forest birds: relative influence of woodland cover and configuration on landscape occupancy. Conservation Biology 13: 774–783.

Whitcomb, R. F., C. S. Robbins, J. F. Lynch, B. L. Whitcomb, M. K. Klimkiewicz, and D. Bystrak. 1981. Effects of forest fragmentation on avifauna of eastern deciduous forest. pp 125–205 *in* R. L. Burgess and D. M. Sharpe, eds. Forest island dynamics in man dominated landscapes. Springer-Verlag, New York, NY.

Appendix. List of bird species observed in lakeshore (< 20 km from shore) and inland (> 61 km) woodlots. Neotropical migrant species are shown in bold. Frequency is the number of woodlots (maximum = 20) where the species was recorded during at least one visit. * = statistically significant differences between original lakeshore (< 20 km) and inland (> 61 km) woodlots; # = significant difference between woodlots < 5 km and woodlots > 5 km from lakeshore.

Common Name	Scientific Name	Frequency	
		Lakeshore	Inland
Alder Flycatcher	***Empidonax alnorum***	3	0
American Crow	*Corvus brachyrhynchos*	13	13
American Goldfinch	*Carduelis tristis*	12	16
American Redstart	***Setophaga ruticilla***	3	0
American Robin	*Turdus migratorius*	17	16
American Woodcock	*Scolopax minor*	1	0
Baltimore Oriole	***Icterus galbula***	7	7
Blackburnian Warbler	***Dendroica fusca***	1	0
Black-capped Chickadee	*Poecile atricapilla*	12	9
Blue Jay	*Cyanocitta cristata*	12	14
Brown-headed Cowbird	*Molothrus ater*	11	10
Cedar Waxwing	*Bombycilla cedrorum*	11	7
Chestnut-sided Warbler	***Dendroica pensylvanica***	1	0
Common Grackle	*Quiscalus quiscula*	6	8
Common Yellowthroat	*Geothlypis trichas*	7	4
Cooper's Hawk	*Accipiter cooperii*	1	0
Downy Woodpecker	*Picoides pubescens*	2	5
Eastern Wood-Pewee	***Contopus virens***	19	19
European Starling	*Sturnus vulgaris*	8*	1
Gray Catbird	***Dumetella carolinensis***	4	7
Great Crested Flycatcher	***Myiarchus crinitus***	14	18
Great Horned Owl	*Bubo virginianus*	1	1
Hairy Woodpecker	*Picoides villosus*	1*	6
House Wren	*Troglodytes aedon*	15	18
Indigo Bunting	***Passerina cyanea***	15	15
Least Flycatcher	***Empidonax minimus***	4#	3
Mourning Dove	*Zenaida macroura*	1	2
Mourning Warbler	***Oporornis philadelphia***	9*#	2
Northern Cardinal	*Cardinalis cardinalis*	10	13
Northern Flicker	*Colaptes auratus*	12	13
Northern Waterthrush	***Seiurus noveboracensis***	1	0
Ovenbird	***Seiurus aurocapillus***	9	4
Pileated Woodpecker	*Dryocopus pileatus*	0	1
Purple Finch	*Carpodacus purpureus*	3	0
Red-bellied Woodpecker	*Melanerpes carolinus*	1	1
Red-eyed Vireo	***Vireo olivaceus***	20	18
Red-headed Woodpecker	*Melanerpes erythrocephalus*	3	1
Red-tailed Hawk	*Buteo jamaicensis*	1	1
Rose-breasted Grosbeak	***Pheucticus ludovicianus***	4#	6
Ruffed Grouse	*Bonasa umbellus*	3	0
Scarlet Tanager	***Piranga olivacea***	1	2
Song Sparrow	*Melospiza melodia*	14	17
Veery	***Catharus fuscescens***	1	0
Warbling Vireo	*Vireo gilvus*	0	3
White-breasted Nuthatch	*Sitta carolinensis*	9*#	16
Wood Thrush	***Hylocichla mustelina***	4	8
Yellow-bellied Sapsucker	*Sphyrapicus varius*	1	0
Yellow-billed Cuckoo	***Coccyzus americanus***	0	1

Bells' Vireo *by Cary Hunkel (with permission from WDNR)*

The Autumn of 2003 at Cedar Grove

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In 1950, Dan Berger and Helmut Mueller began trapping and banding migrating hawks in an operation that became known as The Cedar Grove Ornithological Station, an effort that has continued every fall until the present. In fall 2003, we arrived at the station on 13 August and departed on 24 November. We watched the skies for migrants constantly from dawn to dusk on each of these 103 days, and counted or estimated their numbers. We attempted to trap all hawks observed. In addition, we operated a 136 m long line of 61 mm (stretched mesh) mist nets. After 28 September, these nets were left up 24 hours a day in an effort to capture owls. These large mesh nets captured small birds only rarely. Birds the size of Swainson's Thrushes occasionally passed through the nets and probably fewer than one of 100 warblers that struck the nets was captured.

Highlights of the year included: (1) The capture and banding of 140 hawks

of 5 species on 23 September (out of a total of 1,481 observed). More than 100 hawks have been trapped in a day on only 10 other occasions in the 54-year history of the station. (2) The netting of a Townsend's Solitaire on 9 November, and the sighting of another on 21 November. (3) The netting of a beautiful adult male Lawrence's Warbler on 14 September. (4) A sighting of a Thayer's Gull on 22 August. (5) We also added another two species to the station "life list" on 14 August: Carolina Wren and Eurasian Collared-Dove.

After suffering our worst season in 23 years in 2002, we enjoyed weather conducive to hawk migration in 2003: we saw 71 percent more than last year and 49 percent more than the average for the last 10 years (Table 1). Of the 15 species observed in 2002, we saw more individuals in 2003 in 11 species, and fewer in only 3 species: Northern Goshawk, Rough-legged Hawk, and Golden Eagle. More than twice as many individuals of Northern Harrier, Sharp-shinned Hawk, Red-shouldered Hawk, and Merlin were seen. Osprey, American Kestrel, and Peregrine increased more than 50% in 2003 as compared with 2002. In 2003, we saw more individuals in 12 of the 19 species of hawks and vultures observed over the past 10 years.

Most hawks are seen migrating at Cedar Grove on westerly winds after a cold front (Mueller and Berger 1961, 1967). A north or northeast wind results in very few hawks. The wind direction after a cold front depends on the tracks taken by high and low pres-

Table 1. Numbers of diurnal raptors observed and the percent trapped

	Observed			% trapped		
Year	2003	2002	Average 1993–2002	2003	2002	Average 1993–2002
Turkey Vulture	182	167	150	0	0.0	0.0
Black Vulture	0	0	0.1	0	0.0	0.0
Northern Harrier	341	131	198	2.35	3.1	2.9
Sharp-shinned Hawk	3040	1209	2853	18.5	20.7	17.2
Cooper's Hawk	225	182	167	31.6	30.2	36.3
Northern Goshawk	6	11	14	50	72.7	69.7
Harris's Hawk	0	0	0.1	0	0.0	0.0
Red-shouldered Hawk	35	17	32	8.57	11.8	4.4
Broad-winged Hawk	2590	1995	649	0.31	0.1	0.2
Swainson's Hawk	0	0	0.1	0	0.0	0.0
Red-tailed Hawk	1068	706	908	16.4	17.1	15.0
Rough-legged Hawk	33	39	36	0	0.0	1.9
Golden Eagle	0	1	0.9	0	0.0	0.0
Bald Eagle	15	15	14	0	6.7	1.5
Osprey	113	61	74	0	0.0	0.0
Merlin	707	318	463	11.6	20.4	18.3
American Kestrel	128	69	120	3.91	7.2	7.5
Peregrine Falcon	81	47	72	17.3	31.9	23.2
Short-eared Owl	1	0	1.2	0	0.0	0.0
Unidentified	89	61	61	0	0.0	0.0
Total	8654	5029	5813	10.8	10.5	14.1
Total*	5769	2806	4940	16	18.7	16.5

*less vultures, broad-wing, and Osprey

Table 2. Numbers of owls netted

Species	2003	2002	Average: 1993–2002
Long-eared Owl	21	8	10.5
Short-eared Owl	0	0	0.1
Great-horned Owl	1	0	0.8
Barred Owl	0	1	0.2
Boreal Owl	0	0	0.1
Saw-whet Owl	79	40	145.6
Eastern Screech Owl	2	1	2.1
Total	103	50	159.4

sure systems. Subsequent systems often follow the paths of previous ones and poor, or good, weather can persist for some time. A large proportion of the hawks seen each fall migrate between about 15 September and 20 October (Mueller et al. 1997); good weather during that period results in a good season, and bad weather, a poor one.

The 931 hawks trapped in 2003 represent our best year since 1995, exceeding the 528 trapped in 2002 and the average for the past 10 years of 817. The percentage trapped is slightly better than in 2002, but worse than the 10-year average (Table 1). This is largely because more Broad-winged Hawks were seen in 2003 than in the average for the past 10 years. We trapped a record of 8 Broad-winged Hawks in 2003, but this amounts only to less than a third of one percent of those seen. Broad-wings rarely eat during migration, relying on stored fat for their long journey to South and Central America. If we exclude Broad-wings, Turkey Vultures, and Osprey from the total seen (and trapped), the trapping percentage has remained quite constant over the years. The decrease in the percentage of falcons trapped is inexplicable.

The year 2003 was also good for owls (Table 2). We almost doubled our catch of Saw-whet Owls and almost tripled our catch of Long-eared Owls. However, the Saw-whet capture in 2003 was less than the 10 year average and far less than the 263 we netted in 1995.

The netting of non-raptorial birds was down from 1,211 individuals in 2002 to 820 in 2003. We have no explanation for this except to suggest that weather good for producing concentrations of hawks may be poor for producing numbers of grounded nocturnal migrants. We have not kept records of the numbers of non-raptorial birds trapped until quite recently, and comparisons with the past 10 years are not possible. Substantial declines occurred in a variety of species (Table 3), but there are anomalies: Fox Sparrows increased but White-throated Sparrows and Dark-eyed Juncos declined; Yellow-rumped Warblers and American Redstarts declined but Palm Warblers increased.

The estimated numbers of non-raptorial birds observed migrating increased from about 39,500 to 55,600. A sample of the species and groups comprising 93 per cent of the total is given in Table 4. Species that were difficult to differentiate in flight and, or occurred

Table 3. Numbers of birds netted

	2003	2002
Yellow-bellied Sapsucker	3	21
Northern Flicker	13	47
Eastern Wood Pewee	2	11
Eastern Phoebe	11	21
Red-eyed Vireo	16	30
Blue Jay	15	26
Brown Creeper	10	36
Golden-crowned Kinglet	5	21
Ruby-crowned Kinglet	7	20
Hermit Thrush	105	166
Palm Warbler	11	6
Yellow-rumped Warbler	32	66
American Redstart	5	17
White-throated Sparrow	32	92
Fox Sparrow	52	34
Dark-eyed Junco	53	151
Pine Siskin	4	1
American Goldfinch	15	14

in mixed flocks were grouped: we saw e.g. swallows, blackbirds and small finches (goldfinches, siskins, and redpolls). We saw almost twice as many Canada Geese in 2003 as in 2002 and 10 times as many Sandhill Cranes (with 300 seen on 13 November!). Blue Jays were slightly more abundant, and Northern Flickers slightly less abundant in 2003 than in 2002, in contrast to the reduced captures of both species in mist-nets (Table 3). Tundra Swans migrate to the southeast over Cedar Grove, and the reduced numbers probably resulted from the birds passing north or south of us. Purple Martins continue to be rare at Cedar Grove, but most of these move south before we began observations. There were substantial increases in Robins, Cedar Waxwings, and blackbirds. Small finches (apparently mostly Goldfinches, few siskins, and no Redpolls) were more abundant this year than last, but still less common than in many past years. The increase in small finches passing overhead is not reflected in the numbers of siskins and goldfinches netted (Table 3).

Table 4. Numbers of migrants observed

Species	2003	2002
Double-crested Cormorant	2419	2193
Great Blue Heron	27	13
Tundra swan	446	1105
Canada Goose	12515	6490
Sandhill Crane	470	46
Common Nighthawk	598	1008
Chimney Swift	947	897
Red-Headed Woodpecker	4	24
Northern Flicker	974	1078
Blue Jay	1555	1486
Purple Martin	5	45
Swallow sp.	2682	2222
American Robin	4021	1508
Cedar Waxwing	19743	14182
Blackbirds sp.	3277	2287
Small Finches	2267	38

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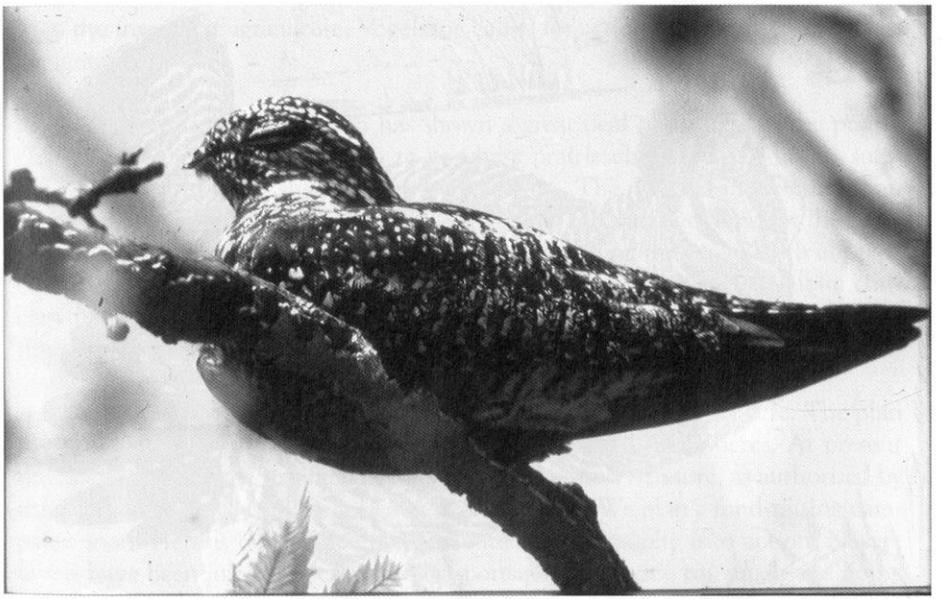
Literature Cited

Mueller, H. C. and D. D. Berger. 1961. Weather and the fall migration of hawks at Cedar Grove, Wisconsin. Wilson Bulletin, 73: 171–192.

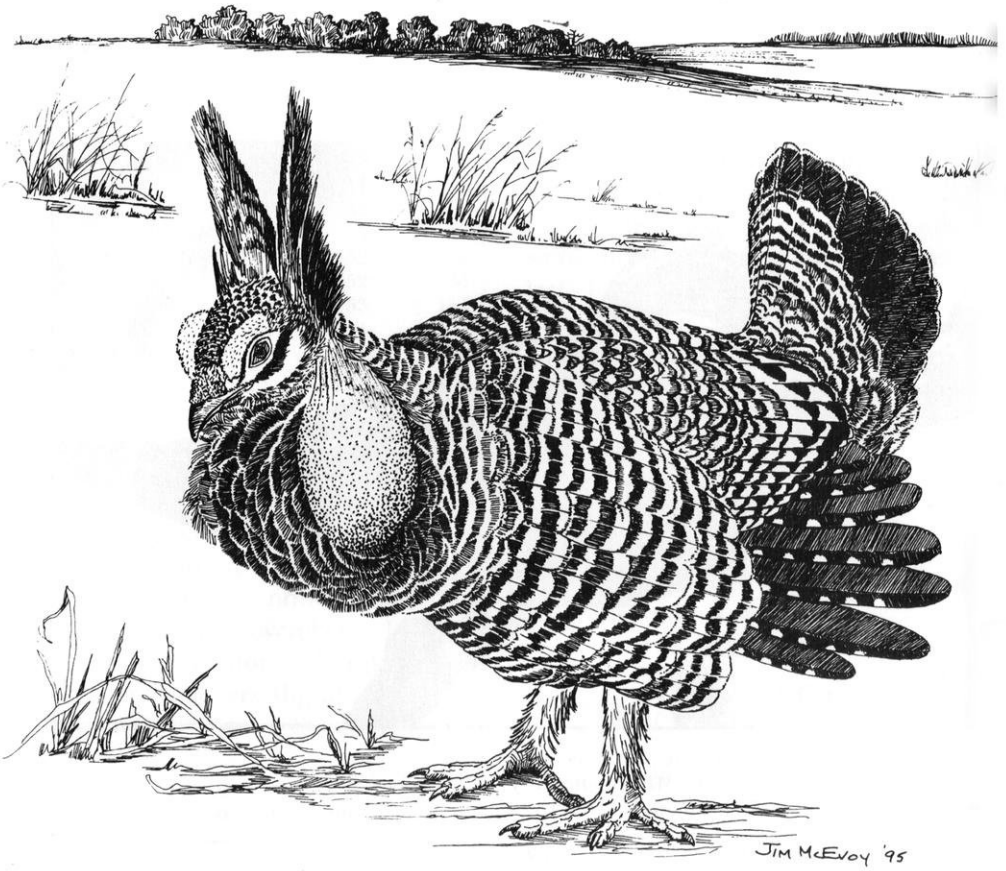
Mueller, H. C., and D. D. Berger. 1967. Fall migration of Sharp-shinned Hawks. Wilson Bulletin 79: 397–415.

Mueller, H. C., N. S. Mueller, D. D. Berger, G. Allez, W. G. Robichaud, and J. L. Kaspar. 1997 The phenology of autumnal hawk migration at Cedar Grove, Wisconsin. Passenger Pigeon 59: 207–218.

The Cedar Grove Ornithological Station is a non-profit organization incorporated under Chapter 131 of the Wisconsin Statutes, and it relies heavily on public donations for continued operation. All personnel are unpaid volunteers.



Whip-poor-will *by Jack Bartholmai*



Greater Prairie-Chicken *by Jim McEvoy (with permission from WDNR)*

50 Years Ago in *The Passenger Pigeon*

The Greater Prairie-Chicken again received attention in this issue as Jerry Vogelsang, Chair of WSO's Conservation Committee, authored "Save the Prairie Chicken!" Quoting Wallace Grange from his book, *Wisconsin Grouse Problems*, who called it a doomed species unless its required grasslands could be protected from the inroads of agriculture, Vogelsang called for action. To quote his last three paragraphs:

"The Conservation Commission has shown a great deal of interest in the prairie chickens, but will take no action to purchase prairie chicken lands unless sufficient public interest is shown. One organization, The Wisconsin Conservation League, has already set the pace with a purchase of forty acres of land for the nesting of prairie chickens; other groups are thinking of doing the same. With our purchase, we will demonstrate to the Conservation Commission further public concern for this problem. The Conservation Commission will inevitably recognize this deep interest by the people of the state and will be prompted to action.

"Land values in the Plainfield marsh areas average about $30.00 an acre. The plan to purchase a tract of land in this area involves forty to eighty acres. At present the Society's funds are insufficient for such a purchase. Therefore, as authorized by the resolution, money will be raised by contributions. We plan a fund-raising campaign soon. Here is our chance to transmute our philosophy into action. Nature lovers have been justifiably criticized by sportsmen for saying too much and doing too little. However, this is our opportunity for concrete action.

"The Plainfield farmers are not waiting. Their plows are biting into the grasslands, now. In the distance we can hear a booming prairie chicken. Stop! Listen! The booming is growing faint, it may soon be gone." (Excerpt from Vol. 16 (2), 1954)

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Grasshopper Sparrow *by Jim McEvoy (with permission from WDNR)*

The Fall Season: 2003

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The fall of 2003 began with the weather being dry and very warm. This produced excellent shorebird habitat in such places as the Big Eau Pleine Flowage in Marathon County, Horicon Marsh, the highway V ponds in Dane County, Rainbow Flowage in Oneida County, and the ponds along Van Patton Road in Outagamie County. There was a good warbler migration from late August until well into October. Rarities were variable in the length of time they stayed. Some, like the Rock Wren in Bayfield County and the Lewis's Woodpecker in Ozaukee County stayed long enough to be identified, then flew off. Others, like the Scissor-tailed Flycatcher in Oconto County, or the Spotted Towhee in Waukesha County, stayed long enough for many to see. As always, a day out birding was almost always an enjoyable experience.

August was dry and very warm. Near normal precipitation was found in the northeast and east central, while the rest of the state was up to 3″ below normal. Ashman reported 7 days above 90 in Dane County, while Hale recorded 25 days above 80 in Jefferson County with lots of sunshine. Berner found 20 species of warblers in Portage County on the 22nd and 19 species on the 27th, Peterson had 18 species on the 28th in Shawano County, and Ashman discovered 18 species in Dane County on the 25th. Tessen located 13 species of shorebirds in Marathon County on August 23.

September continued the warm and dry weather through the 11th. It was much cooler after that date through the end of the month. Frost was reported in the north on the 20th. Ashman recorded 4″ of rain in Dane County from the 12th to the 14th. Berner found 23 species of warblers in Portage County on the 14th and Tessen had 21 species in Douglas County on the 19th.

October began with a hard freeze during the first few days of the month. Up to 5″ of snow fell in Boulder Junction on the 1st with flurries down to the central part of the state. Temperatures returned to the 80s periodically from the 7th through the 21st, with near normal temperatures returning through the end of the month. Tessen found 17 species of warblers in Ozaukee County on the 2nd.

November was a wet month with variable temperatures. Ashman reported 5″ of rain in Madison from the 1st to the 4th with the month ending as the 2nd wettest November on record. One inch of snow fell in Mar-

ion on the 3rd with over a foot of snow in the northwest on the 23rd. A hard freeze occurred on the 8th and 9th with many of the shorebirds that lingered being forced to leave. Temperatures briefly returned to the 60s in most of the state on the 20th before cooling off again. Tessen still found 10 species of shorebirds in Outagamie County on the 6th.

A total of 303 species were reported during the fall season. Rarities were numerous and included: Greater White-fronted Geese in Dane, Rock, and Walworth Counties, Barrow's Goldeneyes in Marathon and Ozaukee Counties, Spruce Grouse in Forest and Vilas Counties, a Pacific Loon in Racine County, Eared Grebes in Dane, Door, Ozaukee, and Portage Counties, a Western Grebe in Kenosha County, Snowy Egrets in Dane, Kenosha, Milwaukee, Racine, Walworth, and Waukesha Counties, Little Blue Herons in Dane, Kenosha, and Milwaukee Counties, Yellow-crowned Night-Herons in Kenosha, La Crosse, Manitowoc, and Portage Counties, a Swainson's Hawk in Ozaukee County, Golden Eagles in Dane, Douglas, Oneida, Ozaukee, and Portage Counties, a Black Rail in Milwaukee County, a King Rail in Ozaukee County, a Whooping Crane in Dodge and Fond du Lac Counties, Piping Plovers in Dodge, Marathon, and Milwaukee Counties, American Avocets in Dodge, Milwaukee, Walworth, and Waukesha Counties, a Whimbrel in Door County, a Red Knot in Outagamie County, Western Sandpipers in Dane and Racine Counties, Buff-breasted Sandpipers in Dane, Dodge, Douglas, Marathon, Milwaukee, Oneida, Portage, Racine, Sheboygan, and Winnebago Counties, Red-necked Phalaropes in Dane, Dodge, Marathon, Portage, and Rock Counties, Pomarine Jaegers in Douglas County, Parasitic Jaegers in Douglas County, a Laughing Gull in Manitowoc County, Mew Gulls in Milwaukee and Racine Counties, Thayer's Gulls in Chippewa, Douglas, Kenosha, Milwaukee, and Racine Counties, Lesser Black-backed Gulls in Dane, Kenosha, Racine, and Sheboygan Counties, a Black-legged Kittiwake in Douglas County, Sabine's Gulls in Columbia, Douglas, Racine, and Sauk Counties, Eurasian Collared-Doves in Columbia County, Long-eared Owls in Dane, Fond du Lac, and Sauk Counties, a Rufous Hummingbird in Outagamie County, a *Selasphorus* sp. hummingbird in Menominee County, a Lewis's Woodpecker in Ozaukee County, Black-backed Woodpeckers in Douglas, Forest, Oneida, and Vilas Counties, a Western Kingbird in Waupaca County, a Scissor-tailed Flycatcher in Oconto County, a Loggerhead Shrike in Portage County, a White-eyed Vireo in Dane County, Bell's Vireos in Dane, and Racine Counties, a Rock Wren in Bayfield County, Carolina Wrens in Dane, Milwaukee, Rock, Sauk, and Waupaca Counties, Townsend's Solitaires in Sauk and Waushara Counties, a Varied Thrush in Winnebago County, a Prairie Warbler in Shawano County, a Kentucky Warbler in Dane County, Hooded Warblers in Dane, Portage, Sauk, and Washington Counties, Summer Tanagers in Milwaukee and Oconto Counties, a Spotted Towhee in Waukesha County, Lark Sparrows in Dane and Sauk Counties, a Lark Bunting in Racine County, and Nelson's Sharp-tailed Sparrows in Dane, Milwaukee, and Racine Counties.

Reports (1 August–30 November 2003)

Greater White-fronted Goose—Reported by Fitzgerald in Walworth County on October 1, by Heikkinen in Dane County on October 19, and by Yoerger in Rock County on October 26.

Snow Goose—First reported by Uttech in Ozaukee County on September 25. Tessen saw 110 in Manitowoc County on November 5. Last reported by Evanson in Dane County on November 28.

Canada Goose—Found throughout the state during the period. Stutz reported 2000 in Dane County on November 7.

Mute Swan—Reported at the beginning of the period in Dane, Milwaukee, Oconto, Racine, and Walworth Counties. Stutz saw 10 in Columbia County on November 8. Found at the end of the period in Dane, Shawano, Washington, and Waukesha Counties.

Trumpeter Swan—Reported at the beginning of the period in Barron and Burnett Counties. Peterson saw 15 in Shawano County on November 26. Found at the end of the period in St. Croix and Shawano Counties.

Tundra Swan—First reported by Cowart in Ozaukee County on October 23. Lesher found over 6000 in Veron County on November 30. Found at the end of the period in Dane, La Crosse, Oconto, and Vernon Counties.

Wood Duck—Found throughout the state at the beginning of the period. Holschbach found 82 in Sauk County on August 13. Last reported on November 25 in Shawano County by Peterson and in Outagamie County at Mosquito Hill Nature Center.

Gadwall—Reported at the beginning of the period in Oneida, St. Croix, and Winnebago Counties. Frank found 118 in Milwaukee County on November 27. Found at the end of the period north to St. Croix and Oconto Counties.

American Wigeon—Reported at the beginning of the period in Douglas and St. Croix Counties. Stutz found 60 in Dane County on November 2. Found at the end of the period in Dane, Milwaukee, Vernon, and Waukesha Counties.

American Black Duck—Found in scattered areas throughout the state at the beginning of the period. The Smiths found 56 in Oconto County on November 30. Reported at the end of the period north to St. Croix and Oconto Counties.

Mallard—Found throughout the state during the period. The Smiths found 897 in Oconto County on November 9.

Blue-winged Teal—Reported at the beginning of the period throughout the state. The Smiths found 150 in Oconto County on August 17. Last reported at Mosquito Hill Nature Center in Outagamie County on November 21.

Northern Shoveler—Reported at the beginning of the period south to Portage and Winnebago Counties. Stutz found 60 in Dane County on November 8. Found at the end of the period in Dane, Manitowoc, and Winnebago Counties.

Northern Pintail—First reported by Ashman in Dane County on August 21. Stutz found 15 in Douglas County on September 26 and the Smiths had 15 in Oconto County on October 19. Last reported by Gustafson in Milwaukee County on November 26.

Green-winged Teal—Reported at the beginning of the period south to Dane County. Belter found over 300 in Marathon County on October 24. Reported at the end of the period in Dane, Waupaca, and Winnebago Counties.

Canvasback—First reported by Tessen in Dodge County on August 24. On November 1, Berner found 150 in Portage County and Stutz had 150 in Milwaukee County. Found at the end of the period north to St. Croix and Shawano Counties.

Redhead—Reported at the beginning of the period in Barron, Dane, Dodge, Fond du Lac, Manitowoc, and Winnebago Counties. Berner had 220 in Portage County on November 1. Found at the end of the period north to Shawano County.

Ring-necked Duck—Found at the beginning of the period south to Portage County. Tessen located 90 in Shawano County on October 25 and Stutz had 90 in Dane County on November 8. Reported at the end of the period in Dane, Vernon, and Winnebago Counties.

Greater Scaup—Reported by Sontag at the beginning of the period in Manitowoc County. Stutz saw 1000 in Ozaukee County on November 1. Found at the end of the period north to Oconto County.

Lesser Scaup—Reported at the beginning of the period in Manitowoc County by Sontag. Berner saw 1100 in Portage County on November 1. Found at the end of the period north to Shawano county.

Surf Scoter—First reported by Tessen in Douglas county on September 18. Fitzgerald found 50 in Racine County on November 23. Last reported on November 30 in Ozaukee County by Frank, Stutz, and Wood.

White-winged Scoter—Very early reports, which were accepted by the Records Committee, were August 2 in Brown County by the Baumanns and August 8 in Oneida County by the Fishers. Fitzgerald found 20 in Racine County on November 23. Last reported by Gustafson in Racine County on November 25.

Black Scoter—First reported on September 27 in Douglas county by Peterson and Tessen. Fitzgerald found 12 in Racine County on November 23. Last reported by Wood in Sheboygan County on November 30.

Long-tailed Duck—First reported by Uttech in Ozaukee County on October 12. Frank found 41 in Ozaukee County on November 30. Found at the end of the period in Manitowoc, Milwaukee, and Ozaukee Counties.

Bufflehead—First reported by Sontag in Manitowoc County on August 25. Frank saw 395 in Milwaukee County on November 9. Found at the end of the period north to Barron and Oconto Counties.

Common Goldeneye—First reported by the Smiths in Oconto County on August 25. The Smiths found 1771 in Oconto County on November 30. Found at the end of the period north to Burnett and Oconto Counties.

Barrow's Goldeneye—Reported by Belter in Marathon County from November 1 to 5 and by Frank in Ozaukee County on November 16. See "By the Wayside."

Hooded Merganser—Found throughout the state at the beginning of the period. Hall saw 280 in Portage County on October 17. Reported at the end of the period north to Marathon and Oconto Counties.

Common Merganser—Reported at the beginning of the period in Douglas and Langlade Counties. Tessen found over 800 in Shawano County on November 26. Reported at the end of the period north to St. Croix and Oconto Counties.

Red-breasted Merganser—First reported by Tessen in Manitowoc County on September 16. Hall saw 94 in Portage County on November 3. Found at the end of the period in Kenosha, Milwaukee, Ozaukee, and Sheboygan Counties.

Ruddy Duck—Reported at the beginning of the period in Dane, Fond du Lac, St. Croix, and Winnebago Counties. Hall via Joe Schaufenbuel reported 518 in Portage County on October 7. Found at the end of the period in Dane, Racine, and Winnebago Counties.

Ring-necked Pheasant—Reported during the period north to Barron, Langlade, and Oconto Counties. The Smiths found 12 in Oconto County on August 24.

Ruffed Grouse—Found during the period south to Richland and Sauk Counties. Berner found 7 in Portage County on September 15.

Spruce Grouse—Reported during the period in Forest and Vilas Counties. Baughman found 9 northeast of Conover in Vilas County on August 1.

Sharp-tailed Grouse—Reported throughout the period in Douglas County by the La Valleys and by Mc Inroy in Burnett County on October 10.

Greater Prairie-Chicken—Reported during the period in Marathon and Portage Counties. Belter found 7 in Marathon County on November 12.

Wild Turkey—Reported during the period north to Burnett and Florence Counties. Berner found 120 in Portage County on November 26.

Northern Bobwhite—Found during the period in Dane, Ozaukee, Racine, Richland, Rock, Sauk, and Walworth Counties.

Red-throated Loon—First reported by Uttech in Ozaukee County on October 31. Gustafson saw 3 in Racine County on November 14. Last reported on November 26 in Kenosha County by Mueller and by Prestby in Racine County.

Pacific Loon—Fitzgerald saw one in Racine County on November 9. See "By the Wayside."

Common Loon—Reported at the beginning of the period south to Barron County. Stutz saw 60 in Dane County on November 16.

Found at the end of the period in Dane, Jefferson, and Shawano Counties.

Pied-billed Grebe—Found at the beginning of the period south to Dane and Ozaukee Counties. Peterson found 228 in Shawano County on October 5. Reported at the end of the period in Dane and Winnebago Counties.

Horned Grebe—Reported by Fitzgerald in Ozaukee County on October 26. Frank found 470 in Ozaukee County on October 23. Last reported by Martin in Dane County on November 29.

Red-necked Grebe—First reported by Ziebell in Winnebago County on August 1. Fitzgerald saw 4 in Douglas County on September 25. Last reported by Martin in Dane County on November 28.

Eared Grebe—First reported by Ashman in Dane County on August 29. Last reported by Hall in Portage County on October 30. Also found in Ozaukee County.

Western Grebe—Zaworski saw one near Carthage College in Kenosha County on November 18 and 19.

American White Pelican—Reported at the beginning of the period in Dodge, Oconto, and Winnebago Counties. Frank saw 645 in Dodge County on August 17. Last reported by Ziebell in Winnebago County on October 11.

Double-crested Cormorant—Found in scattered areas throughout the state at the beginning of the period. Knispel saw 1424 in Winnebago County on September 20. Reported at the end of the period in Manitowoc, Milwaukee, Ozaukee, and Winnebago Counties.

American Bittern—Reported at the beginning of the period in Langlade and Portage Counties. Hall found 4 in Portage County on September 15. Last reported by Heikkinen in Dane County on October 18.

Least Bittern—Reported at the beginning of the period in Dodge, Marathon, and Portage Counties. Last reported by Frank in Dodge County on August 3.

Great Blue Heron—Found throughout the state at the beginning of the period. Belter saw over 60 in Marathon County on August 27. Reported at the end of the period north to St. Croix and Menominee Counties.

Great Egret—Reported at the beginning of the period north to St. Croix and Oconto Counties. Frank saw 84 in Kenosha County on August 7. Last reported by Knispel in Winnebago County on November 26.

Snowy Egret—Reported at the beginning of the period in Milwaukee, Walworth, and Waukesha Counties. Last reported by Fitzgerald in Racine County on August 19.

Little Blue Heron—Reported at the beginning of the period in Dane and Milwaukee Counties. Last reported on August 21 in Dane County by Martin. Also reported from Kenosha County.

Cattle Egret—Reported in Dodge and Fond du Lac Counties on August 2 by Tessen. He found 50 in Dodge County on August 16.

Green Heron—Found at the beginning of the period north to Barron, Langlade, and Oconto Counties. On August 1, Evanson saw 12 in Dane County and Belter had 12 in Marathon County. Last reported by Zehner in Milwaukee County on October 11.

Black-crowned Night-Heron—Reported at the beginning of the period north to Marathon County. Belter found 14 in Marathon County on August 1. Last reported by Sontag in Manitowoc County on October 28.

Yellow-crowned Night-Heron—Reported by Lesher in La Crosse County on August 4 and 18, by Fitzgerald in Kenosha County on August 10, by Joe Schaufenbuel via Hall in Portage County on August 24 and September 3, by Berner in Portage County on August 25 and September 5, and by Sontag in Manitowoc County on September 19.

Turkey Vulture—Found throughout the state at the beginning of the period. Holschbach saw 90 in Sauk County on October 20. Last reported by the Fishers in Oneida County on November 30.

Osprey—Reported at the beginning of the period south to Dane and Ozaukee Counties. Cowart saw 44 in Ozaukee County on September 23. Last reported by Cowart in Ozaukee County on November 8.

Bald Eagle—Reported during the period south to Sauk and Dane Counties. Lesher saw 350 in La Crosse County on November 27.

Northern Harrier—Found throughout the state at the beginning of the period. Cowart

saw 33 in Ozaukee County on October 12. Reported at the end of the period north to Marathon County.

Sharp-shinned Hawk—Reported at the beginning of the period south to Portage County. Cowart saw 291 in Ozaukee County on September 23. Found in scattered areas throughout the state at the end of the period.

Cooper's Hawk—Reported at the beginning of the period north to Oneida County. Frank saw 4 in Ozaukee County on September 24. Found at the end of the period north to St. Croix and Oconto Counties.

Northern Goshawk—First reported by Tessen in Forest County on September 2. Last reported by Berner in Portage County on October 28.

Red-shouldered Hawk—Reported at the beginning of the period in Outagamie, Portage, St. Croix, and Washington Counties. Last reported by Persico in St. Croix County on November 21.

Broad-winged Hawk—Found at the beginning of the period south to Dane County. Cowart saw over 10,000 in Ozaukee County on September 23. Last reported by Cowart in Ozaukee County on October 27.

Swainson's Hawk—One was seen at Concordia University in Ozaukee County on September 23 by Bontly, Cowart, and Seth Cutright. See "By the Wayside."

Red-tailed Hawk—Found throughout the state during the period. Cowart saw 107 in Ozaukee County on November 14.

Rough-legged Hawk—First reported by Bruce in Winnebago County on September 25. Belter saw 4 in Marathon County on November 21. Found at the end of the period south to Portage and Winnebago Counties.

Golden Eagle—First reported by Tessen in Douglas County on September 25. Last reported by the Fishers in Oneida County on November 30.

American Kestrel—Found throughout the state at the beginning of the period. In Douglas County, Tessen saw 8 on September 19 and Stutz had 8 on September 26. Reported at the end of the period north to Barron and Oneida Counties.

Merlin—Reported at the beginning of the period in Douglas, Oneida, and Vilas Counties. Cowart saw 189 in Ozaukee County on October 13. Found at the end of the period in Douglas and Racine Counties.

Peregrine Falcon—Reported at the beginning of the period in Dodge, Douglas, Manitowoc, Milwaukee, Ozaukee, and Racine Counties. Cowart saw 39 in Ozaukee County on September 27. Found at the end of the period in Dane, Douglas, Manitowoc, Milwaukee, and Racine Counties.

Black Rail—Idzikowski found one at the Milwaukee Coast Guard Impoundment on September 13. See "By the Wayside."

King Rail—Wood saw one in Ozaukee County on October 5.

Virginia Rail—Reported at the beginning of the period north to St. Croix and Shawano Counties. Peterson found 5 in Shawano County on August 3. Last reported by Persico in St. Croix County on October 15.

Sora—Reported at the beginning of the period north to Langlade County. Tessen found 10 in Brown County on September 8. Last reported by the Brassers in Sheboygan County on October 11.

Common Moorhen—First reported by Klubertanz in Dodge County on August 28. Last reported by Tessen in Dodge County on October 2.

American Coot—Reported at the beginning of the period north to Barron and Langlade Counties. Belter found over 2500 in Marathon County on October 13. Reported at the end of the period north to Manitowoc and Winnebago Counties.

Sandhill Crane—Found throughout the state at the beginning of the period. Knispel found 845 in Waushara County on September 28. Reported at the end of the period north to Winnebago County.

Whooping Crane—Reported on August 16 in Fond du Lac County by Peterson and Tessen and on September 16 in Dodge County by Tessen.

Black-bellied Plover—Reported at the beginning of the period in Dane, Milwaukee, Outagamie, and Racine Counties. Belter saw 11 in Marathon County on October 5. Last reported

by Peterson in Outagamie County on November 5.

American Golden-Plover—Reported at the beginning of the period in Milwaukee County by Fitzgerald. Hall via Tom Overholt reported 225 in Portage County on October 19. Last reported by Tessen in Outagamie County on November 6.

Semipalmated Plover—Found at the beginning of the period in Dane, Dodge, Marathon, Milwaukee, Ozaukee, and Portage Counties. Fitzgerald saw 30 in Milwaukee County on August 1. Last reported by Fitzgerald in Walworth County on November 4.

Piping Plover—Reported by Belter in August in Marathon County, by Fitzgerald in Milwaukee County on August 20, and by Tessen in Dodge County on September 16.

Killdeer—Found throughout the state at the beginning of the period. Belter found over 275 in Marathon County on August 23. Last reported by Holschbach in Sauk County on November 11.

American Avocet—First reported by Prestby on August 21 in Milwaukee County, where 11 were seen. Last reported by Wood in Milwaukee County on October 25.

Greater Yellowlegs—Found in scattered areas throughout the state at the beginning of the period. Hall found 20 in Portage County on August 11, and Tessen found 20 in Fond du Lac County on September 16. Last reported by Gustafson in Racine County on November 26.

Lesser Yellowlegs—Reported at the beginning of the period in scattered areas throughout the state. Belter found over 270 in Marathon County on August 20. Last reported by Tessen in Outagamie County on November 6.

Solitary Sandpiper—Reported at the beginning of the period north to Marathon and Shawano Counties. Belter saw over 85 in Marathon County on August 20. Last reported by Bontly in Milwaukee County on October 29.

Willet—Reported by Belter in Marathon County in August and by Holschbach in Sauk County on August 25.

Spotted Sandpiper—Found throughout the state at the beginning of the period. Stutz saw 15 in Dane County on August 14. Last reported by Bontly in Milwaukee County on October 29.

Upland Sandpiper—Fitzgerald found one in Racine County on August 3.

Whimbrel—Stover saw one in Door County on August 27.

Ruddy Turnstone—Reported at the beginning of the period in Milwaukee County by Fitzgerald where 6 were present. Last reported by the Brassers in Sheboygan County on September 27.

Red Knot—Tessen found one in Outagamie County on September 13.

Sanderling—Reported at the beginning of the period in Milwaukee County by Fitzgerald. Tessen saw 90 in Manitowoc County on October 2. Last reported by Gustafson in Racine County on November 11.

Semipalmated Sandpiper—Reported at the beginning of the period north to Marathon County. Tessen saw 200 in Brown County on September 13. Last reported by Fitzgerald in Racine County on November 9.

Western Sandpiper—Reported by Martin in Dane County on August 23 and 28, by Tessen in Sheboygan County on August 28, and by Gustafson in Racine County on September 30.

Least Sandpiper—Found at the beginning of the period north to Marathon and Shawano Counties. Belter saw over 250 in Marathon County on August 25. Last reported on November 6 in Langlade County by Schimmels and in Outagamie County by Tessen.

White-rumped Sandpiper—Fitzgerald found 6 in Milwaukee County on August 1. Last reported by Tessen in Outagamie County on November 6.

Baird's Sandpiper—Reported at the beginning of the period in Dane and Milwaukee Counties. Belter saw over 120 in Marathon County on September 6. Last reported by Tessen in Outagamie County on October 7.

Pectoral Sandpiper—Found at the beginning of the period north to Marathon and Shawano Counties. Belter saw over 175 in Marathon County on August 20. Last reported by Uttech in Ozaukee County on November 9.

Dunlin—Reported at the beginning of the period in Milwaukee and Winnebago Counties.

Tessen saw 200 in Outagamie County on November 6. Last reported by Fitzgerald in Racine County on November 28.

Stilt Sandpiper—Found at the beginning of the period in Dane, Dodge, Marathon, Milwaukee, and Ozaukee Counties. Belter saw over 80 in Marathon County on September 6. Last reported by Tessen in Outagamie County on October 7.

Buff-breasted Sandpiper—First reported by Fitzgerald in Racine County on August 3. Tessen found 8 in Dodge County on August 16 and Wood saw 8 in Racine County on August 31. Last reported on September 20 in Oneida County by Reardon and in Douglas County by Johnson and Tessen.

Short-billed Dowitcher—Reported at the beginning of the period in Dane, Dodge, Oneida, and Ozaukee Counties. Frank found 25 in Dodge County on August 3. Last reported by Gustafson in Racine County on September 24.

Long-billed Dowitcher—First reported by Hall in Portage County on August 29. Tessen saw 12 in Outagamie County on October 1. Last reported by Burcar and Martin in Dane County on November 1.

Dowitcher sp.—Reported by Fitzgerald in Walworth County on November 5.

Wilson's Snipe—Round throughout the state at the beginning of the period. Tessen saw 250 in Outagamie County on October 27. Last reported by Yoerger in Rock County on November 28.

American Woodcock—Reported at the beginning of the period south to Washington County. Last reported on November 10 in Langlade County by Schimmels and in St. Croix County by Persico.

Wilson's Phalarope—Reported at the beginning of the period in Dane, Langlade, Marathon, Milwaukee, and Portage Counties. Belter saw 3 in Marathon County on August 20. Last reported by Sontag in Manitowoc County on September 9.

Red-necked Phalarope—First reported by Belter in Marathon County on August 20. Belter saw 6 in the same county on August 25. Last reported by Hall in Portage County on September 8.

Pomarine Jaeger—Reported in Douglas County by Tessen on September 28 and by Prestby on September 30. See "By the Wayside."

Parasitic Jaeger—Found in Douglas County by Tessen on September 19, by Paulios on September 28, and by Prestby on September 30.

Laughing Gull—Sontag reported that a summer bird lingered in Manitowoc County until August 4.

Franklin's Gull—First reported by Fitzgerald in Kenosha County on August 10. Cowart saw 25 in Ozaukee County on October 14. Last reported by Holschbach in Sauk County on November 1.

Bonaparte's Gull—Reported at the beginning of the period in Dane, Marathon, Oconto, Oneida, and Outagamie Counties. Hall saw 225 in Portage County on November 3. Found at the end of the period in Kenosha, La Crosse, Milwaukee, Racine, and Shawano Counties.

Mew Gull—Reported by Fitzgerald in Racine County on November 23, by Gustafson in Milwaukee County on November 26, and by Frank in Milwaukee County on November 29. See "By the Wayside."

Ring-billed Gull—Found throughout the state during the period. Hall saw 1500 in Portage County on November 2.

Herring Gull—Reported throughout the state during the period. The Smiths saw 502 in Oconto County on August 31.

Thayer's Gull—First reported by Tessen in Douglas County on September 28. Fitzgerald saw 3 in Racine County on November 18 and 23. Found at the end of the period in Kenosha, Milwaukee, and Racine Counties.

Lesser Black-backed Gull—First reported by Tessen in Sheboygan County on August 19. Last reported by Martin in Dane County on November 28. Also reported from Kenosha and Racine Counties.

Glaucous Gull—First reported by Berner and Hall in Portage County on October 31. Last reported by Fitzgerald in Racine County on November 28.

Great Black-backed Gull—Reported throughout the period in Manitowoc and Sheboygan Counties. Also reported from Ozaukee County.

Black-legged Kittiwake—Erickson saw one at Superior harbor entry in Douglas County on October 18. See "By the Wayside."

Sabine's Gull—Reported by Holschbach in Columbia and Sauk Counties on September 5, up to 4 birds by several observers in Douglas County from September 26 to 30, and by the Hengevelds in Racine County on November 22. See "By the Wayside."

Caspian Tern—Reported at the beginning of the period north to Door and Oconto Counties. The Smiths saw 86 in Oconto County on August 17. Last reported by Gustafson in Racine County on October 9.

Common Tern—Found at the beginning of the period in Douglas and Oconto Counties. Fitzgerald and Stutz saw 20 in Douglas County on September 27. Last reported by Tessen in Ozaukee County on October 2.

Forster's Tern—Reported at the beginning of the period in Dane, Manitowoc, and Winnebago Counties. Ashman saw 40 in Dane County on September 14. Last reported by Gustafson in Milwaukee County on October 16.

Black Tern—Reported at the beginning of the period north to Oneida County. Belter saw over 40 in Marathon County on August 1. Last reported by Yoerger in Rock County on September 14.

Rock Pigeon—Found throughout the state during the period. Stutz saw 60 in Dane County on October 25 and 60 in Milwaukee County on November 1.

Eurasian Collared-Dove—Up to 3 individuals were reported at Arlington in Columbia County by Prestby on August 1 and by Stutz on August 18. See "By the Wayside."

Mourning Dove—Found throughout the state during the period. Frank found 320 in Ozaukee County on August 14.

Black-billed Cuckoo—Reported at the beginning of the period north to Oneida and Forest Counties. Berner found 4 in Portage County on August 2. Last reported by Gustafson in Racine County on October 9.

Yellow-billed Cuckoo—Reported at the beginning of the period in Portage and Richland Counties. Last reported on October 27 in Ozaukee County by Cowart and S. Cutright.

Eastern Screech-Owl—Reported during the period in Dane, Fond du Lac, Marathon, Ozaukee, Richland, Sauk, Walworth, and Winnebago Counties.

Great Horned Owl—Found throughout the state during the period. The Smiths found 3 in Oconto County on November 19 and Persico found 3 in St. Croix County on November 27.

Barred Owl—Reported during the period south to Richland, Sauk, Dane, and Jefferson Counties. Stutz found 3 in Dane County on August 31.

Long-eared Owl—Reported by Mueller in Fond du Lac County on October 19, by Holschbach in Sauk County on October 29, and by Burcar in Dane County on November 22.

Short-eared Owl—First reported by Johnson in Douglas County on September 24. Last reported by Sontag in Manitowoc County on November 21.

Northern Saw-whet Owl—First reported by Burcar in Portage County on September 25. The Smiths netted 31 in Oconto County on October 15. Last reported by Uttech in Ozaukee County on November 21.

Common Nighthawk—Found throughout the state at the beginning of the period. Berner saw 700 in Portage County on September 6. Last reported by Bruce in Winnebago County on October 10.

Whip-poor-will—Reported at the beginning of the period in Portage, Shawano, and Vilas Counties. Peterson heard 7 in Shawano County on August 13. Last reported by Peterson in Shawano County on September 10.

Chimney Swift—Found throughout the state at the beginning of the period. Duerksen found 200 in Richland County on August 10. Last reported on October 9 in Dane County by Ashman and in Milwaukee County by Zehner.

Ruby-throated Hummingbird—Found throughout the state at the beginning of the period. Belter saw 10 in Marathon County on August 20. Last reported by Uttech in Ozaukee County on October 26.

Rufous Hummingbird—Tessen saw one in his yard at Appleton in Outagamie County on August 28. See "By the Wayside."

Selasphorus sp. hummingbird—Tessen saw one in Menominee County on September 2.

Belted Kingfisher—Found throughout the state at the beginning of the period. Belter found 12 in Marathon County on August 20. Reported at the end of the period north to Oneida County.

Lewis's Woodpecker—Cowart and S. Cutright saw one at Concordia University in Ozaukee County on October 21. See "By the Wayside."

Red-headed Woodpecker—Reported at the beginning of the period north to Burnett and Oconto Counties. The Smiths found 8 in Oconto County on September 7. Last reported by Gustafson in Racine County on October 20.

Red-bellied Woodpecker—Found during the period north to Burnett and Oneida Counties. Evanson found 7 in Dane County on October 16.

Yellow-bellied Sapsucker—Reported at the beginning of the period south to Portage County. Berner found 5 in Portage County on September 30. Last reported by Heikkinen in Dane County on November 30.

Downy Woodpecker—Found throughout the state during the period. Knispel found 12 in Winnebago County on September 20.

Hairy Woodpecker—Reported throughout the state during the period. The Smiths found 6 in Oconto County on November 16.

Black-backed Woodpecker—Reported by Baughman in Vilas County from August 29 to October 22 where 4 individuals were seen north of Conover on August 29, by Stutz in Douglas County on September 28, by Tessen in Oneida County on October 4, and by Reardon in Forest County on October 12.

Northern Flicker—Found throughout the state at the beginning of the period. Frank found 45 in Douglas County on September 18. Reported at the end of the period north to St. Croix and Oconto Counties.

Pileated Woodpecker—Reported during the period south to Richland, Sauk, Dane, and Washington Counties.

Olive-sided Flycatcher—Reported at the beginning of the period in Oneida, St. Croix, and Vilas Counties. Last reported by Berner in Portage County on September 18.

Eastern Wood-Pewee—Found throughout the state at the beginning of the period. Belter found over 20 in Marathon County on August 9. Last reported by Gustafson in Racine County on October 15.

Yellow-bellied Flycatcher—Reported at the beginning of the period in Manitowoc County by Sontag. Berner found 3 in Portage County on August 22. Last reported by Fitzgerald in Walworth County on September 24.

Acadian Flycatcher—Reported at the beginning of the period north to Portage and Wood Counties. Domagalski found 5 in Washington County on August 10. Last reported by Burcar in Dane County on August 30.

Alder Flycatcher—Found at the beginning of the period south to Dane County. Peterson found 14 in Shawano County on August 3. Last reported on September 19 in Douglas County by Johnson and Tessen.

Willow Flycatcher—Reported at the beginning of the period north to St. Croix and Marathon Counties. Evanson found 3 in Dane County on August 1 and Parsons had 3 in Walworth County on August 2. Last reported by Sontag in Manitowoc county on October 1.

Least Flycatcher—Found throughout the state at the beginning of the period. Tessen found 5 in Douglas County on September 19. Last reported by Frank in Milwaukee County on October 4.

Empidonax sp. flycatcher—Gustafson saw one in Racine County on October 9.

Eastern Phoebe—Found throughout the state at the beginning of the period. Berner found 10 in Portage County on September 25. Last reported by Gustafson in Racine County on November 14.

Great Crested Flycatcher—Reported throughout the state at the beginning of the period. Stutz found 5 in Dane County on September 1. Last reported by Kile in Door County on November 7.

Western Kingbird—Sykes saw one near New London in Waupaca County on August 2. See "By the Wayside."

Eastern Kingbird—Found throughout the state at the beginning of the period. Belter found 17 in Marathon County on August 1. Last reported by Uttech in Ozaukee County on September 19.

Scissor-tailed Flycatcher—Erdman found one in Oconto County on October 22. This bird was seen by many observers through November 3. See "By the Wayside."

Loggerhead Shrike—Hall reported that Joe Schaufenbuel saw one in Portage County on August 23.

Northern Shrike—First reported by Schimmels in Langlade County on October 13. Found in scattered areas throughout the state at the end of the period.

White-eyed Vireo—Ashman found one in Dane County on August 18.

Bell's Vireo—Reported by Gustafson in Racine County on August 30 and by Heikkinen in Dane County on September 17.

Yellow-throated Vireo—Found in scattered areas throughout the state at the beginning of the period. Peterson saw 4 in Shawano County on September 8 and 18. Last reported by Cowart in Ozaukee County on October 2.

Blue-headed Vireo—Reported at the beginning of the period south to St. Croix and Shawano Counties. Last reported by Stutz in Dane County on October 18.

Warbling Vireo—Found at the beginning of the period north to Vilas County. The Smiths found 5 in Oconto County on September 7. Last reported by Bruce in Winnebago County on October 10.

Philadelphia Vireo—First reported by Berner in Portage County on August 27. Berner found 5 in Portage County on September 4. Last reported by Frank and Tessen in Ozaukee County on October 2.

Red-eyed Vireo—Found throughout the state at the beginning of the period. Domagalski found 34 in Washington County on August 9. Last reported by Ashman in Dane County on October 12.

Gray Jay—Found during the period in Forest, Iron, Oneida, and Vilas Counties. Peterson saw 5 in Vilas County on October 24.

Blue Jay—Reported throughout the state during the period. Berner found 800 in Portage County on September 21.

American Crow—Found throughout the state during the period. Belter found over 400 in Marathon County on November 21.

Common Raven—Reported throughout the period south to Outagamie and Portage Counties. Tessen found 32 in Douglas County on September 25.

Horned Lark—Found at the beginning of the period north to Barron and Langlade Counties. Stutz found 18 in Dane County on October 26. Reported at the end of the period north to Barron County.

Purple Martin—Reported at the beginning of the period north to Langlade and Oneida Counties. Fitzgerald saw over 250 in Walworth County on August 20. Last reported by Gustafson in Waukesha County on September 16.

Tree Swallow—Found throughout the state at the beginning of the period. Tessen saw over 5000 in Marathon County on August 23. Last reported by Heikkinen in Dane County on October 18.

Northern Rough-winged Swallow—Reported at the beginning of the period north to Oneida County. Evanson found 5 in Dane County on August 8. Last reported by Fitzgerald in Trempealeau County on September 29.

Bank Swallow—Reported at the beginning of the period north to Oneida County. Belter found over 50 in Marathon County on August 1. Last reported by Goff in Barron County on September 11.

Cliff Swallow—Found throughout the state at the beginning of the period. Berner saw 300 in Portage County on August 23 and Belter saw over 300 in Marathon County on August 27. Last reported by Persico in St. Croix County on October 7.

Barn Swallow—Reported throughout the state at the beginning of the period. Belter saw over 500 in Marathon County on September 6. Last reported by Gustafson in Milwaukee County on October 24.

Black-capped Chickadee—Found throughout the state during the period. Stutz found 50 in Dane County on September 21.

Boreal Chickadee—Reported during the period in Forest, Iron, Oneida, and Vilas Counties.

Tufted Titmouse—Found during the period north to Barron County. Cowart found 3 in Ozaukee County on October 21 and Stutz had 3 in Dane County on November 22.

Red-breasted Nuthatch—Reported at the beginning of the period south to Milwaukee County. Berner found 6 in Portage County on September 20 and Belter observed 6 in Marathon County on October 4. Found throughout the state at the end of the period.

White-breasted Nuthatch—Found throughout the state during the period. Berner found 16 in Portage County on November 16.

Brown Creeper—Found at the beginning of the period south to Outagamie County. Belter had 4 in Marathon County on October 14. Reported at the end of the period north to Vilas County.

Rock Wren—Ouren saw one in Bayfield County on October 11. This report was accepted by the Records Committee as the first hypothetical record for Wisconsin. See "By the Wayside."

Carolina Wren—Reported at the beginning of the period in Waupaca County by Fountain and Hewitt. Klubertanz found 3 in Rock County on August 6. Last reported by Bontly in Milwaukee County on November 21. Also reported from Dane and Sauk Counties.

House Wren—Found throughout the state at the beginning of the period. The Smiths found 7 in Oconto County on August 1. Last reported by Ashman in Dane County on October 20.

Winter Wren—Found at the beginning of the period south to Sauk County. Berner found 7 in Portage County on September 30 and Persico had 7 in St. Croix County on October 20. Reported at the end of the period in Dane and Milwaukee Counties.

Sedge Wren—Reported at the beginning of the period south to Sauk, Dane, and Milwaukee Counties. Peterson found 11 in Shawano County on August 13. Last reported by Gustafson in Racine County on October 13.

Marsh Wren—Found at the beginning of the period north to St. Croix and Oconto Counties. Knispel had 18 in Winnebago County on August 2. Last reported by Ziebell in Winnebago County on November 1.

Golden-crowned Kinglet—Reported at the beginning of the period in Douglas, Forest, Oneida, and Vilas Counties. Berner found 35 in Portage County on September 30. Found at the end of the period north to Vilas County.

Ruby-crowned Kinglet—First reported by the Fishers in Oneida County on August 1. Berner found 25 in Portage County on September 30. Last reported by Bontly in Milwaukee County on November 30.

Blue-gray Gnatcatcher—Found at the beginning of the period north to St. Croix, Marathon, and Shawano Counties. Domagalski reported 10 in Washington County on August 10. Last reported on September 23 in Dane County by Evanson and by Bruce in Winnebago County.

Eastern Bluebird—Found throughout the state at the beginning of the period. Berner had 45 in Portage County on September 21. Reported at the end of the period north to Winnebago County.

Townsend's Solitaire—Reported by the Shillinglaws in Waushara County on October 11 and by Holschbach in Sauk County on November 18.

Veery—Reported at the beginning of the period south to Sauk, Dane, and Washington Counties. Peterson found 15 in Shawano County on August 13 and Berner had 15 in Portage County on September 14. Last reported by Frank in Ozaukee County on October 10.

Gray-cheeked Thrush—First reported by Berner in Portage County on August 25. Last reported by Tessen in Forest County on October 4.

Swainson's Thrush—Reported at the beginning of the period in Douglas and Oneida Counties. Berner found 300 in Portage County on September 14. Last reported by O'Connor in Milwaukee County on October 16.

Hermit Thrush—Found at the beginning of the period south to Portage County. Belter found 14 in Marathon County on October 5 and Ashman had 14 in Dane County on October 14. Last reported on November 24 in Dane County by Ashman and in Columbia County by Dischler.

Wood Thrush—Found throughout the state at the beginning of the period. Last reported by Gustafson in Racine County on September 27.

American Robin—Reported throughout the state at the beginning of the period. Stutz found 250 in Dane County on October 25. Found at the end of the period north to Oneida County.

Varied Thrush—Kuecherer saw one in his yard in Winnebago County on November 27.

Gray Catbird—Found throughout the state at the beginning of the period. Knispel found 21 in Winnebago County on September 20. Last reported by Zehner in Milwaukee County on November 8.

Brown Thrasher—Found throughout the state at the beginning of the period. Last reported by Berner in Portage County on October 23.

European Starling—Found throughout the state during the period. Peterson had over 800 in Shawano County on August 4 and Frank observed 800 in Ozaukee County on September 11.

American Pipit—First reported by the Fishers in Oneida County on September 1. Tessen found 40 in Outagamie County on September 12. Last reported by Fitzgerald in Racine County on November 23.

Bohemian Waxwing—Reported in Douglas County on September 28 by Johnson and Tessen and on September 30 by Prestby and in Shawano County on October 16 by Peterson.

Cedar Waxwing—Found throughout the state at the beginning of the period. Stutz saw 500 in Dane County on November 15. Reported at the end of the period north to Oneida County.

Blue-winged Warbler—Reported at the end of the period north to St. Croix County. Last reported on September 15 in Milwaukee County by Bontly, in Portage County by Berner, and in Walworth County by Fitzgerald.

Golden-winged Warbler—Reported at the beginning of the period in Barron, Langlade, Oneida, and Portage Counties. Berner found 5 in Portage County on August 22. Last reported on September 30 in Milwaukee County by Bontly and Zehner.

Brewster's Warbler—Berner found one in Portage County on August 29.

Lawrence's Warbler—Peterson found one in Shawano County on September 10.

Tennessee Warbler—Found at the beginning of the period in Dane, Milwaukee, and Portage Counties. Berner had 175 in Portage County on September 13. Last reported by Domagalski in Washington County on October 23.

Orange-crowned Warbler—First reported by Prestby in Milwaukee County on September 1. Fitzgerald saw 4 in Walworth County on September 15. Last reported by Gustafson in Racine County on November 6.

Nashville Warbler—Reported at the beginning of the period south to Portage County. Peterson found 7 in Shawano County on August 19. Last reported by Frank in Milwaukee County on October 16.

Northern Parula—Found at the beginning of the period in Douglas, Langlade, Oneida, and Vilas Counties. Peterson saw 3 in Shawano County on September 2. Last reported by Bontly in Ozaukee County on October 5.

Yellow Warbler—Found throughout the state at the beginning of the period. Domagalski found 13 in Washington County on August 9. Last reported by Prestby in Milwaukee County on September 30.

Chestnut-sided Warbler—Reported at the beginning of the period south to Sauk and Dane Counties. Peterson saw 17 in Shawano County on August 25. Last reported by Gustafson in Racine County on October 9.

Magnolia Warbler—Found at the beginning of the period south to Milwaukee County. Fitzgerald found 19 in Walworth County on September 1. Last reported by Bontly in Milwaukee County on October 18.

Cape May Warbler—First reported by the Fishers in Oneida County on August 1. Fitzgerald found 32 in Walworth County on September 15. Last reported by Holschbach in Sauk County on October 31.

Black-throated Blue Warbler—Reported at the beginning of the period in Langlade, Oneida, and Shawano Counties. Peterson saw 4 in Shawano County on August 19. Last reported by O'Connor in Milwaukee County on October 12.

Yellow-rumped Warbler—Found at the beginning of the period south to Portage County. Stutz found 250 in Douglas County on September 26. Last reported by Ashman in Dane County on November 26.

Black-throated Green Warbler—Reported at the beginning of the period south to Sauk County. Peterson found 8 in Shawano County on August 19. Last reported by Ashman in Dane County on October 13.

Blackburnian Warbler—Reported at the beginning of the period south to Sauk County. Peterson found 6 in Shawano County on August 19 and 25 and Berner had 6 in Portage County on August 27. Last reported by Tessen in Ozaukee County on October 2.

Pine Warbler—Found at the beginning of the period south to Portage County. Berner found 6 in Portage County on September 25. Last reported by Martin in Dane County on October 4.

Prairie Warbler—Riedinger saw one in Shawano County on September 7.

Palm Warbler—Reported at the beginning of the period south to Portage County. Tessen found 50 in Douglas County on September 19. Last reported by Sontag in Manitowoc County on November 8.

Bay-breasted Warbler—First reported by Berner in Portage County on August 22. Fitzgerald found 45 in Walworth County on September 15. Last reported by Ashman in Dane County on October 25.

Blackpoll Warbler—First reported by Berner in Portage County on August 22. Fitzgerald found 30 in Walworth County on September 15. Last reported by Uttech in Ozaukee County on October 13.

Cerulean Warbler—Reported by Holschbach in Sauk County from the beginning of the period to August 23 and by Berner in Portage County on August 27.

Black-and-white Warbler—Reported at the beginning of the period south to Sauk County. Peterson saw 9 in Shawano County on August 19. Last reported by Goff in Barron County on October 4.

American Redstart—Found at the beginning of the period south to Sauk, Dane, and Washington Counties. Ashman found 60 in Dane County on August 25. Last reported by Bontly in Ozaukee County on October 16.

Prothonotary Warbler—Reported by Hall via Tom Overholt in Portage County on September 15.

Ovenbird—Found throughout the state at the beginning of the period. Peterson had 5 in Shawano County on September 2 and 8. Last reported by the Shillinglaws in Outagamie County on October 26.

Northern Waterthrush—Reported at the beginning of the period in Douglas, Langlade, St. Croix, and Shawano Counties.. Peterson found 6 in Shawano county on August 19. Last reported by Gustafson in Racine County on October 15.

Louisiana Waterthrush—Reported by Holschbach in Sauk County from the beginning of the period to August 23.

Kentucky Warbler—Heikkinen found one in Dane County on August 31.

Connecticut Warbler—First reported by Holschbach in Sauk County on August 23. Last reported at Mosquito Hill Nature Center in Outagamie County on October 10.

Mourning Warbler—Reported at the beginning of the period south to Sauk County. Berner found 7 in Portage County on August 22. Last reported by Frank in Ozaukee County on September 11.

Common Yellowthroat—Found throughout the state at the beginning of the period. Peterson had 38 in Shawano County on August 21. Reported at the end of the period in Dane County by Ashman.

Hooded Warbler—Reported at the beginning of the period in Portage, Sauk, and Washington Counties. Last reported by Ashman in Dane County on September 15.

Wilson's Warbler—First reported by Berner in Portage County on August 22. Fitzgerald had 8 in Walworth County on September 8. Last reported by Burcar in Dane County on September 27.

Canada Warbler—Reported at the beginning of the period south to Sauk County. Peterson saw 3 in Shawano County on August 4, 15, and 28. Last reported by Schimmels in Langlade County on October 2.

Summer Tanager—A male was seen at the Lahuala feeder at Townsend in Oconto County from October 25 to November 15. Wood saw one in Milwaukee County on November 28.

Scarlet Tanager—Reported at the beginning of the period north to Vilas County. Berner found 10 in Portage County on September 14. Last reported by Ashman in Dane County on October 29.

Spotted Towhee—Gustafson found one at Muskego Park in Waukesha County on Novem-

ber 21. This bird was seen by many observers through the end of the period. See "By the Wayside."

Eastern Towhee—Found throughout the state at the beginning of the period. Peterson had 7 in Shawano County on August 3. Last reported by Martin in Dane County on November 21.

American Tree Sparrow—First reported by Tessen in Douglas County on September 25. The Smiths found 111 in Oconto County on November 2. Found at the end of the period north to Oneida County.

Chipping Sparrow—Reported throughout the state at the beginning of the period. Stutz found 50 in Dane County on September 13. Last reported by Zehner in Milwaukee County on November 25.

Clay-colored Sparrow—Found at the beginning of the period south to Ozaukee County. Berner found 15 in Portage County on August 11. Last reported by Goff in Barron County on October 30.

Field Sparrow—Reported at the beginning of the period north to Oneida County. Peterson found 5 in Shawano County on August 3. Last reported by Martin in Dane County on November 19.

Vesper Sparrow—Found at the beginning of the period north to Vilas County. Holschbach found 4 in Sauk County on August 14. Last reported by Gustafson in Waukesha County on November 4.

Lark Sparrow—Up to 8 were found by Holschbach in Sauk County from the beginning of the period to August 13. Also reported by Evanson in Dane County on August 12.

Lark Bunting—One was reported at the Wind Lake Sod Farm in Racine County from August 25 to 28. See "By the Wayside."

Savannah Sparrow—Found throughout the state at the beginning of the period. Hall found over 100 in Portage County on October 5. Last reported by Ashman in Dane County on November 26.

Grasshopper Sparrow—Reported at the beginning of the period in Dane, Portage, St. Croix, Sauk, and Shawano Counties. Peterson heard 3 in Shawano County on August 1. Last reported by Domagalski in Washington County on October 18.

Henslow's Sparrow—Found at the beginning of the period in Columbia, Dodge, Oconto, and Richland Counties. The Smiths had 4 in Oconto County on August 13. Last reported by the Smiths in Oconto County on August 18.

Le Conte's Sparrow—First reported on August 1 in Oneida County by the Fishers and Reardon. Last reported by Domagalski in Washington County on October 19.

Nelson's Sharp-tailed Sparrow—First reported by Stutz in Dane County on September 17. Last reported by Ashman in Dane County on October 13. Also reported from Milwaukee and Racine Counties.

Fox Sparrow—First reported on September 25 in Douglas County by Johnson and Tessen and in Washburn County by Haseleu. Berner found 20 in Portage County on October 28. Reported at the end of the period in Dane and Portage Counties.

Song Sparrow—Found throughout the state at the beginning of the period. Belter found 40 in Marathon County on October 5 and Berner had 40 in Portage County on October 6. Found at the end of the period north to Manitowoc County.

Lincoln's Sparrow—Reported at the beginning of the period south to Portage County. Persico found 12 in St. Croix County on October 7. Last reported by Gustafson in Racine County on November 1.

Swamp Sparrow—Found throughout the state at the beginning of the period. Ashman had 40 in Dane County on September 20. Reported at the end of the period north to Manitowoc County.

White-throated Sparrow—Reported at the beginning of the period south to Portage County. Ashman found 125 in Dane County on October 12. Found at the end of the period north to Barron County.

Harris's Sparrow—First reported on September 20 in Douglas County by Johnson and Tessen. Stutz found 10 in Douglas County on September 26. Last reported by Uttech in Ozaukee County on November 11.

White-crowned Sparrow—First reported by Tessen in Douglas County on September 18. Stutz found 10 in Douglas County on September 26. Found at the end of the period in Kenosha, Manitowoc, and Milwaukee Counties.

Dark-eyed Junco—Reported at the beginning of the period in Langlade, Oneida, and Vilas Counties. Belter had over 270 in Marathon County on October 14. Found at the end of the period north to Barron and Oconto Counties.

Lapland Longspur—First reported by Frank in Douglas county on September 17. Hall found 600 in Portage County on October 6. Reported at the end of the period in Winnebago County by Ziebell.

Snow Bunting—First reported by the Smiths in Oconto County on October 13. The Smiths found 184 in Oconto County on November 9. Reported at the end of the period north to Langlade County.

Northern Cardinal—Reported during the period north to Burnett and Oneida Counties. Stutz found 20 in Dane County on September 21.

Rose-breasted Grosbeak—Found throughout the state at the beginning of the period. Berner had 25 in Portage County on September 4. Last reported by Heikkinen in Dane County on October 11.

Indigo Bunting—Reported throughout the state at the beginning of the period. Peterson found 40 in Shawano County on August 1. Last reported on October 12 in Ozaukee County by Bontly and Uttech.

Dickcissel—Found at the beginning of the period in Dane, Fond du Lac, St. Croix, and Shawano Counties. Last reported by Gustafson in Racine County on September 23.

Bobolink—Reported at the beginning of the period north to Barron, Langlade, and Oconto Counties. Belter found over 75 in Marathon County on August 27. Last reported by Gustafson in Milwaukee County on October 2.

Red-winged Blackbird—Found throughout the state at the beginning of the period. Peterson saw over 20,000 in Shawano County on August 21. Reported at the end of the period in Dane, Green, Rock, and Washington Counties.

Eastern Meadowlark—Found throughout the state at the beginning of the period. The Smiths had 5 in Oconto County on August 1. Last reported on November 1 in Oconto, Outagamie, and Racine Counties.

Western Meadowlark—Reported at the beginning of the period in Dane, Portage, St. Croix, and Sauk Counties. Hall found 18 In Portage County on October 15. Last reported by Hall in Portage County on October 26.

Yellow-headed Blackbird—Found at the beginning of the period in Barron, Dane, Dodge, Portage, St. Croix, and Sauk Counties. Last reported by Tessen in Outagamie County on September 13.

Rusty Blackbird—First reported by Frank in Douglas County on September 18. Tessen found 400 in Outagamie County on October 27. Found at the end of the period in Dane and Waukesha Counties.

Brewer's Blackbird—Found at the beginning of the period south to Portage and Winnebago Counties. Tessen saw 150 in Marathon County on September 20. Last reported by Hall via Tom Overholt in Portage county on November 21.

Common Grackle—Reported throughout the state at the beginning of the period. Stutz found 4000 in Dane County on November 2. Found at the end of the period in Barron, Dane, and Jefferson Counties.

Brown-headed Cowbird—Found throughout the state at the beginning of the period. Parsons reported 345 in Walworth County on October 10. Reported at the end of the period in Washington County by Domagalski.

Orchard Oriole—First reported by Bontly in Ozaukee County on August 4. Last reported by Persico in St. Croix County on September 12 where 9 were reported.

Baltimore Oriole—Found throughout the state at the beginning of the period. Berner had 11 in Portage County on August 23. Last reported by Evanson in Dane County on September 23.

Pine Grosbeak—First reported by Baughman in Vilas County on November 6. Tessen found 5 in Forest County on November 26 and the Fishers had 5 in Oneida County on November 30. Found at the end of the period in Douglas, Langlade, and Vilas Counties.

Purple Finch—Reported at the beginning of the period south to Portage County. The Smiths found 42 in Oconto County on November 2. Found throughout the state at the end of the period.

House Finch—Reported throughout the state during the period. Stutz found 60 in Dane County on September 13.

Red Crossbill—Reported by Reardon in Forest County on October 11.

White-winged Crossbill—Frank saw 9 in Ozaukee County on November 8.

Common Redpoll—First reported by Gustafson in Waukesha County on October 22. Belter found over 90 in Marathon County on November 21. Found in scattered areas throughout the state at the end of the period.

Pine Siskin—First reported on September 26 in Douglas County by Stutz and Tessen. Fitzgerald found over 50 in Racine County on November 21. Found throughout the state at the end of the period.

American Goldfinch—Found throughout the state during the period. Frank had 60 in Milwaukee County on October 19, Berner found 60 in Portage County on November 12, and the Smiths reported 60 in Oconto County on November 16.

Evening Grosbeak—Reported at the beginning of the period in Menominee and Vilas Counties. The Fishers saw 110 in Oneida County on November 29. Found at the end of the period in Douglas, Oneida, and Vilas Counties.

House Sparrow—Found throughout the state during the period. Stutz had 50 in Dane County on October 26.

CONTRIBUTORS

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Yellow-breasted Chat *by Dennis Malueg*

"By the Wayside"—Fall 2003

Documentations of rare and unusual species include Barrow's Goldeneye, Pacific Loon, Swainson's Hawk, Black Rail, Pomarine Jaeger, Mew Gull, Sabine's Gull, Black-legged Kittiwake, Eurasian Collared-Dove, Rufous Hummingbird, Lewis's Woodpecker, Western Kingbird, Scissor-tailed Flycatcher, Rock Wren, Spotted Towhee, and Lark Bunting.

Compiled by Mark S. Peterson

1309 Brookside Parkway
Bartlesville, OK 74006-4604

BARROW'S GOLDENEYE (*Bucephala albeola*)

1 November 2003, Lake Wausau, Marathon County—This bird was an adult male in full alternate breeding plumage. The first thing I noticed when I saw this bird was the pattern of white ladder markings on a solid black back. There was also a white wing patch below, and to the rear, of this ladder pattern. On the face, there was the very noticeable white "crescent-shaped" spot between the eye and the bill. The forehead was more straight up and down as compared to the more sloping forehead of a Common Goldeneye, and the rest of the head was blackish looking. Also seen was the black spur between the white breast and sides of the bird. The bill was all dark, I could see the bright yellowish eye, and the neck was white. The rump was black.

When it wasn't taking a nap, it would dive for food most of the time. There was one point when the bird became aware of a boat passing nearby. Then it was alert and swimming away from the passing boat, but it never flew for the entire time I was there.—*Dan Belter, Weston, WI.*

PACIFIC LOON (*Gavia pacifica*)

9 November 2003, Wind Point, Racine County—As I set up my scope just to the north of Wind Point's lighthouse, I noticed a small loon actively diving about 100 yards offshore. As I looked through binoculars, I immediately noticed that this bird was smaller and darker than a nearby Common Loon. As I watched this bird through

the scope, I noted a rounded head, thin, light beak, and a sharply contrasting straight line that separated the mostly dark neck from the white throat. A very thin "chin strap" was noted when the bird turned its head toward me, but it was difficult to see as the bird was actively diving. The flank on this bird was solidly dark all the way down to the water line, eliminating Arctic Loon. The bird held its beak horizontal to the water line, unlike the upturned way a Red-throated Loon holds its beak. The whole top half of the bird's head was dark, with black descending down to a line in between the eye and the beak. The eye had dark above it, but white below it. The white cheek patch was smaller than a Common Loon's, and its neck was predominantly dark. Its throat, however, was white, with the lone exception being a small dark "chinstrap" that extended down from the base of the cheek patch. At least _ of the neck was dark, with maybe _ white, along the throat. The vertical line that separated the light throat from the dark neck was clear and showed sharp contrast all along the neck. A Common Loon was observed nearby during my observation of the Pacific Loon, allowing for a good comparison.—*Sean Fitzgerald, Burlington, WI.*

Swainson's Hawk (*Buteo swainsoni*)

23 September 2003, Concordia University, Ozaukee County—Seth Cutright and Bill Cowart picked this bird out of a kettle of Board-winged Hawks which had been migrating all day past Concordia. I picked it out of the flock because it was larger than the broadwings. As it went past, almost overhead, but slightly to the west of us, I could see how the back edge of the wings cut up along the tail instead of the more straight-across appearance of the broadwings. The flight feathers were all dark and I could see the dark comma-mark near the base of the outer primaries. The wings were held in a slight, but noticeable dihedral. I could not see all the features of a Swainson's, because as the bird passed us, we had to look into the sun to see it, but I'm confident I picked the Swainson's out of the broadwing kettle. Another feature we noted was separate individual primary wingtips, not seen on the broadwings.—*Marilyn Bontly, Bayside, WI.*

23 September 2003, Concordia University, Ozaukee County—September 23 was a big Broad-winged Hawk day at Concordia. Kettles were constantly in sight—many high and far off, many close and often low. At one point, Seth Cutright called attention to a larger *Buteo* in a closer, fairly low kettle. The first thing I noticed were the very long, pointed wings, and that they were held in a distinct dihedral, even as it circled to stay within the kettle. The kettle was, unfortunately, to the southwest of us and against a very bright sky. However, it was quite low, and this bird was low in the flock. As they banked and turned, the very diagnostic underwing pattern was quite noticeable—the light innerwing lining and the much darker flight feathers.—*Bill Cowart, Glendale, WI.*

Black Rail (*Laterallus jamaicensis*)

13 September 2003, Milwaukee Coast Guard Impoundment, Milwau-

kee County—This morning, while scoping Soras and waders along the edge of the weeds at the Milwaukee Coast Guard Impoundment, a small, very dark rail (short wings, relatively long legs, big feet, and short bill) ran out of the cover. It looked and acted like a big, black peep, and was less than half the size of nearby Hooded Mergansers. It did not walk and pick slowly in a typical chicken-like fashion of Soras with the usual tail flicking, but it ran out of the cover and picked briefly, stopped, then shook itself off and preened for about 10 seconds, as if to dry itself of the water from the wet grass and then quickly ran back into the weeds. As conditions were overcast, I did not initially believe what the sighting was telling me and I assumed that it was a Sora in poor light. As I followed it, it came out of the shadows of the weeds to preen and I noted the short, dark, Sora-like bill with no discernible pattern to the feathering nor contrast at the dark base of the bill. In the best light I could easily discern the dark rufous upper back; as it ran back into the weeds I could clearly see that the undertail coverts were dark. I could not see eye color nor any feather detail on the back.—*John Idzikowski, Milwaukee, WI.*

Pomarine Jaeger (*Stercorarius pomarinus*)

28 September 2003, Wisconsin Point, Douglas County—A light phase Pomarine Jaeger had been spotted about 15-30 minutes earlier. After I waited for some time, all the gulls took off from the harbor breakwall. Almost immediately the light phase Pomarine was found harassing the gulls. It worked out into the lake and back several times. The bulky body, large wing base, dark upper body, dark cap, dark breast band, twisted tail streamers, upper white outer primaries (3-5), and double wider primary white patch were seen.— *Daryl Tessen, Appleton, WI.*

Mew Gull (*Larus canus*)

23 November 2003, Meyer's Park, Racine County—As I pulled up at Meyer's Park there were at least 300 gulls bathing and roosting on the flat. I scanned the gulls for about 30 minutes and came up with at least 3 Thayer's Gulls. All the while gulls had been streaming in to roost. At about 4:00 PM I observed an adult Mew Gull fly in and roost among the Ring-billed Gulls. This bird appeared similar to other adult Ring-billeds, the difference being it had a short, dainty yellow beak, and was slightly smaller than adjacent ring-bills. It also had a small head, slightly darker mantle, dark eye, and had very large white tertial crescents. The bird's long wings made it appear almost tern-like when it was perched. The back of the bird's head and neck had a large amount of brown on it and it had yellow legs. In flight the bird displayed a very large white spot on the outer primaries, the rest of its wingtips had only a small amount of black on them, compared to the ring-bills. Shortly after this, it was too dark to watch anymore, but the total flock numbered over 600 birds.—*Sean Fitzgerald, Burlington, WI.*

26 November 2003, South Metro Pier, South Milwaukee, Milwaukee

County—After searching unsuccessfully for Mew Gull reported earlier in Racine, I stopped at South Metro Pier. After scoping the gull flock resting on the beach several times, I noticed one gull toward the back of the group with a darker mantle and broad white tertials. The mantle was a little darker than the adjacent Ring-billed Gulls and this gull was slightly smaller. The wide white tertials stood out also, but it was sleeping, so the face and bill were hidden at first. The head was fairly heavily streaked with dark and the crown was noticeably higher, almost slightly peaked, compared to the flatter heads of Ring-billed Gulls. Several times it raised its head and moved several steps, showing a thinner, shorter pale yellow bill than the ring-bills, with no markings detected. The eye was distinctly dark, compared to the yellow of the adult ring-bills. It never opened its wings, so that aspect was not observed. To me, the legs on Mew Gulls also seem slightly thinner than ring-bill legs, as this one showed. The leg color was not pink like the nearby Herring or Bonaparte's Gulls, but was a washed-out greenish-yellow color, with a hint of some other color, depending on angle. Overall, they were very nondescript, almost grayish.—*Dennis Gustafson, Muskego, WI.*

Sabine's Gull (*Xema sabini*)

5 September 2003, Wisconsin River at Prairie du Sac, Sauk County—After hearing the bird call I quickly located it in a group of about 40 Ring-billed Gulls that were flying below the dam. By the shape and flight I could see that this was a gull-like bird, which was quite a bit smaller than a Ring-billed Gull, and had a very boldly marked plumage. The pattern and color of the wing pattern are what stood out most. The back of the gull was light brown, and this color extended onto the front of the wings. The tips of the wings and the front edge of the outer half of the wings were black. This left a white triangle that was very noticeable on the back of each wing. The undersides of the wings were light and the belly was white. The head of the bird looked to be the same brown color as the back. The tail was white with a black trailing edge, and it had a square look to the back of the tail. The bill was dark, and the feet were not seen. As I watched the bird, I noticed that the flight was very jerky, more like a tern than a gull. After seeing all this, I knew it was an immature Sabine's Gull.—*Aaron Holschbach, Baraboo, WI.*

26 September 2003, Wisconsin Point, Douglas County—It was relatively early in the morning of Thursday, September 26 at Wisconsin Point. The participants in the pre-trip WSO field trip were lined up on the beach scoping for anything that might pass by. As I was scanning the lake I saw a distant gull flying with a group of terns. The flight style of the gull was similar, but slightly different from that of the terns and this was what I picked up on initially. I followed the gull with my scope for a long time. It was about a mile out when I first saw it and it was slowly flying toward shore. As the bird came in closer it finally banked and headed to the east toward a large gull flock. Once the bird banked I could clearly see its grayish-brown mantle and the black leading edge of its wing. Most distinctive were the white trian-

gles clearly visible at the trailing edge of each wing. After processing all these field marks I finally yelled out, "Sabine's Gull" and tried to help others see the bird. Throughout the WSO trip weekend Sabine's Gulls were seen. All appeared to be juveniles and the maximum number of birds I saw at once was two.—*Aaron Stutz, Madison, WI.*

22 November 2003, Wind Point, Racine County—Winds were out of the ENE at about 30 mph. Most of the Ring-billed and Herring Gulls were sitting tight on land, occasionally flying north or south very close to the shoreline. At about 7:45 AM we picked up a tern-like bird moving south to north several hundred meters out. We followed it for just a couple of seconds; it was immediately obvious that this was a Sabine's Gull. It had a clean-cut black triangle on the wingtips consisting of black outer primary coverts, a white wedge made up of the inner primaries and secondaries, and a very dark back and inner wings. The rump was white as was the tail, except for a black terminal band, indicating that it was a juvenile. The darkness on the mantle continued up the back of the neck and onto the crown. The underparts appeared to be all white. We did not pick up any underwing pattern.

The flight of this bird was rather tern-like and erratic, with dramatic shifts from side to side, as well as sudden downward dips. The wind certainly had an effect on its flight, but the style was very reminiscent of a juvenile Sabine's Gull that was on Lake Lemon in Indiana from October 1–10, 2003.— *Jim and Susan Hengeveld.*

Black-legged Kittiwake (*Rissa tridactyla*)

18 October 2003, Superior Entry, Douglas County—On Friday, October 3, 2003, about 11 AM, I was at the Superior Entry at the end of Wisconsin Point with a group of a dozen sixth graders from Superior, teaching them about wetlands and the birds that use them. Kids were practicing using my spotting scope to look at cormorants sitting near the lighthouse and I was both talking to the kids about cormorants and sneaking looks through my binoculars to scan the gulls on the breakwater at the opposite side of the shipping lane in hopes of spotting a Sabine's Gull which had been reported a few days earlier. One gull on the rocky part of the breakwater caught my eye. It was standing with Ring-billed Gulls and seemed about ring-billed size, but the shape of the head was different, reminding me more of a Bonaparte's Gull. Also, the bill seemed strangely delicate for a ring-bill. The bird also seemed more squat, with shorter legs than the ring-bills, though because they were all on irregular rocks, I wasn't at all certain about this. I was far enough away to be concerned that my imagination might be getting the best of me, since I was just using binoculars, so while keeping my eyes steadily on the bird so I wouldn't lose it, I walked toward the kids to "borrow" my spotting scope for a minute. Before I reached them, suddenly an immature Bald Eagle flying in from the lake flushed the whole group of several hundred gulls, some of which flew out across to the Wisconsin side and headed farther out in the lake, and the rest of which flew down the shipping lane toward the

harbor area. As the eagle crossed the entry and worked its way toward the interior of Wisconsin Point, a host of gulls swirled across the shipping lane toward the Wisconsin side and headed back toward the lake, many passing at close range from me. Fortunately, I had managed to keep my eyes on the gull I was interested in, and as it took off, I could clearly see that it was a different species from the ring-bills. I don't pay as much attention to gulls as I should, but in this case I noticed that its wing strokes seemed different, though I'm not sure how I'd describe this except that the bird somehow seemed more buoyant. But it was the wingtips that took my breath away. They were clean and black—I could detect no little white spots at all, and the black area was smaller and restricted to the very tip, unlike the larger wingtips on the ring-bills. And in a stroke of luck, that individual and three or four Ring-billed Gulls came wonderfully close, passing right along our side of the breakwater, I'd estimate less than 10 feet right above the light poles we were standing by. Even at this close range, in good light, sun shining with some cloud cover at the time, I could detect no white on those clean, black, small wingtips. I also got a good look at close range at the delicate, solid yellow beak, noticeably smaller than the bills of the nearby Ring-billed Gulls. The back was a pretty, uniform gray that extended on the wings to the bend. The primaries were a contrasting whitish to the black tips. From beneath, the primaries were very clean and white, again with that cleanly-marked small black tip, noticeably different from any Herring or Ring-billed Gull I've ever seen. The moment I saw it, I instantly remembered the words, "as if it were dipped in ink" from a description of kittiwakes I'd once read. The tail was also white. There was a clean vertical gray smudge in the auricular area. I did not notice the color of the legs or feet—while it was perched, it was too far away to see, and when it was flying right over my head, I didn't think to pay attention to the feet. I also didn't think to take note of the eye color.

The Ring-billed Gulls returned to the far side of the shipping lane while the gull I was following stayed on the Wisconsin side of the entry as it headed back out onto the lake, where a great many gulls were still milling about. I lost it in the general confusion of distant birds right when the group of kids I was with had to switch to their next study station, and I had a few minutes to review in my mind and mentally record the field marks.—*Laura Erickson, Duluth, MN.*

Eurasian Collared-Dove (*Streptopelia decaocto*)

18 August 2003, Arlington, Columbia County—After hearing how easy these birds were to find, I figured I would try to find them on my way home from La Crosse. I spent several minutes walking around this small park before I finally found the birds by some spruce trees. The birds perched atop a streetlight and I was able to study them from the comfort of my car. These 3 large doves were chunkier than a Mourning Dove, but slimmer than a Rock Pigeon. They had square tails and on one bird I was able to see the dark outer web at the base of the undertail that Sibley highlights. The birds were a pale gray over-

all with the black collar marking on the back of the neck. In flight the birds had conspicuously dark wingtips and white tips at the end of the tail. The birds had red eyes and a small black bill.—*Aaron Stutz, Madison, WI.*

Rufous Hummingbird (*Selasphorus rufus*)

28 August 2003, Appleton, Outagamie County—While sitting in a chair in my living room watching the birds out the window, I was shocked to see a hummingbird fly into view, then land in a crabapple tree out of view. It was registering in my mind that this was a rufous-colored hummer. As I lunged for the window, the hummer reappeared briefly, hovering in front of the window, before flying over the house and away. In this short time, the rufous back, tail, and head were noted, plus the reddish gorget—a male Rufous Hummingbird.—*Daryl Tessen, Appleton, WI.*

Lewis Woodpecker (*Melanerpes lewis*)

21 October 2003, Concordia University, Ozaukee County—It was a bigger woodpecker—longer than a Hairy Woodpecker. It had a dark, shiny back and wings. The dark, shiny area had kind of a shiny purple/greenish color to it. It had a smaller head to it or the head looked smaller. It had a very forked and pointed tail. From a side and kind of back angle, we could see a little bit of white in the neck and shoulder area. From a side angle we could see more white going into the front of the bird. The breast had a nice pink to it, a darker pink, but yet kind of bright. It was bright against the dark shiny wings and back color. I could not really see the red in its face, it just looked darker. The wings in flight were bigger for its size—between a crow and jay size and shape, but in a woodpecker flight.

It sat on a tree for a few minutes, then flew down to another tree, lower down along the bluff. Then it flew out to try and catch something to eat and landed again in a new tree. Then it moved to another tree. Then it flew north along the side of the bluff and away.— *Seth Cutright, West Bend, WI.*

21 October 2003, Concordia University, Ozaukee County—On the afternoon of November 21, 2003, at about 1:45 PM, four of us birdwatchers were at the gazebo, the main watch site, at Concordia University in Ozaukee County. I was about to leave when I noticed the back of a dark bird perched vertically in a mostly dead snag in the open about 200 feet to the north of us, along the lake bluff. It was black, but smaller than a crow. When I put my binoculars on it, the sight of spiny, woodpecker-like central tail feathers pressed against the snag below the bird elicited, well, extreme agitation. As the bird moved slightly, a bright iridescent green color shown on its back. Being sure of its identification, I knew we needed to see more than this and the slightly pale area on the nape. As we moved cautiously toward it, it finally turned its head so that we could see the red face, this color extending behind the eye. Also, the color of the nape extended down around the neck to the throat, and onto the breast. These anterior areas were whiter than the nape, but not the bright white depicted in standard

field guides. After a minute or so, and with us being a little over 100 feet away, the bird suddenly flew straight east toward the lake, caught something about 50 feet out, and returned to a small snag about 15 feet down the bluff from the original perch, and still in clear view. At this point, as it banged its catch against a branch and ate it, we were able to see the beautiful rose-red belly, again, not quite as bright as in most field guides. Although the reds and whites were not quite as vivid as depicted in most field guides, no juvenal-type plumage was noticed on the bird. I'm assuming this is just seasonal or individual variation.—*Bill Cowart, Glendale, WI.*

Western Kingbird (*Tyrannus verticalis*)

2 August 2003, Near New London, Waupaca County—While driving west on County Trunk X, I saw a bird in flight approach from my left. It flew over the road approximately 20 feet in front of and above my vehicle. My initial reaction was "Western Kingbird"—I had just spent the better part of July traveling in the western United States. Within a few moments the significance of what I was observing and where I was kicked in. The bird had a strong yellow belly contrasted with a long black tail and as it flew over it flared its tail, displaying white outer tail feathers. The bird lacked any wingbars and had a yellowish cast to its underwings. I immediately stopped the car, exited, and observed the bird as it flew away, examining once more its black tail with a hint of white along the entire length of its outer tail feathers and a pale, olive-brown back.—*Tom Sykes, Appleton, WI.*

Scissor-tailed Flycatcher (*Tyrannus forficatus*)

25 October-3 November 2003, Oconto County—It was a large flycatcher, grayish/white in general color, with a very long tail, and salmon color on its sides and flanks. The bird had a white head and breast to the lower belly. The eye was dark and the bill a dark gray. The wings were gray with slightly darker primaries. The long tail was gray with some white, with the trailing tip a dark brown or black. Salmon color was on the sides and flanks, as well as some at the bend of the wing. It was a very nice adult male bird. The bird was observed a number of times actively flycatching and then returning to a variety of favorite perches, which were either wires, trees, or shrubs. It also sat on fence wires.—*Jerry and Karen Smith, Lena, WI.*

25 October 2003, Oconto County—When I arrived, the bird was first seen perched on utility wires. It had a pearl-gray head and breast, grayish-black primaries, secondaries, and inner retrices. There were white outer retrices. When in flight, the bird "opened and closed" the tail, in a scissors-like motion. The bill was dark. The underside of the wings and flanks were rusty-pink, with the edge of this area a red, noticeable under the bend of the wing when the bird was perched.—*William P. Mueller, Milwaukee, WI.*

2 November 2003, Oconto County—This was my second trip to

this location after the bird was reported on the WSO hotline. As I drove slowly on Oak Orchard Road I spotted the bird flying from the west and landing on a shrub in the field at this intersection. For the next twenty minutes it foraged in the field.

It had a gray head, white throat and breast, a gray back, and brown wings. There was a very bright red patch at the bend of the folded wing in the shoulder area. I judged the very long tail to be about as long as the body. It was black, edged in white. A pinkish-brown coloration was evident on the flanks. When the bird approached a perch, its retrices were spread in a wide "V," making for a spectacular landing. At this time, the red was also noted in the axillary region.—*Thomas C. Wood, Menomonee Falls, WI.*

Rock Wren (*Salpinctes obsoletus*)

11 October 2003, Oulu Township, Bayfield County—There is a grove of trees around the farmstead, but surrounding them is a large area of horse pasture and hay fields, 100 acres or so. In the aspen, spruce, balsam woods, which are around these fields, are a number of deep, rocky, dry washes.

I spotted the bird when it flew up from a gravel driveway and moved to a fence post. It was about Song Sparrow size and dull colored, but something said, "Take a closer look." Perched on the post, it seemed at first glance to be a wren, but too dull colored. Its actions were perky, but not the pronounced up tail of most wrens. The beak was long and slightly down-curved. The eyebrow was quite faint, unlike that of the similar-sized Bewick's or Carolina Wren. At this point, the bird flew down to the gravel road farther away. Not knowing any wrens this big and so dull-colored, I opened my new Peterson 5th edition, and to my surprise, saw that the Rock Wren filled the bill. I then moved closer and it flew to the side of a wooden power pole. Here I started to see some buffy color on the flanks and tip of the tail. There was black barring on the underside of the tail, the most prominent of which was about ⅜ from the end. The bird then flew back to the driveway and adjacent stone and cement cap of the septic tank. Here I got a much better look and reconfirmed the curved wren beak and pale eyebrow stripe. I also was now close enough to see faint streaking on its breast, which was white, as was the belly. The mantle was lightly spotted white on a grey-brown background. Here, too, the buffy tail tip was easier to notice. As it flew from the power pole to the driveway, its buffy flanks were very obvious.—*Richard Ouren, Muscoda, WI.*

Spotted Towhee (*Pipilo maculatus*)

21–30 November 2003, Muskego Park, Waukesha County—After locating the source of a strange call, I caught a glimpse of a cardinal-sized bird hopping in the underbrush. I first noticed a fairly long black tail with white at the corners, then the rufous flanks, white belly, and dark blackish head and back were seen. I thought I had the resident Eastern Towhee again, which was still present at that spot a month earlier. Just before it disappeared, I noticed many white spots on the back and upper wing. After searching for almost another half hour, I finally got a good

look at the towhee perched. The previous field marks were again noted with an all black hood and white spots on the scapulars, coverts, and black on the entire primaries. The next day, the red eye was seen and the black finch-type bill, along with all the previous marks already mentioned.—*Dennis Gustafson, Muskego, WI.*

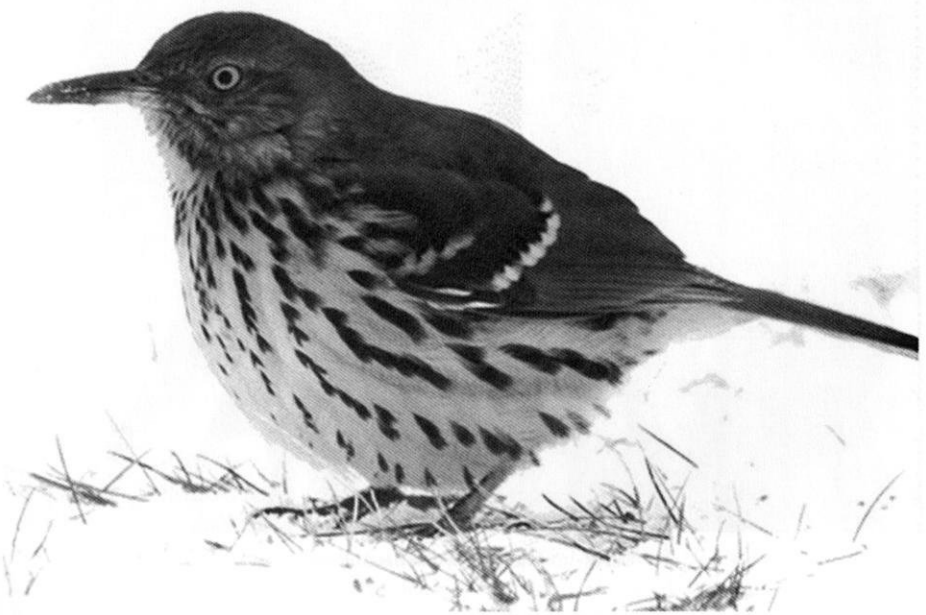
22 November 2003, Muskego Park, Waukesha County—I was the last of six birders to arrive the morning after Dennis Gustafson had found the Spotted Towhee the previous day. We spent an hour searching, but found nothing. A a last attempt, we decided to walk along the creek. Almost immediately, Mark Peterson pished it out. We watched the male Spotted Towhee for over five minutes before it became more elusive. It was a male, with black head, back, wings, and tail, rufous sides, and a white breast. The white spots on the back and scapulars were distinct.—*Daryl Tessen, Appleton, WI.*

Lark Bunting
(*Calamospiza melanocorys*)

25 August 2003, Wind Lake Sod Farms, Racine County—While observing several Horned Larks and a Song Sparrow feeding, I suddenly noticed a chunky finch-like bird feeding in the same area. The bird was similar in size to several cowbirds which landed near it and had a typical thick, conical finch bill, gray in color. It was gray-brown in color on top and whiter underneath. The head had a light-colored eye line, with a hint of an eyering. The throat was white with distinct black stripes at the sides, vertical with 1 per side. There were distinct dark stripes down the breast and flanks. Most obvious was a small whitish streak on each wing, near where a lower wing bar would be. Later, when the bird flew, the white was seen to be more extensive than it appeared when the bird was perched. The legs were dark, lower belly white, and eye dark. The tail was short. I did not think to look at the tail during the brief moment I saw it fly, so I was unable to determine if it had the white tips on the tail. I concentrated on the white wing patches in flight.—*Dennis Gustafson, Muskego, WI.*

26 November 2003, Wind Lake Sod Farms, Racine County—I searched for the bird all along Burmeister Road where it was originally found. After an hour and a half of searching, I found the Lark Bunting approximately ¼ mile west of where it was first seen. I saw the bird in the company of a House Finch just east of a white house. They both flushed from the side of a weedy access road for the sod farm vehicles. They landed in a small shrub by the access road and then flew farther behind the house where I couldn't see them. Several things immediately struck me about this bird when I saw it in my binoculars. The bird was noticeably larger than the adjacent House Finch, and was much stockier, with a very heavy grayish beak. The breast of the bird had numerous dark streaks that covered the breast and extended along its flanks. Its head had a light line around its auriculars. Its wing had white coverts and brown primaries. As the House Finch picked for seeds in the dirt, the bunting scratched for seeds beside it. A car then drove past and they both flushed up into a small shrub. This

bird displayed the prominent white coverts and white at the tip of its outer tail feathers while in flight. It also had much broader and rounded wings than the House Finch. While the bird was in the shrub I was able to see its undertail, which was black, but had a small white area toward the bottom. After I returned home I realized I hadn't noted its leg color, but my recollection is that it was a dark color.—*Sean Fitzgerald, Burlington, WI.*



Brown Thrasher *by Virgil Diodato* in his backyard

Cerulean Warbler *by Dennis Malueg*

WSO Records Committee Report: Fall 2003

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The WSO Records Committee reviewed 51 records of 25 species for the fall 2003 season, accepting 43 of the reports. An additional 6 records from past seasons were also considered with three of those being accepted.

Of particular note are Wisconsin's long overdue first hypothetical Rock Wren record, the second state Lewis's Woodpecker record, and the first fall record of a Black Rail for the state. In addition, a record from 2002 added a second Green Violet-ear (hummingbird) to Wisconsin's tally.

Accepted

Pacific Loon—

#2003-034 Racine Co., 9 November 2003, Fitzgerald.

This winter plumaged bird was noticeably smaller than a nearby Common Loon, with a shorter, more slender, but straight bill. Instead of exhibiting a small knob-like prominence on the forehead as a Common Loon or Arctic Loon does, the forehead on this bird was smooth in profile. The dark gray of the hindneck was cleanly demarcated from the white of the foreneck in a straight line, in contrast to the irregular, sometimes diffuse border on the side of the neck of a Common Loon. The overall dark color of the back, hindneck, and top of the head was darker than the dark dorsal coloration of a Common Loon. The gray of the top of the head extended down to encompass the eye. The eye of a Common Loon would have white appearing just above the eye and just in front of the eye, making it much easier to see against a white background than on the dark gray background of a Pacific Loon's periocular area. With patience, the observer was able to see the bird well enough to note a gray "chin-strap". No white was observed above the water line along the flank as would appear on an Arctic Loon.

(For further field identification discussion, see *Birding*, Volume 29, No. 2)

Barrow's Goldeneye—

#2003-036 Marathon Co., 1 November 2003, Belter.

#2003-037 Ozaukee Co., 16 November 2003, Frank.

The first characteristic noted on

these individuals was the extensive black on the back. It extended lower down the flank of the bird, particularly at the shoulder, than the black on the back of the Common Goldeneye. This black encompassed some white spots on the side of the bird, in contrast to the white sides encompassing some black spots on a Common. With closer scrutiny, the steeper rise to the forehead and crescent-shaped rather than round white facial patch were evident.

The Ozaukee Co. bird is the tenth consecutive late fall/winter report of this species off Doctor's Park in northern Milwaukee Co., or 1.5 to 2 miles north off Virmond Park in southern Ozaukee Co. The Marathon Co. sighting is Wisconsin's earliest fall record for a Barrow's Goldeneye by three days.

White-winged Scoter—

#2003-038 Brown Co., 2 August 2003, Baumann, Baumann.

#2003-039 Oneida Co., 8 August 2003, Fisher.

These large, dark ducks had sloping foreheads, orange on the side and tip of the beaks, and white speculums in the wings. They also had a white spot behind the eye with another between the eye and bill.

These are the earliest "fall" records for Wisconsin. The earliest of the four previous August dates was the 9th.

Swainson's Hawk—

#2003-040 Ozaukee Co., 23 September 2003, Cowart, Bontly.

This buteo, seen associated with a Broad-winged Hawk kettle, was larger and longer winged than the Broad-wings. The wings were held in a noticeable dihedral as it circled. The underwings exhibited white inner wing linings contrasting with darker primaries and secondaries. Dark marks were discernible at the carpal area. The tips of the wings weren't as rounded as Red-tails or Broad-wings and the outer primary tips separated from each other suggesting more of a finger-like appearance.

Black Rail—

#2003-041 Milwaukee Co., 13 September 2003, Idzikowski.

A small black, relatively longer legged bird ran out onto the mudflat at the Milwaukee Coast Guard Impoundment. It was felt to be "peep" shorebird sized. The initial impression that it was a Sora changed as the smaller size, the short, black, Sora-shaped bill, dark undertail coverts, and rufous upper back were noted.

This observation follows on the heels of a report in May, 2002 at the same location.

Western Sandpiper—

#2003-042 Dane Co., 28 August 2003, C. Martin.

#2003-044 Racine Co., 30 September 2003, Gustafson.

The Dane County bird was seen with Least, Baird's, and Semipalmated Sandpipers for comparison. It was smaller than the Baird's, larger than the Least and had black legs. The wingtips did not extend beyond the tail as they would in White-rumped or Baird's Sandpipers. It contrasted with the "semis" in the bright rufous edgings to the scapulars, contrasting significantly with the grayish wings. The face and breast were white and unstreaked, in contrast to the smudgy streaking of the "semis." In addition, it

had a slightly longer, black bill with a slight narrowing droop to the very tip.

The bill length alone should not be used as indicative of a Western Sandpiper. The range of lengths to the bills of Semipalmated Sandpipers does significantly overlap that of the Western, depending on the geographic origin of the bird. Juvenile "semis" can even have a hint of rufous to the scapulars.

Parasitic Jaeger—

#2003-046 Douglas Co., 28 September 2003, Paulios.

This light phase jaeger was described as flying falcon-like just above the waves. The belly and flanks were very cleanly white with no dark markings on the flanks. There was a well-defined dark breast band. White patches were noted on the primaries from above and below. No tail projections were discernible.

Pomarine Jaeger—

#2003-048 Douglas Co., 28 September 2003 Tessen.

A light phase jaeger was seen harassing the gulls taking flight from the breakwall. The bulky body, wide wing base, dark upper body, cap, and breast band were reported. The out 3-5 primaries appeared to have white on the dorsal surface. The twisted central tail feathers were seen extending from the rest of the tail edge.

Mew Gull—

#2003-049 Racine Co., 23 November 2003, Fitzgerald.

#2003-049 Milwaukee Co., 26 November 2003, Gustafson, 29 November 2003, Frank.

This bird was observed in direct comparison to Ring-billed Gulls, standing at a distance of 50 yards or so. This individual stood a bit shorter than the Ring-billed Gulls. The head and neck were whitish, but streaked with brown. The head, although smaller than that of the Ring-bills, was higher and more rounded than the flatter Ring-billed heads. The eyes were dark in color rather than yellow. Also strikingly different was the shorter length and width of the unmarked yellow bill. The lower bill of the Ring-bills exhibited a slight gonydeal angle, while the lower bill of the Mew Gull was straight. At the tip, the Mew Gull bill narrowed to a point because of the narrow overall width. In contrast, the tip of the Ring-billed beak curved more quickly, appearing thus to have a blunter contour. The gray mantle was slightly darker than that of the Ring-bills and a broader white tertial crescent was evident. Finally, the legs of the Mew Gull were greenish-yellow rather than the yellow color of the Ring-billed legs. The Racine bird was seen in flight and exhibited a larger white spot in the outer primaries than the Ring-bills.

Black-legged Kittiwake—

#2003-050 Douglas Co., 18 October 2003, Erickson.

This adult bird was seen standing on the breakwall with Ring-billed Gulls for direct comparison. It was about the same size, but the legs were shorter, the head different in shape, and the bill all yellow and more delicate than the bills of the Ring-bills. In flight, the primary tips were black, without any white windows, and the extent of this black was noticeably more limited than that of the Ring-bills. The mantle was gray, the tail white, and a gray auricular smudge was reported. The bird flew over the

observer just above the top of the light pole nearby. No leg color was noted, but the rest of the description appears to support the identification adequately.

This is a record early date for Wisconsin by one day.

Sabine's Gull—

#2003-051 Columbia Co., 3 September 2003, A. Holschbach.

#2003-052 Douglas Co., 26–28 September 2003, Stutz (2 birds), Tessen (4 birds); 26 September 2003, Paulios.

#2003-053 Racine Co., 22 September 2003, Hengeveld.

These reports were all of immature birds, similar in size to associated Bonaparte's Gulls. Overall they were white below, but had a mottled gray-brown mantle that extended in heavy smudging onto the otherwise whitish head. The white tail had a black terminal band. Most striking and diagnostic was the wing pattern. The outer black triangle, middle white triangle, and inner gray-brown triangle were easily seen, even at a distance. Observers also noted the flight was more buoyant and tern-like than gull-like.

Eurasian Collared-Dove—

#2003-066 Columbia Co., 18 August 2003, Stutz

The heavier body than a Mourning Dove, slimmer build than a Rock Pigeon, the paler, grayer overall coloration, and black nape crescent were seen. In addition, the white undertail tip and black proximal undertail and undertail coverts were also reported. In flight, the primaries were darker than the rest of the body and the squared off tail had white tips at each distal corner. This report was of 3 individuals.

Yellow-billed Cuckoo—

#2003-054 Ozaukee Co., 27 October 2003, S. Cutright.

This catbird-sized bird had a proportionately longer tail than expected. The back was brown with contrasting rusty wings and a white breast. The dark underside of the longer tail exhibited white teardrop shaped spots in two longitudinal rows. The beak was darker on the upper mandible, but yellow on the lower mandible.

(Wisconsin has four November records of Yellow-billed Cuckoos.)

Rufous Hummingbird—

#2003-055 Outagamie Co., 28 August 2003, Tessen.

This ruby-throated-sized hummingbird was striking in the presence of a rufous crown, back, and rump in addition to rusty flanks. The belly and central breast were white. This adult male individual had an orange-red gorget.

***Selasphorus* (sp.) Hummingbird—**

#2003-056 Menominee Co, 2 September 2003, Tessen.

#2003-057 Ozaukee Co., 7–12 December 2003, Idzikowski (photo).

Overall the size was comparable to a Ruby-throated Hummingbird. These hummingbirds had rufous flanks, back, head, and tail. Given the green in the otherwise rusty back and rump, the farthest the identifications can go is to the genus *Selasphorus*, as is the rule with female and immature *Selasphorus* hummingbirds.

Lewis's Woodpecker—

#2003-058 Ozaukee Co., 21 October 2003, Cowart, S. Cutright.

This dark backed and dark winged woodpecker was larger than a Hairy Woodpecker. It was perched against the side of a dead tree trunk allowing the two points of its tail to show. There was a greenish sheen to the black back. The face had a reddish patch across the side and a lighter swatch of feathering around the neck across onto the breast. A pinkish color was evident on the lower breast and belly.

This is Wisconsin's second record of a Lewis's Woodpecker, the first occurring in 1969.

Scissor-tailed Flycatcher—

#2003-059 Oconto Co., 25 October 2003, Rathmann, Mueller; 26 October 2003, M. Peterson; 25 October–3 November 2003, Smith, Smith (photo); 25 October–1 November 2003, Tessen; 2 November 2003, Wood.

This pale, gray kingbird-sized bird had a tail again as long as its body. However, when the black tail fanned, white outer tail feathers were noted, and it was apparent that the tail was forked. The overall pale color was broken by dark gray wings, pink flanks, and dark pink underwing coverts. A dark line was also evident between the bill and eye.

This is the second straight October record for Wisconsin, and the ninth consecutive year that Wisconsin has had a Scissor-tail report.

Western Kingbird—

#2003-060 Waupaca Co., 2 August 2003, Sykes.

This kingbird had a yellow belly and white outer edges to the otherwise dark tail. The back was olive-brown and it lacked any wingbars. The lack of a rufous tail distinguished it from a Great Crested Flycatcher and the white outer tail feathers ruled out a Cassin's Kingbird.

Tufted Titmouse—

#2003-068 Vilas Co., 26 October 2003, Peczynski.

This individual was observed at a feeder from a distance of 10 feet. The mouse-gray color, crest on the head, and brown color on the lower flanks were all noted.

There are few records of the species from far northern Wisconsin.

Rock Wren—

#2003-061 Bayfield Co., 11 October 2003, Ouren.

This Song Sparrow-sized bird was unexpectedly large and dull in color for a wren. The beak was longer than anticipated for a wren and slightly downcurved. It was described as perky, but the tail was noted to not be cocked upward like familiar wrens. A faint eyebrow was also reported, but not as apparent as it would be in a Bewick's or Carolina Wren. The back was gray-brown, but lightly spotted with white. The breast was white with faint streaks, but the flanks were buffy. Buffy coloring was also evident on the tail tip. The underside of the tail had black barring.

This bird was observed at a along a gravel driveway and on a fencepost at a farmstead, surrounded by pastures and hayfields with many interspersed wooded dry rock washes. The bird offered a leisurely observation time permitting the observer to initially ob-

serve the bird, consult a field guide, then confirm the field marks with further observations. Three days of strong southwesterly winds preceded this observation from the far northwestern corner of Bayfield County.

Spotted Towhee—

#2003-062 Waukesha Co., 21 November–1 December 2003, Gustafson; 22 November, M. Peterson, Tessen; 28 November 2003, Wood.

The observers reported a bird between the size and general appearance of an Eastern Towhee. The bill was "finch-like", or conical. It had a dark black head, back, wings, and tail and rusty flanks. White was noted on the belly and outer tail tips. Diagnostic were the white tipped wing coverts that created two white wingbars and white spots on the scapulars. The white spot in the base of the primaries on an Eastern Towhee was not evident. Observers felt the call note to be softer and more catbird-like than the call of the Eastern Towhee.

Lark Bunting—

#2003-063 Racine Co., 25 August 2003, Gustafson; 26 August 2003, Fitzgerald; 28 August 2003, Tessen.

This drab brownish sparrow was larger than associated House Finches, but similar in size to Brown-headed Cowbirds. The bill was also a heavy and conical. The whitish breast was heavily streaked down to the belly. The brown wing showed two faint white wingbars encompassing a white wing patch. The face had a light eyeline and a light malar stripe and dark moustache line.

This is Wisconsin's fourth fall record.

Old Accepted Records

Black-necked Stilt—

Marathon Co., May 1991, Arthur-Lane, Geiger (photo).

Photos of this bird in flight and standing in water demonstrated the long, pink legs and the narrow, straight, black bill. Black was evident on the crown, hindneck, wings, and upper back in contrast to the white face, ventral neck, breast, belly, and lower back.

Black-tailed Gull—

#2003-025 29 May 2003, Ozaukee Co., Frank.

Mixed in with a flock of similar sized Ring-billed Gulls on the beach at Virmond Park, this individual gull stood out because it had a charcoal gray mantle similar in hue to a Lesser Black-backed Gull, but again the bird was decidedly smaller than a Lesser Black-backed Gull. The legs were yellow, the bill yellow and slightly longer than the bill of the ring-bills. There was a black smudge on the bill at the gonydeal angle and distal to this mark the upper bill was red. When the flock took flight, the broad black band on the distal half of the tail was apparent. The observer was unable to identify this gull, presuming it to be some sort of hybrid. When photos of the Racine Co. sighting were published, the identification of the Ozaukee Co. sighting became apparent.

Green Violet-ear—

#2002-106 Dunn Co., late July to early

October 2002, Dahlke (photo).

Photos of this all green hummingbird, showed a dark blue ear patch and a tinge of blue to the upper breast. The dark bill was very slightly downcurved.

This is Wisconsin's second record of a Green Violet-ear, the previous record from the fall of 1998 in La Crosse Co.

Yellow-throated Warbler—

#2003-069 Dane Co., 20 June 2003, Saur.

Reported was the yellow throat, black face patch, white patch on the side of the neck and white supercilium. This bird was heard singing on several days and carrying a worm on another.

The species identification is considered correct; however, the question of breeding activity is viewed as unproven.

Kirtland's Warbler—

#2003-067 Vilas Co., 31 May 2003, Jim Baughman.

At first heard singing in a Jack Pine sapling stand, it was found on top of an 8 ft. tree. The back and top of the head were blue-gray with dark streaks on the back portion. White wingbars, an incomplete eye-ring, dark loral area, lemon yellow throat and flanks, black flank streaking, and white undertail coverts were also noted.

Records Not Accepted

Yellow-throated Loon—

#2003-035 Dane Co., 16 November 2003.

This Common Loon-sized loon was paler than 2 Common Loons seen a the same time some distance from the loon in question. The upper and lower mandibles were pale yellow, not gray as on the two Commons observed, however juvenile Common Loons can show a very pale bill color. The culmen appeared straight, giving the bill an upturned appearance, but comment was not made that the bill was held above horizontal in addition to the culmen illusion. The crown appeared flatter than the crown of the Common Loons, but comment regarding the expected bumps at the forehead and at the hindcrown were not made. The body was gray, perhaps slightly brownish in color, lighter than the Common Loons. The back of the neck, nape, and crown were darker in color than the rest of the body. The darker ear spot was continuous with the darker hindcrown, more suggestive of a juvenile Common loon. A Yellow-billed Loon would have a more isolated dark "ear spot."

Brown Pelican—

#2002-105 Manitowoc Co., 19 September 2002.

The description of this sighting was of a very large bird swimming on Lake Michigan in the evening. Although the bird was seen without optics, it was felt to be 60-70 yards away. The large bill was tucked down toward the neck. Color description was limited to white neck, yellowish crown, and light brown-gray back. The top of the bill was orangish, the bottom brown.

The limited description and lack of comparison/consideration of an immature White Pelican leaves a little doubt as to the identification. This is more than likely another Brown Peli-

can sighting from the late summer 2002 invasion of the upper Midwest.

Swainson's Hawk—

#2003-040 Ozaukee Co., 23 September 2003.

The longer-winged shape of this lage buteo is consistent with a Swainson's Hawk. The color pattern was limited to a brown head and brown tail, with black tipped wings, all characteristics of many raptors. Report wasn't made of the anticipated darker flight feathers in contrast to the light underwing coverts. The slight dihedral was noted, but this while suggestive, isn't necessarily a limiting factor in the identification. The presumption that this was a light morph immature Swainson's isn't adequately supported by the facts presented.

Although this individual documentation wasn't complete enough for acceptance of the identification, this bird was reported by other observers, able to observe more color contrasts in the wing to aid the identification.

Western Sandpiper—

#2003-043 Milwaukee Co., 31 August 2003.

This "peep" had a bill "½" longer than nearby Semipalmated Sandpipers, but it was described as downcurved rather than drooped at the tip. The overall size of this bird was slightly larger and plumper than the "semis." Although the belly and flanks were described as white, there was additional mention that the upper breast was streaked grayish. There was a hint of rustiness on the back and crown, but no mention of rust on the scapulars.

The streaking on the upper breast, yet the lack of rust in the scapulars are inconsistent with a juvenile Western Sandpiper. From these field marks, it is still possible for this bird to have been a Semipalmated Sandpiper, their beaks can be longer than expected, but not expected to be "downturned." A White-rumped Sandpiper can also exhibit the slightly downturned beak and faint rustiness on the crown that was reported for this bird.

Red Phalarope—

#2003-045 Door Co., 18 October 2003.

This shorebird wasn't specifically sized in the description, but was reported to be picking at the surface of the waters of Lake Michigan. The mantle was light gray, but no specific mention was made of the presence or lack of streaking. A black eye patch was also noted as were black, folded wingtips. No indication of the color or length of the bill was given.

Without mention that the bill was heavier rather than needle-like and dark with perhaps a lighter basal color rather than all black, Red-necked and Red Phalarope could both fit the details supplied. Although streaking on the back was not noted, it would be important to specifically say the back lacked streaks because that is a significant detail used to separate the two species in question. In all likelihood the bird was correctly identified, but the description did not support this conclusion.

Pomarine Jaeger—

#2003-047 Douglas Co., 19 September 2003.

These two dark jaegers were "way out on the lake" in very windy conditions. They were felt to be bulky in body, with a larger wing base, and

slower flight. Under these weather and distance conditions, the subjective criteria used to distinguish immature jaegers can apply to many birds. In this instance, there were no other birds indicated to be present for comparisons.

White-throated Swift—

#2001-097 Ozaukee Co., 16 September 2001.

This observation was a 10 second look at a "fly-by" near the Lake Michigan shoreline. Distance from the bird was from 400 yards to as close as 40 yards. The impression was of a swift, but it had a more slender body and seemed longer winged than expected for a Chimney Swift. As it flew past the tail proved to be elongated and pointed. The posterior portion of the bird protruded behind the wings twice as far as the head protruded in front of the wings. The "flying cigar" analogy for a Chimney Swift was altered to describe this bird as a "flying pencil." A definite white throat was seen, but the angle of flight and the brevity of the observation did not allow observation of the expected white belly, white hind flank patches, and white secondaries.

Brief sightings such as this one make thorough evaluation of all pertinent field marks nearly impossible, even in the hands of an extremely experienced birder as was the case here. Taken at face value, what else could a pointed-tailed swift with a white throat be? Complicating acceptance of such a bird is the extreme rarity of the suspected species beyond its known range. There is only one previous record of a White-throated Swift from east of the Mississippi River, a 1926 specimen from Michigan. Minnesota and Missouri each have one record. Records from the central and eastern portions of the Plains states are equally as rare. To find another possible species fitting this description, one would have to look to a Lesser Swallow-tailed Swift from southern Mexico. Although it does fit the described field marks extremely well, no known North American records exist. White-rumped Swifts from Spain also have no North American vagrancy records. Given the rarity of out of range White-throated Swift records, it is felt that to accept a record of this caliber, all of the pertinent field marks would be needed to clinch the identification. Admittedly this would be very difficult for species like swifts. They give very limited looks, even when circling overhead.

Lark Bunting—

#2003-063 Racine Co., 28 August 2003.

The description of this relatively drab bird was complicated by a lack of notation of a light malar stripe, and a dark moustache. The specific size comparison of the bird was not presented either. Without these marks, the identification of a brown bird with a whitish wing patch and a small, conical beak is uncertain.

Black-headed Grosbeak—

#2003-064 Rock Co., 15 September 2003.

This bird had bright, warm orange coloration on the neck, nape, chest, and flanks, but had no evidence of streaking on the breast. It had white wingbars and a white supercilium with a white submoustachial stripe. Specific mention of the bird's size and beak shape were not indicated. Viewed

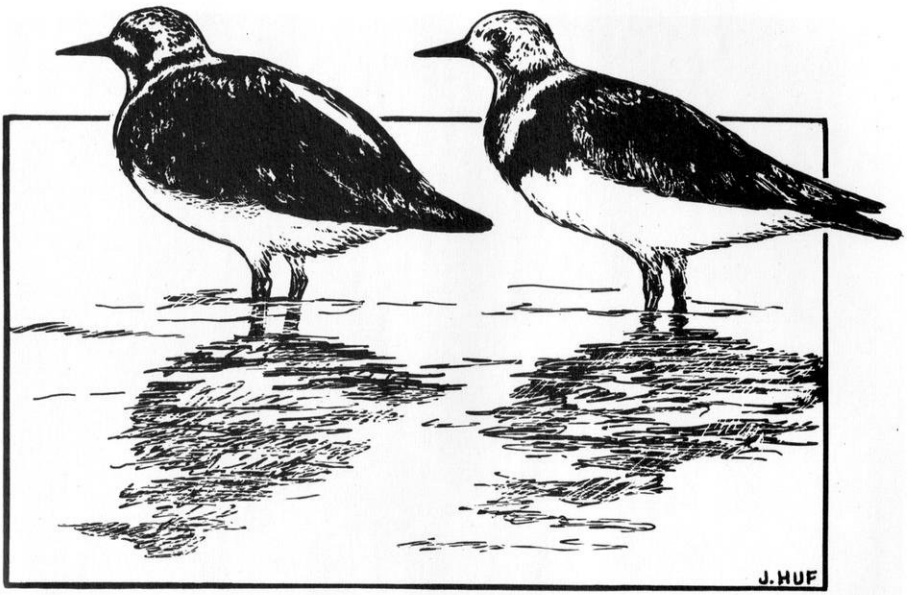
from below, while it was high in a tree, the bird's rump was not visible, nor were the wing linings seen. Although there is significant suggestion that this could have been an immature Black-headed Grosbeak, without the aforementioned details, the identification isn't quite complete.

Orange Bishop—

#2003-065 Racine Co., 23–27 September 2003, Gustafson.

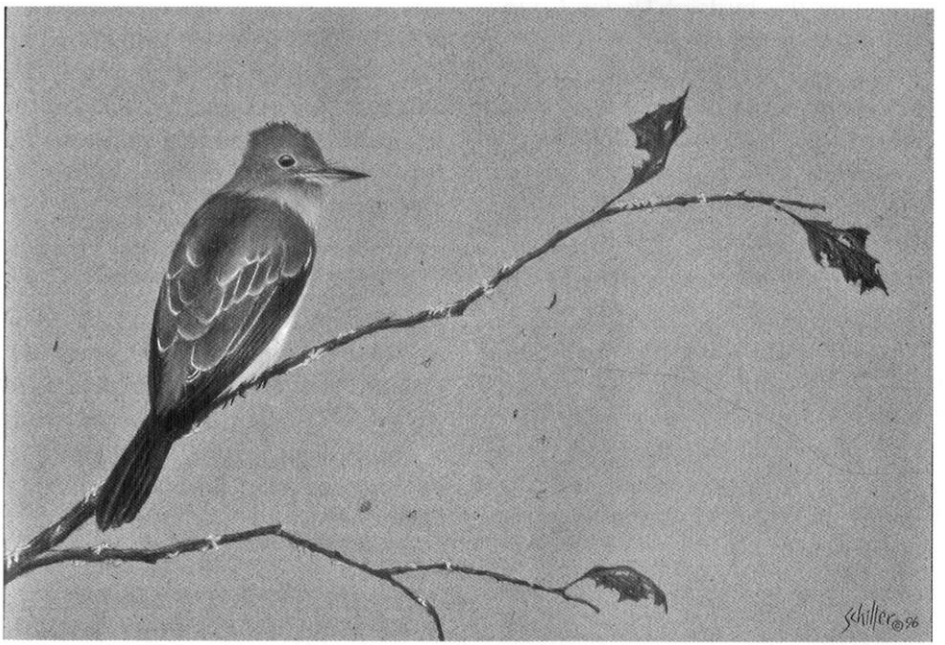
A small orange and black bird with a heavy, House Sparrow-like bill was seen. The crown, forehead, and auriculars were black as were the lower breast and belly. The short wings were dark brown. The remainder of the bird was red-orange. In addition, the tail was reported as very short in length.

While the identification appears to accurately describe an Orange Bishop, which is an African weaver bird, the source of this bird is felt to be from captivity, as there are no known wild birds in the Midwest. It is an uncommonly kept caged bird in this country. This is yet another species of apparently captive birds that has turned up in southern Wisconsin in the past several years.



Ruddy Turnstones *by Judith Huf*

"Where's Mom?" - Baby Brown Thrashers *by Betsy Popp*



Great Crested Flycatcher *by Scott Schiller*

About the Artists

Jack R. Bartholmai is an amateur wildlife photographer and wood sculptor. His current focus is photographing the birds of Dodge County, his home territory since 1972. His works appears frequently in local newspapers, travel brochures, calendars, maps, bird publications, and in numerous talks and articles on birds. He is an active member of the Horicon Bird Club.

Virgil Diodato is an amateur photographer of ornithological and related subjects, especially of visitors to his backyard in northwestern Milwaukee County. He is a freelance indexer of books in science, technology, and other fields.

Cary Hunkel has her Master of Fine Arts degree from UW-Madison. Her avian images have appeared in Madison Audubon Society and Wisconsin Department of Natural Resources publications, as well as in the Leigh Yawkey Woodson Art Museum's "Birds in Art."

Judith Huf has worked as an artist in many fields, from painting to sculpture to technical and scientific illustration and creating exhibits for nature centers and museums. She has a lifelong interest in natural history, especially birds.

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

Jim McEvoy has been an art instructor in Madison and spent 20 years as a graphic artist for the Wisconsin Department of Natural Resources before his retirement in 1997. He continues to draw and paint at his home in rural Dane County.

Betsy Popp is a wildlife artist in Townsend, Wisconsin, who works in a variety of media, including oils, watercolor, and oil pastels. When not painting, she enjoys photography, taxidermy, and wood carving.

Scott Schiller is a self-taught artist with a Bachelor's degree in biology from Ripon College whose colored pencil art has been featured in two solo exhibitions. Samples of his trademark realism can be seen at his web site at www.schillerstudios.com.

THE WISCONSIN SOCIETY FOR ORNITHOLOGY

The Wisconsin Society for Ornithology is an educational and scientific non-profit organization founded in 1939 "to encourage the study of Wisconsin birds." The Society achieves this goal through programs in research, education, conservation, and publication.

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