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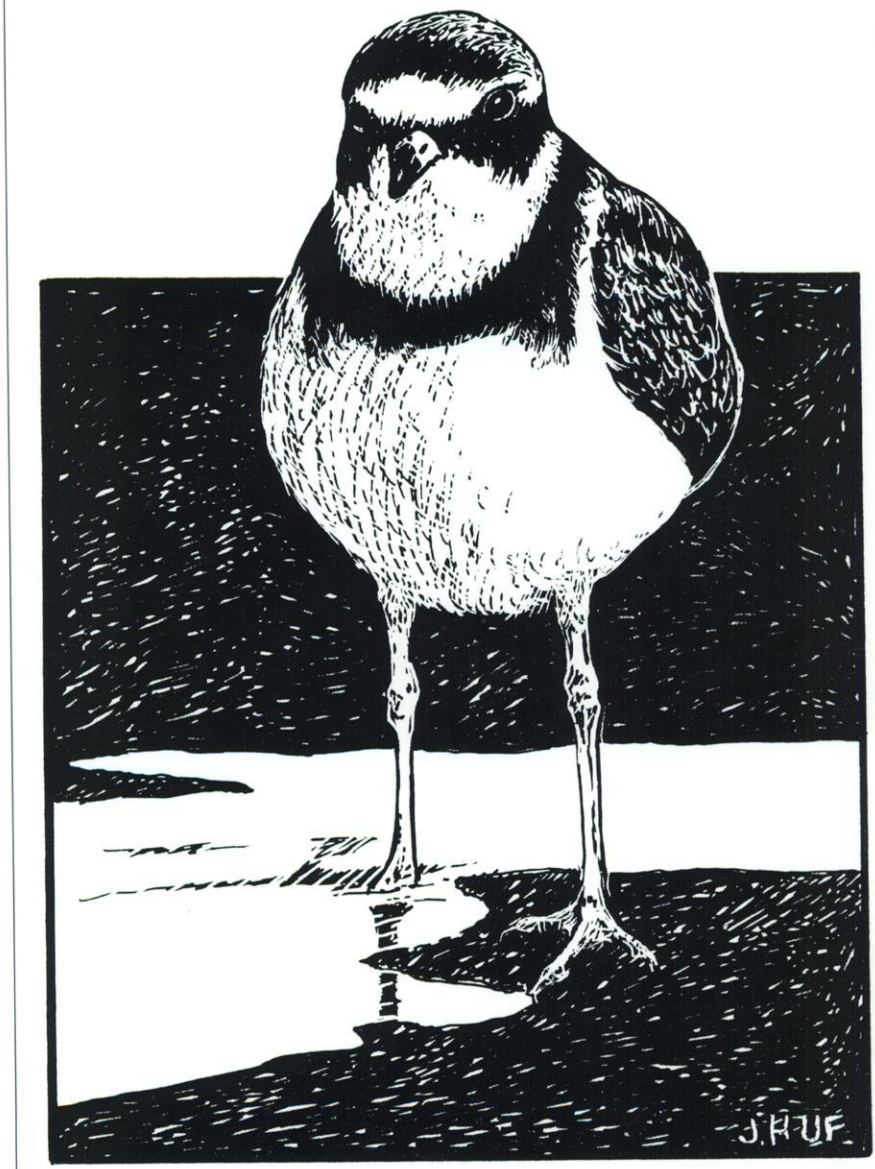

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Send all manuscripts and correspondence to the Editor. Information for "Seasonal Field Notes" should be sent to the Associate Editor or the appropriate Field Note Compiler. Manuscripts that deal with Wisconsin birds, ornithological topics of interest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

A Hand for the Wisconsin Department of Natural Resources

In early March, Daryl Christensen (WSO Vice President) and I attended an interesting and important Wisconsin Department of Natural Resources (WDNR) meeting in Montello, called the Fox River Headwaters Ecosystem (FRHE) Workshop. It was a long, thorough meeting, running from 10:00 A.M. to 3:00 P.M. I would guess that about 75 to 100 people were in attendance, including WDNR Bureau of Endangered Resources folks, WDNR wildlife and fishery managers, U.S. Fish and Wildlife Service personnel, knowledgeable private citizens and ecologists, and others.

Previous to the meeting, many of these state and local people who were familiar with the area had been asked to identify the most important ecological sites they knew of for inclusion in the FRHE region. This nearly circular area, mainly in what is called the Central Sand Plains, includes Marquette and Green Lake Counties; significant parts of Adams, Columbia, Waushara, and Winnebago Counties; and tiny parts of Fond du Lac and Dodge Counties. A total of about 200 sites were identified, both on public and private lands, covering over 92,000 acres.

The major criteria used by most people to identify the most ecologically significant areas turned out to include the presence of threatened and/or endangered plant and bird species; a threatened ecosystem, such as prairie and oak savanna; and/or a unique or otherwise important plant community type. Plants and birds seemed to be the most frequently mentioned organisms when ranking a site highly, either by the site identifiers or by all of us at the workshop.

The workshop itself was held in order to explain the whole procedure, then to decide which of the identified sites to include in the FRHE. Prior to the meeting, we had been assigned to one of five teams, each team assessing a particular region within the FRHE. Team makeup was not random; most of each team's members were very familiar with their particular region. For example, I was most familiar with and had recommended sites from Marquette, Green Lake, Waushara, and Winnebago Counties, so I was placed on the "Blue" team, whose region included almost all of my recommended sites.

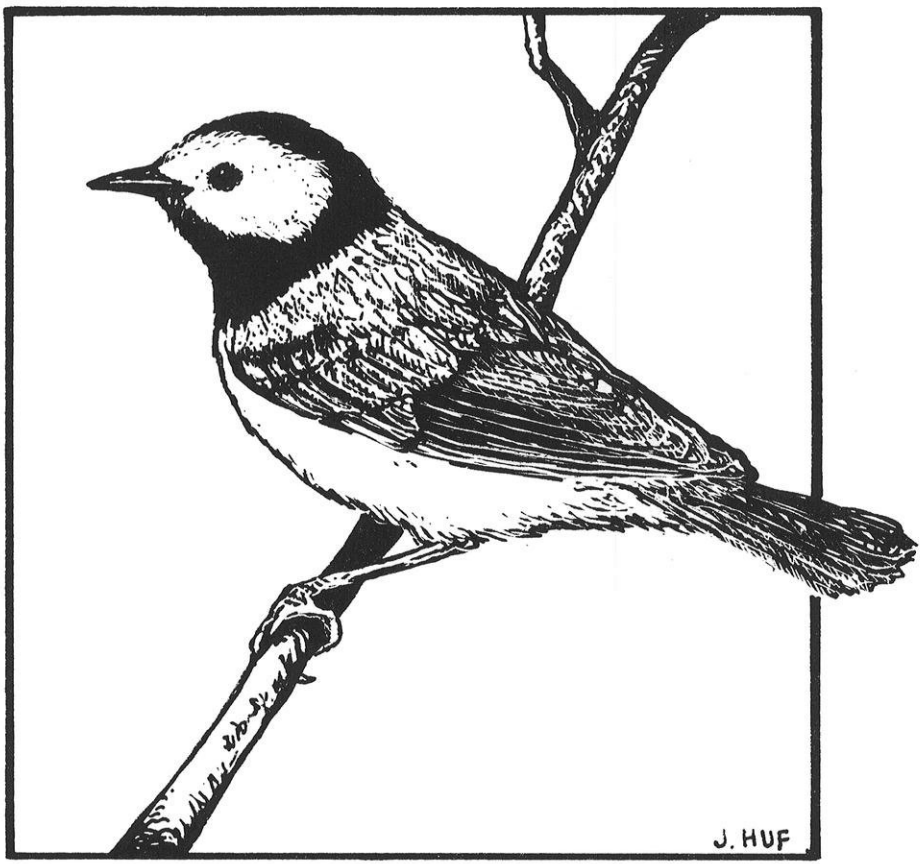
The WDNR hopes eventually to incorporate into the FRHE those sites the teams assessed as high priority, whether these are currently in public or private ownership. Even those sites assessed to be a lower priority will not be dismissed as possibilities for future inclusion. The WDNR now has a very good idea of which sites the diverse and knowledgeable group of people at the workshop believes are the best ones, and also why they believe that.

This sort of major effort by the WDNR is absolutely outstanding! As opposed to looking at game species habitat and forestry alone, we are now using non-game, non-commercial criteria as well to set aside large and diverse (landscape

scale) state natural areas. This is a big acquisition and management step forward from "the olden days," and one that we as citizens and bird enthusiasts should applaud.

Bill Brooks

President



Hooded Warbler *by Judith Huf*

Nest Site Habitats and Breeding Biology of Hooded Warblers in Southeastern Wisconsin

The authors present data that expand traditional notions of Hooded Warbler nesting habitats in Wisconsin (on both the macro- and microhabitat scale), as well as detailed information on nesting chronology, clutch and brood sizes, and Brown-headed Cowbird parasitism. They also discuss the conservation implications of their findings for this state-listed threatened species.

by John Bielefeldt and Robert N. Rosenfield

The Hooded Warbler (*Wilsonia citrina*) was listed as a threatened species in Wisconsin in 1989. At the time, Robbins (1991) had tallied only six reported nests in the state, of which only four reports from Sauk County (Brittingham and Temple 1980) carried ecological data. Here we describe chronology, nest site habitats, brood parasitism, conservation and management concerns, and other aspects of breeding biology at 61 Hooded Warbler nests in Waukesha and Jefferson Counties in southeastern Wisconsin, 1993–2000.

Study Area and Methods

Our study area for nests was a 1,400-hectare portion (T5N and T6N R17E, T5N R16E) of the Southern Unit (hereafter SU) of the Kettle Moraine State Forest near Eagle, Wisconsin. Upland forests without interior streams or permanent ponds occupy more than 90% of this area. Woodland habitats are principally oak forests (*Quercus alba, Q. borealis, Q. velutina, Q. macrocarpa*) that are ≥ 60–100 years of age on morainal topographies, and conifer plantations (*Pinus resinosa, P. strobus*) 25–60 years of age on the more level terrain of ex-croplands. Plantations provide about 30% of available woodland habitat. Smaller amounts of other upland forest types of diverse ages—aspen (*Populus* spp.), black locust (*Robinia pseudoacacia*), oak-basswood (*Tilia americana*), spruce plantations (*Picea* spp.), etc.—are also present, but mesic sugar maple forests (*Acer saccharum*) are virtually absent in the SU.

Much of our study area, including many morainal forests, was grazed or cropped until 1940–60, when most woodland pastures still held an open savanna-like aspect (Bordner et al. 1936). Commercially thinned conifer plantations (Bielefeldt and Rosenfield 1994) and most post-grazing oak forests (see Curtis 1959:143, 425) have since redeveloped a vigorous shrub-sapling understory that includes several non-native species, especially common buckthorn (*Rhamnus cathartica*).

Using call notes and other adult behaviors as cues (Evans Ogden and Stutchbury 1994), we tracked warblers to nests or nest-search sites during songbird inventories and other avian research in all available woodland habitats on the study area, including conifer plantations and forest edges, with no preconception about serviceable nesting habitat(s) for Hooded Warblers. Birds were not individually marked. We treat nests on or near the same site in separate years as independent data, but analyses of habitat use and female age do exclude, as potentially nonindependent, the seven nests suspected to be same-year re-nests by the same adult(s) on the same site. For these reasons, sample sizes vary.

Macrohabitats were classed as deciduous forest, conifer plantations, or deciduous/plantation edges on the basis of tree canopy composition within 0.04-hectare nest-centered plots.

Results and Discussion

Breeding Chronology—Singing male Hooded Warblers appeared on our study area on or before 7–14 May in the breeding seasons of 1993–2000. Because of persistent re-detections (and several nests) on or near the same song sites in late May–July, we suggest that these earliest birds and most other mid–May males represent residents, not transients. In two years, females were detected near subsequent nest sites on 13–14 May.

Earliest observed nest building was 20 May, but backdating from complete late May clutches (n = 7) for one-day egg intervals and 5–6 day building spans (Evans Ogden and Stutchbury 1994) suggests that construction may also begin at some other nests ca. 17–21 May. At 20 additional sites assumed to involve the year's initial nest, building was observed (n = 13) or backdated (n = 7) for 10 nests apiece during 26–31 May and 1–5 June, respectively.

Hooded Warbler nests or re-nests with complete clutches (n = 34) were seen from 27 May (n = 3) to 19–20 July (n = 2), about 10 days earlier and 30 days later than the Wisconsin egg dates available to Robbins (1991) via Brittingham and Temple (1980). Extremes imply that first eggs may be laid on or before 24 May in some initial nests and on or after 8 July in some re-nests. Among 26 nests assumed to be the year's initial nest, 23 (88%) held complete clutches on or before 11 June. Complete clutches believed to involve re-nests (n = 8) held first eggs as early as 13 June but were otherwise discovered with eggs during 24 June–15 July.

Nests discovered at the nestling stage (n = 18) or revisited post-hatch after discovery at egg stage (n = 19) held nestling warblers on dates between 11 June and 2 August. We estimate that nestlings on those extreme dates fledged about 16 June and 4 August, respectively, with average fledging dates for a year's initial nests (if successful) in late June. Fledged young re-

main dependent on adults for 4–5 weeks (Evans Ogden and Stutchbury 1994), so the breeding season for some Hooded Warblers in Wisconsin may extend from territorial arrival in early May to fledgling independence in early to late August.

Although possibly not the same individuals that bred or fledged on-site (Evans Ogden and Stutchbury 1994), Hooded Warblers have often been detected at nest sites in the SU in late August and early September. For example, birds were detected at 7 of 13 sites visited during 27 August–13 September 1997, with one still present near a nest site on 18 September 1997.

Clutch and Brood Sizes—Robbins (1991) reported a clutch size of three eggs for Hooded Warblers in Wisconsin, evidently relying on egg counts at two Sauk County nests (Brittingham and Temple 1980), both of which were parasitized by Brown-headed Cowbirds (*Molothrus ater*). However, cowbirds often eject a host egg when laying their own, and this may have been the case at the Sauk County nests. Modal Hooded Warbler clutch size was clearly four eggs (n = 15) in 21 non-parasitized nests with complete clutches on our study area ($\bar{x}$ = 3.86, range 2–5), with a mean reduction of 1.17 warbler eggs per clutch in parasitized nests (n = 13).

Hatching success in non-parasitized clutches was ≥ 88–91% as measured by (1) mean brood/mean clutch sizes in separate sets of nests discovered at egg (n = 21) vs. nestling (n = 8) stages, or (2) nestling vs. egg totals (46/52) in 14 nests followed from egg to nestling stages (a subset of non-parasitized clutches). In the 14 latter non-parasitized nests, 2 eggs fell to the ground during incubation, 2 (3.8%) remained unhatched in the nest at brood stage, and 2 were unaccounted losses. In parasitized nests followed from clutch to nestling stage (n = 6), 3 of 19 warbler eggs (15.8%) remained unhatched in the nest at brood stage, and 3 were unaccounted losses. In nests discovered at the brood stage, unhatched warbler eggs numbered 2 in non-parasitized nests (n = 8) and 4 in parasitized nests (n = 7). It thus appears that cowbird parasitism on Hooded Warblers may depress not only clutch size via egg ejection but also hatching success among remaining warbler eggs.

Mean brood sizes for nests discovered at (n = 15), or followed to (n = 20), the nestling stage were 3.36 warblers for non-parasitized nests (n = 22) and 1.54 warblers plus 1.15 cowbirds for parasitized nests (n = 13). We caution that brood sizes at the nestling stage are not intended as a measure of fledging success.

Parasitism—Cowbird eggs or young were seen in 13 of 34 complete clutches (12 of 26 deemed initial nests, 1 of 8 deemed re-nests); in 7 of 15 broods (7 of 13 deemed initial broods) discovered at the nestling stage; in 1 of 2 incomplete initial clutches; and in 3 of 3 initial broods where nestling numbers were unrecorded. Incidence of parasitism was thus 44% (n = 54) over the entire course of the nesting season, but 52% vs. 10% in initial nests (late May–mid June, n = 44) vs. re-nests (late June–July, n = 10).

All clutches combined (n = 36) held a total of 119 warbler and 21 cowbird eggs; all broods discovered post-hatch (n = 15) held 35 warbler and 8 cowbird nestlings; parasitized nests

(n = 13) revisited or found at nestling stage held 20 warblers and 15 cowbirds.

Although cowbird parasitism apparently reduces warblers' clutch size and possibly impairs their hatching success and nestling survival rates—perhaps especially so in early-season nests—we stress that the severity of cowbird impacts on annual reproductive success (including late-season re-nests) is uncertain for Hooded Warblers in Wisconsin.

Female Age—Female Hooded Warblers are ageable as yearling (SY) or older (ASY) birds by the extent of black feathering on the crown and throat (Evans Ogden and Stutchbury 1994). At 37 independent nests, we judged 11 breeding females (30%) to be SY birds. The geographic sources of these first-time breeders are unknown, but it is clear that female recruits were common in the nesting population in the SU in 1993–2000. Mean clutch sizes in small samples of unparasitized nests were identical (3.75) for SY (n = 3) and ASY (n = 12) females.

Nest Site Macrohabitat—Among 54 independent nests, 29 (54%) were in purely deciduous stands, 13 (24%) in conifer plantations, and 12 (22%) at conifer/hardwood edges. Use of conifer plantations and plantation edges as nest sites is not an anomaly on our study area, where plantations contribute about 30% of available woodland habitats.

Deciduous nest sites included mid-age (26–34 centimeters DBH) and mature (48–64 centimeters DBH) red oak forests; mature, mid-aged, and uneven-aged stands of mixed oak (black, white, red, and/or locally bur) or oak-shagbark hickory (*Carya ovata*); and ex-woodland pastures with a few mature oaks (45–96 centimeters DBH) amid younger (10–30 centimeters DBH) oaks, hickories, aspens, black cherry (*Prunus serotina*), elms (*Ulmus* spp.), paper mulberry (*Morus alba*), and/or black locust. One deciduous nest site was a nearly pure stand of bigtooth aspen (*Populus grandidentata*); another was a woodland-edge fencerow dominated by young to mid-age cherry, locust, elm, and boxelder (*Acer negundo*).

Nest sites in conifer plantations included variously aged (20–46 centimeters DBH) red and/or white pine stands, all of which had undergone one or more initial and intermediate thinnings. These cuts removed ≥ 40–60% of planting stock and also allowed deciduous shrub-sapling understories (and abundant white pine seedlings on some sites) to develop beneath a conifer canopy.

By default, most nest sites at conifer/hardwood edges occurred on or near old farm fencerows that mark the prior boundaries between croplands (now plantations) and deciduous woodlands. Except for their conifer component—usually scant at the edges of thinned stands but dominant at the margins of a few unthinned plantations—these fenceline sites are structurally and compositionally similar to deciduous sites on ex-pasturelands, as described above: several mature black, bur, or white oaks among many young cherries, hickories, etc. One almost savanna-like nest site with only two mature trees (white oak, shagbark hickory) was succeeding to a nearly equal mix of younger (11–20 centimeters DBH) white pine, eastern red cedar (*Juniperus virginianus*), hickory, black oak, and butternut (*Juglans cinerea*).

Robbins (1991), presumably drawing upon Sauk County nests (Brittingham and Temple 1980) and observations (Mossman and Lange 1982), described summer habitat of the Hooded Warbler in Wisconsin as "southern sugar maple-basswood" (i.e., upland mesic) forests. Our qualitative catalog of nest site macrohabitats (on a study area lacking mesic forests) shows that breeding Hooded Warblers may also use a variety of other upland forest types, including dry to dry-mesic woodlands of diverse composition, conifer plantations, and conifer/hardwood edges. Stands used for nesting in our sample also exhibit varied land use histories and ages, with many nest sites reaching or regaining woodland stature and closed-canopy aspect only 20–40 years ago.

Robbins (1991)—but not Zimmerman (1991) in the same volume—also reported "southern silver maple-elm" (i.e., lowland or floodplain forests) as summer habitat in the state. Robbins' statement may be a clerical error. Although Hooded Warblers are said to breed in low-lying, wet, swamp, or bottomland forests in the southern U.S. (Bent 1953) and in midwestern states including Illinois (Bohlen 1989), Michigan (Brewer et al. 1991), and Missouri (Clawson 1982), there appears to be no summer record, published or otherwise, for floodplain forests or hardwood swamps in Wisconsin (DeJong 1976, Knutson et al. 1995, Knutson and Klaas 1997, E. Epstein pers. comm., D. Flaspohler pers. comm., M. Knutson pers. comm., M. Mossman pers. comm.).

We suggest that upland forests are the primary breeding habitats of Hooded Warblers in Wisconsin. However, tree species composition and forest types, while useful in outlining potential nesting habitats in a qualitative way, do not bear directly on what seems to be the essential feature of nest sites—a dense to very dense understory or patch of low-growing saplings, shrubs, canes, vines, or semi-woody herbs (Brittingham and Temple 1980, Evans Ogden and Stutchbury 1994) as nest supports and substrates.

Nest Substrates—In our sample, 50 independent nests across all macrohabitat types were built at a median height of 0.50 meters ($\bar{x}$ = 0.55, range 0.28–1.37 meters) in supporting plants with a median height of 1.04 meters ($\bar{x}$ = 1.18, range 0.51–2.29 meters). Only 6 nests were > 0.75 meters aboveground, and only 10 supporting plants were taller than 1.50 meters. On human scales, nests and their supports might thus be visualized as knee- to hip-high in the understory microhabitats used as breeding sites.

As elsewhere (Evans Ogden and Stutchbury 1994), nests were positioned in forks or intersecting stems, the latter sometimes involving multiple plant species, dead stems, or fallen dead branchlets (n = 2) lodged in live stems. Nests (n = 53) were supported by 18 plant taxa, including six non-native or non-indigenous (i.e., white pine) taxa (Table 1).

Non-native and non-indigenous plants providing 33% (6/18) of supporting taxa were thus used in similar proportion (22/65 = 34%) as sole or partial substrates for nests, with common buckthorn alone accounting for 17% (11/65) of live nest supports. The three native plants previously reported by Brittingham and Temple (1980) as shrub-sapling nest sites for Hooded Warblers in Sauk County—sugar ma-

Table 1. Plant taxa used as nest supports (n = 53 nests) by Hooded Warblers in southeastern Wisconsin (total > 53 because of multi-species supports). Non-native species are indicated by an asterisk.

Plant Taxa	No. of times used as nest support
*common buckthorn (*Rhamnus cathartica*)	11
raspberries/blackberries (*Rubus* spp.)	11
arrow-wood (*Viburnum rafinesquianum*)	6
prickly gooseberry (*Ribes cynosbati*)	6
*honeysuckle (*Lonicera* × *bella*, *L. tatarica*, and/or *L. morrowii*)	5
wild grape (*Vitis riparia*)	4
red oak (*Quercus borealis*)	3
white oak (*Quercus alba*)	2
white pine (*Pinus strobus*)	2
elm (*Ulmus* spp.)	2
chokecherry (*Prunus virginiana*)	2
prickly ash (*Xanthoxylum americanum*)	2
gray dogwood (*Cornus racemosa*)	2
prostrate juniper (*Juniperus communis*)	2
*garlic mustard (*Alliaria officinalis*)	2
*barberry (*Berberis thunbergii*)	1
nannyberry (*Viburnum lentago*)	1
*wayfaring tree (*V. lantana*)	1

ple, green ash (*Fraxinus pennsylvanica*), and maple-leaf viburnum (*V. acerifolium*)—are uncommon on our study area and unrepresented in our sample of nest supports.

Nearly all nest-site taxa in our sample are shade-intolerant plants that flourish only or mainly below canopy breaks in woodland overstories. Such understory microhabitats for nests included dense single-species clones or patches (e.g., arrow-wood, raspberry), multi-stemmed clumps (e.g., gooseberry, prostrate juniper), many-stemmed seedling or stump-sprout thickets (e.g., common buckthorn, honeysuckle), and multi-species thickets (e.g., buckthorn, white pine, oak, raspberry, and/or wild grape as joint nest supports).

The canopy gaps and clearings that allow these prolific understory patches may arise in several ways on various areal scales in woodland habitats (Curtis 1959, Brittingham and Temple 1980, Mossman and Lange 1982, Bielefeldt and Rosenfield 1994, Evans Ogden and Stutchbury 1994). On a small or even single tree scale, shrub, seedling, or cane-filled gaps in forest canopies may follow senescence, disease (e.g., oak wilt), windthrow, lightning strikes, or other very local catastrophes among overstory trees. Lateral light penetration along woodland edges or hardwood-conifer edges, firelanes, and south or west-facing slopes may also prompt a local development of understories suitable for nesting (pers. obs.). On broader areal scales, canopy removals associated with selective timber harvests in deciduous forests, or with heavier thinnings in conifer plantations, may generate the denser low-growing understories that are requisite nest site habitats for Hooded Warblers.

On our study area in the SU and elsewhere in southeastern Wisconsin, a ma-

jor source of currently serviceable microhabitats for nesting may be the demise of dairy-based agriculture in the mid-1900s. Circa 1880–1960, most of the region's untillable farmlands, woodlands, and "stump pastures" were routinely grazed, a practice that resulted in open, broken, or poorly-stocked stands of oak with minimal tree and understory reproduction (Bordner et al. 1936, Curtis 1959). When grazing ceased, more or less concurrently with state acquisitions in the SU at mid-century, native and non-native species entered and eventually burgeoned, under open tree canopies, into new and much denser shrub-sapling layers now used by nesting warblers.

Conservation Implications

Breeding chronologies for initial nests and subsequent re-nests, clutch sizes, hatching success, rates of cowbird parasitism, and female age ratios on our southeastern Wisconsin study area in 1993–2000 appear to be comparable to those of non-declining and non-threatened populations of the Hooded Warbler elsewhere in eastern North America (Evans Ogden and Stutchbury 1994). In these several demographic respects, at least, Hooded Warblers in the SU would thus seem to present a potentially persistent and sustainable population or sub-population within the state, although further data on breeding distribution, nesting densities, annual reproductive success, population sources, and population sizes in Wisconsin are still needed.

As shown here, nesting habitats for Hooded Warblers in Wisconsin are not restricted to "deciduous forests" (Bureau of Endangered Resources 1989) or to mesic maple forests (Robbins 1991). Both younger and older woodlands, including some conifer plantations as well as xeric oak and other hardwood forests, appear to be potentially useable macrohabitats for breeding Hooded Warblers on state-owned lands in the SU, which now protects nearly one-tenth of all existing upland forest habitats in southeastern counties (M. Sieger pers. comm., Southeastern Wisconsin Regional Planning Commission, 1997).

Nest site microhabitats for Hooded Warblers in woodland understories are, on the other hand, an unstable and transitory resource within short-lived canopy gaps. As understories atrophy under re-closing canopies over periods that may be as brief as 10–20 years, local warbler populations in wooded landscapes will depend in part on a mosaic of newly useable nest sites in fresh overstory breaks, either natural or human-induced. On some forestlands where new canopy breaks are few, local numbers of Hooded Warblers have apparently declined rather dramatically (Evans Ogden and Stutchbury 1994).

Although the Hooded Warbler is currently classed as a state-threatened species, single-species management may be unpragmatic in light of simultaneous and possibly conflicting concerns with other woodland birds and other non-avian resources of differing habitat needs. Nevertheless, experience in the SU suggests that both passive and active management decisions for other resources and other purposes (e.g., reforestation, other woodland regeneration, conifer harvests) may have carried beneficial—albeit unforeseen—effects on macro- and microhabitats available to breeding Hooded Warblers.

Resource managers whose domains include Hooded Warbler populations in Wisconsin, among other responsibilities, may thus find that the SU offers a helpful perspective on nest site habitats. Although light selective timber cutting in deciduous forests seems compatible with habitat use by Hooded Warblers in Wisconsin (Brittingham and Temple 1980, E. Epstein pers. comm., this study) and elsewhere (Gartshore 1988, Evans Ogden and Stutchbury 1994), it is not the only source of occupied nest site habitats in the SU. We thus urge managers to be wary of single prescriptions for maintaining warbler habitats, to recognize the diverse origins of nest site microhabitats, and to note the variety of understory plant species—including non-natives—that may serve as nest substrates.

Acknowledgments

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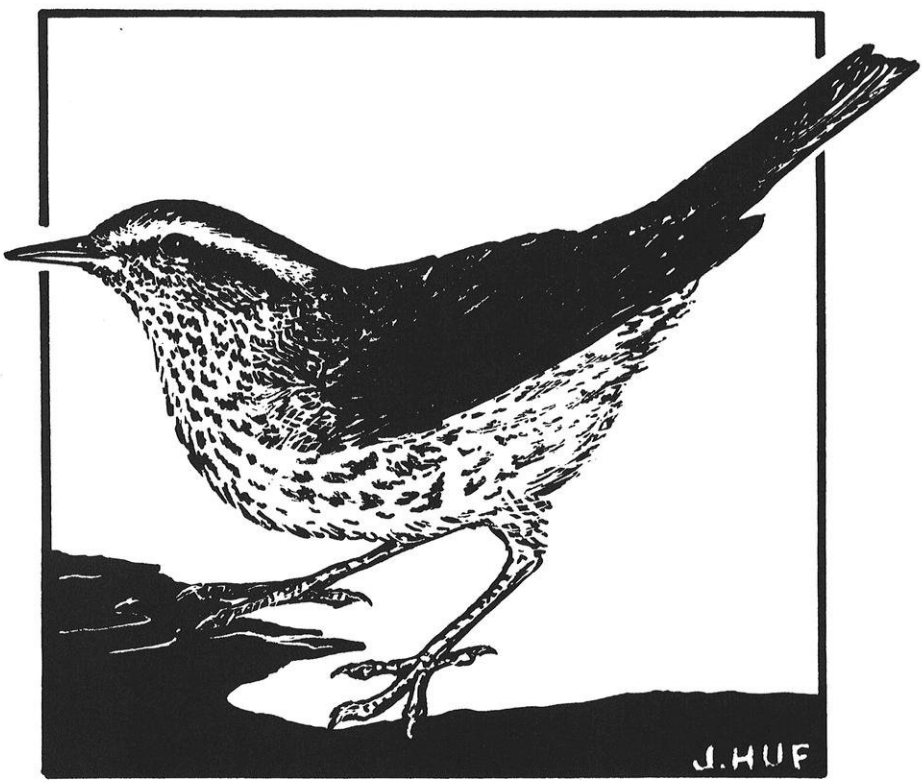

Northern Waterthrush *by Judith Huf*

Greater Yellowlegs *by Jack Bartholmai*

Wisconsin's Pilot Shorebird Management Program

During the spring of 2000, managers at three Wisconsin state wildlife areas conducted water level drawdowns to provide migration stopover habitat for a variety of shorebird species. Observations by volunteer birders indicated that 22 species of shorebirds, including several uncommon Wisconsin migrants, were attracted to these sites from late April to the end of May. This pilot program demonstrates that management of shorebird habitat can occur concurrently with management of water levels for waterfowl.

by William K. Volkert and Sumner W. Matteson

Shorebirds are long-distance migrant birds that rely on mudflats and shallow water areas largely devoid of vegetation as stopover habitat (Helmers 1992). This particular habitat is somewhat unpredictable on the landscape due to variable weather during the spring and fall seasons; conditions can readily change as a result of rainfall events or drought conditions. Shorebird habitat is usually available during wet years on flooded farm fields and other lowland, ephemeral areas or among wetlands and lakeshores, often during drought years. This project is an attempt to manage for shorebird habitat intentionally on state wildlife management areas (WLAs) through water level manipulation during the spring migration of 2000.

This project constitutes the initial effort in Wisconsin to manage for shorebird habitat on state-owned lands. It represents an attempt to integrate traditional water level management for waterfowl on WLAs with management for shorebird habitat during the spring migration. We identified three properties that were selected because of their geographical locations, because we were aware of pending plans for conducting drawdowns, and due to the cooperation of the property managers.

The sites we selected were Theresa Marsh State Wildlife Area, located in southeast Wisconsin; Mead Wildlife Area, located in central Wisconsin; and Crex Meadows Wildlife Area, located in the northwest corner of the state (Figure 1). These properties were se-

Figure 1. Location of Wisconsin state wildlife areas where shorebird management activities were undertaken.

lected not only because of pending plans for water level drawdowns, but because we wanted to have representative sites in different geographic regions of the state. Specific impoundments on each of these properties are listed in Table 1.

Shorebirds are poorly represented in Wisconsin bird databases, primarily because most species are migrants that are present only for brief periods during spring and fall. Objectives for this project were not only to provide habitat for migrant shorebirds, but to encourage birders to survey these properties and provide us with results of their observations. Inconsistent monitoring occurred among the sites due to varying numbers of observations, frequency of visits, and varying methods for counting or estimating flock size. This pilot project, however, did result in adequate observational data on species observed, and also provided additional birdwatching opportunities while helping to promote the Wiscon-

Table 1. Wisconsin state wildlife areas where water level management for shorebirds was undertaken during the spring of 2000.

Wildlife Area	Impoundment	Acreage
Theresa Marsh (Dodge Co.)	East impoundment, north of Hwy. 28	33
Mead (Marathon Co.)	Rice Lake Flowage	155
	Teal Flowage	270
Crex Meadows (Burnett Co.)	Upper North Fork Flowage	600

sin Department of Natural Resources' (WDNR) Watchable Wildlife Program.

The goals of this project included the following:

- Demonstrating opportunities for providing shorebird habitat in conjunction with traditional waterfowl management on state lands.
- Helping move the WDNR towards an ecosystem approach to managing for all bird species.
- Developing a foundation for establishing a long-term shorebird monitoring program in Wisconsin (Upper Mississippi/Great Lakes Shorebird Plan).
- Relying on volunteer observers to conduct surveys and species monitoring.
- Creating shorebird viewing opportunities on state lands and tying this to the Watchable Wildlife program.

Project Development and Implementation

We began this project in the winter of 1999–2000 by contacting interested wildlife managers who were planning water level drawdowns on state wildlife properties and who also had a strong interest in managing for shorebirds. We identified managers of properties represented in various regions of the state and identified opportunities based on geographic location. We then recruited these managers at the Statewide Wildlife Management Conference, held in January 2000.

On 16 March 2000, a meeting with interested wildlife managers occurred at the Mead Wildlife Area to exchange information and develop plans for the pilot project. The goal was to identify specific impoundments where water levels would be managed for shorebirds and to refine the timing of the planned drawdowns. The wildlife managers needed to understand the migration phenology of shorebird species in Wisconsin and their habitat requirements. Conversely, we needed to learn from the managers about their established drawdown plans and existing opportunities and constraints for conducting the drawdowns. In the past, shorebird use of impoundments was limited because drawdowns were not timed with shorebird migration phenology.

The discussion began with a presentation by Bill Volkert, who provided an overview of the project goals, conservation concerns for shorebirds, and how the pilot project would complement the development of a Wisconsin Bird Conservation Initiative. He also noted that, by varying the timing of water level drawdowns, managers could still achieve the goals of traditional waterfowl management and provide habitat for shorebirds, particularly during the spring migration. Although the goal was to enhance opportunities for shorebirds on these lands, we did not want to sacrifice habitat goals for other wildlife, particularly ducks, for which these impoundments were largely established.

Waterfowl arrive on Wisconsin's wetlands and lakes at the time of ice-out, usually in late March to early April. In southern and central Wisconsin, waterfowl commonly depart for northerly nesting grounds by the third week of April. Shorebirds tend to arrive in mid–April, with populations peaking during May. Therefore, by drawing water levels down in late April we could still accommodate waterfowl and begin to provide shorebird habitat.

Sumner Matteson provided a detailed presentation on shorebird natural history, including the birds' migration, habitat requirements, feeding strategies, and habitat management. Following this discussion, we heard from the managers about their experiences with flowage drawdowns and concerns for modifying these schedules. One concern involved the possibility that early drawdowns in certain soil types would result in the establishment of perennial wetland plants—such as cattails (*Typha* spp.), which are important for wetland cover—at the expense of annual wildlife food plants such as smartweeds (*Polygonum* spp.) and *Bidens* spp.

The discussion concluded with a commitment from these property managers to conduct water level manipulations on several impoundments to accommodate shorebirds during the upcoming spring migration. Following this exchange, Tom Meier, property manager for Mead Wildlife Area, took the group on a brief property tour and discussed past experiences with water level drawdowns and possible opportunities for managing shorebirds on these impoundments.

Impoundment drawdowns began in mid–April 2000. Theresa Marsh initiated its drawdown on 21 April, while Mead began on 24 April, and Crex Meadows began a drawdown on their 600-acre impoundment on 18 April. All of these flowages are gravity controlled, meaning that they were not physically pumped out, but instead boards were removed on the water control structures to allow the water to flow out into transfer ditches. Therefore, the rate at which these sites could achieve the optimum habitat conditions depended on the total volume of water in the flowage after spring runoff, the rate of outflow, and the frequency and intensity of rain events during the drawdown.

Once the drawdown plans had been developed, Volkert contacted Wisconsin birders via *The Badger Birder*, the newsletter for the Wisconsin Society for Ornithology, and the Wisconsin Birding Network (Wisbirdn), an online birding discussion group. The purpose was to inform birders of the pilot project and selected sites for shorebird habitat management, and to solicit their help to survey these areas. We relied upon experienced birders who were familiar with shorebird identification and were willing to visit these sites on several occasions to monitor shorebird use. Observers traveled to these locations at their own convenience and provided information on the date of observation, location, species sighted, and number of individuals present.

Results

During a five-week observation period from late April to the end of May, 11 birders working in seven parties tallied a total of 22 species of shorebirds on the three wildlife areas (Table 2). Many of these species were present in considerable numbers (Table 3), and among the birds sighted were several uncommon Wisconsin shorebird migrants, including Marbled Godwit (*Limosa fedoa*), Hudsonian Godwit (*Limosa haemastica*), Willet (*Catoptrophorus semipalmatus*) (Figure 2), White-rumped Sandpiper (*Calidris fuscicollis*), and Baird's Sandpiper (*Calidris bairdii*).

Among the interesting survey results from Mead Wildlife Area were the records from Dan Belter, who on 7 May

Table 2. Shorebirds species observed at three Wisconsin state wildlife areas during spring 2000 (late April to end of May).

Species	Theresa Marsh	Mead	Crex Meadows
Black-bellied Plover (*Pluvialis squatarola*)		X	X
American Golden-Plover (*Pluvialis dominica*)		X	
Semipalmated Plover (*Charadrius semipalmatus*)	X	X	X
Killdeer (*Charadrius vociferus*)	X	X	X
Greater Yellowlegs (*Tringa melanoleuca*)	X	X	X
Lesser Yellowlegs (*Tringa flavipes*)	X	X	X
Solitary Sandpiper (*Tringa solitaria*)	X	X	X
Willet (*Catoptrophorus semipalmatus*)	X		X
Spotted Sandpiper (*Actitis macularia*)	X	X	X
Hudsonian Godwit (*Limosa haemastica*)	X	X	X
Marbled Godwit (*Limosa fedoa*)		X	
Semipalmated Sandpiper (*Calidris pusilla*)	X	X	X
Least Sandpiper (*Calidris minutilla*)	X	X	X
White-rumped Sandpiper (*Calidris fuscicollis*)	X	X	X
Baird's Sandpiper (*Calidris bairdii*)		X	
Pectoral Sandpiper (*Calidris melanotos*)	X	X	X
Dunlin (*Calidris alpina*)	X	X	X
Stilt Sandpiper (*Calidris himantopus*)	X	X	X
Short-billed Dowitcher (*Limnodromus griseus*)	X	X	X
Long-billed Dowitcher (*Limnodromus scolopaceus*)			X
Common Snipe (*Gallinago gallinago*)	X	X	X
Wilson's Phalarope (*Phalaropus tricolor*)	X	X	X

Table 3. Peak numbers of shorebirds reported by volunteer observers at three Wisconsin state wildlife areas during spring 2000.

Species	Peak Numbers
Semipalmated Plover	25+
Greater Yellowlegs	50+
Lesser Yellowlegs	250+
Solitary Sandpiper	60+
Least Sandpiper	100+
Pectoral Sandpiper	280
Dunlin	80+
Short-billed Dowitcher	26

recorded 11 species of shorebirds—including 200+ Lesser Yellowlegs (*Tringa flavipes*) and 200+ Pectoral Sandpipers (*Calidris melanotos*)—on Teal Flowage, and eight shorebird species—including 250+ Lesser Yellowlegs—on South Rice Lake. On 13 May, Belter found seven species, including 100+ Least Sandpipers (*Calidris minutilla*). At Crex Meadows, the most noteworthy results came from Larry Persico on 20 May, when he sighted 14 species of shorebirds, including 125 Least Sandpipers and another 200 unidentified "peeps," plus 50+ Semipalmated Plovers (*Charadrius semipalmatus*) and 45–50 Pectoral Sandpipers.

Summary

This pilot project will lay the foundation for a more concerted effort to manage for shorebirds and their habitat in Wisconsin. For 2002, we developed computerized standardized survey forms in cooperation with the federal Western Shorebird Survey, as well as an expanded list of shorebird survey sites.

This initial effort to develop a pilot project for shorebird habitat management on state lands clearly shows that traditional management of wetland im-

Figure 2. Willets are among the species benefiting from recent habitat management efforts for migrant shorebirds at three state wildlife areas. This bird was photographed by Jack Bartholmai in Dodge County in May, 1997.

poundments for waterfowl habitat is compatible with shorebird management. The timing of water level manipulation can be modified to accommodate shorebirds as well as waterfowl during spring. The variety of species sighted by volunteer observers and the numbers of individual birds using these sites during the spring migration demonstrated that significant numbers of birds can be attracted to these areas by providing essential shallow-water and mudflat habitat. One concern that may limit this practice on certain sites is where a history of botulism outbreaks has occurred. These locations should not be considered for drawdowns due to the increased probability for creating the conditions for future disease outbreaks (Jensen and Allen 1960; Helmers 1992; Julie A. Langenberg, pers. comm.).

The varying habitats in these impoundments, ranging from exposed mudflats to shallow water, provided ideal conditions to accommodate feeding niches of a variety of species. This range of shorebirds included the "peeps" (Semipalmated, Least, Baird's, and White-rumped Sandpipers) that rely on mudflats to very shallow water, to large waders such as godwits, Willets, dowitchers, and yellowlegs, which may utilize somewhat deeper water. Management of these impoundments attracted a variety of unusual shorebirds that resulted in wildlife viewing opportunities for birders. Among the outstanding or sought-after species were Marbled Godwit, Hudsonian Godwit, Willet, and White-rumped Sandpiper.

Finally, in addition to providing birding opportunities as part of the state's Watchable Wildlife program,

this project proved successful in encouraging volunteers to gather data useful in evaluating the importance of providing migrant shorebird habitat on state-owned wildlife management areas.

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Red-headed Woodpecker *by Steve Lubahn*

Vehicle-caused Mortality and the Red-headed Woodpecker in Wisconsin

The author compares data from a recent study of road-killed birds with historical information on vehicle-caused mortality of Red-headed Woodpeckers in Wisconsin.

by William P. Mueller

Many individuals of hundreds of animal species, including birds, are killed by vehicles on and along roadways (Farmer 1998, Forman and Alexander 1998, Groot Brunderik and Hazebroek 1996, Hornaday 1931, Lalo 1987, Loos and Kerlinger 1993, Seibert and Conover 1991, Trombulak and Frissel 2000, Wilkins and Schmidly 1980). The Wisconsin species that possibly has been the most seriously impacted by vehicle-caused mortality is the Red-headed Woodpecker (*Melanerpes erythrocephalus*). This species has shown a decline in Wisconsin since 1930 (Robbins 1991, Robbins et al. 1996), and mortality resulting from collision with vehicles may be a factor in this decline. Red-headed Woodpeckers inhabit oak savannah and open woodland, and flycatch over open fields and adjacent roads more than any other woodpecker species (Smith et al. 2000). Their proximity to roads brings them into contact with vehicles, and this may have been a significant source of mortality for this species during the twentieth century.

Study Area, Methods and Results

I studied the effect of highway mortality on the Red-headed Woodpecker in Wisconsin, by gathering data on bird-vehicle collisions during 1999. In order to avoid bias in the collection of data, I asked cooperators to collect records of all species found dead on roads in Wisconsin. With the help of 90 cooperators statewide, I gathered records of 1,548 deaths of 109 species of birds from 64 counties throughout the state. The cooperators transmitted records of species found, dates, and locations via electronic mail or regular post throughout 1999. Only four Red-headed Woodpeckers were found killed statewide during 1999, which was only 0.26% of the total.

Historical Road Mortality Data for the Red-headed Woodpecker

A.W. Schorger commented on losses of this species in a study of road-kills, stating that there had been "a steady and marked decline" over the 18-year

period of the study (Schorger 1954, p. 54). The numbers of road-killed Red-headed Woodpeckers in his study declined from 47 in 1932 to only 6 in 1949 (Robbins 1991, Schorger 1954). Of all species found during his study, the Red-headed Woodpecker was the second most frequently killed by vehicles in southern Wisconsin at that time. Of Schorger's observations of road-killed birds, 7.9% were Red-headed Woodpeckers; this contrasts with less than 1.0% of the records collected during the 1999 study.

Losses caused by collisions with vehicles have been noted in many other areas of the range of the Red-headed Woodpecker. D. Stoner reported 37.1% of road-killed vertebrates found on a 1924 trip to be Red-headed Woodpeckers. He found these birds to be vulnerable to vehicle collisions due to their habit of feeding upon insects and spilled grain on roadways (Stoner 1932, in Bent 1992). Woodliffe (1987), in Ontario, mentions road mortality as one possible cause of decline in this species, as do Eaton (1914) and Bull (1974) in New York State, Zeranski and Baptist (1990) in Connecticut, Buckelew and Hall (1994) in Virginia, and Mengel (1965) in Kentucky. Sharp (1930) noted that the Red-headed Woodpecker was more frequently killed by vehicles in Iowa and eastern Nebraska than any other bird species.

Discussion

Does vehicle-caused mortality presently influence the population of the Red-headed Woodpecker in Wisconsin? Judging from the very small number of road-killed individuals of this species found in Wisconsin during 1999, it seems that collision with vehicles may not be a significant source of mortality under current conditions. Perhaps the species has declined to the extent that sufficient numbers of Red-headed Woodpeckers are simply not present to be involved in many collisions. Some species learn to avoid roads (see data on the Florida Scrub-Jay, Mumme et al. 2000). There is no evidence to suggest this has happened with the Red-headed Woodpecker, however. Over the past 75 years, this source of mortality may have been a significant factor in the decline of the Red-headed Woodpecker in Wisconsin. Loss of one adult of a nesting pair may result in no net production of young in a given season, due to starvation of the young (Robbins 1991).

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Blue Jay *by Dennis Malueg*

The 2001 Wisconsin Christmas Bird Counts

A record-high total of 154 species was reported on the 2001 Wisconsin Christmas Bird Counts. In addition to six new state Christmas Count species, unprecedented numbers of waterbirds and blackbirds were tallied.

by Robert C. Domagalski

The 2000 and 2001 Wisconsin Christmas Bird Counts (CBCs) exist as contrasts. The 2000 Count was noted for its extreme cold and record snow. The 2001 Count, preceded by a record warm November, had mild temperatures until nearly Christmas. Perhaps every circle experienced open water, two-thirds had no measurable snow, and only four counts reported snow of three or more inches. The 2001 Count was much like the 1997–99 counts, only more so; the 1997–99 counts were known for warm temperatures, open water, and high waterfowl numbers. Many 2001 waterfowl numbers make the counts from 1997–99 seem small. Besides unprecedented waterbird totals, blackbirds were found in incredible numbers, and six species of birds never before found on Wisconsin counts were reported in 2001. This many new Christmas Bird Count species have never before been added in a single count year in the state. With the addition of these six new species, there are now a total of 225 species that have been found on Wisconsin CBCs since 1939.

There were 154 species found on the 2001 Count. This is a record number. The previous record was 153, set in 1997. Other comparatively high counts are 147 in 1994 and 146 in 1999. Among the missed species were Green Heron (rejected by the WSO Records Committee), Blue-winged Teal (count period only), Barrow's Goldeneye (first miss since 1996), Osprey (rejected by the WSO Records Committee), Eurasian Collared-Dove (count period only), House Wren (no documentation), Varied Thrush (found 22 of the past 28 years) and Harris's Sparrow (first miss since 1997). Among the numerous rarities are the following highlights: Red-throated Loon, American White Pelican, Least Bittern (Chippewa Falls, first count record and record late date), Great Egret (Hustisford, first count record and record late date), Black-crowned Night-Heron, Turkey Vulture, Ross's Goose (Appleton and Madison, first count records and record late date), Harlequin Duck (La Crosse, first count record from the Mississippi Valley), Black Scoter, Vir-

ginia Rail, Sandhill Crane, Black-headed Gull (Hales Corners, first count record), Iceland Gull, Lesser Black-backed Gull, Eurasian Collared-Dove (Riveredge, count period only, first count record), Great Gray Owl, Townsend's Solitaire, Palm Warbler (Beloit, first count record and first state winter record), Ovenbird (Oconomowoc, third count record), Common Yellowthroat, Spotted Towhee, Savannah Sparrow, Lincoln's Sparrow, Yellow-headed Blackbird, and Baltimore Oriole.

Excluding the six species that were recorded for the first time in 2001, plus rare species for which only one individual has ever been recorded in a count year, 38 species appeared in record-high numbers. Many of these record totals are many times over any previous high counting and, rather than being confined solely to waterbirds, are spread over a wide spectrum of species. In summary, the total number of species and the number of individuals per species are the most impressive in the 62-year history of Wisconsin CBCs.

Location and Details of the Counts

The details of weather and participation for each count are reported in Table 1. Two counts from 2000, Luck and Monroe, were not conducted in 2001. A third count could not be used as it had too few party hours to be valid. Two established counts not reported in 2000 (Black River Falls and La Crosse) returned in 2001. As one is able to notice from reading the following species accounts, La Crosse is significant for an understanding of Wisconsin's December bird populations. Its return is much appreciated. Cable is a third established count that is reporting for the first time since 1998, though with an altered count center. Three new counts—Hustisford, Prentice, and Rosendale—were also added.

A total of 96 counts were accepted for the 2001 CBC. This is a record number. The old high had been 94, set in 1998. There were 92 accepted counts in 2000. Of the 2001 counts, 39 reported 50 or more species (up from 26 in 2000). The six counts with 70 or more species are Madison (89), Poynette (81), Oshkosh (80), Bridgeport (78), Appleton (76), and Sturgeon Bay (71). The number of party hours (4,253.75) is record high and 24% above the 10-year average. The old high had been 3,654 hours set in 1997. The number of owling hours is also record high and 51% above the 10-year average. The number of field parties and field observers (both 24% above the 10-year average) are also record highs.

The location of each count circle is shown in Figure 1. Count names can be matched with count numbers by looking at the alphabetical listing of counts in the first column of Table 1. Data from counts that include areas in other states give only species and participation for the Wisconsin portion of the count. For details on count compilers and centers, see the Appendix.

Summary of Species

Results from the 2001 counts are reported in Tables 2–9. Tables 2–8 show the more common species, while Table 9 shows the less common species (those seen on 18 or fewer counts). The common species have their counts divided into seven regions, each region having its own table. Table 8 contains

Table 1. Details of the 2001 Wisconsin Christmas Bird Counts.

Name of Count	Date	Sky	Snow Inches	Wind Dir.	Wind Mph.	Temp °F Low	Temp °F High	Observers Feeder	Observers Field	Parties	Party Hours	Owling Hours
Adams (36)	12/28	Cloudy	trace	W	5–12	15	20	0	3	2	14.00	1.00
Appleton (62)	12/15	Cloudy	0	SE	5–15	28	35	13	23	14	77.50	3.50
Arpin (34)	12/30	Cloudy-Clear	2	WNW	11–18	5	15	2	6	2	9.00	1.25
Ashland (4)*	12/15	Cloudy	1	SW	0–7	28	36	0	10	3	21.00	0.00
Baraboo (91)	12/28	Cloudy-PCL	1	NW	8–15	8	19	6	12	8	61.25	3.50
Bayfield (3)	12/20	Partly Cloudy	2	W	3–5	25	32	5	10	4	25.00	0.00
Beloit (88)*	12/15	Cloudy	0	S	3–10	34	42	4	20	15	60.50	1.00
Black River Falls (28)	12/15	Partly Cloudy	0	SE	10–15	32	42	8	6	3	13.00	2.00
Blanchardville (89)*	12/16	Cloudy-Lt.Rain	0	SW	5–10	39	41	0	6	4	27.75	4.50
Bridgeport (95)	12/16	Cloudy-Fog	0	SW	6–8	41	45	0	16	8	61.00	3.00
Brussels (50)	12/22	Cloudy-Lt. Rain	0	SE	10–20	33	44	8	18	8	42.00	2.50
Burlington (73)	12/15	Cloudy	0	SW	5–10	32	40	1	8	4	29.00	2.50
Cable (6)*	12/15	Cloudy	0	?	0–5	28	32	12	11	7	28.50	0.00
Caroline (43)	12/22	Cloudy	trace	SE-S	5–15	32	42	1	4	4	18.00	1.00
Cassville (96)	12/16	Cloudy-Fog	0	S-SE	5–17	40	43	2	11	6	44.75	0.00
Chippewa Falls (21)*	12/22	Cloudy	?	SE	5–10	33	36	0	8	4	30.00	0.00
Clam Lake (7)*	12/22	Cloudy-Snow	trace	SE	5–20	24	33	0	12	4	36.00	4.50
Clyde (93)	1/5	Cloudy	trace	W-SW	5–10	24	32	0	8	5	26.00	0.00
Columbus (82)*	12/14	Cloudy	0	?	0–10	29	35	8	7	6	60.50	6.00
Cooksville (87)	1/1	Clear	trace	NW	0–5	6	15	2	6	3	20.00	2.00
Durand (20)*	12/29	Clear-PCL	1	NW	5–15	5	14	0	15	6	48.75	3.00
Ephraim (52)	12/28	PCL-Cloudy	trace	NW	5–10	17	22	28	10	5	26.50	0.25
Fifield (8)*	12/19	Cloudy	0	SSE	10–15	28	36	24	7	5	26.50	0.00
Fond du Lac (64)	12/16	Cloudy	0	ESE	0–10	39	45	0	4	3	26.00	5.25
Fort Atkinson (86)	12/15	Cloudy	0	S	5–10	30	37	1	15	4	37.00	1.00
Fremont (40)	12/16	Lt. Rain-Fog	0	SE	0–10	38	42	1	13	6	49.00	4.00
Gilman (23)*	12/16	Cloudy-Lt.Rain	0	S	0–20	37	41	3	16	6	52.50	3.00
Grantsburg (1)*	12/15	Cloudy-PCL	3	SW	10–29	28	38	0	12	9	49.00	0.00
Green Bay (48)*	12/15	Cloudy-Clear	0	S-SE	0–15	19	38	17	25	15	90.00	6.50
Green Lake (76)	12/29	Clear	1	W-NW	10–20	6	18	0	9	6	30.75	5.00
Gurney (5)	12/15	Cloudy	0	W	10–15	25	37	0	8	5	27.50	0.00

(*continued*)

Table 1. (*continued*)

Name of Count	Date	Sky	Snow Inches	Wind Dir.	Wind Mph.	Temp °F Low	Temp °F High	Observers Feeder	Observers Field	Parties	Party Hours	Owling Hours
Hales Corners (59)	12/15	Cloudy-Fog	0	SE	8–12	24	42	2	19	6	35.25	1.50
Hartford (70)*	12/28	Cloudy-Lt.Snow	1	W	0–10	19	26	4	17	9	71.50	3.00
Herbster (2)*	12/14	Clear	1	SE	0–10	12	34	11	6	3	22.50	0.00
Holcombe (22)*	12/15	Cloudy	0	SE	5–15	31	42	0	14	6	29.50	1.00
Horicon Marsh (80)	12/15	Cloudy	0	SW	10	31	38	0	5	9	48.75	7.00
Hudson (18)*	1/1	Cloudy-Clear	2	N-NW	5–15	9	14	1	10	4	19.25	0.00
Hustisford (81)*	12/18	Clear	0	W	0–10	30	46	2	9	6	47.50	6.00
Kenosha (61)*	12/29	Clear	1	NNW	12–16	10	26	2	3	2	16.00	0.00
Kettle Moraine (69)	12/22	Cloudy	0	W	5–15	30	42	2	8	12	62.50	5.50
Kewaunee (53)*	12/30	Cloudy-PCL	1	W	8–18	13	18	0	26	10	62.00	4.25
Kickapoo Valley (31)	12/16	Rain-Fog	0	S	10	37	39	0	4	3	17.00	0.00
La Crosse (30)*	12/15	Cloudy	0	?	5–10	18	23	0	17	9	57.25	3.00
Lake Geneva (74)*	12/29	Cloudy-PCL	trace	W	5–20	6	18	3	25	17	88.50	12.50
Lakewood (14)	1/1	Cloudy	1	NW	5–15	11	26	0	2	1	8.00	0.00
Madison (84)*	12/15	Cloudy	0	SSE	0–15	25	40	14	**79**	22	**237.25**	**23.50**
Manitowish Water (10)	12/30	Cloudy	4	NW	10	6	13	6	5	4	22.00	0.00
Medford (24)*	1/5	Clear	4	SW	5–15	20	35	7	9	5	37.75	3.75
Merrill (32)	12/28	Cloudy	2	NW	0–5	4	11	1	3	1	10.00	0.00
Milwaukee (58)*	12/15	Cloudy	0	S-SW	0–6	31	39	14	50	17	99.50	0.00
Montello (77)	12/18	Clear-PCL	0	SW	0–6	26	45	11	13	5	42.00	7.25
Mount Horeb (90)	12/30	Partly Cloudy	1	W	8–15	2	15	27	69	**26**	99.00	6.50
Nelson (19)*	1/5	Clear	?	SW-NW	2–5	26	34	0	15	7	48.00	0.00
New Franken (49)*	12/16	Rain-Fog	0	S	5–10	37	42	16	22	19	23.00	3.50
New Richmond (17)*	12/15	Cloudy	0	S-SE	15–30	36	45	2	9	4	36.50	0.00
Norske (42)	12/23	Cloudy	2	SW	0–15	15	23	1	4	4	25.50	2.00
Oconomowoc (71)	12/22	Cloudy	0	SW	2–5	37	42	4	20	7	42.00	4.00
Oshkosh (63)	12/15	Cloudy	0	SE	8–10	31	37	8	20	10	67.00	1.50
Owen (25)*	12/16	Cloudy	0	SE	5–15	20	38	6	12	7	58.00	3.75
Pardeeville (78)*	12/20	Clear	0	NW	5–10	22	36	6	13	9	58.00	3.75
Pensaukee (47)	12/16	Rain-Fog	0	S	6–15	40	45	2	3	2	16.25	0.50
Peshtigo (16)*	12/15	Cloudy	0	SW	3–7	27	39	0	5	3	25.50	0.75
Phelps (11)	12/15	Cloudy	0	S	5–15	18	32	2	8	5	27.00	0.00

Plainfield (38)	12/29	Cloudy	2	N-NW	5–10	4	12	2	7	4	32.00	4.50
Plymouth (68)	12/15	Cloudy	0	S	0–10	25	37	2	15	6	28.00	0.00
Poynette (83)*	12/29	Clear	1	W	5	3	12	22	25	11	80.25	5.75
Prentice (9)	12/30	Cloudy-Clear	6	NW	5–10	7	14	24	7	4	30.00	0.00
Racine (60)*	12/16	Cloudy-Lt.Rain	0	SE-SSW	5–7	42	45	4	17	7	44.50	1.50
Randolph (79)*	12/29	Clear	2	NW	5–20	5	15	5	9	5	32.50	3.50
Rhinelander (13)	12/28	Clear	2	NW	10–14	4	?	29	4	1	?	?
Richland Center (94)	12/15	Cloudy	0	E-SE	10	31	39	6	42	23	109.00	5.00
Riveredge (57)	12/15	Cloudy-PCL	trace	SE	5–15	23	38	**38**	75	22	216.50	23.00
Rosendale (75)	12/29	Clear	1	NW	0–20	7	16	0	15	7	51.00	1.00
Sauk City (92)	12/26	Cloudy	2	Calm	Calm	5	11	1	30	12	66.00	1.50
Seymour (46)	12/18	Clear-PCL	0	SW	0–9	27	46	0	1	1	9.50	0.50
Shawano (44)	12/15	Cloudy	0	S	0–15	20	32	2	7	5	29.00	2.00
Sheboygan (56)	12/29	Clear	0	WNW	?	12	20	0	5	3	30.00	1.50
Shiocton (45)	12/21	Clear-PCL	0	N	0–7	18	29	4	9	7	33.75	1.00
Spencer (26)*	12/23	Cloudy-Lt.Snow	2	Variable	0–20	21	29	5	10	6	48.25	3.50
Spruce (15)*	12/22	Cloudy	0	SE	10–25	35	41	1	3	2	15.50	1.00
Stevens Point (37)*	12/15	Cloudy	0	SE	0–12	27	31	2	34	8	58.00	1.25
Stockbridge (65)*	12/15	Cloudy-Fog	0	SE	0–10	24	40	0	8	5	29.50	2.50
Sturgeon Bay (51)	12/15	Cloudy	0	S	5–15	27	40	17	38	21	116.25	9.50
Three Lakes (12)	12/16	Light Rain	0	SE	10–15	36	38	1	7	5	23.00	0.00
Trempealeau (29)	12/15	Cloudy	0	S	6–12	28	44	4	9	4	31.50	0.00
Waterloo (85)	12/16	Cloudy	0	S	0–10	40	47	8	13	7	54.75	0.50
Waukesha (72)	12/15	Cloudy-Fog	0	S-SE	0–3	32	40	4	34	10	63.75	3.00
Waupaca (41)	12/26	Cloudy	1	NW-W	3–10	6	14	2	3	3	23.00	2.00
Wausau (33)	12/15	Cloudy-Fog	0	E	0–8	25	38	3	12	9	43.00	8.00
Wautoma (39)*	12/28	Partly Cloudy	2	NW	5–15	8	20	28	12	5	49.50	5.75
Willard (27)*	12/30	Cloudy-Lt.Snow	2	NW	5–15	7	18	5	12	6	54.50	3.25
Wisconsin Rapids (35)	12/15	Cloudy	0	SE	5–7	25	35	3	16	10	47.00	0.00
Woodland Dunes												
NE (54)	12/30	Clear-Cloudy	1	W	10–15	10	20	2	13	9	24.75	1.00
NW (66)	12/29	Clear	1	W	10–20	10	17	0	15	6	10.50	0.00
SE (55)	12/16	Cloudy-Lt.Rain	0	S	5–15	41	43	1	8	8	19.50	0.00
SW (67)	12/15	Cloudy	0	W-SSE	10	35	35	0	7	6	21.50	1.00
TOTAL								**525**	**1,393**	**678**	**4253.75**	**263 .75**

*Counts marked with an asterisk had their reports sent to both the WSO and the National Audubon Society.
Bold lettering within a count indicates the highest totals for the state.

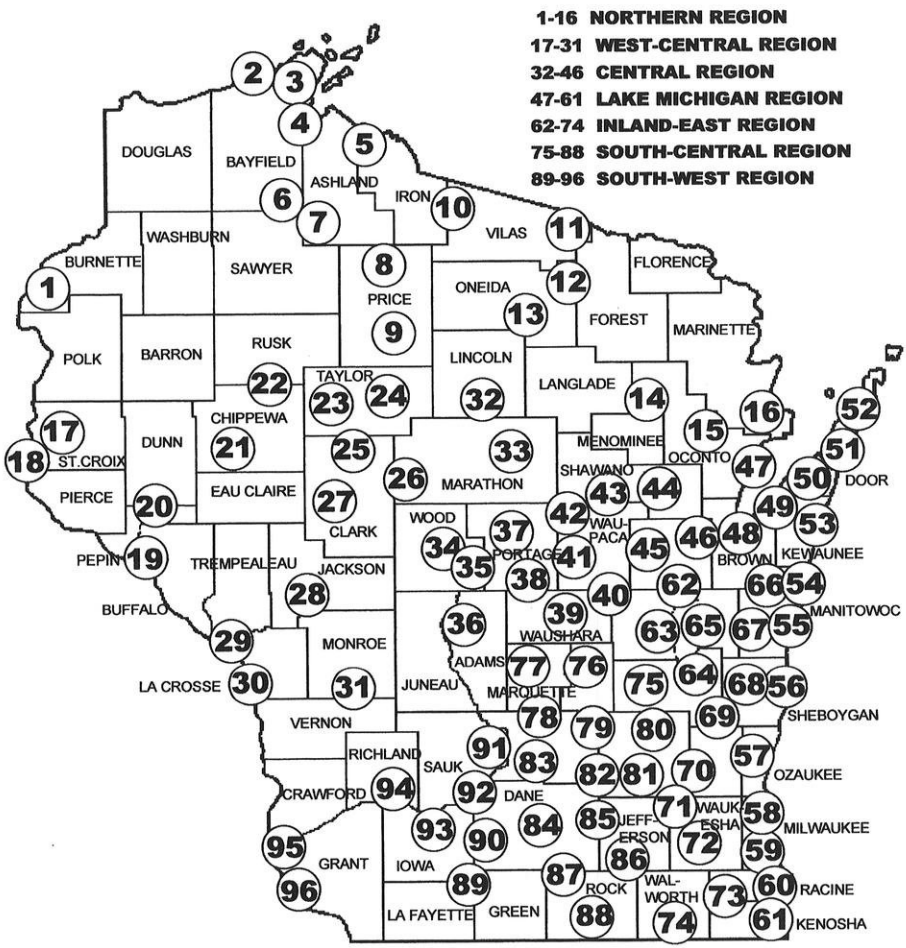

Figure 1. Locations of the 2001 Wisconsin Christmas Bird Counts.

the total number of individuals for each common species and compares that total with the average total (adjusted for party hours) over the past 10 years.

Loons through Vultures—Two Red-throated Loons (Sheboygan) comprise the third count record since 1976. Fifty Common Loons over 15 counts are both records; the 30 loons from Madison alone surpass the old statewide total of 19 (1999). Both Pied-billed and Horned Grebes were well above average, with the Horned found on a record five counts. Two American White Pelicans (Trempealeau) create a fourth count record. Cormorants were reported on a record 11 counts, with their total (52) second only to the 72 found in 1999. While the Great Blue Heron (70 from 33 counts) enjoyed record highs, the Least Bittern (Chippewa Falls) and the Great Egret (Hustisford) had their first count records. Four Black-crowned Night-Herons

(Green Bay) and a Turkey Vulture (Baraboo) mark, respectively, the second and the third consecutive count years for these species.

Geese and Swans—Snow Geese numbers (160) were eclipsed only by 344 in 1998 and 569 in 1999. Their 20 counts breaks the old high of 11 (1998). The Ross's Goose was reported for the first time, with four birds in Madison and one in Appleton. Canada Geese were 32% above the 10-year average. All three swan species established record highs. Tundra Swan numbers were spectacular, with 4,102 at Trempealeau, 1,205 at Pensaukee, and 1,000 at La Crosse. If one added all such swans reported on all the Wisconsin CBCs back to 1939, that total (5,395) would be 30% less than the total for 2001 alone (7,714). The count of 124 Trumpeter Swans from Hudson is 210% greater than the previous statewide high of 59 (2000).

Ducks—Ducks were more numerous and widespread than ever reported in previous counts. Sixteen duck species set records for the number of counts on which they were reported. Eight species (Gadwall, Northern Pintail, Green-winged Teal, Redhead, Ring-necked Duck, Bufflehead, Hooded Merganser, and Common Merganser) set impressive records for high numbers of individuals. Most ducks had totals that are multiples of their 10-year averages. An exception was the American Black Duck, whose numbers (894) were the lowest since 362 in 1951 (when only 18 counts were taken).

Hawks and Eagles—Most hawks and eagles had average to above average totals. The Northern Harrier (281) was record high and 135% above its 10-year average. Peregrine Falcons were reported on a record number of counts and in record numbers. Exceptions to the trend were Rough-legged Hawk and Northern Goshawk; both fell well below their 10-year averages.

Partridge through Quail—As might be expected with a snow-free landscape, every species in this grouping had totals below their 10-year averages. Even the one exception, the Wild Turkey, had its lowest total since 1997. With four birds over two counts, the Gray Partridge had its lowest count since 1945.

Rails through Shorebirds—As in seven of the last 14 count years, Virginia Rails were heard on the Poynette Count. As with waterbirds in general, American Coot numbers (8,878) were high, surpassed only by 9,932 (1999) and 12,580 (1998). Likewise, Sandhill Crane numbers (512) were outdone only by 547 (1999) and 6,019 (1998). The two shorebird species reported, Killdeer and Common Snipe, showed normal numbers.

Gulls—The year 2001 was a banner year for gulls. Nine gull species were found, including the first count record of a Black-headed Gull (Hales Corners). The two most common gull species, Ring-billed and Herring, were found on a record number of counts and in record-high numbers. The highest numbers for both species were inland rather than along the Great Lakes. The number of Ring-billed Gulls (34,423) is 291% above the 10-year average, and represents an 81% increase over the previous high of 19,033 in 1998. The Herring Gull number

Table 2. Number of each species in northern Wisconsin found on 19 or more counts.

Species	Grants-burg 1	Herbster 2	Bay-field 3	Ash-land 4	Gurney 5	Cable 6	Clam Lake 7	Fifield 8	Prentice 9	Manitowish Waters 10	Phelps 11	Three Lakes 12	Rhine-lander 13	Lake-wood 14	Spruce 15	Peshtigo 16	**Region Totals**
Great Blue Heron	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	**1**
Snow Goose	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Canada Goose	4150	0	0	75	0	0	0	6	0	0	0	0	0	0	108	886	**5225**
Tundra Swan	0	0	12	311	0	0	0	0	0	0	0	0	0	0	0	0	**323**
Gadwall	0	0	0	9	0	0	0	0	0	0	0	0	0	0	0	0	**9**
American Black Duck	0	0	0	53	0	0	0	0	0	0	0	0	0	0	0	6	**59**
Mallard	145	6	7	110	0	0	0	0	0	0	0	5	275	0	2	124	**674**
Lesser Scaup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Bufflehead	0	4	1	15	0	0	0	0	0	0	0	0	0	0	0	0	**20**
Common Goldeneye	0	70	46	249	0	0	0	0	0	0	0	0	0	0	0	0	**365**
Hooded Merganser	0	3	0	3	0	0	0	0	0	0	0	0	0	0	0	0	**6**
Common Merganser	0	1	1	103	0	3	0	0	0	1	15	43	0	0	0	9	**176**
Red-breasted Merganser	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Bald Eagle	32	13	6	9	7	16	7	6	1	4	4	3	8	0	1	2	**119**
Northern Harrier	2	0	0	0	0	0	0	0	0	0	0	0	0	0	9	3	**14**
Sharp-shinned Hawk	0	0	0	0	0	0	0	CW	0	0	0	0	0	0	0	1	**1**
Cooper's Hawk	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	3	**4**
Red-tailed Hawk	10	0	0	0	0	0	0	1	0	0	0	0	0	0	13	11	**35**
Rough-legged Hawk	19	0	3	8	9	1	7	7	1	0	0	1	0	0	0	13	**69**
American Kestrel	1	0	0	0	0	0	0	0	0	0	0	0	0	0	7	8	**16**
Ring-necked Pheasant	2	3	0	0	0	0	0	0	0	0	0	0	0	0	3	2	**10**
Ruffed Grouse	6	11	5	1	14	**39**	12	18	8	3	5	9	15	1	0	0	**147**
Wild Turkey	36	0	0	0	0	0	0	0	14	0	0	0	0	12	50	156	**268**
American Coot	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Ring-billed Gull	1	0	1	27	9	0	0	0	0	0	3	0	0	0	0	16	**57**
Herring Gull	0	1472	562	19	0	0	0	0	0	0	0	0	0	0	10	510	**2573**
Rock Dove	107	45	15	153	20	0	0	86	88	0	1	0	0	11	469	532	**1527**
Mourning Dove	0	0	52	10	CW	19	0	44	23	13	12	17	234	10	151	131	**716**
Eastern Screech-Owl	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Great Horned Owl	1	0	0	0	0	0	0	0	CW	0	0	0	0	0	2	3	**6**
Barred Owl	0	0	1	0	0	2	0	0	0	1	0	0	0	0	0	1	**5**
Belted Kingfisher	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1	**2**
Red-headed Woodpecker	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Red-bellied Woodpecker	1	0	0	0	0	0	0	0	2	0	0	0	1	0	2	2	**8**

Downy Woodpecker	22	16	14	3	3	26	14	24	29	15	25	4	37	7	10	19	**268**
Hairy Woodpecker	20	13	8	3	3	26	13	29	20	16	12	6	43	0	10	9	**231**
Northern Flicker	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	**3**
Pileated Woodpecker	6	2	2	2	CW	3	2	4	CW	2	2	1	9	0	0	2	**37**
Northern Shrike	0	2	0	5	1	0	0	0	2	0	0	0	2	1	2	4	**19**
Blue Jay	137	16	29	9	4	39	8	32	38	13	26	8	65	81	62	54	**621**
American Crow	441	27	90	354	81	204	56	358	330	93	290	59	94	21	308	294	**3100**
Common Raven	17	22	24	9	**73**	36	64	34	13	24	20	20	6	7	4	30	**403**
Horned Lark	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	**11**
Black-capped Chickadee	107	195	174	148	196	274	397	412	248	222	309	184	429	33	119	277	**3724**
Tufted Titmouse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Red-breasted Nuthatch	2	6	13	5	2	29	14	26	4	24	11	16	56	3	3	19	**233**
White-breasted Nuthatch	16	24	31	16	11	43	28	42	36	33	53	9	63	2	13	26	**446**
Brown Creeper	0	0	1	0	2	4	3	4	0	1	0	2	4	1	0	0	**22**
Golden-crowned Kinglet	0	0	0	0	4	**26**	1	2	0	0	0	3	0	0	0	0	**36**
American Robin	0	1	1	0	0	1	0	CW	0	0	0	0	0	0	0	3	**3**
European Starling	581	74	220	326	258	0	0	365	65	0	83	48	5	90	560	1755	**4430**
Cedar Waxwing	200	0	0	0	0	13	0	0	0	0	0	0	107	0	383	77	**780**
American Tree Sparrow	57	0	0	0	0	0	0	0	11	0	0	0	10	0	96	25	**199**
Song Sparrow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	**1**
Swamp Sparrow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
White-throated Sparrow	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Dark-eyed Junco	17	0	7	3	0	2	0	0	8	0	0	0	7	1	16	98	**159**
Lapland Longspur	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Snow Bunting	2	CW	0	2	150	CW	0	30	60	0	0	187	16	0	0	0	**447**
Northern Cardinal	5	0	2	4	0	2	1	6	7	0	0	0	8	0	13	12	**60**
Red-winged Blackbird	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**1**
Common Grackle	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**2**
Brown-headed Cowbird	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Purple Finch	8	2	0	0	0	0	0	0	5	4	0	0	1	0	CW	4	**24**
House Finch	21	2	0	10	0	8	0	0	0	0	0	0	4	0	5	17	**67**
Common Redpoll	321	30	10	2	21	75	85	104	102	119	1	37	272	2	29	1	**1211**
Pine Siskin	64	6	10	0	0	0	0	89	4	12	65	40	236	15	0	10	**551**
American Goldfinch	49	25	26	0	16	14	2	205	21	37	40	15	128	5	184	200	**967**
Evening Grosbeak	11	13	88	34	135	150	130	112	40	82	**193**	100	182	25	0	0	**1295**
House Sparrow	27	34	74	67	50	0	0	12	30	0	14	0	8	0	144	500	**960**
Total Species	**38**	**36**	**34**	**45**	**24**	**30**	**21**	**29**	**30**	**24**	**25**	**27**	**33**	**20**	**36**	**45**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 3. Number of each species in west-central Wisconsin found on 19 or more counts.

Species	New Richmond 17	Hudson 18	Nelson 19	Durand 20	Chippewa Falls 21	Holcombe 22	Gilman 23	Medford 24	Owen 25	Spencer 26	Willard 27	Black River Falls 28	Trempealeau 29	La Crosse 30	Kickapoo Valley 31	**Region Totals**
Great Blue Heron	0	0	0	0	0	0	1	0	0	0	0	0	4	2	0	**7**
Snow Goose	0	1	0	0	0	0	0	0	0	0	0	0	24	0	0	**25**
Canada Goose	3457	6176	0	0	1058	523	0	12	1768	53	0	59	7226	323	0	**20655**
Tundra Swan	0	0	0	0	0	0	35	0	0	38	0	3	**4102**	1000	0	**5178**
Gadwall	0	14	0	0	0	0	0	0	0	0	0	0	65	108	0	**187**
American Black Duck	5	12	0	0	26	0	0	0	0	1	0	0	40	9	0	**93**
Mallard	1259	969	1	0	1757	150	0	107	11	4	0	48	**5752**	2321	0	**12379**
Lesser Scaup	0	0	0	0	0	0	0	0	0	0	0	0	16	**100**	0	**116**
Bufflehead	0	0	0	0	0	0	0	0	0	0	0	0	7	4	0	**11**
Common Goldeneye	57	315	350	0	0	0	2	0	0	0	0	0	0	725	0	**1449**
Hooded Merganser	0	0	0	0	0	6	0	0	0	0	0	0	**284**	0	0	**290**
Common Merganser	0	560	400	0	0	70	97	0	0	0	0	0	475	0	0	**1602**
Red-breasted Merganser	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	**7**
Bald Eagle	22	21	114	25	5	14	7	0	8	4	11	6	**13 9**	19	3	**398**
Northern Harrier	0	0	3	1	2	1	11	0	14	4	0	1	0	0	1	**38**
Sharp-shinned Hawk	2	0	**4**	1	0	0	0	1	1	0	0	0	0	0	0	**9**
Cooper's Hawk	3	0	0	0	0	0	CW	1	0	1	2	0	0	3	1	**11**
Red-tailed Hawk	12	11	36	28	8	3	3	4	16	15	44	3	13	23	15	**234**
Rough-legged Hawk	1	1	4	6	2	0	22	3	0	1	14	4	2	1	1	**62**
American Kestrel	2	0	3	0	0	0	1	0	10	7	1	0	3	8	5	**40**
Ring-necked Pheasant	15	3	8	0	2	0	3	2	0	1	0	0	2	0	1	**37**
Ruffed Grouse	1	1	2	8	CW	0	14	7	5	11	9	0	0	0	0	**58**
Wild Turkey	0	115	221	31	45	11	47	0	5	22	**383**	48	23	9	39	**999**
American Coot	0	3	0	0	0	0	0	0	0	0	0	0	11	60	0	**74**
Ring-billed Gull	9	0	1	0	241	15	0	0	0	0	0	0	678	2033	1	**2978**
Herring Gull	3	17	0	0	1	0	0	0	0	0	0	0	1	25	0	**47**
Rock Dove	240	236	915	607	236	261	204	250	805	594	531	70	71	258	189	**5467**
Mourning Dove	3	49	39	14	8	11	28	62	95	321	139	36	5	211	15	**1036**
Eastern Screech-Owl	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
Great Horned Owl	1	0	2	4	0	0	0	2	3	2	1	0	3	3	0	**21**
Barred Owl	0	0	0	1	0	1	0	0	0	1	0	2	2	1	0	**8**
Belted Kingfisher	1	1	2	0	0	1	1	0	0	1	2	0	1	2	4	**16**
Red-headed Woodpecker	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	**1**
Red-bellied Woodpecker	7	14	17	21	6	2	5	3	8	14	26	6	24	23	20	**196**
Downy Woodpecker	14	15	85	62	12	6	15	44	71	73	59	25	36	58	18	**593**

Hairy Woodpecker	4	9	22	13	8	9	21	32	38	27	26	13	12	23	4	**261**
Northern Flicker	4	0	2	3	0	0	0	0	1	0	0	0	1	4	0	**15**
Pileated Woodpecker	CW	4	10	8	2	4	3	3	5	1	1	2	4	8	2	**57**
Northern Shrike	2	2	1	**6**	2	2	1	3	**6**	5	4	1	1	0	2	**38**
Blue Jay	103	81	181	135	30	96	50	136	122	77	204	60	50	68	34	**1427**
American Crow	671	337	920	473	558	369	256	528	558	311	1034	432	765	321	200	**7733**
Common Raven	0	0	0	0	0	32	56	46	3	0	17	5	0	0	0	**159**
Horned Lark	0	0	4	31	0	10	0	3	16	51	8	0	0	0	0	**123**
Black-capped Chickadee	205	135	685	313	295	220	621	683	815	609	700	150	132	373	83	**6019**
Tufted Titmouse	0	0	6	27	14	4	0	0	0	0	0	3	0	5	1	**60**
Red-breasted Nuthatch	CW	0	3	12	9	7	5	21	8	3	7	11	4	9	1	**100**
White-breasted Nuthatch	22	17	91	48	33	29	61	46	117	88	75	30	68	96	25	**846**
Brown Creeper	2	0	0	2	3	1	1	0	0	0	2	0	5	10	1	**27**
Golden-crowned Kinglet	0	0	0	0	0	0	3	2	0	2	0	0	1	0	4	**12**
American Robin	**534**	418	2	490	3	0	0	0	9	0	1	0	20	3	1	**1481**
European Starling	129	1045	1020	905	687	375	1027	261	1837	574	286	1	700	557	545	**9949**
Cedar Waxwing	522	53	54	122	12	29	0	0	1	0	2	0	27	95	60	**977**
American Tree Sparrow	39	9	512	298	43	91	212	30	65	84	158	3	305	114	26	**1989**
Song Sparrow	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	**1**
Swamp Sparrow	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
White-throated Sparrow	0	0	0	2	2	0	0	0	0	0	0	0	0	0	0	**4**
Dark-eyed Junco	42	84	669	618	96	6	22	14	47	199	317	61	244	325	115	**2859**
Lapland Longspur	0	0	0	0	0	4	0	0	0	236	0	0	0	0	0	**240**
Snow Bunting	0	0	0	0	0	0	2	8	0	141	25	0	0	0	0	**176**
Northern Cardinal	6	30	128	63	13	9	9	19	35	71	82	17	42	122	30	**676**
Red-winged Blackbird	0	0	70	0	1	0	0	0	0	0	0	0	0	3	5	**79**
Common Grackle	0	0	1	0	0	0	1	0	1	0	0	0	1	0	0	**4**
Brown-headed Cowbird	0	0	0	0	0	0	0	0	0	0	0	0	29	0	0	**29**
Purple Finch	13	36	27	4	12	8	0	2	10	32	19	9	1	91	7	**271**
House Finch	6	17	17	45	0	0	10	20	20	16	32	4	26	0	8	**221**
Common Redpoll	0	0	0	0	47	17	268	**393**	43	86	39	0	0	0	0	**893**
Pine Siskin	1	38	0	19	60	32	0	83	4	16	57	17	23	0	8	**358**
American Goldfinch	21	101	295	140	0	51	45	76	151	200	629	148	32	89	200	**2178**
Evening Grosbeak	0	0	0	0	100	13	5	85	0	0	7	0	0	0	0	**210**
House Sparrow	60	300	991	876	534	179	471	659	2449	1393	1383	44	150	550	300	**10339**
Total Species	**43**	**44**	**45**	**42**	**40**	**40**	**43**	**40**	**40**	**44**	**39**	**32**	**62**	**56**	**38**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 4. Number of each species in central Wisconsin found on 19 or more counts.

Species	Merrill 32	Wausau 33	Arpin 34	Wis. Rapids 35	Adams 36	Stevens Point 37	Plain-field 38	Wau-toma 39	Fre-mont 40	Wau-paca 41	Norske 42	Caro-line 43	Shawano 44	Shioc-ton 45	Sey-mour 46	**Region Totals**
Great Blue Heron	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	**2**
Snow Goose	0	0	0	0	0	0	0	2	0	0	0	0	0	0	1	**3**
Canada Goose	0	350	0	291	73	540	0	363	681	928	0	70	1238	336	1250	**6120**
Tundra Swan	0	0	0	0	0	27	0	0	120	0	0	0	0	0	0	**147**
Gadwall	0	1	0	0	8	0	0	0	2	0	0	0	CW	0	0	**11**
American Black Duck	0	4	0	4	0	3	0	9	5	1	0	1	12	0	5	**44**
Mallard	8	463	0	424	73	750	25	662	263	80	12	179	967	109	250	**4265**
Lesser Scaup	0	16	0	0	0	1	0	0	20	0	0	0	0	0	0	**37**
Bufflehead	0	0	0	1	0	0	0	0	1	0	0	0	CW	0	0	**2**
Common Goldeneye	0	27	0	31	6	44	0	0	10	0	0	0	17	0	0	**135**
Hooded Merganser	0	3	0	2	0	0	0	0	6	1	0	0	1	1	0	**14**
Common Merganser	0	32	0	3	0	6	0	0	801	0	0	0	1104	0	0	**1946**
Red-breasted Merganser	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	**5**
Bald Eagle	2	6	4	3	8	1	0	10	13	4	1	1	23	4	0	**80**
Northern Harrier	0	2	0	2	0	6	0	2	13	0	2	1	1	1	5	**35**
Sharp-shinned Hawk	0	0	0	0	0	2	0	2	2	0	2	0	2	1	1	**12**
Cooper's Hawk	0	1	0	1	0	CW	1	1	2	1	0	0	2	0	1	**10**
Red-tailed Hawk	0	4	14	2	8	22	10	40	31	14	7	1	6	36	17	**212**
Rough-legged Hawk	0	0	16	3	3	4	5	**28**	5	6	5	5	3	4	0	**87**
American Kestrel	0	0	1	CW	0	4	2	1	15	1	1	4	4	39	41	**113**
Ring-necked Pheasant	6	0	0	3	0	1	2	1	15	0	1	1	15	2	0	**47**
Ruffed Grouse	1	3	3	1	0	3	1	2	CW	0	2	6	9	0	0	**31**
Wild Turkey	CW	13	90	105	35	25	104	217	53	82	79	48	50	55	0	**956**
American Coot	0	3	0	0	0	0	0	0	2	0	0	0	13	0	0	**18**
Ring-billed Gull	0	36	0	24	0	46	0	0	1859	0	23	39	63	0	165	**2255**
Herring Gull	0	1	0	45	0	10	0	0	**4610**	0	0	0	67	0	15	**4748**
Rock Dove	278	356	117	369	19	265	132	220	397	357	95	236	448	830	610	**4729**
Mourning Dove	30	116	35	67	41	132	150	337	229	88	207	50	150	338	560	**2530**
Eastern Screech-Owl	0	0	0	0	0	0	0	1	0	1	1	CW	0	0	1	**4**
Great Horned Owl	0	0	2	3	0	2	0	5	16	1	2	0	4	6	4	**45**
Barred Owl	0	CW	0	CW	0	6	0	2	0	1	1	1	2	0	1	**14**
Belted Kingfisher	0	0	0	0	0	0	0	2	0	0	1	3	0	0	0	**6**
Red-headed Woodpecker	0	0	0	0	0	1	1	0	0	0	0	0	1	0	0	**3**
Red-bellied Woodpecker	0	6	1	4	2	18	5	29	19	11	7	5	9	26	5	**147**

Downy Woodpecker	2	19	7	24	2	36	21	68	45	55	10	17	29	63	9	**407**
Hairy Woodpecker	1	19	3	12	0	35	6	33	10	16	8	9	21	18	1	**192**
Northern Flicker	0	0	0	0	0	CW	0	2	2	2	0	0	0	1	0	**7**
Pileated Woodpecker	CW	2	1	3	0	3	1	6	2	6	7	6	7	1	1	**46**
Northern Shrike	0	3	4	1	0	CW	1	4	4	3	2	1	2	2	0	**27**
Blue Jay	7	70	45	57	45	134	108	276	63	156	68	39	85	125	19	**1297**
American Crow	68	775	256	314	328	613	732	931	295	472	551	161	318	419	121	**6354**
Common Raven	0	3	1	0	4	1	5	5	0	9	13	12	6	2	1	**62**
Horned Lark	0	0	18	0	0	0	33	0	0	16	1	0	0	0	15	**83**
Black-capped Chickadee	15	228	99	120	27	461	223	371	340	197	202	152	237	327	58	**3057**
Tufted Titmouse	0	0	0	0	2	0	0	0	0	0	0	0	0	1	0	**3**
Red-breasted Nuthatch	CW	10	0	10	1	29	12	32	7	4	3	9	10	9	1	**137**
White-breasted Nuthatch	3	27	9	26	8	72	27	92	57	49	39	29	54	66	13	**571**
Brown Creeper	1	5	0	1	0	5	1	9	1	2	0	0	3	0	0	**28**
Golden-crowned Kinglet	0	0	0	0	0	CW	0	0	0	0	5	3	0	1	0	**9**
American Robin	0	3	0	2	0	3	0	26	3	1	5	3	1	0	12	**59**
European Starling	79	568	134	1004	5	404	223	1204	1889	324	127	873	644	1759	1750	**10987**
Cedar Waxwing	1	50	0	0	0	34	0	116	82	48	36	318	93	64	0	**842**
American Tree Sparrow	0	31	12	2	45	24	58	134	482	82	109	4	50	180	53	**1266**
Song Sparrow	0	0	0	0	0	0	0	0	3	0	0	0	0	2	0	**5**
Swamp Sparrow	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	**3**
White-throated Sparrow	0	0	0	0	0	1	0	0	0	0	0	0	9	0	0	**10**
Dark-eyed Junco	5	57	35	84	106	246	551	944	424	563	289	63	124	271	40	**3802**
Lapland Longspur	0	0	0	0	0	95	68	0	0	0	12	0	0	50	400	**625**
Snow Bunting	0	0	0	7	0	15	2	200	0	0	0	0	42	141	5	**412**
Northern Cardinal	2	29	31	19	2	55	50	92	54	66	38	22	19	43	9	**531**
Red-winged Blackbird	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	**2**
Common Grackle	0	0	0	0	0	0	0	0	6	0	0	0	4	0	0	**10**
Brown-headed Cowbird	0	0	0	0	0	0	0	0	43	0	0	0	0	0	0	**43**
Purple Finch	0	5	4	0	3	0	4	64	1	9	20	22	1	0	0	**133**
House Finch	0	46	0	14	0	158	46	79	118	71	15	25	53	110	34	**769**
Common Redpoll	CW	200	6	6	0	CW	160	0	0	0	280	3	51	0	2	**708**
Pine Siskin	CW	1	0	12	0	140	0	40	0	53	90	23	36	37	2	**434**
American Goldfinch	CW	151	62	62	3	247	70	250	115	295	114	149	145	279	48	**1990**
Evening Grosbeak	CW	25	0	0	0	0	0	2	0	2	0	0	0	0	0	**29**
House Sparrow	41	303	85	41	7	377	211	53	746	151	130	2	160	1040	520	**3867**
Total Species	**19**	**47**	**28**	**43**	**27**	**50**	**37**	**50**	**60**	**44**	**47**	**41**	**59**	**43**	**40**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 5. Number of each species along Lake Michigan in Wisconsin found on 19 or more counts.

Species	Pen-saukee 47	Green Bay 48	New Franken 49	Brus-sels 50	Stur-geon Bay 51	Ephraim 52	Ke-waunee 53	Wood-land Dunes NE 54	Wood-land Dunes SE 55	Sheboy-gan 56	River-edge 57	Mil-waukee 58	Hales Cor-ners 59	Racine 60	Kenosha 61	**Region Totals**
Great Blue Heron	1	0	1	CW	0	0	1	1	2	0	**11**	4	CW	CW	0	**21**
Snow Goose	0	35	10	0	1	0	0	0	0	0	0	0	0	0	0	**46**
Canada Goose	106	9157	746	727	4033	2	611	511	1924	2020	4136	2176	918	3493	1600	**32160**
Tundra Swan	1205	13	CW	100	66	0	0	0	0	0	0	0	0	0	0	**1384**
Gadwall	8	0	0	5	1	0	CW	0	0	3	0	11	0	0	0	**28**
American Black Duck	93	**103**	15	17	67	0	9	2	10	37	6	32	0	32	0	**423**
Mallard	507	1255	1678	281	1100	64	162	589	108	1402	471	1716	646	546	600	**11125**
Lesser Scaup	18	0	0	0	0	0	0	0	1	15	0	2	0	0	CW	**36**
Bufflehead	43	1	136	70	514	18	62	1	53	260	15	946	31	108	18	**2276**
Common Goldeneye	256	17	114	605	356	2	1354	224	137	**1465**	242	962	3	63	59	**5859**
Hooded Merganser	12	3	1	4	12	0	0	50	0	0	CW	23	0	1	0	**106**
Common Merganser	34	50	58	556	201	30	132	6	6	125	14	16	0	0	3	**1231**
Red-breasted Merganser	0	0	4	16	76	4	151	0	22	7	CW	**172**	7	24	8	**491**
Bald Eagle	7	2	1	3	3	3	2	6	1	2	CW	0	0	0	0	**30**
Northern Harrier	1	1	3	16	10	0	**32**	3	0	1	6	0	0	0	CW	**73**
Sharp-shinned Hawk	CW	3	3	1	2	0	1	1	0	1	**4**	2	1	3	CW	**22**
Cooper's Hawk	CW	10	2	CW	1	0	1	1	0	1	9	11	1	3	1	**41**
Red-tailed Hawk	5	62	24	22	17	1	33	5	13	14	79	22	5	13	10	**325**
Rough-legged Hawk	CW	1	0	18	15	2	27	8	0	1	1	0	0	0	1	**74**
American Kestrel	3	34	19	8	2	0	2	1	14	4	32	5	2	8	5	**139**
Ring-necked Pheasant	5	0	**29**	4	3	0	0	2	0	1	6	1	0	0	2	**53**
Ruffed Grouse	3	1	7	3	5	1	3	2	0	0	1	0	0	0	0	**26**
Wild Turkey	49	17	102	213	144	47	185	28	74	0	179	0	0	0	CW	**1038**
American Coot	0	0	0	0	784	0	4	0	0	9	37	101	0	27	130	**1092**
Ring-billed Gull	7	867	18	801	1705	0	110	44	274	260	659	1396	932	608	200	**7881**
Herring Gull	201	2616	220	158	686	55	561	829	1197	785	79	1481	11	66	162	**9107**
Rock Dove	254	**1170**	139	335	227	0	449	271	412	130	1 019	1156	68	556	91	**6277**
Mourning Dove	292	621	134	132	130	41	131	296	105	57	853	329	96	328	16	**3561**
Eastern Screech-Owl	0	1	0	0	0	0	1	0	0	0	23	2	0	14	0	**41**
Great Horned Owl	2	6	4	2	3	0	5	4	1	0	**40**	12	8	5	CW	**92**
Barred Owl	CW	1	2	0	1	0	0	0	0	0	**9**	0	0	0	0	**13**
Belted Kingfisher	0	1	0	0	1	0	0	0	0	1	**12**	3	0	2	0	**20**

Red-headed Woodpecker	0	2	1	2	0	0	0	0	2	0	0	1	0	0	0	**8**
Red-bellied Woodpecker	4	26	24	8	11	10	7	8	5	3	94	18	17	9	2	**246**
Downy Woodpecker	14	93	73	35	63	23	36	27	10	9	**283**	146	31	43	5	**891**
Hairy Woodpecker	15	38	17	16	35	27	9	12	9	0	80	26	5	2	CW	**291**
Northern Flicker	0	0	4	0	1	0	3	0	0	0	9	12	1	0	0	**30**
Pileated Woodpecker	4	1	4	4	8	9	0	3	0	0	0	0	0	0	0	**33**
Northern Shrike	1	2	1	3	2	3	0	0	2	0	4	1	0	0	0	**19**
Blue Jay	42	131	88	16	59	23	59	21	15	10	250	36	28	80	7	**865**
American Crow	202	742	177	826	755	193	961	129	214	178	1343	1231	156	229	72	**7408**
Common Raven	4	0	0	7	45	9	3	0	0	0	0	0	0	0	0	**68**
Horned Lark	0	23	0	0	0	0	45	0	0	0	0	0	0	1	42	**111**
Black-capped Chickadee	164	399	213	128	587	130	315	152	87	88	**1413**	608	111	194	12	**4601**
Tufted Titmouse	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Red-breasted Nuthatch	1	28	21	5	44	10	1	8	1	7	41	21	9	9	CW	**206**
White-breasted Nuthatch	27	104	50	17	51	15	15	22	30	13	258	123	21	36	4	**786**
Brown Creeper	CW	3	0	1	1	2	0	0	0	0	6	0	2	0	1	**16**
Golden-crowned Kinglet	0	1	0	2	6	7	6	2	1	0	2	0	0	0	0	**27**
American Robin	9	16	1	0	CW	1	8	0	2	0	111	496	97	15	7	**763**
European Starling	245	2027	335	1092	1263	30	676	696	951	36	2656	3926	269	936	1466	**16604**
Cedar Waxwing	81	65	30	0	115	0	142	0	30	0	379	354	153	59	90	**1498**
American Tree Sparrow	146	154	15	7	17	0	83	10	10	10	239	128	21	100	17	**957**
Song Sparrow	0	1	5	0	1	0	1	0	0	0	6	14	CW	5	CW	**33**
Swamp Sparrow	0	0	0	0	0	0	0	0	0	0	2	7	0	CW	0	**9**
White-throated Sparrow	0	7	1	0	0	2	0	13	0	0	6	26	1	0	3	**59**
Dark-eyed Junco	49	307	89	61	179	10	156	116	67	92	1027	463	65	197	25	**2903**
Lapland Longspur	0	50	0	0	0	0	271	0	0	0	0	0	0	0	0	**321**
Snow Bunting	6	162	0	198	11	0	157	1	0	150	0	0	0	0	14	**699**
Northern Cardinal	23	122	46	36	81	21	85	31	30	24	412	356	87	106	5	**1465**
Red-winged Blackbird	3	2	2	CW	CW	0	0	0	0	0	1	0	0	1	CW	**9**
Common Grackle	0	0	10	CW	CW	0	0	0	1	0	2	0	0	0	CW	**13**
Brown-headed Cowbird	32	30	0	1	CW	0	3	0	0	0	CW	0	0	0	0	**66**
Purple Finch	3	0	37	2	2	3	1	2	1	0	34	2	0	1	0	**88**
House Finch	18	276	89	9	139	0	51	65	70	42	756	338	39	54	2	**1948**
Common Redpoll	0	25	2	74	202	16	11	0	0	0	0	0	0	3	0	**333**
Pine Siskin	3	0	10	0	**384**	102	3	69	6	0	16	1	0	0	0	**594**
American Goldfinch	104	225	136	125	292	76	203	84	67	37	596	325	101	143	7	**2521**
Evening Grosbeak	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
House Sparrow	109	1499	103	432	259	0	624	228	160	59	1753	1402	170	405	220	**7423**
Total Species	**63**	**67**	**56**	**56**	**71**	**41**	**60**	**48**	**46**	**53**	**64**	**69**	**40**	**45**	**42**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 6. Number of each species in inland eastern Wisconsin found on 19 or more counts.

Species	Apple-ton 62	Osh-kosh 63	Fond du Lac 64	Stock-bridge 65	Wood-land Dunes NW 66	Wood-land Dunes SW 67	Ply-mouth 68	Ket-tle Moraine 69	Hart-ford 70	Ocono-mowoc 71	Wau-kesha 72	Bur-ling-ton 73	Lake Geneva 74	**Region Totals**
Great Blue Heron	1	1	0	CW	1	0	0	0	1	1	4	3	CW	**12**
Snow Goose	3	2	2	2	0	0	0	0	1	0	0	0	1	**11**
Canada Goose	5328	3637	3520	1034	12	2080	1257	947	5340	1227	1842	1329	12162	**39715**
Tundra Swan	0	34	0	0	0	0	0	0	0	0	4	0	96	**134**
Gadwall	10	9	4	0	0	0	0	0	0	5	40	99	10	**177**
American Black Duck	35	33	17	3	19	0	0	0	9	15	0	0	7	**138**
Mallard	1849	1788	92	0	52	20	102	13	256	625	462	785	1346	**7390**
Lesser Scaup	9	1	11	1	0	0	0	1	2	0	0	0	70	**95**
Bufflehead	67	27	24	0	0	0	0	0	4	2	2	23	**1373**	**1522**
Common Goldeneye	158	216	2	0	0	0	0	0	2	42	7	1	465	**893**
Hooded Merganser	5	29	2	0	0	2	0	0	4	4	0	44	23	**113**
Common Merganser	221	402	**5103**	2019	0	0	0	0	10	12	0	0	1153	**8920**
Red-breasted Merganser	0	45	26	0	0	0	0	0	0	4	3	1	0	**79**
Bald Eagle	12	4	0	CW	0	2	0	1	5	0	CW	0	2	**2 6**
Northern Harrier	1	2	0	1	2	5	1	2	3	0	3	2	8	**30**
Sharp-shinned Hawk	2	0	0	0	0	0	0	0	3	2	1	2	3	**13**
Cooper's Hawk	7	8	1	1	1	1	1	2	7	2	3	4	8	**46**
Red-tailed Hawk	55	39	8	7	14	8	16	34	58	29	44	11	71	**394**
Rough-legged Hawk	2	1	0	0	2	2	0	4	1	3	0	0	3	**18**
American Kestrel	**47**	43	7	14	5	32	22	17	6	20	6	2	13	**234**
Ring-necked Pheasant	4	3	0	1	0	1	4	12	3	1	5	3	4	**41**
Ruffed Grouse	0	0	3	0	1	0	0	1	0	0	0	0	0	**5**
Wild Turkey	1	24	15	17	56	40	4	94	140	35	57	75	51	**609**
American Coot	3	239	0	0	0	0	0	0	32	0	7	66	2592	**2939**
Ring-billed Gull	331	908	350	4043	44	3	123	1373	22	991	168	94	625	**9075**
Herring Gull	4248	1016	2250	19	835	15	26	126	20	2	0	17	176	**8750**
Rock Dove	907	735	115	291	185	265	336	438	796	335	177	105	317	**5002**
Mourning Dove	**1231**	784	48	69	38	158	61	21	405	175	124	71	212	**3397**
Eastern Screech-Owl	2	1	0	1	0	0	0	1	5	6	3	2	4	**25**
Great Horned Owl	17	3	4	5	3	6	0	3	9	8	8	1	3	**70**
Barred Owl	2	1	2	1	0	0	0	0	1	4	0	0	0	**11**
Belted Kingfisher	1	1	0	2	1	0	0	1	4	0	4	0	2	**16**

Red-headed Woodpecker	0	0	0	0	0	0	0	0	0	0	0	0	3	**3**
Red-bellied Woodpecker	28	28	5	8	3	2	9	11	30	16	13	15	70	**238**
Downy Woodpecker	89	101	13	33	24	17	44	27	104	69	46	33	93	**693**
Hairy Woodpecker	20	11	7	9	7	6	3	4	34	21	15	2	19	**158**
Northern Flicker	2	1	0	CW	1	0	0	1	3	1	0	1	2	**1 2**
Pileated Woodpecker	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**
Northern Shrike	0	3	1	0	2	0	2	3	4	3	1	0	CW	**19**
Blue Jay	90	87	48	27	22	21	51	85	192	45	151	68	209	**1096**
American Crow	410	358	166	79	408	77	338	478	675	492	565	207	686	**4939**
Common Raven	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Horned Lark	153	2	13	30	21	0	0	0	106	0	0	3	311	**639**
Black-capped Chickadee	294	308	54	93	168	37	67	236	495	159	335	111	452	**2809**
Tufted Titmouse	0	1	0	0	0	0	0	0	0	1	CW	0	12	**14**
Red-breasted Nuthatch	24	33	3	0	0	0	8	10	11	12	12	2	26	**141**
White-breasted Nuthatch	88	108	22	33	26	27	16	34	85	154	39	22	94	**748**
Brown Creeper	4	3	1	1	2	0	0	4	4	0	CW	0	10	**29**
Golden-crowned Kinglet	1	2	0	0	7	0	0	12	0	0	2	9	0	**3 3**
American Robin	28	47	0	0	0	1	0	1	66	18	41	12	63	**277**
European Starling	5897	2445	151	215	551	232	218	2694	2399	1279	346	1183	1541	**19151**
Cedar Waxwing	247	30	0	0	0	0	7	91	17	8	57	155	2	**614**
American Tree Sparrow	107	498	23	68	11	66	48	163	401	8	160	37	360	**1950**
Song Sparrow	1	4	2	1	0	0	0	1	8	1	0	1	7	**26**
Swamp Sparrow	0	1	2	0	0	0	**8**	1	0	0	6	3	CW	**2 1**
White-throated Sparrow	8	0	0	3	0	0	0	0	1	0	0	0	6	**18**
Dark-eyed Junco	388	432	54	114	93	4	145	434	537	262	249	163	725	**3600**
Lapland Longspur	0	96	2	0	0	0	0	0	65	0	0	5	505	**673**
Snow Bunting	30	59	10	87	0	0	0	0	108	0	1	3	21	**319**
Northern Cardinal	165	152	12	41	24	14	39	92	227	110	74	37	227	**1214**
Red-winged Blackbird	1	20	3	0	0	0	0	0	4	1	1	1	0	**31**
Common Grackle	1	CW	1	1	0	0	1	0	0	1	0	0	0	**5**
Brown-headed Cowbird	12	0	0	0	0	0	0	3	1	4	0	0	33	**53**
Purple Finch	6	20	3	0	0	0	1	6	5	11	3	2	6	**63**
House Finch	226	238	13	126	5	1	4	38	227	101	50	44	211	**1284**
Common Redpoll	0	0	0	3	0	0	0	0	0	0	0	0	0	**3**
Pine Siskin	0	13	8	0	6	0	0	73	84	10	25	CW	35	**254**
American Goldfinch	178	130	57	62	27	53	81	161	324	122	161	42	247	**1645**
Evening Grosbeak	0	0	0	0	0	0	0	0	1	0	0	0	0	**1**
House Sparrow	1049	2650	60	448	241	297	149	424	1202	493	160	194	779	**8146**
Total Species	**76**	**80**	**53**	**42**	**39**	**32**	**34**	**50**	**64**	**53**	**50**	**55**	**64**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 7. Number of each species in south-central Wisconsin found on 19 or more counts.

Species	Rosendale 75	Green Lake 76	Montello 77	Pardeeville 78	Randolph 79	Horicon Marsh 80	Hutisford 81	Columbus 82	Poynette 83	Madison 84	Waterloo 85	Fort Atkinson 86	Cooksville 87	Beloit 88	**Region Totals**
Great Blue Heron	0	0	1	0	0	4	2	1	0	3	3	2	1	CW	**17**
Snow Goose	0	0	1	28	**55**	2	0	0	1	6	2	0	0	0	**95**
Canada Goose	8510	55155	4635	3548	9037	**150000**	2050	41	2655	7166	2167	778	1259	1325	**248326**
Tundra Swan	0	31	151	0	0	69	0	0	1	1	0	0	CW	0	**253**
Gadwall	0	5	25	0	0	62	0	0	26	**2273**	0	0	9	0	**2400**
American Black Duck	0	6	7	0	0	51	6	6	13	23	1	0	2	1	**116**
Mallard	7	346	858	83	19	855	251	426	189	3803	362	84	212	737	**8232**
Lesser Scaup	0	0	0	0	0	2	0	0	0	10	CW	0	0	5	**17**
Bufflehead	0	5	21	0	0	0	0	0	0	364	12	12	0	0	**414**
Common Goldeneye	0	75	40	4	0	3	0	0	102	207	97	0	0	28	**556**
Hooded Merganser	0	0	22	0	0	7	13	0	0	105	41	1	0	0	**189**
Common Merganser	0	658	5	0	0	7	2	0	59	31	0	0	CW	0	**762**
Red-breasted Merganser	0	0	0	0	0	0	0	0	1	3	0	0	0	0	**4**
Bald Eagle	2	23	7	20	0	1	2	1	14	4	0	0	0	0	**74**
Northern Harrier	14	6	3	2	5	17	6	4	10	1	1	0	CW	CW	**69**
Sharp-shinned Hawk	**4**	1	2	1	0	0	0	1	3	1	1	1	1	0	**16**
Cooper's Hawk	3	2	1	2	3	4	5	2	12	**21**	1	5	4	4	**69**
Red-tailed Hawk	114	23	33	35	87	30	**122**	49	119	75	25	0	39	27	**778**
Rough-legged Hawk	10	10	4	2	16	5	2	0	27	2	0	0	1	0	**79**
American Kestrel	10	4	1	8	12	11	38	26	4	8	9	4	3	12	**150**
Ring-necked Pheasant	2	5	2	2	3	2	8	3	18	1	2	1	1	1	**51**
Ruffed Grouse	0	5	2	1	0	0	0	0	2	0	0	0	0	0	**10**
Wild Turkey	1	146	84	162	71	10	8	78	244	22	112	15	25	66	**1044**
American Coot	0	22	52	0	0	17	0	0	0	**3487**	1170	3	0	4	**4755**
Ring-billed Gull	0	5	55	508	0	559	879	602	3	**5794**	667	5 7	0	1328	**10457**
Herring Gull	0	108	9	68	0	11	16	8	16	1147	56	76	1	1	**1517**
Rock Dove	832	219	108	292	952	402	1001	669	430	495	314	187	170	558	**6629**
Mourning Dove	360	88	55	173	129	479	278	159	384	888	138	38	83	151	**3403**
Eastern Screech-Owl	1	0	2	1	3	3	4	8	5	**35**	0	2	12	2	**78**
Great Horned Owl	2	7	15	7	6	9	10	11	7	15	1	5	7	5	**107**
Barred Owl	0	2	3	2	0	0	3	1	1	0	1	1	0	1	**1 5**
Belted Kingfisher	0	1	2	1	0	0	2	0	3	9	1	0	1	4	**24**
Red-headed Woodpecker	0	1	2	4	0	0	0	0	5	0	0	0	0	5	**17**
Red-bellied Woodpecker	17	18	28	32	19	6	44	26	81	**133**	15	20	11	39	**489**

Downy Woodpecker	49	28	41	74	64	29	92	95	152	249	63	64	55	57	**1112**
Hairy Woodpecker	5	9	16	15	10	10	19	20	29	**89**	19	24	8	14	**287**
Northern Flicker	0	2	4	2	4	0	1	0	7	10	1	0	0	2	**33**
Pileated Woodpecker	0	5	2	2	1	0	0	0	6	0	0	0	0	0	**16**
Northern Shrike	0	1	5	1	0	1	1	1	3	4	0	0	1	0	**18**
Blue Jay	150	88	164	180	135	54	160	160	278	281	101	38	64	107	**1960**
American Crow	248	304	479	517	321	162	411	264	1372	**2416**	397	494	145	826	**8356**
Common Raven	0	0	7	0	0	0	0	0	0	0	0	0	0	0	**7**
Horned Lark	31	0	3	0	417	19	166	**688**	109	12	25	3	34	0	**1507**
Black-capped Chickadee	174	184	226	324	163	128	352	187	575	1197	398	212	66	267	**4453**
Tufted Titmouse	0	0	0	12	0	0	1	0	69	9	15	2	2	23	**133**
Red-breasted Nuthatch	6	13	24	27	4	0	2	2	32	**61**	16	21	3	4	**215**
White-breasted Nuthatch	44	46	100	109	55	27	103	98	173	**310**	7 6	54	30	64	**1289**
Brown Creeper	1	0	CW	5	1	2	6	4	2	**23**	3	1	1	9	**58**
Golden-crowned Kinglet	0	0	0	0	0	0	0	0	4	10	1	0	CW	CW	**15**
American Robin	19	52	3	36	25	11	5	1	15	446	7	23	0	29	**672**
European Starling	1999	225	575	718	1888	3342	5906	5144	1113	3908	2821	2352	997	3300	**34288**
Cedar Waxwing	0	60	34	74	15	0	4	0	111	**708**	62	22	5	CW	**1095**
American Tree Sparrow	392	163	105	237	869	406	616	**906**	632	688	360	7	160	167	**5708**
Song Sparrow	0	0	3	2	2	1	10	12	10	41	11	0	3	8	**103**
Swamp Sparrow	0	0	1	0	0	1	1	1	2	19	1	0	0	**27**	**53**
White-throated Sparrow	0	2	0	0	0	0	0	0	2	**39**	1	0	3	26	**73**
Dark-eyed Junco	721	298	399	933	1297	138	327	467	1950	**2041**	411	181	333	508	**10004**
Lapland Longspur	**770**	0	0	0	126	8	215	515	78	1	0	0	6	0	**1719**
Snow Bunting	545	0	1	0	158	204	127	**820**	63	29	2	0	0	CW	**1949**
Northern Cardinal	87	49	64	98	82	50	104	109	258	**538**	83	72	59	172	**1825**
Red-winged Blackbird	0	0	0	0	3	51	**1641**	1257	5	466	29	0	50	8	**3510**
Common Grackle	0	1	0	1	0	22	**303**	9	1	3	0	0	0	0	**340**
Brown-headed Cowbird	1	12	0	0	1	287	**328**	92	0	26	0	1	0	0	**748**
Purple Finch	0	25	47	8	2	0	0	0	**126**	0	8	1	0	13	**230**
House Finch	52	54	28	46	99	10	109	72	364	**1016**	87	103	70	151	**2261**
Common Redpoll	0	0	0	0	0	0	0	0	4	14	0	1	0	0	**19**
Pine Siskin	2	12	55	13	0	0	0	2	25	40	0	3	1	9	**162**
American Goldfinch	206	117	109	212	161	103	248	138	482	**66 5**	149	290	44	52	**2976**
Evening Grosbeak	0	0	0	0	0	0	0	0	42	0	0	0	0	0	**42**
House Sparrow	1725	216	92	449	1941	691	2263	**3176**	1238	2042	718	353	175	412	**15491**
Total Species	**39**	**56**	**69**	**51**	**41**	**63**	**62**	**48**	**81**	**89**	**61**	**47**	**44**	**50**	

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 8. Number of each species in southwestern Wisconsin found on 19 or more counts.

Species	Blanchardville 89	Mount Horeb 90	Baraboo 91	Sauk City 92	Clyde 93	Richland Center 94	Bridgeport 95	Cassville 96	**Region Totals**	**Number of Counts**	**No. of Individuals**	**Percent Change**
Great Blue Heron	1	3	0	1	0	2	3	0	**10**	**33**	**70**	**+85%**
Snow Goose	0	CW	0	0	0	0	0	0	**0**	**20**	**160**	**+20%**
Canada Goose	76	80	2400	885	0	18	61	36	**3556**	**75**	**35575 7**	**+32%**
Tundra Swan	0	0	1	268	0	0	4	22	**295**	**25**	**7714**	**+157%**
Gadwall	0	0	3	0	0	0	0	0	**3**	**26**	**2815**	**+309%**
American Black Duck	1	0	0	11	0	0	9	0	**21**	**50**	**894**	**-37%**
Mallard	93	63	829	0	23	13	4465	526	**6012**	**81**	**50077**	**+25%**
Lesser Scaup	0	0	0	0	0	0	0	0	**0**	**19**	**301**	**−15%**
Bufflehead	0	0	5	0	0	0	0	0	**5**	**36**	**4250**	**+ 255%**
Common Goldeneye	0	0	16	77	0	0	0	0	**93**	**47**	**9350**	**+7%**
Hooded Merganser	5	0	0	0	0	0	2	0	**7**	**34**	**725**	**+533%**
Common Merganser	0	0	71	98	0	103	4	0	**276**	**48**	**14913**	**+150%**
Red-breasted Merganser	0	0	0	0	0	0	0	0	**0**	**21**	**587**	**- 30%**
Bald Eagle	2	5	45	122	2	77	107	109	**469**	**75**	**1196**	**+56%**
Northern Harrier	1	2	0	5	0	4	7	3	**22**	**59**	**281**	**+135%**
Sharp-shinned Hawk	1	4	2	5	0	4	2	0	**18**	**46**	**91**	**-6%**
Cooper's Hawk	1	5	3	3	1	0	4	0	**17**	**60**	**198**	**+28%**
Red-tailed Hawk	26	109	78	60	21	85	43	33	**455**	**83**	**2433**	**+2%**
Rough-legged Hawk	0	15	14	20	4	12	4	3	**72**	**69**	**461**	**- 23%**
American Kestrel	6	7	3	10	3	53	16	28	**126**	**72**	**818**	**+4%**
Ring-necked Pheasant	5	27	2	1	4	15	2	19	**75**	**65**	**314**	**- 19%**
Ruffed Grouse	1	3	1	0	0	0	1	0	**6**	**53**	**283**	**-23%**
Wild Turkey	19	306	146	118	1	340	53	0	**983**	**75**	**5897**	**+17%**
American Coot	0	0	0	0	0	0	0	0	**0**	**26**	**8878**	**+78%**
Ring-billed Gull	0	0	196	1061	0	70	366	27	**1720**	**64**	**34423**	**+291%**
Herring Gull	0	0	77	792	0	0	8	1	**878**	**59**	**27620**	**+90%**
Rock Dove	82	310	220	460	85	735	364	249	**2505**	**89**	**32136**	**+1%**
Mourning Dove	1	222	171	416	10	91	149	5	**1065**	**92**	**15708**	**-9%**
Eastern Screech-Owl	12	3	1	1	0	1	3	2	**23**	**38**	**174**	**-23%**
Great Horned Owl	27	6	3	10	2	11	1	3	**63**	**68**	**404**	**-2%**
Barred Owl	0	1	2	2	0	5	2	2	**14**	**42**	**80**	**- 13%**
Belted Kingfisher	6	1	4	1	5	7	6	3	**33**	**46**	**117**	**+35%**
Red-headed Woodpecker	1	10	0	2	2	3	6	17	**41**	**23**	**74**	**- 48%**
Red-bellied Woodpecker	51	102	57	62	24	69	68	54	**487**	**84**	**1811**	**+27%**

Downy Woodpecker	56	165	109	101	17	157	120	81	**806**	**96**	**4770**	**+7%**
Hairy Woodpecker	26	55	23	22	3	46	49	17	**241**	**92**	**1661**	**−5%**
Northern Flicker	5	6	1	4	5	20	**26**	5	**72**	**43**	**172**	**+17%**
Pileated Woodpecker	1	**11**	6	15	4	8	10	7	**62**	**60**	**252**	**+8%**
Northern Shrike	0	0	**6**	1	1	0	1	0	**9**	**63**	**149**	**-37%**
Blue Jay	127	**475**	218	275	86	395	177	149	**1902**	**96**	**9168**	**-22%**
American Crow	129	984	1044	710	278	1474	558	289	**5466**	**96**	**43356**	**+26%**
Common Raven	0	0	0	0	0	0	0	0	**0**	**40**	**699**	**-11%**
Horned Lark	12	252	0	0	0	0	12	0	**276**	**39**	**2750**	**−7%**
Black-capped Chickadee	273	685	529	350	140	726	390	303	**3396**	**96**	**28059**	**+3%**
Tufted Titmouse	12	102	29	20	8	39	**117**	36	**363**	**28**	**573**	**+117%**
Red-breasted Nuthatch	5	12	12	9	1	10	13	4	**66**	**87**	**1098**	**−23%**
White-breasted Nuthatch	115	195	121	97	42	205	173	115	**1063**	**96**	**5749**	**+21%**
Brown Creeper	1	0	3	2	0	4	9	6	**25**	**60**	**205**	**-34%**
Golden-crowned Kinglet	3	0	0	0	4	0	1	0	**8**	**33**	**140**	**-46%**
American Robin	0	14	9	148	2	4	20	0	**197**	**63**	**3455**	**+67%**
European Starling	142	864	383	734	780	1506	**6237**	2006	**12652**	**93**	**108061**	**+63%**
Cedar Waxwing	78	10	57	75	0	28	48	15	**311**	**63**	**6117**	**+136%**
American Tree Sparrow	568	475	298	336	112	249	869	411	**3318**	**83**	**15387**	**-17%**
Song Sparrow	26	3	1	2	0	4	**54**	24	**114**	**38**	**283**	**- 11%**
Swamp Sparrow	9	0	2	4	0	0	1	2	**18**	**22**	**104**	**+68%**
White-throated Sparrow	1	3	1	0	0	0	1	1	**7**	**28**	**172**	**0%**
Dark-eyed Junco	577	1715	908	1371	118	708	976	588	**6961**	**89**	**30288**	**+4%**
Lapland Longspur	5	162	0	60	0	0	13	0	**240**	**26**	**3818**	**+ 172%**
Snow Bunting	4	109	0	0	0	0	1	0	**114**	**46**	**4116**	**−57%**
Northern Cardinal	184	354	106	238	22	311	240	131	**1586**	**90**	**7357**	**−3%**
Red-winged Blackbird	18	132	1	4	0	2	137	0	**294**	**33**	**3926**	**+128%**
Common Grackle	1	0	1	0	0	12	15	0	**29**	**27**	**403**	**+182%**
Brown-headed Cowbird	2	0	0	0	0	0	1	0	**3**	**21**	**942**	**+193%**
Purple Finch	4	47	22	37	12	7	50	13	**192**	**67**	**1001**	**- 46%**
House Finch	17	240	144	212	2	60	58	26	**759**	**80**	**7309**	**-3%**
Common Redpoll	0	0	3	0	0	0	0	0	**3**	**43**	**3170**	**+2%**
Pine Siskin	0	6	14	5	0	51	6	0	**82**	**65**	**2435**	**+12%**
American Goldfinch	124	564	224	207	93	410	281	124	**2027**	**93**	**14304**	**-3%**
Evening Grosbeak	0	0	0	0	0	0	0	0	**0**	**25**	**1580**	**- 10%**
House Sparrow	582	1495	487	609	103	1206	2125	890	**7497**	**89**	**53723**	**0%**
Total Species	**55**	**52**	**63**	**57**	**37**	**52**	**78**	**45**				

CW = Found within 3 days of the count day but not on the day of the count. **Bold lettering** within the counts indicates counts having the highest totals for the state.

Table 9. Species found on 18 or fewer counts.

Species	Number of Counts	Number of Birds	Count and Number
Red-throated Loon	1	2	(Riveredge), Sheboygan 2, (Woodland Dunes SE)
Common Loon	15	50	Blanchardville 2, Brussels 1, Fond du Lac 1, Fort Atkinson 1, Hartford 1, Kenosha 1, La Crosse 2, **Madison 30,** Milwaukee 1, Montello 1, Oshkosh 2, (Riveredge), Sturgeon Bay 1, Waterloo 3, Waukesha 2, Woodland Dunes SE 1
Pied-billed Grebe	7	15	Burlington 2, (Horicon Marsh), Hustisford 1, Kenosha 2, La Crosse 2, (Lake Geneva), Madison 1, Oshkosh 1, (Riveredge), **Sturgeon Bay 6**
Horned Grebe	5	9	Ashland 1, Madison 1, Pensaukee 2, (Racine), **Riveredge 4,** Sturgeon Bay 1
American White Pelican	1	2	Trempealeau 2
Double-crested Cormorant	11	52	Appleton 16, Fond du Lac 2, **Green Bay 17,** Hustisford 4, Kewaunee 1, Milwaukee 2, Montello 1, (New Franken), Oshkosh 2, Pensaukee 1, (Riveredge), (Sheboygan), Sturgeon Bay 4, Trempealeau 2
Least Bittern	1	1	Chippewa Falls 1
Great Egret	1	1	Hustisford 1
Black-crowned Night-Heron	1	4	Green Bay 4
Turkey Vulture	1	1	(Ashland), Baraboo 1
Ross's Goose	2	5	Appleton 1, **Madison 4**
Mute Swan	18	112	Ashland 1, Burlington 10, Ephraim 4, Hartford 14, Horicon Marsh 2, Hudson 1, Kenosha 8, Kettle Moraine 2, Lake Geneva 1, Madison 14, Milwaukee 1, Montello 4, Mt. Horeb 2, Oshkosh 3, (Poynette), Shawano 3, Sheboygan 1, Sturgeon Bay 2, **Waukesha 39**
Trumpeter Swan	5	130	**Hudson 124,** Lake Geneva 1, Manitowish Waters 3, Shawano 1, Wausau 1
Wood Duck	15	32	**Appleton 5,** Baraboo 2, Bridgeport 3, Burlington 1, Kettle Moraine 3, Merrill 1, Montello 3, New Richmond 1, Oshkosh 1, Pensaukee 1, Richland Center 2, Riveredge 4, (Shawano), Stevens Point 1, Trempealeau 2, Waukesha 2
American Wigeon	11	169	Fremont 2, Hartford 1, **Horicon Marsh 91,** La Crosse 7, Madison 26, Milwaukee 12, Montello 4, Oshkosh 3, Pensaukee 5, Poynette 1, (Racine), Trempealeau 17
Northern Shoveler	13	764	Appleton 1, Burlington 2, Fond du Lac 12, (Fremont), Green Bay 2, Horicon Marsh 91, Hustisford 9, La Crosse 69, **Madison 326,** Montello 9, Oshkosh 12, Pensaukee 1, Trempealeau 79, Waterloo 151
Northern Pintail	12	213	Appleton 1, (Ashland), Horicon Marsh 40, Hustisford 1, **La Crosse 127,** Madison 1, Montello 1, Oshkosh 1, Pensaukee 3, Poynette 1, Racine 1, Richland Center 4, (Shawano), Trempealeau 32

(*continued*)

Table 9. (*continued*)

Species	Number of Counts	Number of Birds	Count and Number
Blue-winged Teal			(Sheboygan)
Green-winged Teal	13	97	Adams 7, Appleton 3, Baraboo 1, (Fremont), **Horicon Marsh 28,** Hudson 2, Hustisford 3, (Kenosha), Madison 14, Montello 2, New Richmond 1, Oshkosh 2, Pensaukee 7, Shawano 1, Trempealeau 26
Canvasback	17	2325	Appleton 15, Bridgeport 8, Fort Atkinson 1, Fond du Lac 3, (Fremont), Green Lake 2, Herbster 1, Horicon Marsh 23, Kenosha 2, **La Crosse 2160,** Lake Geneva 21, Madison 8, Oshkosh 3, Pensaukee 70, Riveredge 3, Shawano 2, Sheboygan 1, Waterloo 2
Redhead	18	592	Appleton 5, Beloit 1, Brussels 25, Fremont 2, Green Bay 1, (Horicon Marsh), Kenosha 2, Kewaunee 2, La Crosse 1, Lake Geneva 58, Madison 7, Milwaukee 72, **New Franken 150,** Oshkosh 3, Poynette 1, Riveredge 9, Sheboygan 100, Sturgeon Bay 20, Woodland Dunes SE 133
Ring-necked Duck	18	340	Appleton 9, Brussels 4, Burlington 19, Fremont 2, Horicon Marsh 52, Kewaunee 1, La Crosse 29, Lake Geneva 52, Milwaukee 1, Oconomowoc 7, Oshkosh 1, Pensaukee 3, Poynette 2, Racine 1, (Riveredge), Sauk City 2, Sheboygan 4, Trempealeau 30, **Waterloo 121**
Greater Scaup	15	10875	Appleton 1, Brussels 8, Hales Corners 10, Horicon Marsh 3, Kenosha 36, Kewaunee 1, **Milwaukee 6340,** New Franken 800, Pensaukee 2400, Racine 160, Riveredge 125, Sheboygan 470, Sturgeon Bay 100, Woodland Dunes NE 14, Woodland Dunes SE 407
Harlequin Duck	1	1	La Crosse 1
White-winged Scoter	4	11	Ashland 3, (Kenosha), **Oshkosh 6,** Sturgeon Bay 1, Waterloo 1
Black Scoter	3	4	Madison 1, Sheboygan 1, **Sturgeon Bay 2,** (Woodland Dunes SE)
Long-tailed Duck	7	83	Appleton 4, Ashland 2, Hales Corners 1, **Milwaukee 22,** (Riveredge), Sheboygan 17, Sturgeon Bay 17, Woodland Dunes NE 20
Ruddy Duck	14	127	Appleton 9, Beloit 1, Burlington 4, Fond du Lac 7, Fremont 1, Hales Corners 1, **Horicon Marsh 77,** Kenosha 1, Kewaunee 1, (Lake Geneva), Madison 8, Milwaukee 7, (Montello), Oshkosh 5, Pensaukee 4, Riveredge 1

(*continued*)

Table 9. (*continued*)

Species	Number of Counts	Number of Birds	Count and Number
Goshawk	14	17	Ashland 1, Beloit 1, (Cable), Ephraim 1, Gurney 1, Herbster 1, (Kenosha), **Kewaunee 2,** Medford 1, **Nelson 2,** Prentice 1, Plymouth 1, Richland Center 1, **Riveredge 2,** Rosendale 1, Willard 1
Red-shouldered Hawk	6	10	**Bridgeport 3,** Hartford 1, Norske 1, **Poynette 3,** Sauk City 1, Trempealeau 1
Golden Eagle	10	10	Baraboo 1, Bridgeport 1, Clyde 1, Durand 1, Kettle Moraine 1, Nelson 1, Poynette 1, Shawano 1, Trempealeau 1, Waupaca 1
Merlin	6	6	Columbus 1, Green Bay 1, (Madison), (Montello), Poynette 1, Spencer 1, Sheboygan 1, Wautoma 1
Peregrine Falcon	5	8	Bridgeport 1, **Green Bay 4,** Madison 1, Milwaukee 1, (Poynette), (Riveredge), Sheboygan 1, (Woodland Dunes SE)
Gray Partridge	2	4	Bridgeport 1, (Kenosha), **Mt. Horeb 3**
Sharp-tailed Grouse	3	10	Cable 1, **Gilman 7,** Holcombe 2
Greater Prairie-Chicken	2	48	(Arpin), Owen 3, **Plainfield 45,** (Wisconsin Rapids)
Northern Bobwhite	3	43	(Kenosha), **Richland Center 22,** Wautoma 12, Woodland Dunes SW 9
Virginia Rail	1	2	Poynette 2
Sandhill Crane	13	512	Baraboo 19, (Burlington), Fort Atkinson 4, Fremont 9, Hartford 2, Horicon Marsh 125, **Hustisford 221,** (Lake Geneva), Madison 97, Montello 6, (Mt. Horeb), Oconomowoc 5, Pardeeville 1, Pensaukee 14, (Poynette), Shawano 1, Sturgeon Bay 8
Killdeer	3	4	(Ashland), Madison 1, Sheboygan 1, **Waterloo 2**
Common Snipe	11	27	(Baraboo), **Bridgeport 9,** Chippewa Falls 2, Kickapoo Valley 2, Madison 1, Mt. Horeb 1, New Richmond 2, Oshkosh 1, Poynette 4, Richland Center 3, Sauk City 1, Waterloo 1
Black-headed Gull	1	1	Hales Corners 1
Bonaparte's Gull	2	82	**Hales Corners 80,** Oshkosh 2
Thayer's Gull	5	8	Appleton 2, Fremont 1, **Milwaukee 3,** Riveredge 1, Sheboygan 1
Iceland Gull	2	2	Appleton 1, Brussels 1, (Herbster)
Lesser Black-backed Gull	1	1	(Madison), Sheboygan 1
Glaucous Gull	11	17	**Appleton 3,** Fremont 1, Lake Geneva 1, Milwaukee 1, Oshkosh 1, Racine 1, Riveredge 1, Sheboygan 2, Woodland Dunes NE 2, **Woodland Dunes NW 3,** Woodland Dunes SE 1
Great Black-backed Gull	4	4	Appleton 1, Sheboygan 1, Sturgeon Bay 1, Woodland Dunes SE 1
Eurasian Collared-Dove			(Riveredge)
Snowy Owl	12	20	Ashland 1, Green Bay 1, Horicon Marsh 3, (Kenosha), **Kewaunee 4,** Milwaukee 1, New Franken 1, (Oconomowoc), Oshkosh 2, Pensaukee 2, (Riveredge), Seymour 1, Spencer 1, Sturgeon Bay 2, Waterloo 1

(*continued*)

Table 9. (*continued*)

Species	Number of Counts	Number of Birds	Count and Number
Great Gray Owl	1	1	Shawano 1
Long-eared Owl	3	4	Baraboo 1, **Green Lake 2,** Poynette 1
Short-eared Owl	8	11	Appleton 1, **Bridgeport 2,** (Burlington), **Cooksville 2,** Kewaunee 1, (Mt. Horeb), Plainfield 1, **Poynette 2,** Waukesha 1, Woodland Dunes NE 1
Northern Saw-whet Owl	9	13	Baraboo 2, Bridgeport 1, Durand 1, Hustisford 1, Montello 1, Pardeeville 1, Poynette 2, **Stevens Point 3,** Wautoma 1
Yellow-bellied Sapsucker	3	4	Bridgeport 1, (New Franken), **Sauk City 2,** Wautoma 1
Black-backed Woodpecker	1	1	Clam Lake 1
Gray Jay	7	35	Cable 2, Clam Lake 5, Fifield 3, Medford 2, Phelps 4, (Prentice), Rhinelander 8, **Three Lakes 11**
Boreal Chickadee	3	3	Prentice 1, Stevens Point 1, Three Lakes 1
Carolina Wren	5	7	Blanchardville 1, **Bridgeport 2,** Cassville 1, **Madison 2,** Norske 1, (Riveredge), (Waterloo)
Winter Wren	4	4	Appleton 1, Blanchardville 1, Sturgeon Bay 1, Woodland Dunes NW 1
Ruby-crowned Kinglet	1	1	Madison 1
Eastern Bluebird	16	116	Baraboo 7, (Beloit), Blanchardville 5, Bridgeport 4, Cassville 3, Durand 9, Ephraim 5, Green Bay 8, La Crosse 4, Madison 9, Milwaukee 6, (Mt. Horeb), Nelson 5, Pensaukee 12, Peshtigo 5, Poynette 12, Richland Center 6, **Sauk City 16**
Townsend's Solitaire	2	2	Baraboo 1, Kettle Moraine 1
Hermit Thrush	6	6	Bridgeport 1, Green Bay 1, Madison 1, Milwaukee 1, Poynette 1, Riveredge 1
Brown Thrasher	2	2	Norske 1, Rosendale 1
Bohemian Waxwing	10	112	(Bayfield), **Cable 70,** Caroline 1, Durand 1, (Fifield), (Green Bay), Herbster 16, Hudson 2, Lakewood 2, Medford 16, New Richmond 2, Norske 1, (Sturgeon Bay), Waupaca 1
Yellow-rumped Warbler	9	53	Appleton 1, Bridgeport 2, Brussels 1, Burlington 18, Green Bay 1, Hales Corners 2, Hudson 2, **Milwaukee 25,** Poynette 1
Palm Warbler	1	1	Beloit 1
Ovenbird	1	1	Oconomowoc 1
Common Yellowthroat	2	2	Brussels 1, Milwaukee 1
Eastern Towhee	1	1	Green Lake 1
Spotted Towhee	1	1	Madison 1
Field Sparrow	2	5	**Bridgeport 4,** Poynette 1
Savannah Sparrow	2	2	Hartford 1, Milwaukee 1
Fox Sparrow	10	17	Beloit 3, Bridgeport 1, Clyde 1, Grantsburg 1, Herbster 1, **Madison 5,** Milwaukee 2, Poynette 1, Spruce 1, Three Lakes 1
Lincoln's Sparrow	1	1	Stockbridge 1
White-crowned Sparrow	5	25	**Bridgeport 17,** Fort Atkinson 1, Milwaukee 2, (New Franken), Oshkosh 3, Waterloo 2
Eastern Meadowlark	1	1	Bridgeport 1, (Riveredge)
meadowlark spp.	1	1	Cassville 1
Yellow-headed Blackbird	1	2	Horicon Marsh 2

(*continued*)

Table 9. (*continued*)

Species	Number of Counts	Number of Birds	Count and Number
Rusty Blackbird	9	6227	Columbus 1700, Fort Atkinson 21, **Hustisford 4000,** La Crosse 1, Lake Geneva 1, Montello 2, Mt. Horeb 1, Pensaukee 26, Waterloo 475
Brewer's Blackbird	2	1277	**Hustisford 1275,** Madison 2
Baltimore Oriole	1	1	(Madison), Shiocton 1
Pine Grosbeak	18	649	Ashland 14, Bayfield 10, Cable 55, Clam Lake 52, Ephraim 14, Fifield 57, Gilman 53, Green Bay 10, Gurney 21, Herbster 23, Manitowish Waters 39, **Medford 82,** Phelps 19, Prentice 79, Rhinelander 59, Spruce 3, Sturgeon Bay 4, Three Lakes 55
Red Crossbill	7	48	Green Lake 2, Hustisford 2, Madison 8, Plymouth 1, **Rhinelander 27,** Shawano 7, Stockbridge 1
White-winged Crossbill	12	44	Ashland 2, Cable 5, Ephraim 1, (Fifield), **Gilman 13,** (Hustisford), Madison 2, Manitowish Waters 2, (Merrill), (Oshkosh), Phelps 4, Poynette 5, Riveredge 4, Shioction 1, (Stevens Point), (Sturgeon Bay), Waupaca 3, Wausau 2, (Wisconsin Rapids)
Hoary Redpoll	2	3	Manitowish Waters 1, **Wausau 2**

Parentheses indicate species was seen within 3 days of the count but not on the day of the count. **Bold lettering** indicates counts having the highest totals for the state.

(27,620) is 90% above the 10-year average, and tops the previous high of 20,165 set in 1955. Likely because of the warm conditions, Ring-billed outnumbered Herring for only the second time on a count year; the other such instance was the warm count of 1998. For the first time, Iceland Gulls were found on multiple counts (Appleton and Brussels), while the Lesser Black-backed Gull established its fourth count record (Sheboygan). The Thayer's, Glaucous, and Great Black-backed set records for the number of counts reporting them, while the Thayer's also enjoyed a record tabulation of individuals.

Doves—Rock and Mourning Doves were average in number. A Eurasian Collared-Dove, reported during the count period (Riveredge), becomes the third dove species ever reported on a Wisconsin count.

Owls—For the second consecutive year, numbers for the more common owls (Screech, Great Horned, and Barred) were less than average despite the fact that owling hours were 51% above average. Snowy Owl numbers (20) were surpassed only by 21 in 1996 and 25 in 1967. A Great Gray Owl (Shawano) established a sixth count day record. Except for 1979, Long-eared Owls had their worst showing since 1951. In the opposite direction, Northern Saw-whet Owls had substantial record highs for both counts and individuals.

Kingfishers—Belted Kingfisher numbers (117 over 46 counts) are both record highs.

Woodpeckers—Woodpeckers were above normal, with many species setting record highs. Best among these was the Red-bellied, with a record high that is 27% above the 10-year average. The exception, as in past years, is the Red-headed, with a count that is 48% below the 10-year average. Despite the mild weather, Yellow-bellied Sapsuckers had their poorest showing since 1970. A Black-backed Woodpecker was found at Clam Lake.

Shrikes, Jays, Crows, and Ravens—All the species in this grouping were below their 10-year averages. The one exception, American Crow, has its 2001 total (43,356) exceeded only by 43,965 (1977) and 57,193 (1976).

Larks—Despite the lack of snow, Horned Lark numbers were strong. The total of 2,750 is exceeded only by 2,848 in 1999 and an exceptional 10,764 in 2000.

Chickadees, Titmice, Nuthatches, and Creepers—Black-capped Chickadees and White-breasted Nuthatches were record high, while Boreal Chickadees and Red-breasted Nuthatches were less than average. The Tufted Titmouse showed an astonishing increase over past counts; its total of 573 is 117% above the 10-year average and an 87% increase over the previous high (306 in 2000). The 117 titmice reported from Bridgeport are a notable single-circle record. In an opposite manner, Brown Creepers registered 34% below average.

Wrens and Kinglets—Carolina Wrens (seven over five counts) were average; Winter Wrens (four over four counts) were slightly less than average. Golden-crowned Kinglets were 46% below the 10-year average. Only a single Ruby-crowned Kinglet (Madison) was reported.

Thrushes—2001 yielded a strong count for thrushes. Eastern Bluebirds (116 over 16 counts) set records for number of counts and individuals. The total of 116 is a striking 174% increase over the 10-year average and is 55% over the previous high of 75 in 1999. Two Townsend's Solitaires (Baraboo and Kettle Moraine) mark the eighth count year and the second year with multiple counts. Hermit Thrushes (six over six counts) were fewer than average. The American Robin (3,455) was 67% above the 10-year average, with only one year (1998 with 7,751) having more individuals.

Thrashers through Waxwings—Brown Thrashers were reported from Norske and Rosendale. European Starling numbers were the highest since 1984 and 63% above their 10-year average. Bohemian Waxwings were well below normal, while Cedar numbers (6,117) were record-high and an impressive 136% above the 10-year average.

Warblers—There has never been a count on which warblers have been so numerous and so well represented. The 25 Yellow-rumped Warblers from Milwaukee nearly match the previous statewide high of 27 in 1997. The Yellow-rumped total (53) is 365% above the 10-year average and 96% above the previous high. A Palm Warbler (Beloit) is not only a count first, it is Wisconsin's only winter record! An Ovenbird (Oconomowoc) is the third count record, with the other records dating back to 1965 and 1978. Common Yellow-

throats (Brussels and Milwaukee) are the first count records since 1993 and mark only the second count year since 1987.

Towhees and Sparrows—An Eastern Towhee was reported from Green Lake. A Spotted Towhee was documented from Madison, for that species' fifth count record. Of these five records, four have come from Madison. Of the more common sparrows, the American Tree Sparrow was slightly less numerous than average and the Dark-eyed Junco slightly more numerous. Savannah Sparrows were documented from Hartford and Milwaukee; a Lincoln's Sparrow was documented from Stockbridge. Both Swamp and White-crowned Sparrows appeared in record numbers. The 17 White-crowned Sparrows reported from Bridgeport are a record for a single circle.

Longspurs and Cardinals—Despite the absence of snow, Lapland Longspur numbers (3,818) were 172% above their 10-year average and, other than the 4,135 in 2000, no other count approaches this total. The 770 Laplands from Rosendale are a record number for a single circle. Snow Buntings fared less well, having a count 57% below their 10-year average. Northern Cardinals were found in average numbers.

Blackbirds—For more than a quarter century, blackbirds have shown a consistent decrease in numbers. The 2001 Count is a smashing reversal of that long decline. If one tabulated all the Brewer's Blackbirds reported on every Wisconsin CBC circle dating back to 1939, that total would be 474. In 2001, the Hustisford Circle alone accounted for 1,275 Brewer's Blackbirds. This single-circle total is 169% greater than the total of all Brewer's ever registered on the Wisconsin CBCs. In a like manner, if one added all the Rusty Blackbirds ever reported on every Wisconsin CBC circle dating back to 1939, that total would be 2,211 birds. In 2001, the Hustisford Circle alone presented 4,000 Rusty Blackbirds, which is 81% above the cumulative historical total. Aided by 1,700 Rusties from Columbus, the count total of 6,227 outpaces the cumulative historical total by a whopping 182%.

Although not so fetching as the Brewer's and Rusty totals, other blackbirds showed amazing sums. The total of Red-winged Blackbirds (3,926 over 33 counts) is a record number of counts and the highest total of individuals since 8,165 in 1992. Red-wings were 128% above their 10-year average. The Common Grackle (403 over 27 counts) did as well, giving the highest total since 826 in 1990 and being 182% above the 10-year average. Brown-headed Cowbirds managed even better. The total (942 over 21 counts) presents the highest count since 2,140 (1967) and is 193% above the 10-year average. Meadowlarks went the opposite of other blackbirds. With two birds over two counts, it matches the bleakest totals back to 1949 (excluding 1988, when none were found). Two Yellow-headed Blackbirds (Horicon Marsh) mark the first report since 1996. A Baltimore Oriole (Shiocton) creates the ninth count record.

Finches—Although there was a reported cone failure in Canada, there was a corresponding failure in Wisconsin. The result was a mediocre finch

count. Of the winter finches, the Pine Grosbeak made the best showing, being 23% above its 10-year average. The Pine Siskin was the only other species in this grouping with numbers much above average. Purple Finches were 46% below their 10-year average. Both crossbills were well below average. After a mild rebound in 2000, the House Finch placed one of its worst showings since 1995.

House Sparrows—The House Sparrow continued its gradual increase in numbers. The 2001 total (53,723) is the best since 1989.

The National Audubon Society Counts

The 2001 Wisconsin Count is one of the most significant counts ever held. This is a great accomplishment. At the same time, there is a failure in that so little information was sent to the National Audubon Society (NAS), which is the repository for counts from over the entire hemisphere. The information collected dates back more than 100 years and is the most meaningful assemblage of early winter bird population records known. It is also perhaps the most examined and researched collection of bird information that exists. Each missed Wisconsin count is a missed piece in the puzzle of winter bird population trends.

In 2000, a scant 31 of 92 Wisconsin counts were sent to National Audubon. That total was upped slightly to 39 out of 96 in 2001. If there are birders who feel the importance of getting more counts to National Audubon, perhaps those birders could pick a missed count they feel is of particular interest and become a "financial sponsor" for that count. They could then contact the count compiler and offer their assistance. For compilers who contemplate sending reports to National Audubon, it is important to know that (for the first year) your count needs to be "preregistered" before count totals can be sent, and that one must preregister well before December (the sooner the better). One is able to preregister without later sending a count (there is no commitment or obligation), but one is not able to send a count without first preregistering. For those who might have questions concerning the National Audubon Counts, please contact Geoff LeBaron of NAS (glebaron@mediaone.net).

Appendix

An alphabetical listing of the 2001 Wisconsin Christmas Bird Counts follows. This listing includes the location of the count center, plus the name, address, telephone number, and e-mail address (when available) of the compiler. For birders wanting to join a count, it is suggested they contact the count compiler. For those wanting to start a new count, they must first contact the state compiler whose address is located at the end of this article.

Adams (36); Arkdale, Adams Co.; Darwin Tiede, 2809 Schaefer Circle, Appleton, WI 54915; (920) 997-9418; ctiede@new.rr.com. **Appleton** (62); Jct. Hwys. 47 and 125, Outagamie Co.; John Shillinglaw, 1952 Palisades Dr., Appleton, WI 54915; (920) 731-4222; jashlaw@aol.com. **Arpin** (34); 1/2 miles N of Jct. Hwy. C and Oak Rd., Wood Co.; Dennis Seevers, 5969 Butternut Rd., Arpin, WI 54410; (715) 569-4260; rock-cut@tznet.com. **Ashland** (4); Jct. Hwy. 2 and Sanborn Ave.,

Ashland; Dick Verch, 906 Ellis Ave., Ashland, WI 54806; (715) 682-5453; dverch@cheqnet.net. **Baraboo** (91); Jct. City View Rd. and Hwy. A, Baraboo; Kenneth Wood, 3971 Forshaug Rd., Black Earth, WI 53515; (608) 767-3343; kwwood@facstaff.wisc.edu. **Bayfield** (3); T 50 N, R 5 W, S-22; Albert Roy, Jr., 906 Water St., Ashland, WI 54806; (715) 682-5334. **Beloit** (88); Jct. Tracy and Eau Claire Rds., about 2 miles W of Rock Co. Airport; Brad Paulson, 15034 W. Carroll Rd., Brodhead, WI 53520; (608) 879-2647; brad.paulson @enzymebio.com. **Black River Falls** (28); Jct. Hwys. H and 54, Jackson Co.; Judy Allen, W12866 River Rd., Black River Falls, WI 54615; (608) 488-4154; knothole@discover-net.net. **Blanchardville** (89); 2.5 miles SW of Blanchardville; David Willard, Bird Division, Field Museum of Natural History, 1400 S. Lake Shore Dr., Chicago, IL 60605; (312) 665-7731; dwillard@fieldmuseum.org. **Bridgeport** (95); Hwy. 18 bridge over Wisconsin River; Al Shea, 2765 Northwynde Passage, Sun Prairie, WI 53562; (608) 825-6232; sheaa@dnr.state.wi.us. **Brussels** (50); Jct. Hwy. 57 and Stevenson Pier Rd., Door Co.; Charlotte Lukes, 3962 Hillside Rd., Egg Harbor, WI 54209; (920) 823-2478; lukes@dcwis.com. **Burlington** (73); Jct. Hwy. A and Crossway Rd., Racine Co.; John Bielefeldt, Box 283, Rochester, WI 53167; (262) 514-2376. **Cable** (6); Jct. Hwys. M and D, Bayfield Co.; Brad Gingras, Cable Natural History Museum, P.O. Box 416, Cable, WI 54821; (715) 798-3890; brad@cablemuseum.org. **Caroline** (43); 2 miles W of Caroline; Mark Peterson, Box 53, Caroline, WI 54928; (715) 754-2130. **Cassville** (96); Jct. Garden Prairie and Muskellunge Rds., Grant Co.; David Sikorski, 2377 N. 58th St., Milwaukee, WI 53210; (414) 771-7018; akela317@aol.com. **Chippewa Falls** (21); Jct. Hwys. 178 and S, Chippewa Co.; Charles A. Kemper, 733 Maple St., Chippewa Falls, WI 54729; (715) 723-3815; cak@millstream.net. **Clam Lake** (7); 7 miles SE of Clam Lake; Keith Merkel, 11722 Robin Rd., Marshfield, WI 54449; (715) 384-2383; kmerkel@nickmarshfield.com. **Clyde** (93); Jct. Hwy. ZZ and Weaver Rd., Iowa Co.; Steven Greb, 1714 Labrador Rd., Oregon, WI 53575; (608) 835-5266. **Columbus** (82); Jct. Johnson and Jahnke Sts. (south of Columbus); Larry Michael, 713 Clinton St., Apt. 103, Horicon, WI 53032; (920) 485-2936; lamichael@powerweb.net. **Cooksville** (87); Cooksville, Rock Co.; David and Anna Marie Huset, 242 W. Church St., Evansville, WI 53536; (608) 882-5648; amdhuset@inwave.com. **Durand** (20); Jct. Hwys. 25 and DD 3 miles N of Durand, Dunn Co.; Charles A. Kemper, 733 Maple St., Chippewa Falls, WI 54729; (715) 723-3815; cak @millstream.net. **Ephraim** (52); Hwy. A, 3 miles S of Jct. with Hwy. 42, Door Co.; Paul Regnier, P.O. Box 152, Baileys Harbor, WI 54202; (920) 839-2802; ridges@itol.com. **Fifield** (8); Fifield Post Office; Thomas Nicholls, W7283 Walnut St., P.O. Box 63, Fifield, WI 54524; (715) 762-3076. **Fond du Lac** (64); Jct. Tower and Cody Rds., Fond du Lac Co.; Jeff Baughman, W8985 Hwy. SS, Adell, WI 53001; (262) 626-4713; jeffb@csd.k12.wi.us. **Fort Atkinson** (86); Jct. Hwy. K and Hackbarth Ave., Jefferson Co.; Richard Wanie, W5920 Lee Dr., Fort Atkinson, WI 53538; (920) 563-6274. **Fremont** (40); Jct. Hwys. I and HH, 4 miles SW of Fremont; Daryl Tessen, 3118 N. Oneida St., Appleton, WI 54911; (920) 735-9903; ddtessen@aol.com. **Gilman** (23);

1 mile W of Miller Dam, Taylor Co.; Janice Luepke, B-894 Eau Pleine Rd., Spencer, WI 54479; (715) 659-3910; luepke@pcpros.net. **Grantsburg** (1); Jct. Hwys. 70 and 48 in Grantsburg; Dennis Allaman, 506 W. St. George Ave., Grantsburg, WI 54840; (715) 463-2365; allaman@usa.net. **Green Bay** (48); Jct. Allouez and S. Webster Aves.; John Jacobs, Neville Public Museum, 210 Museum Pl., Green Bay, WI 54303; (920) 448-4460, ext. 217; jmdg jacobs@aol.com. **Green Lake** (76); Jct. Hwy. J and Swamp Rd., Green Lake Co.; Thomas Schultz, N6104 Honeysuckle Lane, Green Lake, WI 54941; (920) 294-3021; trschultz@vbe.com. **Gurney** (5); Hwy. 169 in Gurney; Joan Elias, 11140 W. Edwards Rd., Saxon, WI 54559; (715) 893-2358; jelias@gogebic.cc.mi.us. **Hales Corners** (59); Jct. 27th St. and Rawson Ave., (Milwaukee Co. only); Mark Verhagen, Wehr Nature Center, 9701 W. College Ave., Franklin, WI 53123; (414) 425-8550; mark.verhagen@ces.uwex.edu. **Hartford** (70); Jct. Hwys. 60 and 83 in Hartford; Bob Domagalski, W140 N8508 Lilly Rd., Menomonee Falls, WI 53051; (262) 251-6259; rcd@execpc.com. **Herbster** (2); Hwy. 13, 1 mile W of Herbster; Phyllis Johnson, P.O. Box 249, Cornucopia, WI 54827; (715) 742-3960; hummer@cheqnet.net. **Holcombe** (22); Chippewa-Rusk county line, 1 mile E of Hwy. 27; Charles A. Kemper, 733 Maple St., Chippewa Falls, WI 54729; (715) 723-3815; cak@millstream.net. **Horicon Marsh** (80); Jct. Main Ditch and Main Dike in Refuge; Bill Volkert, DNR, N7725 Hwy. 28, Horicon, WI 53032; (920) 387-7877; brchwood@thesurf.com. **Hudson** (18); Afton, MN; Joseph Merchak, 210 Ilwaco Rd., River Falls, WI 54022; (715) 425-1169. **Hustisford** (81); Jct. Hwys. CJ and M, just east of Clyman; Bob Domagalski, W140 N8508 Lilly Rd., Menomonee Falls, WI 53051; (262) 251-6259; rcd@execpc.com. **Kenosha** (61); Jct. Hwys. 158 and HH (Kenosha Co. only); Ron Hoffmann, Box 886, Kenosha, WI 53141; (262) 654-5854. **Kettle Moraine** (69); Hwy. DD, W of Auburn Lake, Fond du Lac Co.; Bill Volkert, W996 Birchwood Dr., Campbellsport, WI 53010; (920) 387-7877; brchwood@thesurf.com. **Kewaunee** (53); Jct. Hwys. 42 and D, Kewaunee Co.; William Mueller, 1242 S. 45 St., Milwaukee, WI 53214; (414) 643-7279; iltlawas@earthlink.net. **Kickapoo Valley** (31); Jct. Hwys. T and 131, Monroe Co.; Eric Epstein, 22505 Kensington Rd., Norwalk, WI 54648; (608) 823-7837. **La Crosse** (30); La Crosse Courthouse; Rick Kinzie, 55787 Kinzie Rd., Gays Mills, WI 54631; (608) 734-3136; huey@mwt.net. **Lake Geneva** (74); Interlaken Lodge, Hwy. 50 (approx. 2 miles east of Jct. with Hwy. 67); Patricia Parsons, N3241 Williams St., Lake Geneva, WI 53147; (262) 248-1232; parsons@genevaonline.com. **Lakewood** (14); Jct. Hwy. T and FR 2117, Oconto Co.; John Woodcock, 2320 S. 10th St., Manitowoc, WI 54220; (920) 794-1154; mrtdoodle@lakefield.net. **Madison** (84); State Capitol; Carol Anderson and Tony Kalenic, 4638 Bonner Ln., Madison, WI 53704; (608) 249-8836; kalander@mailbag.com. **Manitowish Waters** (10); Jct. Hwys. 51 and W, Vilas Co.; John Bates, 4245 Hwy. 47, Mercer, WI 54547; (715) 476-2828. **Medford** (24); 2.5 miles NE of Whittlesey, Taylor Co.; Susanne Adams, W2272 Rustic Rd., Rib Lake, WI 54470; (715) 748-4875, ext. 36; bradams@newnorth.net. **Merrill** (32); Jct. South End Rd. and Hwy. 107, Lincoln Co.; Sherry Frazier, W4990 Fowler Dr., Merrill, WI 54452;

(715) 536-7969; sherryfrazier@hotmail .com. **Milwaukee** (58); Jct. Port Washington Rd. and Hampton Ave., Glendale; Marilyn Bontly and Jean Strelka, Schlitz Audubon Center, 1111 E. Brown Deer Rd., Milwaukee, WI 53217; (414) 351-4200; bstover@execpc.com. **Montello** (77); Harrisville, Marquette Co.; Daryl Christensen, N6053 Hwy. Y, Montello, WI 53949; (608) 296-3068; gr8fish@palacenet.net. **Mount Horeb** (90); Jct. Hwys. 78 and Bus. 18/151, Mount Horeb; Kenneth Wood, 3971 Forshaug Rd., Black Earth, WI 53515; (608) 767-3343; kwwood@facstaff .wisc.edu. **Nelson** (19); 1 mile S of Jct. Hwys. I and D; Charles A. Kemper, 733 Maple St., Chippewa Falls, WI 54729; (715) 723-3815; cak@millstream.net. **New Franken** (49); Jct. Hwys. P and SS, Brown County; Ed Houston, 2818 Sugarbush Ct., Green Bay, WI 54301; (920) 339-3273; ezehouston@aol.com. **New Richmond** (17); 2 miles E of Boardman, St. Croix Co.; Joseph Merchak, 210 Ilwaco Rd., River Falls, WI 54022; (715) 425- 1169. **Norske** (42); 1 mile E of Jct. Hwy P and Rustad Rd., Waupaca Co.; Janet Avis Hewitt, E1047 Paulson Rd., Iola, WI 54945; (715) 445-2489. **Oconomowoc** (71); Hwy 67, 2 miles N of Oconomowoc; Alex Kailing, W330 N8275 W. Shore Dr., Hartland, WI 53029; (262) 966-1072; akail @execpc.com. **Oshkosh** (63); Jct. Hwys. 21 and 41 in Oshkosh; Thomas Ziebell, 1322 Ceape Ave., Oshkosh, WI 54901; (920) 235-0326; cziebell @new.rr.com. **Owen** (25); Hwy. D, 2.5 miles N of Hwy. 29, Clark Co.; Jon RotiRoti, H3333 Hwy. N, Colby, WI 54421; (715) 223-2815; rotiroti @pcpros.net. **Pardeeville** (78); north end of access road that comes from Monthey Rd. into the south side of French Creek Wildlife Area, Columbia Co.; Paul and Glenna Schwalbe, 203 Breezy Point Dr., Pardeeville, WI 53954; (608) 429-4365; pschwalbe @jvinet.com. **Pensaukee** (47); Pensaukee; Thomas Erdman, 4093 Hwy. S, Rte. 2, Oconto, WI 54153; (920) 465-2713; richter@uwgb.edu. **Peshtigo** (16); Harmony Corners, Marinette Co.; Jerry Smith, 6865 Fredrickson Rd., Lena, WI 54139; (920) 829-6353; kajers @ez-net.com. **Phelps** (11); Jct. FR 2199 and FR 2533, 2 miles SW of Phelps; Bill Reardon, 1700 Open Acres Ln., Eagle River, WI 54521; (715) 479-8055; breardon@nnex.net. **Plainfield** (38); Jct. Hwy. BB and 3rd Ave., NW of Almond; Kent Hall, 200 Pine Bluff Rd., Stevens Point, WI 54481; (715) 344-8081; khall@uwsp.edu. **Plymouth** (68); Jct. Hwys. 23 and Country Aire Rd., Sheboygan Co.; Harold Koopmann, 415 Caroline St., Plymouth, WI 53073; (920) 892-8101. **Poynette** (83); Jct. Hwys. 51 and CS; Mark and Sue Martin, Goose Pond Sanctuary, W7468 Prairie Lane, Arlington, WI 53911; (608) 635-4160; goosep@midplains .net. **Prentice** (9); Jct. Hwys. 8 and 13 in Prentice; Rob Whitmire, 2049 Oak St., Stevens Point, WI 54481; (715) 341-1957; whitmire@wctc.net. **Racine** (60); Hwy. H, 0.5 miles S of Hwy. K (Racine Co. only); Eric Howe, 5634 Northwestern Ave., Racine, WI 53406; (262) 633-0086; oak@wi.net. **Randolph** (79); Hwy. P midway between Cambria and Randolph, Columbia Co.; Larry Michael, 713 Clinton St., Apt. 103, Horicon, WI 53032; (920) 485-2936; lamichael@powerweb.net. **Rhinelander** (13); Rhinelander; Ced Vig, 919 Birch Bend, Rhinelander, WI 54501; (715) 362-3047. **Richland Center** (94); Jct. Hwys. O and TB, SE of Richland Center; Robert Hirschy, University of Wisconsin Center-Richland, 1200 Hwy.

14 West, Richland Center, WI 53581; (608) 647-3042; rhirschy@uwc.edu. **Riveredge** (57); Jct. Hwy. 33 and Lakeland School Rd., Ozaukee Co.; Mary Hollebeck, c/o Riveredge Nature Center, P.O. Box 26, Newburg, WI 53060; (262) 375-2715; education @riveredgenc.org. **Rosendale** (75); 2.5 miles S of jct. of Hwys. 23 and 26, Fond du Lac Co.; Bettie Harriman, 5188 Bittersweet Ln., Oshkosh, WI 54901; (920) 233-1973; bettie@vbe.com. **Sauk City** (92); 2.5 miles SE of Witwen, Sauk Co.; Nancy Raffetto, 9437 Hwy. Y, Sauk City, WI 53583; (608) 643-1274; raffetto@facstaff.wisc.edu. **Seymour** (46); Jct. Hwy. C and Culbertson Rd., Outagamie Co.; Daryl Tessen, 3118 N. Oneida, Appleton, WI 54911; (920) 735-9903; ddtessen@aol.com. **Shawano** (44); 3 miles N of Lunds, Shawano Co.; Mark Peterson, Box 53, Caroline, WI 54928; (715) 754-2130. **Sheboygan** (56); Jct. 10th St. and Erie Ave., Sheboygan; Scott Baughman, 133 Park Ave., Sheboygan, WI 53081; (920) 459-9845; sjbirder@milwpc.com. **Shiocton** (45); Jct. Hwys. M and 54, Outagamie Co.; Steven Petznick, Mosquito Hill Nature Center, N3880 Rogers Rd., New London, WI 54961; (920) 779-6433; jpetznic@athenet.net. **Spencer** (26); Jct. Hwys. F and 153, Marathon Co.; Janice Luepke, B-894 Eau Pleine Rd., Spencer, WI 54479; (715) 659-3910; luepke@pcpros.net. **Spruce** (15); 1.5 miles N of Spruce on Hwy. B; Jerry Smith, 6865 Fredrickson Rd., Lena, WI 54139; (920) 829-6353; kajers @ez-net.com. **Stevens Point** (37); Old Main Bldg., U.W.-Stevens Point; Nancy Stevenson, 1890 Red Pine Ln., Stevens Point, WI 54481; (715) 341-0084. **Stockbridge** (65); 3 miles SE of Stockbridge; Carroll Rudy, W3866 Hwy. H, Chilton, WI 53014; (920) 849-9021; mcrudy@dotnet.com. **Sturgeon Bay** (51); Jct. Hwys. 57 and P, Door Co.; Charlotte Lukes, 3962 Hillside Rd., Egg Harbor, WI 54209; (920) 823-2478; lukes@dcwis.com. **Three Lakes** (12); 6 miles E of Three Lakes; Bill Reardon, 1700 Open Acres Ln., Eagle River, WI 54521; (715) 479-8055; breardon@nnex.net. **Trempealeau** (29); Jct. Hwy. K and Fremont St., Trempealeau; Thomas Hunter, 11675 Jay St., P.O. Box 114, Trempealeau, WI 54661; (608) 534-6233. **Waterloo** (85); Jct. of Hwys. O and B on Jefferson/ Dane county line, 5 miles west of Lake Mills; Kevin Kearns, 519 N. Monroe St., Waterloo, WI 53594; (920) 478-2242; dkkerns2@juno.com. **Waukesha** (72); Jct. Hwy. D and Brookhill Rd., Waukesha Co.; Patrick Horn, S76 W19840 Sunny Hill Dr., Muskego, WI 53150; (262) 679-1459; cphorn3@juno.com. **Waupaca** (41); Jct. Hwy. 49 and Smokey Valley Rd, Waupaca Co..; Daryl Tessen, 3118 N. Oneida St., Appleton, WI 54911; (920) 735-9903; ddtessen@aol.com. **Wausau** (33); Jct. Grand Ave. and Thomas St., Wausau; Jim Pellitteri, 1003 Yawkey Ave., Rothschild, WI 54404; (715) 359-9708; jjpellitteri@co.marathon.wi.us. **Wautoma** (39); Mount Morris, Waushara Co.; Chip Hutler, N1750 State Rd. 22, Wautoma, WI 54982; (920) 787-0842; mecan@network2010.net. **Willard** (27); 1 mile E and 1.5 miles S of Willard, Clark Co.; Janice Luepke, B-894 Eau Pleine Rd., Spencer, WI 54479; (715) 659-3910; luepke@pcpros.net. **Wisconsin Rapids** (35); Wisconsin Rapids Airport; Darwin Tiede, 2809 Schaefer Circle, Appleton, WI 54915; (920) 997-9418; ctiede@new.rr.com. **Woodland Dunes NE** (54); Mishicot; **NW** (66); Menchalville; **SE** (55); 2 miles S of Newtonburg; **SW** (67); 3 miles W of

St. Nazianz on Hwy. C; all counts only in Manitowoc Co., as drawn on a map; Bernard Brouchoud, Woodland Dunes Nature Center, P.O. Box 2108, Manitowoc, WI 54221; (920) 793-4007; woodlanddunes@lsol.net.

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Lincoln's Sparrow *by Steve Lubahn*

"By the Wayside"

Piggyback flight display of the Ruby-throated Hummingbird, a leucistic hummingbird in Beaver Dam, reverse migration of juvenile Broad-winged Hawks, and Pileated Woodpecker eats American grapes.

Piggyback flight display of the Ruby-throated Hummingbird

Aerial displays are part of the behavioral repertoire of the male Ruby-throated Hummingbird (*Archilochus colubris*) and function in both territorial and courtship contexts. The Shuttle flight has been described as "flying back and forth along the bottom arc of a wide circle varying from about 30 centimeters to 3 meters" (Pitelka 1942). The Shuttle is given by males and is directed at both sexes. The Dive display is a U-shaped flight that may reach heights up to 15 meters and is directed at a perching female (Robinson et al. 1996). Occasionally, the bird will arc over the top of the circle, performing a full revolution. Both Shuttles and Dives have been referred to as "pendulum" flights in the ornithological literature. Indeed, both have a pendulum type of movement as the bird arcs back and forth from one end to the other, but the amplitude of the Shuttle is much less—at times just one-tenth—of the amplitude of the Dive. Both displays can be given independently or the Shuttle flight may grade into a Dive display and vice versa, characterized by gradual or discrete changes in the amplitude of the U-shaped motion. Finally, a Vertical flight has also been described (Pitelka 1942), in which the male and female hover in the air a short distance apart while facing each other, and while ascending or descending vertically over distances from 1.5 to 3.0 meters.

During the spring of 1999 in Mequon, Wisconsin, I observed an interesting "Piggyback" variant of the Shuttle display, which, to my knowledge, has not been described in the literature. Males arrived on 6 May 1999 and females arrived on 10 May, which is typical of this species in southeastern Wisconsin. On 26 May, two Ruby-throats approached my feeder. While in flight toward the feeder, one rode upon the back of the other. The smaller of the two birds was in the top position, but I could not determine the sex of the birds due to the speed of the display. The birds performed a Shuttle flight oriented at the feeder for six arcs; then, with a rapid change in direction, they flew away, disengaging in flight, and each bird flew off in a separate di-

Figure 1. This leucistic hummingbird (likely a Ruby-throated) was photographed by Tom and Patrice Bashynski at their feeder in Beaver Dam, Wisconsin, in early September 2001.

rection. I did not hear any sounds associated with this behavior. The Piggyback flight was observed at a time when courtship behaviors were at their peak; specifically, Shuttle and Dive flights were observed and noted on 19 May and 24 May.

Ruby-throats will chase each other, especially at feeders or when defending territories. The Piggyback flight may occur in the context of courtship, considering the seasonal timing of the behavior as well as the fact that I observed no chasing or heard any agonistic sounds. Although I could not determine the sex of the birds, the smaller hummingbird was riding on the back of the larger bird. Males weigh significantly less than females, with the greatest weight differential in June and July (Mulvihill and Leberman 1992).

Few reports exist for physical contact in Ruby-throats. Pitelka (1942) reports that a male struck a female, followed by an aerial display. On-the-ground copulation following display flights has been described (Johnsgard 1997), and copulation has been reported to occur after some vigorous grappling on the ground (Smyth 1990), although questions exist as to whether these were true copulations or aggressive behavior. Blue-throated Hummingbirds (*Lampornis clemenciae*) were reported grappling on the ground during the period of late nest building through nest completion (M. Ficken pers. obs.). Black-chinned Hummingbirds (*Archilochus alexandri*) were observed tumbling together across the ground after a long, wild chase covering about 200 meters (K. Rusch pers. obs.). The sex

of the birds was not determined in these interactions. Also, physical contact. in which birds fly face-to-face while "sword fighting" with their bills (K. Rusch pers. obs.), is occasionally observed at feeders. Piggyback flight has not been reported in other hummingbird species.

In conclusion, aerial courtship displays, including the Piggyback flight, are part of the rich behavioral repertoire of Ruby-throated Hummingbirds. Pitelka (1942) noted in the introduction to his paper that ". . . observations are interpreted variously and considerable confusion remains as to the significance of certain traits and patterns of hummingbird behavior." Although this statement was made over 50 years ago, it is still applicable today, despite the common presence of these birds at feeders. Observations of Ruby-throated Hummingbirds will undoubtedly continue to reveal the life history of this fascinating bird.—*Kathryn M. Rusch, 1510 W. El Rancho Drive, Mequon, WI, 53029.*

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Reverse Migration of Juvenile Broad-winged Hawks

The morning of May 29, 2000, was sunny and in the 70s with light to moderate winds from the northeast at Rock Island off the tip of the Door Peninsula. When my family and I arrived at the Potawatomie Lighthouse at the northern tip of the island at about 11:00 A.M., we observed a hawk flying in from the north low over the water. Upon reaching the lighthouse, the bird circled upward and joined an upward-circling group of hawks. Additional birds with similar field marks arrived at low altitude from the north, forming a kettle consisting of 25–30 birds.

This apparently southward migration of hawks was unexpectedly early and raised several questions, the first of which concerned the identity of the birds. Other than one dark morph individual, each of the 10 backlit birds I could examine closely were the size and shape of a Broad-winged Hawk (*Buteo platypterus*) and had several narrow, dark tail bands; a distinctly broader, subterminal dark tail band; and a prominent pale or translucent zone between the inner and outer primaries. Such a zone in the wings of immature Broad-wings is clearly illustrated in Sibley (2000) and evidently results from ongoing molting (Burns 1911). These field marks are also noted in Dunne et al. (1988) and Sutton (2002), and clearly distinguished between the birds we had observed and immature Red-shouldered Hawks. I concluded that we had observed a flock consisting predominantly or exclusively of immature Broad-wings.

The second question concerned the apparently southward direction of the

hawks' movement. This orientation was confirmed by birds at the top of the kettle, which flapped and glided south-southwest toward Washington Island. The birds failed to reach their destination, however, and reformed a kettle over the northeast margin of Rock Island, where they tried to travel southward but failed again. This behavior was repeated several times during the approximately 60-minute observation. I did not observe newly arriving birds joining the kettles, which always consisted of 25–30 birds. The juvenile Broad-wings we had observed were, indeed, attempting to migrate in a southerly direction.

Late May is much too early to expect the southerly migration of juvenile Broad-wings hatched that spring. Using data in Goodrich, Crocroll, and Senner (1996), I estimate that southbound juveniles would not be expected before early or mid–July, so the immature birds we had observed must have been produced in the preceding year. This interpretation is consistent with retention of the juvenile plumage through the spring following fledging (Burns 1911).

What were the birds doing over Rock Island? Their presence there could be explained by the avoidance of long overwater flights by various species of hawks. The confining effects of Lake Winnebago, Lake Michigan, and Green Bay, possibly combined with westerly winds, might have funneled northward-migrating Broad-wings onto and along the Door Peninsula. It is most likely that the 2.1–4.4 kilometers of water between the northern tip of the peninsula and Washington Island, and the 0.5–2.3 kilometers between Rock and Washington Islands, had been crossed by the birds as they traveled northward. However, when they embarked over the approximately 11.6-kilometer expanse of water to St. Martin's Island, the nearest land to the north, they may have found it daunting and returned to Rock Island, where we observed their arrival. Thus, the puzzling southward orientation of the Broad-wings we observed was likely an example of reverse migration. Evidently, the hawks were attempting to move southward along the peninsula until a sufficient narrowing of Green Bay and/or more favorable winds permitted them to cross to the mainland and continue their northward journey.

Why were these birds predominantly or exclusively juveniles, and why were they migrating northward distinctly later than the majority of Broad-wings, which pass through Wisconsin during late April and early May? Since Broad-wings often do not breed until they are more than one year old (Burns 1911), many juvenile nonbreeders are not under the "time gun" that prompts breeding adults to arrive at their nesting sites early enough to fledge young before food becomes insufficient in September (Bildstein 1999); juvenile birds can afford to migrate north later than breeding adults. Relatively late departure of juvenile Broad-wings from their winter range is consistent with the observation that, in south Texas, migrating flocks consist predominantly of adults during April, while immature birds predominate during early May (Kerlinger and Gauthreaux 1985). However, the phenomenon of reverse migration suggests that the arrival of many juveniles in Wisconsin may be further delayed because they make more navigational mistakes en route than adults do on their northward journey of about 5,000

kilometers. It would be interesting to know how long it took our flock of reverse migrants to resume a northward course.

How frequent is reverse migration in Broad-winged Hawks? As I learned from the fascinating book *Gatherings of Angels* (Bildstein 1999), it is apparently an annual phenomenon at Cape May, New Jersey. Juvenile Broad-wings on their first southward journey often migrate so far south into eastern New Jersey in autumn that the waters of Delaware Bay and the Atlantic Ocean funnel them onto Cape May, where they can't manage the many overwater miles to the nearest land to the south. They reverse their migration by beating north up the Cape until Delaware Bay becomes narrow enough for them to cross to the west and continue their southward journey.

In Wisconsin, a chain of islands extends between the Door Peninsula and the mainland to the north. It seems possible that some Broad-wings migrating southward in the fall make the mistake of following those islands until they reach a stretch of water that deters their further progress. They might then migrate in reverse until they reach the mainland. The water between Rock and St. Martin's Islands, possibly in combination with head winds from the northeast, apparently deterred the northward-migrating hawks on the day of our observation; maybe the same expanse of water sometimes deters southward migrants in autumn, especially if the winds should happen to be from the south.

How often does reverse migration of Broad-wings occur in the spring on the Door Peninsula? Mueller and Berger (1965) described an occurrence of this phenomenon at Washington Island involving 300–1,000 birds (at least 95% of them juveniles) on the remarkably late date of June 26, 1960. Hawks flying northward along the eastern shore of the island apparently balked at crossing to Rock Island, repeatedly formed kettles, failed to cross, and finally moved southward. Our flock of Broad-wings had difficulty in crossing the same passage between the islands while heading south from Rock Island as those observed in 1960, even though they must have first crossed the passage when moving north. It seems unlikely that a mere 0.5–2.3 kilometers over water deterred the birds from crossing; Broad-wings have executed much longer overwater flights than those required to cross between the islands north of the Door Peninsula (MacRae 1985). Quite possibly, other factors, such as wind direction and speed, combine with distance over water to determine the willingness of Broad-winged Hawks to migrate over water. The birds we observed forming and reforming kettles that did not cross to Washington Island probably had tail winds. It would be interesting to know the factors that would prevent Broad-wings from crossing 2.2 kilometers of water on some occasions while allowing them to embark for Cuba from Florida on others (MacRae, 1985)!—*Robert DeMars, 217 Bordner Drive, Madison, WI, 53705.*

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Pileated Woodpecker Eats American Grapes

I live in a residential area in east Duluth, about three blocks up from Lake Superior. A wooded corridor along the railroad tracks extends throughout east Duluth, roughly two blocks up from the lake, and consists primarily of aspen, some remaining birch, scattered spruce, and an understory of red osier dogwood and eastern hop hornbeam. Pileated Woodpeckers (*Dryocopus pileatus*) are frequently seen utilizing this corridor.

De La Ronde (2001) observed a Pileated feeding on wild grapes and wondered if this behavior had been noted by others. About five years ago, I was watching a football game on a Sunday afternoon in January. Around 1:00 P.M., a movement out the window caught my eye. For the next four to five minutes, I watched a male Pileated Woodpecker eating frozen grapes from the top of the vine trained on a wire over the sidewalk along the side of the house. This was 12 feet from where I was sitting! The grape is a "Beta," a Concord X *Vitis riparia* hybrid, with fruit described as small (half-inch diameter), having a blue slipskin, and tart, best used for jams and jellies.—*David L. Evans, 2928 Greysolon Rd., Duluth, MN, 55812.*

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The Summer Season: 2001

by Thomas K. Soulen

Few observers commented on the season's weather. Ashman's broad summary was that June was cool and wet (encouraging lots of mosquitoes) and that July was hot and dry. He stated that Dane County waterfowl habitat was good at the outset, but that the succeeding drought dried up many smaller ponds. Not far to the west, in Richland County, Duerksen characterized both June and July as very dry, with only about 2.5 inches of rain total for the season. In Portage County, Berner reported over 7 inches of rain in June, but barely 2 inches in July. Hale's story in Jefferson County was similar, totalling over 5 inches, but with barely 2 inches in June and July respectively.

The reported general temperature patterns were more similar in different areas, with several observers describing early June as being quite cool (daily highs in the 50s), followed by overall warming through the month. July was markedly warmer, with daily highs above 85 in Portage County on 17 days, and in the 90s on most days in Jefferson County. Given this weather scenario, the lack of significant passerine movement before the end of the season is not surprising.

Wisconsin observers recorded a total of 252 species during the season, less than in most of the past 20 years. The account that follows gives details on 152 of them. An additional 68 species that are not mentioned were common and widespread enough to be reported from more than 25 counties. The remaining 32 species, generally noted in 10–25 counties, are listed here, along with the number of counties in which each was recorded: Common Loon (19), Pied-billed Grebe (15), American Bittern (11), Green-winged Teal (12), Hooded Merganser (13), Osprey (17), Bald Eagle (20), Northern Harrier (26), Cooper's Hawk (21), Ring-necked Pheasant (21), Ruffed Grouse (15), Wild Turkey (21), Virginia Rail (14), Sora (16), Upland Sandpiper (11), Common Snipe (10), American Woodcock (10), Herring Gull (15), Forster's Tern (11), Great Horned Owl (18), Barred Owl (14), Whip-poor-will (11), Red-headed Woodpecker (23), Yellow-bellied Sapsucker (21), Brown Creeper (10), Marsh Wren (22), Golden-winged Warbler (17), Nash-

ville Warbler (20), Chestnut-sided Warbler (25), Canada Warbler (14), Vesper Sparrow (23), and Brewer's Blackbird (15).

Among the species recorded this season, two had not previously been found in Wisconsin in summer: a Golden Eagle in Waukesha County on June 17 and a Groove-billed Ani that remained in Brown County long enough in mid-season to be documented by several observers. Quite remarkably, a second ani—species not determined—was present during this same period in Door County. In addition, two Scissor-tailed Flycatchers were reported, one in Trempealeau County on June 12 and one in Door County from July 2–4. Rather interesting is the fact that after seven summer records of this species through 1982, no others materialized until 1999, following which birds have appeared both in 2000 and 2001. Also very unusual this summer was an adult male Pine Grosbeak in Pierce County on June 30.

Other rarities during the season included Snowy Egret; Little Blue Heron; Long-tailed Duck; Piping Plover; American Avocet; Willet; Marbled Godwit; Laughing, Little, and Lesser Black-backed Gulls; Eurasian Collared-Dove; Carolina Wren; Northern Mockingbird; Yellow-throated, Prairie, and Worm-eating Warblers; Yellow-breasted Chat; and Le Conte's and Nelson's Sharp-tailed Sparrows.

Using the codes on their single-county reporting forms, some observers reported their perceptions of how the abundance of some species differed this year compared to last. Recognizing the limitations of conclusions one might draw from this sample, it is nevertheless of interest to note that at least three observers felt each of the following to be less common this year than last (or even absent): Northern Harrier, Virginia Rail, American Coot, Chimney Swift, Belted Kingfisher, Red-headed and Red-bellied Woodpeckers, Sedge Wren, Eastern Bluebird, Blue-winged Warbler, American Redstart, Ovenbird, Mourning Warbler, Dickcissel, Grasshopper and Henslow's Sparrows, Eastern and Western Meadowlarks, and Yellow-headed Blackbird. The only species thought by at least three observers to be more common this year was the Blue Jay.

Reports came from 69 observers this year, close to the average of recent years. Again this year, there were fewer observers than usual who submitted multi-county forms. We also did not receive reports from some "regulars" who usually cover key counties. Both these factors contributed to the lack of reports from these counties: Calumet, Crawford, Eau Claire, Iron, Lincoln, Marathon, Marquette, Pepin, Rusk, and Waushara.

Reports (1 June–31 July)

Red-necked Grebe.—Observed, sometimes in family groups, in these counties: Burnett June 9 (the Saurs), Columbia July 8 (Stutz) and 12 (Tessen), Dane through July 13 (Burcar), Dodge June 9 (Mueller), and Winnebago June 17 (Ziebell, 27 birds).

American White Pelican.—Ziebell found 34 in Winnebago County June 17. Also reported from Brown (Bontly), Douglas (the LaValleys), La Crosse and Vernon (Lesher), Manitowoc (Stutz), Marinette (Frank), and Oconto (the Smiths) Counties.

Double-crested Cormorant.—No less than 600 were present in Winnebago County June 30 (Ziebell). Noted in 17 counties overall.

Least Bittern.—Reported from Burnett (the Saurs), Dodge (Mueller), Fond du Lac and Outagamie (Tessen), Jefferson (Hale), Ozaukee

(Frank), Sheboygan (the Brassers), and Winnebago (Knispel) Counties.

Great Egret.—The northernmost of the 21 counties in which these were observed were Marinette, Shawano, and St. Croix. Ziebell counted 220 in Winnebago County June 20.

Snowy Egret.—Several were reported from Brown County (Bontly, Tessen).

Little Blue Heron.—The only report was of an adult seen well in Winnebago County July 24 (the Smidts).

Cattle Egret.—Noted by several observers in Winnebago County, with a high count of 36 on July 15 (Ziebell). Also observed in Fond du Lac County July 7 (Tessen).

Black-crowned Night-Heron.—Ziebell counted 500 in Winnebago County June 20. Reported from 14 counties total, all eastern.

Mute Swan.—Observed in Dane, Door, Juneau, Kenosha, Kewaunee, Manitowoc, Walworth, Washington, and Winnebago Counties.

Trumpeter Swan.—Nested successfully in Burnett and Vilas Counties. A nesting attempt in Barron County was unsuccessful (Carlsen).

Tundra Swan.—A report from Outagamie County June 17 was very unusual (Anderson/Petznick).

Gadwall.—Observed in these counties: Brown July 16 (Van Duyse), Burnett June 14 (Haseleu), Manitowoc through the period (Sontag, 5 present July 28), and Winnebago through June 17 (Ziebell).

American Wigeon.—Noted in Kewaunee (Domagalski), Oconto (the Smiths), and Winnebago (Ziebell) Counties.

American Black Duck.—The lowest number of reports in some years, from these counties: Fond du Lac (Tessen), Ozaukee (Bontly), Racine (Evanson), and Sheboygan (the Brassers).

Northern Shoveler.—Observed in Burnett, Dodge, Manitowoc, Shawano, Sheboygan, and Winnebago Counties.

Northern Pintail.—For the first time in many years, there were no reports.

Canvasback.—Noted in Manitowoc County June 5 (Tessen) and Ozaukee County through July 8 (Frank, Uttech).

Redhead.—Observed in these counties: Dane (Ashman), Manitowoc (Tessen, Van Duyse), Ozaukee (Frank, Uttech), and Winnebago (Ziebell).

Ring-necked Duck.—Reported from fewer counties than usual: Burnett (Haseleu), Milwaukee (David), Portage (Berner), and Vilas (Baughman).

Greater Scaup.—A bird present in Manitowoc County was finally found dead July 28 (Domagalski, Sontag, Tessen). Also noted in Milwaukee County June 7 (Bontly).

Lesser Scaup.—Observed in Dane (Ashman), Manitowoc (Fitzgerald, Sontag, Tessen), St. Croix (Persico), and Winnebago (Ziebell) Counties.

Long-tailed Duck.—A bird in Door County June 9 (Shillinglaw) constitutes Wisconsin's eighth summer record.

Bufflehead.—Reports of single birds in Portage County June 9 (Berner) and Winnebago County June 16 (Bruce).

Common Goldeneye.—A bird in Racine County June 14 was very late (Evanson).

Common Merganser.—A bird in Waupaca County June 4 was unusual (Tessen). Also noted in Door (Stover), Florence (Bontly), Manitowoc (Sontag), and Vilas (Baughman) Counties.

Red-breasted Merganser.—Observed in these counties: Door (Stover), Milwaukee (Bontly), Racine (Evanson), and Sheboygan (the Brassers).

Ruddy Duck.—Fewer reports than usual, from Burnett, Columbia, Dane, Manitowoc, Ozaukee, St. Croix, and Winnebago Counties.

Sharp-shinned Hawk.—Among the 15 counties in which observers noted these, the most southern were Kenosha (Hoffmann) and Walworth (Parsons).

Northern Goshawk.—Only two reports, from Florence County June 24 (Burcar) and Oconto County June 5 (the Smiths).

Red-shouldered Hawk.—Noted in fewer counties than in most recent years: Bayfield, Burnett, Kenosha, Outagamie, Portage, Sauk, Shawano, St. Croix, and Taylor.

Broad-winged Hawk.—Southernmost among the 14 reporting counties were Iowa (Burcar), Ozaukee (Uttech), Sauk (Stutz), and Walworth (Parsons).

Golden Eagle.—A bird in Waukesha County June 17 provided Wisconsin's first summer record (Bielefeldt, Peters). Accepted by the WSO Records Committee (see "By the Wayside").

Merlin.—Recorded in Douglas, Dunn, Florence, Forest, and Shawano Counties.

Peregrine Falcon.—Observed in these counties: La Crosse, Manitowoc, Ozaukee, Racine, and Vernon.

Gray Partridge.—In none of the past 20 years have summer reports of this species come from more than eight counties. This year observers found it only in Kenosha (Hoffmann) and Ozaukee (Uttech) Counties.

Spruce Grouse.—This was the first summer in 10 in which no one located any of these.

Sharp-tailed Grouse.—Recorded in Burnett (Haseleu, the Saurs, Stutz) and Douglas (the LaValleys) Counties.

Greater Prairie-Chicken.—Noted in its usual Portage County habitat (Berner).

Northern Bobwhite.—Reported from Dunn, Green, Richland, Rock, Sauk, and Winnebago Counties.

King Rail.—The season's only report came from Kenosha County (Hoffmann).

Common Moorhen.—Noted in Brown, Dane, Dodge, Outagamie, Walworth, and Winnebago Counties.

American Coot.—Seen in many fewer counties than usual: Brown, Dane, Kenosha, Manitowoc, Outagamie, Ozaukee, Walworth, and Winnebago.

Black-bellied Plover.—Still in Racine County June 2 (Domagalski).

Semipalmated Plover.—The latest spring migrants were noted in Sheboygan County June 4 (the Brassers) and Dane County June 6 (Ashman). After a Milwaukee County report July 16 (David), a week elapsed before other arrivals were reported.

Piping Plover.—A nesting attempt was documented in Marinette County, but predation prevented successful fledging (the Smiths).

American Avocet.—Four birds were seen well in Vernon County July 3 (Zarwell). Accepted by the WSO Records Committee (see "By the Wayside").

Greater Yellowlegs.—A bird lingered in Dane County until June 8 (Ashman). The earliest fall migrants were noted July 3 in Manitowoc County (Sontag) and July 4 in Ozaukee County (Uttech), with others appearing in several other areas within the following week.

Lesser Yellowlegs.—There were no obvious spring stragglers this year, although there were more June sightings than usual, including a very early one June 17 in Dane County (Burcar). Ashman found birds in Dane County from June 24 on. Also noted in Portage County June 24 (Berner) and in Manitowoc (Sontag) and Washington (Domagalski) Counties before the end of the month.

Solitary Sandpiper.—Arrived in eight counties within just over a week, first in Washington June 28 (Domagalski) and Barron (Carlsen), Dane (Ashman), and Ozaukee (Frank) July 1.

Willet.—Reported from four counties: Dane June 1 (Ashman), Milwaukee June 10–12 (David, Bontly), Racine June 14 (Evanson), and Dodge July 29 (Wood).

Marbled Godwit.—Noted in Manitowoc County through June 3 (Sontag), in Ozaukee County July 18 (Uttech), and in Dane County July 29 (Heikkinen, Unson).

Ruddy Turnstone.—Noted in four counties in early June, latest June 6 in Manitowoc (Sontag) and Winnebago (Ziebell). Sontag counted 170 in Manitowoc County June 1. The only fall migrants observed were in Kewaunee County July 28 (Domagalski) and Vernon County July 31 (Lesher).

Red Knot.—Only one report this year, from Racine County June 2 (Domagalski).

Sanderling.—Observed in five counties in early June, latest in Washington June 10 (Domagalski). Had appeared in Vernon County by July 24 (Lesher) and Kewaunee County by July 28 (Domagalski).

Semipalmated Sandpiper.—Latest among six June reports was June 12 in Dane County (Ashman). Noted in Dodge County July 12 (Tessen), Portage County July 16 (Berner), and four additional counties within the next week.

Least Sandpiper.—A bird was still in Winnebago County June 3 (Tessen). The first fall migrants were noted in Washington County June 27 (Domagalski), Sheboygan County June 28 (the Brassers), and Manitowoc County June 29 (Sontag).

White-rumped Sandpiper.—June reports came from Racine County June 2 (Domagalski), Oconto County June 4 (the Smiths), Kewaunee County June 9 (Domagalski), and Dane County June 12 (Ashman). The remaining observations were in Dane County July 1 (Ashman), Vernon County July 3 (Zarwell), and Oconto County July 29 (the Smiths).

Baird's Sandpiper.—One bird was noted in Manitowoc County through June 22 (Sontag).

Pectoral Sandpiper.—The earliest fall migrant noted was in Dodge County July 7 (Tessen). Others were not observed for another week, but birds then appeared in four more locations within the next week.

Dunlin.—Seen in seven counties in June, latest in Manitowoc June 22 (Sontag).

Stilt Sandpiper.—Reported from Dodge County July 7 (Tessen), Dane County July 8 (Ashman), Milwaukee County July 16 (David), and Portage County July 28 (Berner).

Short-billed Dowitcher.—Noted first in Manitowoc County June 29 (Sontag), with reports coming from six additional counties during the first half of July. Tessen counted 170 in one area in Dodge County July 12.

Long-billed Dowitcher.—Reported from Door County July 23 (Stover). This was the only dowitcher report of either species to be accompanied by any documentation this season.

Wilson's Phalarope.—Observed in Brown, Burnett, Dane, Dodge, Dunn, Manitowoc, Portage, St. Croix, and Winnebago Counties.

Laughing Gull.—Birds were reported from Racine County June 15 (David) and Sheboygan County June 9 (Domagalski) and 15 (the Brassers).

Franklin's Gull.—The season's only report came from Vernon County July 31 (Lesher).

Little Gull.—Birds were seen in Manitowoc County in June (Bontly, Peterson, Stutz, Tessen) and in Racine County July 18 (David).

Bonaparte's Gull.—Reported from just six counties: Kewaunee, Manitowoc, Ozaukee, Racine, Sheboygan, and Winnebago. Domagalski counted 200 in Racine County June 9.

Lesser Black-backed Gull.—The Smiths got a good look at a bird in Kewaunee County July 29. See "By the Wayside."

Glaucous Gull.—Noted in Douglas County through June 6 (the LaValleys).

Great Black-backed Gull.—There were three reports, from Manitowoc County June 5 (Tessen), Racine County June 14 (Evanson), and Sheboygan County July 12–28 (the Brassers).

Caspian Tern.—Noted in 10 counties bordering Lake Michigan or Lake Winnebago, and also in Vernon County July 3 (Zarwell).

Common Tern.—Observed in these eastern and northern counties: Brown, Douglas, Manitowoc, Oconto, Racine, and Sheboygan. Also present in Vernon County July 3 (Zarwell).

Black Tern.—Not observed in their usual haunts in Dane County (Ashman). Noted in 15 counties in all.

Eurasian Collared-Dove.—Present in the Oconto County location first discovered last year (the Smiths). Also reported from a new location, in Ozaukee County, first by Sommer (July 19), later by others (Bontly, David, Uttech, Wood). Accepted by the WSO Records Committee (see "By the Wayside").

Yellow-billed Cuckoo.—Among the 20 counties in which this species was observed were these northern ones: Ashland, Bayfield, Douglas, Oconto, Price, Vilas, and Washburn.

Groove-billed Ani.—A bird discovered June 30 in Brown County (Love) was seen within the next three days by several others (Hansen, the Schwalbes, the Sykes, Tessen). This bird constitutes Wisconsin's first summer record. Amazingly, another ani (species uncertain) was found in Door County July 1 (Stover). Accepted by the WSO Records Committee (see "By the Wayside").

Eastern Screech-Owl.—Reported only from Dane (Burcar), Ozaukee (Bontly, Uttech), and Winnebago (Ziebell) Counties.

Short-eared Owl.—Noted in Burnett (the Saurs), Douglas (the LaValleys), and Portage (Berner) Counties.

Northern Saw-whet Owl.—Recorded in Florence (Burcar) and Vilas (Baughman) Counties.

Common Nighthawk.—Several observers reported very low numbers and/or the complete lack of birds after early June. Noted in 19 counties in all.

Red-bellied Woodpecker.—Among the 28 counties in which observers found this species, these were the most northern: Barron, Burnett, Door, Oconto, and Washburn.

Olive-sided Flycatcher.—Noted in fewer counties than normal: Ashland, Door, Kewaunee (possibly a migrant, considering the June 9 date), Menominee, and Vilas.

Yellow-bellied Flycatcher.—Lingered in Milwaukee County until June 4 (Zehner) and in Ozaukee County until June 8 (Bontly). This species has summered in the Dewey Bog, Portage County, but it is not known whether 2 birds there on June 4 remained through the season (Berner). It is also not known whether a bird in a spruce bog in Burnett County June 9 was a resident or a late migrant (Soulen). Noted later in the season in Ashland, Bayfield, Douglas, Price, Sawyer, and Vilas Counties.

Acadian Flycatcher.—Among the 10 reporting counties, the most northern were Portage (Berner), Sheboygan (the Brassers), and Winnebago (Ziebell).

Alder Flycatcher.—Most of the 31 counties from which this species was reported were central and northern. Present mid-June or later in Ozaukee (Bontly), Kenosha, Walworth and Waukesha (David) Counties.

Willow Flycatcher.—Northernmost among the 29 reporting counties were Oconto (the Smiths) and Shawano (Van Duyse).

Scissor-tailed Flycatcher.—One was seen well in Trempealeau County June 12 (McCurdy). Another individual in Door County was documented well by four observers July 2–4 (Hansen, Stover, the Sykes, Tessen). These birds constituted Wisconsin's 10th and 11th summer records. This is the third summer in a row that observers have found this species in the state. Accepted by the WSO Records Committee (see "By the Wayside").

Loggerhead Shrike.—Nested in Dunn (Heagle, Polk) and Oconto (the Smiths) Counties. Also noted in Walworth County (Parsons).

White-eyed Vireo.—For the first time in at least 20 years, there were no summer reports of this species.

Bell's Vireo.—Noted in Dane (Burcar), Dunn (Heagle), Iowa (Evanson, Stutz), La Crosse (Lesher), and Richland (Duerksen; nested) Counties.

Yellow-throated Vireo.—The most northern of the 32 reporting counties were Ashland and Bayfield (NRRI), Florence (Bontly), Marinette (Frank), Washburn (Haseleu), and Vilas (Baughman).

Blue-headed Vireo.—Although this species tends to be the earliest migrating vireo, individuals sometimes linger very late. Thus, it is possible that individuals noted in Fond du Lac County June 9 (Bontly), Walworth County June 15 (David), and Outagamie County through June 16 (Anderson, Petznick) were stragglers, although the Walworth County bird was in the southern unit of the Kettle Moraine State Forest, not far from a location where birds have summered occasionally. A bird in Portage County June 22 was in the Dewey Bog, which often has harbored a nice assortment of summering "northern" species (Berner). The remaining 14 reporting counties were all within normal range.

Gray Jay.—The only reports came from Oneida (Peterson) and Vilas (Baughman) Counties.

Common Raven.—Observers found these in Adams, Door, Juneau, Portage, Waupaca, and 16 more northerly counties.

Boreal Chickadee.—The only report was of up to 8 birds in Vilas County July 11–21 (Baughman).

Tufted Titmouse.—Noted in these nine counties: Columbia, Dane, Dunn, Green, Iowa, Lafayette, Richland, Sauk, and St. Croix.

Red-breasted Nuthatch.—Recorded in Dane, Manitowoc, Milwaukee, Ozaukee, St. Croix, and 17 more northerly counties.

Carolina Wren.—Present through the season in Jefferson County, with a high of 3 noted July 7 (Hale).

Winter Wren.—Noted in Ozaukee (Bontly, Frank) and Sauk (Holschbach) Counties, as well as in 13 more northerly ones.

Golden-crowned Kinglet.—Found only in Douglas, Portage (Dewey Bog), and Vilas Counties.

Ruby-crowned Kinglet.—Noted in Douglas (the LaValleys) and Vilas (Baughman) Counties.

Blue-gray Gnatcatcher.—Occurred as far north as Marinette and Oconto Counties (Frank) in the east and Burnett (the Saurs) and Washburn (Stutz) Counties in the west. Reported from 31 counties in all.

Veery.—Reported from Dane, Ozaukee, Sauk, Walworth, and Washington Counties, as well as from 25 counties farther north.

Swainson's Thrush.—A migrant was still in Ozaukee County June 1 (Frank).

Hermit Thrush.—A bird in Milwaukee County June 7 was far out of range (Bontly). Noted in 16 counties overall.

Northern Mockingbird.—Observed in Door County June 26 (Stover) and Ozaukee County July 21 (Uttech).

Blue-winged Warbler.—Among the 19 counties from which observers reported these, Shawano was the most northern (Van Duyse, July 29). To enable us to follow accurately the possible continued northward spread of this species' range, it will be important for observers to provide some documentation of records in northern locations. In particular, reporting a bird that is heard only is risky, because both this species and the Golden-winged Warbler (or hybrids that may look like one of the parent species) occasionally sing each other's song.

Brewster's Warbler.—The only report of this hybrid was of a bird in Sauk County (Holschbach).

Tennessee Warbler.—A straggler was noted in Door County June 4 (Stover).

Northern Parula.—Observations in Sauk County June 3, Dane County June 10 (Bridge), and Sheboygan County June 16 (the Brassers) were unusual. Noted in 12 additional counties within normal range.

Magnolia Warbler.—Still present in Winnebago County June 3 (Ziebell) and Ozaukee County June 4 (Bontly). Reported also from nine northern counties.

Cape May Warbler.—Noted in Door, Douglas, Florence, Oconto, Price, Taylor, and Vilas Counties.

Black-throated Blue Warbler.—Observed only in these counties: Ashland (NRRI), Oneida (the Smiths), Shawano (Van Duyse, Peterson), and Vilas (Baughman).

Yellow-rumped Warbler.—Noted in Juneau County June 13 (Evanson), Sauk County July 8 (Holschbach; a female that was spending much time with a singing Yellow-throated Warbler was seen carrying food), and 15 counties farther north.

Black-throated Green Warbler.—Present in Sauk County June 3–10 (Bridge, Holschbach), Ozaukee County June 23 (Frank), and 14 counties farther north.

Blackburnian Warbler.—Lingered until June 7 in Milwaukee (Bontly, Zehner) and Winnebago (Bruce) Counties. A bird heard and seen well in Walworth County June 14 was unusual (David). Present at least through June 23 in Sauk

County (Holschbach). Remaining reports came from 14 northern counties.

Yellow-throated Warbler.—A number of observers reported this species from Baxter's Hollow in Sauk County, last on July 8 (Holschbach). Also noted in its traditional Wyalusing State Park location in Grant County (Wood). See "By the Wayside."

Pine Warbler.—Noted in Dane (Ashman), Sheboygan (the Brassers), and Winnebago (Tessen) Counties June 2–3, and in Sauk County beginning June 23 (Holschbach). Other reports came from 17 more northerly counties.

Prairie Warbler.—A bird discovered in May on the Jefferson-Waukesha County Line was present at least through June 18 (Heikkinen, Peterson, Stutz, Unson). See "By the Wayside."

Palm Warbler.—At least 2 were in Dewey Marsh, Portage County, through June 22 (Berner). Other reports came from Burnett (Soulen), Douglas (the LaValleys), Oneida (Peterson), Price (NRRI), and Vilas (Baughman) Counties.

Blackpoll Warbler.—A bird in Douglas County June 14 was very late (Haseleu).

Cerulean Warbler.—Reported from Dane, Grant, Sauk, Walworth, and Washington Counties.

Black-and-white Warbler.—Among the 19 counties in which observers found these, Fond du Lac (Bontly), Milwaukee (Zehner), and Sauk (Holschbach) were the most southern.

Prothonotary Warbler.—Noted only in Grant (Peterson), Pierce (Soulen), and Sauk (Burcar) Counties.

Worm-eating Warbler.—Bridge, Burcar, Holschbach, and Stutz reported this species from Baxter's Hollow in Sauk County, and Mueller reported one in suitable habitat in Walworth County. Holschbach provided visual documentation, having been able to see at least 2 birds well on several occasions in Baxter's Hollow June 3–23.

Northern Waterthrush.—Nested in Washington County (Domagalski). Noted in 13 counties in all.

Louisiana Waterthrush.—Reported only from Sauk (Bridge, Stutz) and Shawano (Peterson) Counties.

Kentucky Warbler.—The only report was of 3 birds in Grant County June 18 (Peterson).

Connecticut Warbler.—Noted in Bayfield (NRRI), Burnett (Soulen), Douglas (Haseleu), and Vilas (Baughman) Counties.

Mourning Warbler.—As usual, most reports came from central and northern counties. Found in 26 counties in all.

Hooded Warbler.—Observed in Dane (Ashman), Fond du Lac (Bontly), Portage (Berner), Sauk (Holschbach), and Walworth (David, Mueller) Counties.

Wilson's Warbler.—Still in St. Croix County June 1 (Persico).

Yellow-breasted Chat.—Few reports, from Dane (Ashman, 6 territorial males at the Brooklyn Wildlife Area on June 17; Burcar), Green (Ashman), Iowa and Lafayette (Burcar), and Kenosha (David, Hoffmann) Counties.

Clay-colored Sparrow.—Noted in 22 counties. Nested in Walworth County (Parsons). Most other reports came from central and northern locations.

Field Sparrow.—Among the 29 counties in which observers found these, the most northern were Bayfield (NRRI), Douglas (Haseleu), Florence (Bontly), and Vilas (Reardon).

Lark Sparrow.—Several observers found up to 5 birds in Sauk County in June. Heagle located 5 in Dunn County June 8.

Grasshopper Sparrow.—Among the 21 reporting counties, the most northern were Marinette (Frank) and Shawano (Peterson) in the east and Burnett (Soulen) in the west.

Henslow's Sparrow.—It is difficult to know how significant it is, but the total of 16 counties from which observers reported these almost matches last year's 17, compared to 10–13 counties in the preceding four years (years when many atlasers were in the field). Reports came from as far north as Douglas (Haseleu) and Oconto (the Smiths, up to 6 birds) Counties.

Le Conte's Sparrow.—Reported from Burnett (the Saurs), Douglas (the LaValleys), Marinette (Frank), Oconto and Price (the Smiths), Oneida (Peterson), and Vilas (Baughman) Counties.

Nelson's Sharp-tailed Sparrow.—Present in Burnett (Stutz) and Vilas (Baughman) Counties.

Lincoln's Sparrow.—Up to 4 birds were in the Dewey Bog, Portage County, where this species has summered previously (Berner). Also located in Ashland, Bayfield, Douglas, Florence, Price, Taylor, and Vilas Counties.

White-throated Sparrow.—Nested again in Washington County (Domagalski). Also observed in 16 central and northern counties.

Dark-eyed Junco.—The only reports came from Vilas County (Baughman, Reardon).

Northern Cardinal.—Observers found these in 28 counties, the most northern of which were Barron (Carlsen), Bayfield (NRRI), Oconto (the Smiths), Shawano (Van Duyse), and Vilas (Baughman, Reardon).

Dickcissel.—Found in 19 counties in all, one of the lowest totals in recent years. Numbers of individuals reported also were low. The most northern reports came from Brown and Shawano (Van Duyse), Portage (Berner), and Winnebago (Bruce) Counties.

Eastern Meadowlark.—Noted in 34 counties representing most parts of the state.

Western Meadowlark.—Observers found these in only 13 counties this season; in no year since 1996 has that number exceeded 20. When reported, numbers of individuals were small, except for peak numbers in Green County (Evanson; 20 on June 24, compared to 19 Easterns) and Portage County (Berner; 10, compared to 17 Easterns).

Yellow-headed Blackbird.—Ziebell found 300 in Winnebago County June 17. Noted in 13 counties in all, mostly in the northern half of the state.

Orchard Oriole.—Reported from Brown, Dunn, Kenosha, La Crosse, Oconto, Ozaukee, Richland, Sauk, St. Croix, and Washington Counties.

Pine Grosbeak.—An adult male, seen well by Rodewald in Pierce County June 30, provided Wisconsin's first well-documented summer record of this species in a number of years. Although they have bred twice in the state (once each in May and August), there are only four previous summer records, all in July, with none since 1985. Accepted by the WSO Records Committee (see "By the Wayside").

Purple Finch.—Of the 18 counties providing reports of this species, the most southern were Manitowoc (Tessen, 2 on June 6) and Portage (Berner).

Red Crossbill.—Present in Bayfield and Price (NRRI), Burnett (Soulen), and Vilas (Baughman) Counties.

Pine Siskin.—Noted in Bayfield, Milwaukee, Price, Shawano, Vilas, and Washburn Counties. There were no reports after June 20.

Evening Grosbeak.—Noted in 10 counties this season: Ashland, Bayfield, Burnett, Door, Douglas, Florence, Price, Shawano, Taylor, and Vilas.

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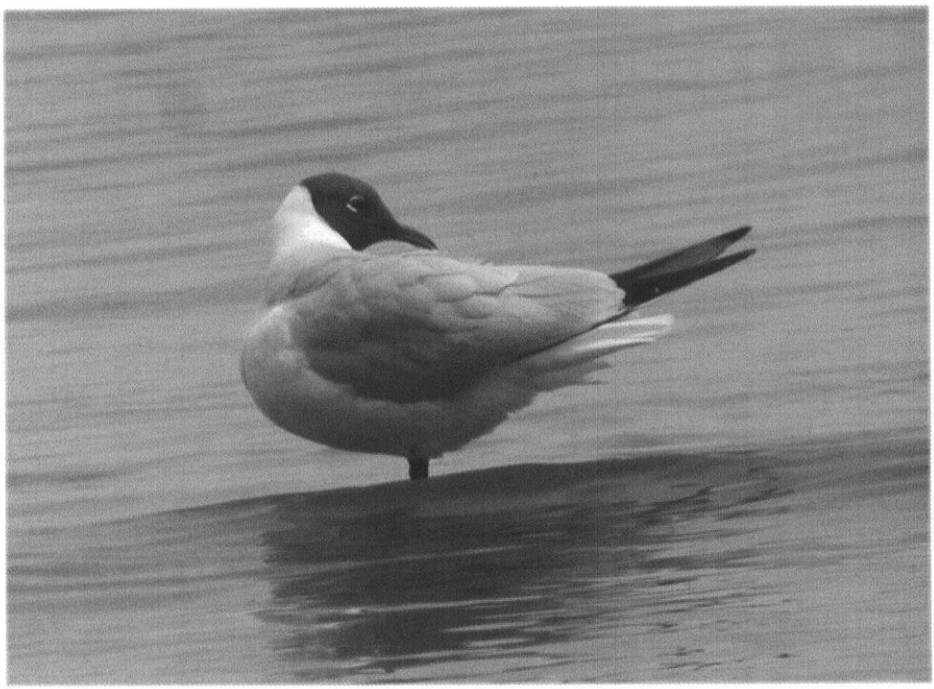


Black-headed Gull (Wind Point, Racine County, 30 May 2001) *by Brian Boldt*

"By the Wayside"

Rare species documentations include Golden Eagle, American Avocet, Lesser Black-backed Gull, Eurasian Collared-Dove, Groove-billed Ani, Crotophaga sp., Empidonax sp., Scissor-tailed Flycatcher, Yellow-throated Warbler, Prairie Warbler, and Pine Grosbeak.

Golden Eagle (*Aquila chrysaetos*)

16 June 2001, Big Muskego Lake, Waukesha County—Our initial impression was of a bird of Red-tailed Hawk shape and proportions, but much too big; second look and expectation was a Bald Eagle or vulture, which led us to purposefully check the following. The bird was entirely dark above and below (under- and upperwings, tail, body, and head), with no discernible white or pale mottlings visible anywhere as the bird soared and wheeled almost directly overhead. Its size and wingspan were greater than or equal to a vulture's, and it showed an occasional slight, but not constant or marked, dihedral. It soared mostly flat- or level-winged, with some strong buteo-like flapping, not the steady deep or bowed flaps of a Bald Eagle on a heading, and not the light rocking and tilting of vulture. It appeared small-headed and small-billed relative to its great body size, almost more reminiscent of a vulture than a Bald Eagle. We saw no ventral translucence (in strong sun) or the upper tail reddish brown of a dark morph Red-tail (in dorsal view). The bird's striking size, all-dark plumage, flight and soaring mannerisms, and small-headed aspect eliminate vulture and adult or sub-adult Bald Eagle easily; dark morph buteos are eliminated by size and absence of white, pale, or reddish tones throughout body, wings, and tail.—*John Bielefeldt and Terri Beth Peters, Rochester, WI.*

American Avocet (*Recurvirostra americana*)

3 July 2001, Pool 8 about a mile south of Stoddard, Vernon County—I observed four large birds resting near a group of Ring-billed Gulls, six Caspian Terns, and four Common Terns. I could see that the birds were large shorebirds, with a black-and-white pattern on their backs and the rusty-cinnamon upper body, neck, and head coloration of American Avocets. When walking, the birds' long legs, long necks, coloration, and upturned bills were even more obvious.—*Ric Zarwell, Lansing, IA.*

Lesser Black-backed Gull (*Larus fuscus*)

29 July 2001, Kewaunee County—Adult going into winter plumage, some brown flecking on white head. Darker gray back color stood right out from the Herring Gulls and Ring-billed Gulls. Dark gray back contrasted with the black primaries, had yellow legs and an orange gonydeal spot. Got within about 35 yards.—*Jerry and Karen Smith, Lena, WI.*

Eurasian Collared-Dove (*Streptopelia decaocto*)

19 and 21 July 2001, Hwy. A in town of Holy Cross, Ozaukee County—I first noticed a dove sitting on the wires. The bird caught my eye as I passed because something seemed different. I had a general impression of a lighter colored, larger and stockier bird than a Mourning Dove with a broader tail. On going back to look, I found a Mourning Dove-like bird, but lighter in color with a dark collar around its neck and dark primaries. I saw it interacting with a Mourning Dove at one point, and noticed it was larger than the Mourning Dove. I also noted a white band at the end of the tail as it flew. On the 21st, I noted the dark patches on the tail and the grey undertail coverts.—*Joan M. Sommer, Fredonia, WI.*

22 July 2001, Holy Cross, Ozaukee County—It was a pale gray, stocky bird. The tail was squared off rather than pointed as in the Mourning Dove, and there was a black half-collar across the back of the neck. It was about the size of a Mourning Dove, although the neck didn't look as long and slender and the head didn't look like the "pinhead" of a Mourning Dove. The primaries were dark compared to the gray of the wings. There were dark edges along the sides of the mostly whitish, squared tail that were visible when I stood almost under the bird. I did not hear the bird vocalize, but it flew once and did not make the sound that a Mourning Dove's wings make.—*Marilyn Bontly, Cedarburg, WI.*

24 July 2001, Holy Cross, Ozaukee County—The bird looked instantly familiar from several trips to Florida. Bigger, bulkier than a Mourning Dove, with a much shorter, squarer tail, and overall much lighter in color. As for the difference between this and Ringed Turtle-Dove, the much darker primaries in flight and the dirtier-looking undertail coverts were noted. Ringed Turtle-Dove should approximate Mourning Dove in size and bulk, but this bird was significantly larger in a direct side-by-side comparison.—*Karl David, Racine, WI.*

28 July 2001, Holy Cross, Ozaukee County—I noticed this dove was much larger than nearby Mourning Doves, and larger than dimensions in the field guides seemed to indicate. I believe this was because the Eurasian Collared-Dove is a much bulkier bird and has a squared-off tail, which makes it seem large in comparison to the Mourning Dove's slim body and tapered tail. During my observation, the Eurasian Collared-Dove was aggressive toward and chased a particular Mourning Dove, providing a dramatic example of this size difference. This bird was a very pale light brown, with underparts that were lighter than the back. It had a small black bill, a black bar crossing the nape, and dark charcoal gray primary

tips. In flight the tail was tipped in white.—*Thomas C. Wood, Menomonee Falls, WI.*

GROOVE-BILLED ANI (*Crotophaga sulcirostris*)

30 June 2001, Deerfield West Road, about 1/4 mile south of Lakeview Road, Brown County—I initially noticed the bird in silhouette. It immediately appeared strange to me, as the tail was much too long for a grackle or blackbird. As I got closer (I was in my car) it struck me that it looked like an ani. This was purely from studying the field guides, because I have not previously seen an ani. The bird was all black, except for a couple of small white feathers above the right eye. It appeared to have a bronze tint to the plumage. The bill was heavy, with a definite flared ridge on the upper mandible. It did not appear to have any other heavy grooves along the sides. There was a texture to the upper bill, but it was difficult to determine any actual grooves. I did not observe any "sunning," but the bird did have the ani posture: it appeared to have its tail "tucked under" and its shoulders "slumped over," to put it in human terms. It appeared to be hunched over the branch it was standing on. It repeatedly gave a single note that descended both in volume and tone from beginning to end. The bird was fairly motionless, flew from shrub to shrub. After landing on the shrub, it would sing the single note and then be still again.—*Brian Love, Green Bay, WI.*

2 July 2001, Brown County—The call was diagnostic: a *tee-lu*, with an emphasis on the first part of call. In flight, the bird was black; larger than grackle; with a large, long tail; and a thick, large bill. Overall body color was black, and the bird was grackle-shaped but obviously larger. Its flight proved it to be an ani, and its call a Groove-billed.—*Daryl Tessen, Appleton, WI.*

2 July 2001, Brown County—When first observed, bird was perched on the bare branches of shrub next to the road. It was a large, dark-colored bird with an enormously proportioned bill with respect to its head size, like a Common Grackle on steroids. Distinctly grooved upper and lower mandibles; long tail that it frequently wagged. Overall plumage was dark and tinged with brown; scruffy in appearance. Bird then flew some distance to a grove of willows and disappeared; reappeared at the top of adjacent dead scrub and proceeded to preen. Single note *teek* or *tek.*—*Tom and Carol Sykes, Appleton, WI.*

3 July 2001, west side of Deerfield West Road, just south of Lakeview, near Green Bay, Brown County—It was an all-dark bird with a long, large, wedge-shaped tail, which was moved around in the manner that is characteristic of cuckoos (sort of floppy). It appeared a little larger than a grackle, but not as slim. There was some purple iridescence on the upper parts of the body and wings, with some highlights on the feather edges; however, it also looked dull black in the light we had, which was bright sunlight. The large bill produced a flat-headed appearance. There were three or four grooves on the upper mandible, depending on how you counted them. The bare skin around and behind the eye was quite noticeable. When we arrived at the site,

Figure 1. Wisconsin's first summer record of Groove-billed Ani was discovered in Brown County on 30 June 2001 by Brian Love. Photo by Brian Boldt.

the bird was calling and this helped us locate it. To our ears the call was *chap-wheat, chap-wheat,* with the accent on the first syllable and a slight inflection on the second syllable. Its calls were like call numbers 2, 4, 5, and 6 on the Stokes' bird song CDs.—*Paul W. and Glenna P. Schwalbe, Pardeeville, WI.*

Figure 2. Another view of the Brown County Groove-billed Ani. Photo by Brian Boldt.

3 July 2001, Deerfield West Road, about 1/4 mile south of Lakeview Road, Brown County—The bird was entirely black, including all bare parts. At times a soft brownish sheen was noted, particularly on the back and wings. The tail was extremely long and the outer tail feathers were very worn and ragged. Extensive wear was also noted on the primaries and secondaries. The bill was thick, top to bottom, and there were four clearly demarcated grooves on the upper mandible that extended to the cutting edge. There was a noticeable ridge on the culmen. The lower mandible was quite straight and lacked a sharp gonydeal angle. There were several less distinct grooves showing on the lower mandible. The facial area showed an extensive bare patch that surrounded the eye, and the feathers on top of its head were very worn, producing a baldish appearance. Overall, the bird appeared very disheveled when it perched in the open. It was frequently harassed by other birds, allowing for a direct size comparison between nearby Red-wings and Common Grackles. It appeared much larger than the grackles, although this difference was probably accentuated by the bird's extremely long tail and ruffled appearance. The bird called 10–12 times while I watched it. The call could best be described as a sharp *teek*, which was strong but not loud. To me, it sounded

like the first syllable of the typical Groove-billed Ani contact call.—*Jan J. Hansen, Green Bay, WI.*

Crotophaga sp.

1 July 2001, Newport State Park, Door County—I heard the bird give a coarse, one-syllable call before seeing it about 10 feet above the ground in a tree. The body and head were behind leaves, but the tail and rear of the bird were in good view. The tail was unusually long, extending well beyond the folded primaries and was all-dark in color with no markings. When the bird came into full view, I saw that the entire body and head were the same black (or possibly dark brown) as the tail, with no noticeable markings. The bill was as dark as the body and was quite heavy. I did not notice any raised area on the upper mandible. The eye was dark. It continued giving the one-note raspy call as I watched it, a call that I had never heard before.—*Barbara R. Stover, Ellison Bay, WI.*

Empidonax sp.

26 June–24 July 2001, Poncho Creek, Portage County—The vocalizations of this individual were interesting. The most frequently heard song, given up to 12 times per minute, was a fast *spi-di-dik*, with something of the quality of the call notes of Acadian Flycatcher; from a distance it could pass as an "off" song of that species. About one of every six songs was *spi-di-dik-bec*, the *bec* identical to the *bec* in a Least Flycatcher's song and accented as the Least's. Each time upon alighting, it gave a soft twitter as an Acadian, but faster, lower pitched, and with the notes not so well enunciated. Overlapping, almost instantaneous with the twitter, was a sharp *chir* note, which is typical of an alighting Least Flycatcher. Two other call notes were heard once and twice, respectively: a sneezed *fft* like one call of the Acadian, and a loud, whistled *speek* unlike anything I have ever heard from an empid. Songs per minute of the local Acadians have never exceeded six per minute; twenty per minute is typical of Leasts.

Because the bird kept persistently in the mid-canopy, the plumage characteristics I was able to note are limited. Pale underparts and olive or grey upperparts. Lower mandible entirely pale orange. Its size was unremarkable, and it appeared rather small headed. Its posture was more upright than an Acadian's, always holding its tail vertically, as opposed to the Acadian's frequently more horizontal posture. Its behavior, the rate of song, and flightiness recalled a Least Flycatcher, rather than the calmer nature of the Acadian. The habitat was open, mature oak-maple upland slopes typical of the local Acadian population. A pair of Acadians nested successfully at the site in 2000. This is an isolated population of Acadian Flycatcher. The local Least Flycatcher colonies within 150 meters use selectively logged forest and immature, regenerated clearcuts. This flycatcher gave songs and calls attributable to both Acadian and Least Flycatcher; plumage was indeterminate. I thought it was all quite interesting.—*Murray Berner, Stevens Point, WI.*

Scissor-tailed Flycatcher (*Tyrannus forficatus*)

12 June 2001, Trempealeau National Wildlife Refuge, Trempealeau County—Long scissorlike tail; tail black on the

inside, white on the outside; peach color under wing and on belly; light gray above. Seen in open area with scattered trees, would fly through air catching insects and frequently go into the grass.—*Lisa A. McCurdy, Trempealeau, WI.*

2 July 2001, Cty. T, between Plum Bottom Road and Junction Road, Door County—When first seen, the bird was perched on a strand of barbed wire about 30 feet from the road. I was able to see it from this distance with my binoculars and later set up a scope when it flew to a fence line farther out in the field. It perched with a very upright posture and was clearly recognizable as a flycatcher in that regard. Its most striking feature was its overall paleness, particularly on the underparts, which were nearly white. Its back was slightly darker (a light shade of gray), and the wings and wing coverts were a darker gray than the back. The entire head also appeared very light. The bill appeared black and relatively thin and short, much finer than the bill of a kingbird. It had a fairly long tail, although much shorter than that seen on an adult. The upperside of the tail was dark gray and the underside white. I judged the bird to be a juvenile based on the length of the tail and the crisp white edges to the wing coverts. I also did not notice any pinkish coloration on the flanks or underside of the wing coverts.—*Jan Hansen, Green Bay, WI.*

2 July 2001, County Trunk T, between intersections with Junction Road and Plum Bottom Road, Door County—When first observed from a moving vehicle, the bird was perched on utility wires. Head, back, and breast were light colored; dark bill, dark eye with dark lores connecting base of bill with eye; long dark-colored tail. Shape of bird was smooth, sleek. Size of bird suggested Eastern Kingbird, but plumage was distinctly different. Pale salmon pink (faint, more orange than pink) color on flanks, belly, and underwing in flight. Long forked tail, black with white outer feathers.—*Tom and Carol Sykes, Appleton, WI.*

4 July 2001, Door County—After arriving and walking the area for about 15 minutes, I figured the bird had moved on. Turning around to return to my truck, I was surprised to see a grayish flycatcher with a longish black tail fly from the tree line on the west side of road. It caught insects out in the grassy meadow before disappearing back into the trees. My brief, one-minute look revealed a kingbird-sized bird with a white/grayish body, dark (blackish) wings, and a moderately long black tail.—*Daryl Tessen, Appleton, WI.*

YELLOW-THROATED WARBLER (*Dendroica dominica*)

1 June 2001, Wyalusing State Park, Grant County—I heard the bird fairly close to the road. The song sounded like *tyew, tyew, tyew, si, si, seet.* Eventually, I located the singer at the top of a tall pine. I saw the bright yellow throat, white belly, black streaks on the flank, and a black face patch. Unlike previous years, when my sightings had been of birds singing at one location for at least several minutes, this bird sang one or two "stanzas" from each tree and then moved on to the next until it had visited about six trees, and then went silent for up to 20 minutes. This explained the difficulty I had in locating

this warbler.—*Thomas C. Wood, Menomonee Falls, WI.*

Prairie Warbler (*Dendroica discolor*)

3 June 2001, County Z, 0.2 mile north of County NN on Jefferson/Waukesha County line—The bird was on the west side of the road when we finally found it. We heard what sounded like an odd-calling Field Sparrow in the bushes some distance to the north. We waited until we could see the bird, which was clearly a warbler from its size (a little under 5 inches), its shape, and its sharp beak. The coloring was beautiful: all-yellow belly and throat, dark streaking on the flanks just under the wings, and a striking black face mask over its yellow cheek, looking a bit as if the Lone Ranger's mask had slipped down so the top of the mask was over the eye. Unlike a lot of other "masks," this one stopped shortly behind the eye, not extending toward or into the neck. There was a clear yellow supercilium. The wings had two narrow wing bars. The cap and back were olive green, and we could see the reddish streaks on the back below the nape. The voice sounded at first somewhat like a Field Sparrow, and, as we watched it, it sometimes also sang a more conventional Prairie Warbler song (a thin, rising series of buzzes).—*Chuck Heikkinen and Delia Unson, Madison, WI.*

10 June 2001, South Unit, Kettle Moraine State Forest, Jefferson County—The bird was first found by Nick Walton on May 29, and he accompanied me to see the bird on June 10. After searching and listening in the area where Nick had previously found the bird, we finally heard the high pitched ascending buzzes. With a little more patience, the adult male Prairie Warbler flew into view. The bird had yellow underparts and an olive back. Only when positioned perfectly could I make out any rufous streaks on the bird's back. It was easy, however, to see the black streaks along the bird's flanks.—*Aaron Stutz, Madison, WI.*

Pine Grosbeak (*Pinicola enucleator*)

30 June 2001, Kinnickinnic State Park, Pierce County—The bird was in the top of a 20-foot tall juniper tree and was similar in size to a robin. It was much too large for House Finch or Purple Finch. The head of this male was completely rosy red; the breast and belly were the same but a little deeper rosy red. A line of bluish-gray feathers came forward from the tail area almost to the center of the breast. The folded wings were bordered by the same bluish gray tint. There were vivid white wing bars on the dark to black wings, with laddering of white on the wing bars. The nape of the neck and back were not visible. The tail was very dark, and quite long compared to the stubbier tails of smaller finches. I couldn't see the tail tip well. It had a very heavy black beak, and the eye was black with a darkening between the beak and eye and just past the eye. The area of the lores appeared dark, but this may have been a crease as much as darker feathers and skin. The bird vocalized a 3- to 4-second warble continuously the whole time. Then it flew straight away showing a notched tail.—*Pete Rodewald, River Falls, WI.*

WSO Records Committee Report—Summer 2001

The WSO Records Committee reviewed 24 reports involving 11 species from the summer of 2001 season; 17 of the reports were accepted. Of note was Wisconsin's fifth record of a Eurasian Collared-Dove and the first Groove-billed Ani in 14 years. In addition, comments regarding an old record of a Black-chinned Hummingbird are presented.

Accepted

Golden Eagle—
#2001–035 Waukesha Co., 17 June 2001, Bielefeldt, Peters.

An extremely large, all-dark raptor was seen soaring, wheeling, and occasionally flapping. The tail was fan-shaped, the wings long and rounded. No white could be found anywhere on the bird including on the underwings, upperwings, tail, or head. The wingspan was greater than that of a Turkey Vulture and lacked the typical vulture dihedral wing positioning; rather, the wings were held flattened. The head was smaller in appearance relative to the body than on a Bald Eagle. The tail lacked any of the reddish color expected on a dark morph Red-tailed Hawk. The flight feathers lacked any translucence, in spite of strong sunlight from above.

American Avocet—
#2001–036 Vernon Co., 3 July 2001, Zarwell.

This unusual date involved four individuals in breeding plumage. The large shorebirds had long legs; long necks; and long, upturned bills. The wings and back were black and white. A rusty cinnamon color covered the head, neck, and upper breast.

White-rumped Sandpiper—
#2001–037 Vernon Co., 3 July 2001, Zarwell.

Two individuals were observed, at one point in direct comparison to a Least Sandpiper. They were slightly larger, had a gray-brown back color, a longer black bill, longer extension of the folded primaries, and light streaking on the upper breast and sides. When they took flight, the white rump was apparent.

Eurasian Collared-Dove—

#2001–039 Ozaukee Co. 19, 21 July 2001, Sommer; 22 July 2001, Bontly; 24 July 2001, David; 28 July 2001, T. Wood.

The bird was larger and stockier than a Mourning Dove, pale gray in overall color, with darker gray-black outer primaries. The nape of the neck had a black crescent, outlined in white. The underside of the squared-off tail was black proximally, white distally. The undertail coverts were gray, as opposed to the white of Ringed Turtle-Doves. The bird usually called vigorously: a short *coo* followed by a longer *coooooo*, and the third note a short *coo* again. This is Wisconsin's fifth record and the second for Ozaukee County.

Groove-billed Ani—

#2001–041 Brown Co., 30 June 2001, Love; 2 July 2001, Tessen, T. and C. Sykes; 3 July 2001, J. Hansen, P. and G. Schwalbe.

This all-black bird was slightly larger and longer-tailed than a Common Grackle. There was an overall bronze or purplish cast to the black feathers. Its feathering appeared unkempt. Most prominent was a large thick bill, grooved at least three times on the upper mandible. The upper mandible lacked the prominent ridge associated with the Smooth-billed Ani. Diagnostic was the two-note call that had the emphasis on the first syllable. Also, a series of *teks* could be heard; Smooth-billed Anis typically have a whistled note. This is Wisconsin's fifteenth record, but the first since 1987.

More information on identification and patterns of vagrancy in anis can be found in *North American Birds*, Vol. 53, No. 3, May 1999, pp. 237–245.

Scissor-tailed Flycatcher—

#2001–044 Trempealeau Co., 12 June 2001, McCurdy.

#2001–043 Door Co., 2 July 2001, J. Hansen, T. and C. Sykes; 4 July 2001, Tessen.

These slender, robin-sized birds were generally gray, with salmon on the flanks and in the axillaries. A dark gray streak ran through the eye. The tail was unusually long and forked, black in color, but with white edging. The slightly paler pink color than expected, and the slightly shorter than expected tail, suggested females to the observers.

Yellow-throated Warbler—

#2001–046 Grant Co., 1 June 2001, T. Wood.

Initially attracted by the six descending slurred whistles in its song, the observer was able to visually locate this warbler. Noted were the yellow throat, white belly, black streaks on the flanks, and black patch on the side of the face.

Not Accepted

Swallow-tailed Kite—

#2001–034 Milwaukee Co., 23 June 2001.

This distant observation was of "a raptor" with a long black tail and a white head. With no angle to discern the shape of the bird, no size reference, no confirmation on the shape of the tail, and no look at the wings, it is difficult to accept this identification based on the premise of "what else could it have been." The possibility is intriguing, but as we all have experi-

enced, some birds just cannot be identified for certain.

Black-headed Gull—

#2001–038 Kewaunee Co., 22 July 2001.

Observed at significant distance with a few Bonaparte's Gulls, this individual was similar in size and activity. The upperwings had a white triangle on the outer primaries. The underwings appeared blackish on the primaries. The extent of this black was not stated, nor was there an indication of whether there was any white in the outer primaries on the underwing. The bill and legs could not be seen well at this distance.

(Although other observers reportedly were able to relocate this gull on subsequent days and also felt it to be a Black-headed Gull, no other documentations were received. Without more details, this report doesn't clearly identify the bird. Without other reports to substantiate the presence of this bird, it is lost to Wisconsin's ornithological record.)

Eurasian Collared-Dove—

#2001–040 Manitowoc Co., 21, 22 June 2001.

#2001–040 Manitowoc Co., June 2001 (photos).

The written report noted that the bird appeared to be "like a white Mourning Dove without the pointed tail." The neck crescent and darker primaries were mentioned, but the undertail pattern wasn't clearly described. The report described a dark band bisecting the tail and the tail coverts being light. It did not indicate that the undertail coverts were gray, but did state that they were not white. Vocalizations were not described, if heard.

The photographs of this bird show it sitting at a feeder, not allowing a view of the tail or undertail coverts. In addition, the lighting or developing of the picture creates the impression that the overall body color is extremely pale, more in line with what might be expected on a Ringed Turtle-Dove. In addition, the folded primaries also seem unexpectedly pale in color.

Of interest is the report that this bird was solitary, but did build a nest and lay eggs, subsequently abandoning them.

Groove-billed Ani—

#2001–042 Door Co., 1 July 2001.

Although the head of this bird was seen only briefly after viewing the long tail and shaggy feathering, the bill appears to fit that of an ani. It was not seen long enough to describe the presence of any grooves. In addition, it gave what the observer described as single raspy notes. Without description of the call or the grooving of the beak, this can only be comfortably be assigned an identification as an ani, species uncertain. Interestingly, this report is from the same time as the report from Brown County, but approximately 50 miles away.

Bewick's Wren—

#2001–045 Grant Co., May 2001.

A wren with a white eye line was felt to be larger than a House Wren. The underparts were described as light cream, which is more suggestive of a Carolina Wren than the white underparts of a Bewick's Wren. The bird was heard singing, but no reference to the song was directly made in the report.

Bullock's Oriole—

#200–047 Monroe Co., 9 July 2001.

This female oriole had a dusky crown, an orange-yellow face, a "smooth gray" back, two "distinct" white wing bars on gray wings, an orange-yellow breast, pale gray belly and flanks, and slightly orange-yellow undertail coverts. Although the pale lower breast and gray mantle support a Bullock's Oriole, several other points suggest a pale Baltimore Oriole. The report specifically stated that a distinct eye line was not seen, although this should be present on a Bullock's Oriole and not on a Baltimore. In addition, the two "distinct" white wing bars sound different than the scalloped upper wing bar and indistinct lower wing bar expected on a Bullock's Oriole. Again, the wing bar description suggests a Baltimore. Another uncertainty arises over the persistent use of "orange-yellow" instead of yellow for the face and upper breast color. This is also more in line with a Baltimore than a Bullock's Oriole.

This female was also indicated to be in the company of a male bird that the observer identified as a hybrid Baltimore/Bullock's; however, no details were presented to support such an unusual circumstance. We are not aware of any summer Bullock's Oriole records east of the Mississippi River. Wisconsin has two previous records in late fall/winter, Minnesota has one state record, and Iowa three. The difficulty in distinguishing females of the two species may be the reason all of these records are of male birds. It may well be necessary to photograph such a bird given the variation among female Baltimore Orioles and the fine differences that separate female Baltimore and Bullock's Orioles.

Interested observers will find a more complete discussion of this identification problem in *Birding*, Vol. 30, No. 4, August 1998.

Black-chinned Hummingbird Revisited

In July of 1996, there was a report of a Black-chinned Hummingbird coming to a feeder in Marathon County, Wisconsin. At that time, the WSO Records Committee received and accepted a written documentation by one observer in which it was stated that pertinent field marks, including the black throat gorget and purple ventral edging to this gorget, were seen. Based on this report, the species was placed on the state's hypothetical list.

Since that time, other information has been presented to the Records Committee that casts uncertainty on the report of this bird. The original observer of the hummingbird had received a number of visitors hoping to see the bird. Only one of them claims to have seen it, although it was reported to be very regular in visiting the feeder. Others reported that there were instances in which the bird appeared, only to be identified as a Ruby-throated Hummingbird by more-experienced observers. Additionally, the Records Committee has received word that a video was made of the hummingbird, although this was never presented for review. Another observer who was able to view this video has stated that the hummingbird videotaped was, in fact, a Ruby-throated Hummingbird.

Several birders have noted that the shaded area in which the feeder was placed would have made discerning the color of the gorget a problem. There is much confusion among less-experienced birders about the fact that

a male Ruby-throated Hummingbird's gorget will be seen to be black more often than red—it all depends on the angle of the feathers relative to the light and the observer's eyes.

Given the apparent misidentifications of the actual bird when other observers were present and given the videotaping of the wrong bird or the incorrectly identified bird, the Records Committee has determined that in spite of the one written documentation indicating the gorget had purple ventrally, too much confusion exists in the circumstances to maintain the Black-chinned Hummingbird on the hypothetical list.

The Records Committee would like to thank the observers who supplied additional information on this bird.

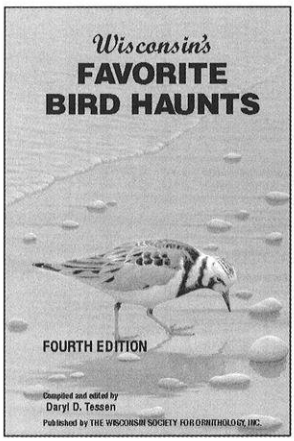
Jim Frank
WSO Records Committee chair

50 Years Ago in *The Passenger Pigeon*

George Knudsen writes of an interesting rookery that he visited by canoe in the flowage east of the Big Eau Pleine Reservoir in Marathon County on June 16, 1949. He wrote, "And what a sight to behold! I had never seen so many nests of such large size anywhere before in all of my hundreds of field trips into many parts of the state. All I could see was Great Blue Herons and cormorants, in the air and in the trees . . . . I imagine my eyes were 'bugged out' and my mouth must have been agape most of the time. This was absolutely awe-inspiring!"

As he approached cormorant nests, Knudsen noted that, "The larger youngsters would stick their wobbly heads over the edge of the nest and regurgitate immense chunks of semi-digested suckers, bullheads, and shiners, and many were the direct hits that day!"

Later, Knudsen, Robert Ellarson, and John Emlen returned to band 68 young cormorants and 34 Great Blue Herons from the estimated 400 nests in the rookery. Eight bands were returned in the next 10 months, a high return that Knudsen attributed to "the general feeling everyone seems to have concerning the food habits of the cormorants and herons. Because they feed on fish, it seems that everyone is anxious to exterminate the 'nigger goose' and the 'shite-poke'." Five cormorant returns came from Wisconsin, Tennessee, Arkansas, Louisiana, and Alabama. The heron returns were from Louisiana, Minnesota, and three miles away in Dancy, Wisconsin. Knudsen counted only 250 nests in 1951 because "the trees are beginning to rot and the spring ice heaves are toppling many of them with their nests." (Excerpts from Vol. 13, No. 4, 1951)



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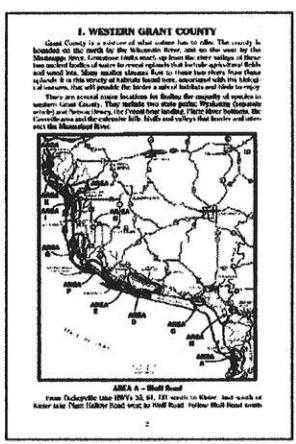
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THE WISCONSIN SOCIETY FOR ORNITHOLOGY

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