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Send all manuscripts and related correspondence to the Editors. Information for "Seasonal Field Notes" should be sent to the Bird Reports Coordinator (see inside back cover). Art work and questions about the art should be sent to the Assistant Editor for art (see left column). 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 131–132 of the Summer 2007 issue (Vol. 69, No. 2) or contact the Editors. As a general guide to style, use issues after Vol. 60, No. 1, 1998.

Front Cover: This singing male Kirtland's Warbler, photographed in Adams County by Joel Trick, had reason to sing in the summer of 2007, because at least three females were present and nesting occurred for the first time in Wisconsin.

Winter, The Way It Used to Be

As I write this, there are still big piles of snow all over town, some of them over my head. After what has seemed like an endless succession of relatively snowless, warm winters, we've finally had a really good one. The ground has been continuously white since very early in December (I think that the last time that happened, Lynn Dickey was the Packers' quarterback). In fact, we here in southern Wisconsin can even claim bragging rights over the north for who had the snowier winter this year; I can't remember when that was last true. If only we had the northern winter birds to go along with this northern-type winter. How terrific it would be to look out the kitchen window every day and see Pine and Evening Grosbeaks and the occasional wandering flock of Bohemian Waxwings. Not that I don't enjoy our downies, chickadees, and White-breasted Nuthatches, mind you.

This has been the kind of winter that makes me wish I were a kid again, reveling in the seemingly mountainous, fluffy snow drifts. I have felt excited with each new forecast of more snow. I recently learned to keep that excitement to myself, however, as most of my friends—in fact everyone I can think of—have had enough of winter. I feign disgust with shoveling and icy roads and freezing weather just to make the small talk go smoothly; it's just not worth the effort to defend my true feelings.

This winter also makes me wonder how birds are coping with the deep snow and cold snaps. I imagine that mortality for some resident birds, such as turkeys and Northern Bobwhites (at least the precious few of the latter species we still have) will be somewhat higher this winter than most. But every time I am out in the countryside, I see turkeys avidly enjoying the food supplied by manure freshly spread on top of white fields. So, perhaps farmers have spared them from some hardship. Let's hope we have a nice slow thaw, so all that volume of manure doesn't wash into nearby streams and creeks.

In most years we have had numerous sandhills, Killdeer, redwings, perhaps a Tree Swallow and other early migrants arrive by now, in early March. Needless to say, I have only heard of one report of a crane in southern Wisconsin so far, and only a pitiful flock or two of redwings. The amount of snow we have is not going to melt overnight, so I imagine that there will be a substantial backlog of early migrants waiting in Illinois and other parts south to press northward. It will be interesting to watch as the migration unfolds.

The couple of 15+ below zero nights we have had set me to wondering how small winter birds survive in such conditions. Our own WSO research chair, Sheldon Cooper, shares this fascination and has done some interesting research into such matters. I remember reading with amazement in the *Auk* (journal of the American Ornithologist's Union) a few years back of Vermont ecologist Berndt Heinrich, who spent night after night at temperatures down to 30 below

in northern Maine trying to follow Golden-crowned Kinglets to their night roosts. He finally succeeded and was able to snap a photo of several kinglets huddled so tightly together on a branch in the dark so as to form one fuzzy mass of bird against the bitter cold; an incredible sight. On my recent winter camping trip up in the Sylvania Wilderness area of Michigan's UP, we had the luxury of warmth produced from a lightweight woodstove in our canvas tent, so huddling was not necessary. All the more reason to respect what those tiny kinglets are able to withstand on their own.

A kind of bandwagon has formed among a segment of the population, proclaiming with some degree of seriousness that this winter is proof that global warming isn't real. I personally don't subscribe to that theory. The scientist in me believes that more likely it is a result of this year's La Nina event, or of the predicted increase in weather extremes associated with climate change. But the most important thing this winter has done for me is to allow me to revive and nurse back to health an atrophied love of, and sense of wonder about, this coldest and darkest of seasons.

David W. Sample

President

Reflections on a Common Loon by Patrick Ready

New Series

In this issue of The Passenger Pigeon the reader will find the first article of what the editors hope will be a continuing series of papers consolidating the literature and bring up-to-date the information on the avifauna of each county in Wisconsin. We begin the series with Barron County.

The main purpose of this series will be to fill in our knowledge of the avifauna of each county in Wisconsin. The papers will also serve as a base against which future changes in habitats and bird distributions can be assessed. A secondary purpose will be to provide natural resource managers and conservation decision-makers with contemporary information on any county's avifauna. As human population growth maintains its steady increase, more and more areas will be subjected to conversion to other uses. How will these changes affect bird life?

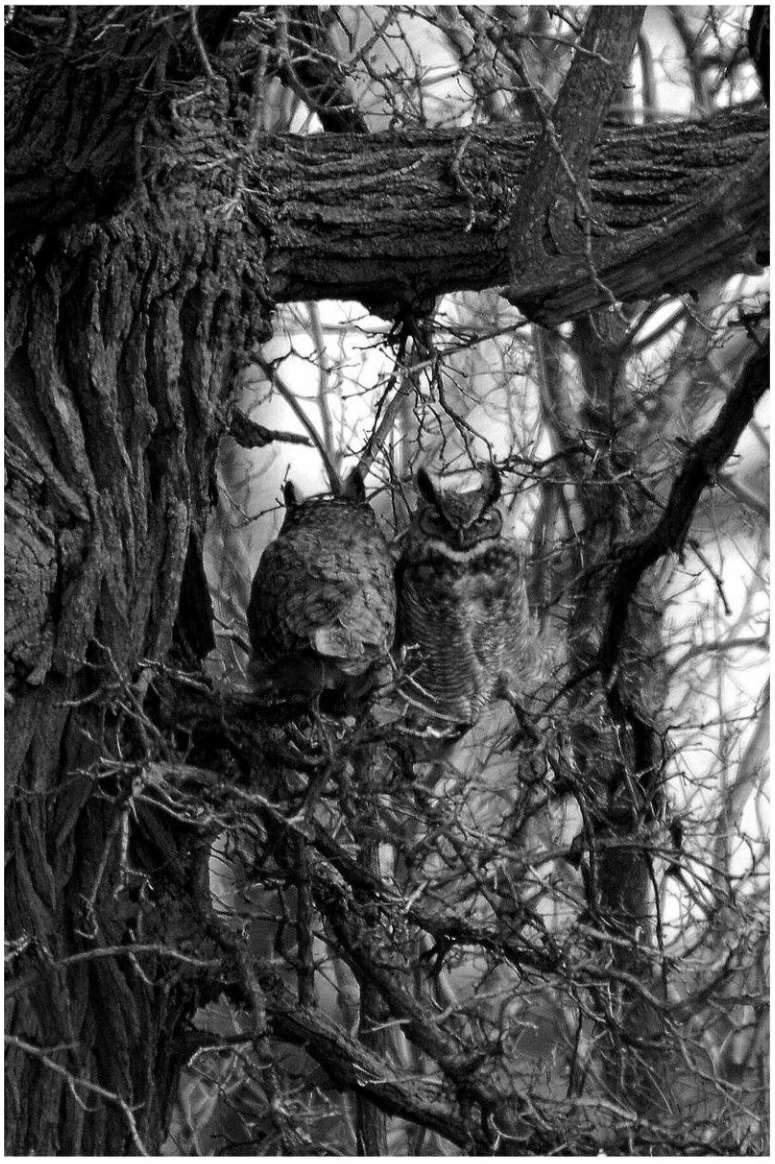
Resource managers and others often have to scramble to find useful data that can be applied to the analysis of development projects. Statewide surveys are excellent starting points for the analysis, but more site-specific information is almost always needed to understand the potential effects.

The author of the Barron County article, Craig Faanes put forth the idea of this series to the Pigeon editors and will be serving as the coordinator and first editor. We encourage ornithologists and birders in Wisconsin to make a concerted effort to update existing papers on county or bi-county avifaunas. Where no information currently exists, we encourage others to make similar analyses and publish that information in a professional outlet such as *The Passenger Pigeon*. This is especially important around major human population centers such as Dane County, the corridor from Kenosha County north through Door County, the watershed of the Fox River in northeast Wisconsin, and areas along the Mississippi River from Grant County north through Buffalo County.

Read the Barron County article in this issue to see what kind of content is needed. Then, if you are willing to produce such an article on a county in Wisconsin, please contact Craig Faanes at off2thetropics@yahoo.com for more information. You will be making a valuable contribution to the future of the birds you enjoy so much.

Bettie and Neil Harriman, Editors

Forster's Tern caught in flight by Sandy Pfotenhauer



These Great Horned Owls, watching both sides of their world, were photographed by Dennis Malueg in Fond du Lac County in early April 2007.

The First Wisconsin Nesting Record of Kirtland's Warbler (*Dendroica kirtlandii*)

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INTRODUCTION

The Kirtland's Warbler (*Dendroica kirtlandii*) is a federally-endangered songbird that has been infrequently reported from Wisconsin. In 2007, Kirtland's Warblers nested in Adams County, Wisconsin, the first known nesting record of the species in the United States outside of the State of Michigan. Here we provide an overview of recent history and current status of the species, details of nesting activities in Wisconsin in 2007, and a

description of our plans for future Wisconsin monitoring and surveys.

Background

The Kirtland's Warbler has been considered rare ever since its discovery in 1851, and its breeding area in northern lower Michigan was not discovered until 1903 (Byelich et. al. 1985). The Kirtland's Warbler was one of the few species named under the Endangered Species Preservation Act of 1966, the precursor to the Endangered Species Act (ESA) of 1973. With passage of the ESA, the U.S. Fish and Wildlife Service (FWS) appointed a Kirtland's Warbler Recovery Team (Team), and the Team has since taken an active role in guiding the species' recovery.

The great majority of the population breeds within a small area of 6 counties in northern lower Michigan (Michigan Department of Natural Resources 2007), and all known wintering records are from the Bahamas and nearby islands (Radabaugh 1974). The Kirtland's Warbler nests on the ground and requires dense jack pine (*Pinus banksiana*) stands of approximately four to 20 years of age for nesting. Historically, these stands of young jack pine were created by natural wildfires, but modern fire suppression programs altered this natural process, reducing the amount of available habitat.

To mimic the effects of wildfire, State and Federal lands in Michigan are now managed through a combination of clearcutting, seeding, and replanting to promote warbler habitat. Currently, approximately 190,000 acres (77,000 ha) of State and Federal lands in Michigan are managed on a rotational basis to maintain a minimum of 38,000 acres (15,000 ha) in a condition suitable for occupation by the warbler (C. Mensing, pers. comm.). In addition to habitat management, a Brown-headed Cowbird (*Molothrus ater*) trapping program has been conducted on selected Kirtland's Warbler nesting areas since 1972. Prior to implementation of cowbird trapping, as much as 75 percent of nests were parasitized by cowbirds, resulting in low nest success and fledging rates. After initiation of the cowbird trapping program in 1972, the percentage of parasitized nests declined to less than 10 percent, and the number of young produced increased from less than one to nearly three per nest (Kelly and DeCapita 1982).

The Kirtland's Warbler population is monitored through an annual census coordinated by the Michigan Department of Natural Resources (MDNR). This census was conducted in 1951, 1961, and 1971, and has been conducted every year since (Probst et al. 2003). The population remained fairly stable for many years at approximately 200 birds, and then began a dramatic increase beginning in 1990, reaching a record total of 1697 birds in Michigan in 2007 (Michigan Department of Natural Resources 2007; Fig. 1). This total includes 32 males in the Upper Peninsula of Michigan, where breeding was first documented in 1995 (Probst et. al. 2003). An additional 10 birds were also documented outside of Michigan, including 8 males in Wisconsin and 2 males in Ontario, where nesting was also documented in 2007 (Canadian Forces Base Petawawa 2007). Kirtland's Warblers had previously been docu-

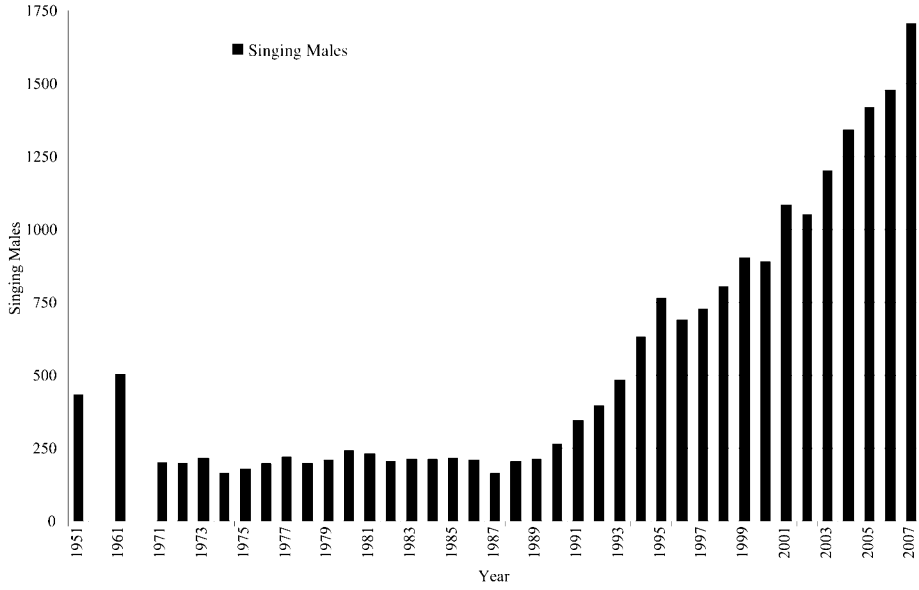

Figure 1: Kirtland's Warbler singing male census: 1951, 1961, 1971–2007 (Michigan DNR data; Graphic courtesy of Chris Mensing, FWS-East Lansing, MI).

mented to nest in Ontario in 1944 (Speirs 1984).

WISCONSIN

Before 1978, there were fewer than 10 reports of Kirtland's Warbler in Wisconsin, all during migration periods (Hoy 1853; Kumlien and Hollister 1903; Taylor 1917; Tilghman 1979). A survey effort organized by Nancy Tilghman in 1978 resulted in the discovery of two males in Jackson County, and the species was reported in the same general area in 1979 and 1980. Between 1988 and 2006, Kirtland's Warblers were reported from the state in 11 separate years in Douglas, Jackson, Marinette, Vilas, and Washburn Counties, with the bulk of sightings during the month of June (Fig. 2). In spite of the species' more frequent occurrence in recent years, including multiple birds in both 2005 and 2006 in Jackson County (J. Polk, pers. comm.), no breeding had ever been documented and there had never been a report of a female. This increased incidence of Wisconsin sightings in recent years has occurred coincident with the increase of the species population, which has resulted from management actions conducted in Michigan.

On 19 May 2007, three male Kirtland's Warblers (Fig. 3) were discov-

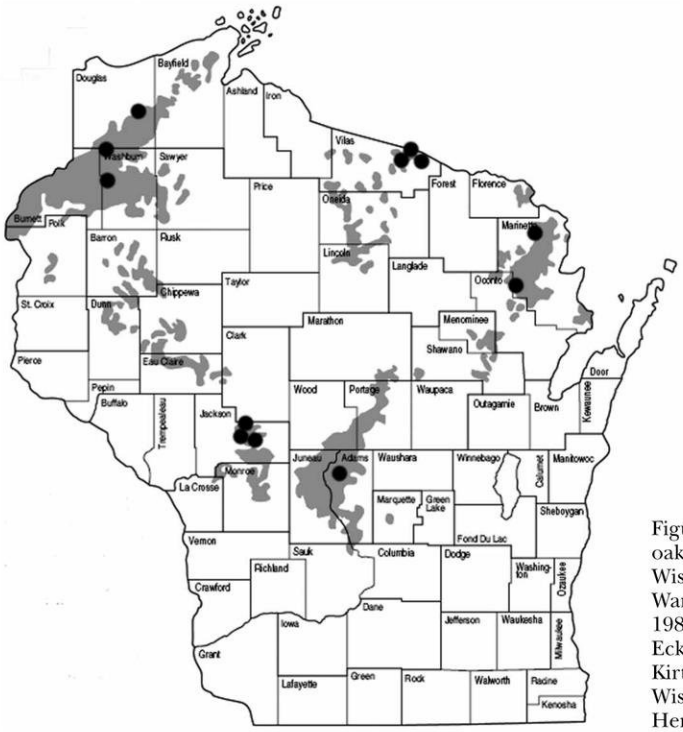

Figure 2. Jack pine and scrub oak forests and barrens in Wisconsin and Kirtland's Warbler observations, 1988–present. (Adapted from Eckstein and Moss, 1995; Kirtland's Warbler data from Wisconsin DNR Natural Heritage Inventory).

Figure 3. Male Kirtland's Warbler in Adams County, 9 June 2007. Photo by Joel Trick.

Figure 4. First female Kirtland's Warbler ever documented in Wisconsin. Photo taken 5 June 2007 by Dean DiTommaso.

ered in a young red pine (*Pinus resinosa*) plantation in Adams County by Dean DiTommaso, an environmental consultant and avid birder who was working in the area. DiTommaso reported this sighting to the Wisconsin Department of Natural Resources and then continued making careful observations at the site throughout the nesting season, under the guidance of the Wisconsin Department of Natural Resources and the FWS. On 26 May, he

Figure 5. Another photo of first female Kirtland's Warbler ever documented in Wisconsin, 5 June 2007. Photo by Dean DiTommaso.

found three additional males at another site approximately one mile away from the original sighting, and on 2 June, made his first observation of a female (Fig. 4 & 5). On 5 June, a male was observed carrying food and subsequent observations led to the discovery of a nest containing five eggs (Fig. 6). Additional females were discovered on 6 and 9 June, which ultimately led to the discovery of a second nest on 15 June and a third nest on 16 June.

Through diligent observations, DiTommaso was able to document a total of at least eight singing males, in addition to the discovery of three separate nests. FWS and WDNR decided early on to avoid close approach of any of the nests, in an effort to preclude disturbance that may lead to abandonment or nest failure. At the time it was discovered, the first nest contained five Kirtland's Warbler eggs and no cowbird eggs. Photographs of the second nest indicated the presence of at least two cowbird eggs. Photos that were taken of the third nest appeared to indicate the presence of at least one cowbird nestling, but were inconclusive.

Between late June and mid-July, Kirtland's Warblers at the site were carefully monitored by WDNR biologist Jon Robaidek in an effort to determine nest success. Despite numerous

Figure 6. First Kirtland's Warbler nest ever found in Wisconsin, 5 June 2007. Photo by Dean DiTommaso.

hours spent at the site, no definitive evidence of Kirtland's Warbler fledglings was found. Robaidek did observe at least one young Brown-headed Cowbird being fed by an adult Kirtland's Warbler near the third nest on three occasions between 27 June and 4 July (Fig. 7). DiTommaso also observed a cowbird fledgling being fed by an adult male Kirtland's Warbler near the second nest on 4 July.

Habitat Relationships

The two sites where Kirtland's Warblers were found nesting in Wisconsin in 2007 were both planted red pine (*Pinus resinosa*) plantations, within a landscape of extensive pine plantations and mixed forests of oak and pine. Each of these stands had been planted on sites that originally were dominated by jack pine, and each had significant amounts of natural jack

Figure 7. Kirtland's Warbler male carrying food on 4 July 2007. Photo by Dean DiTommaso.

pine regeneration within the stand. Trees in both of these stands are approximately 10 years old and 3 to 4 meters in height. Associated plant species are quite variable both between and within these stands, but consist largely of typical species for jack pine barrens habitat, including American hazel (*Corylus americana*), choke cherry (*Prunus virginiana*), black cherry (*Prunus serotina*), Hills' oak (*Quercus ellipsoidalis*), June grass (*Koehleria macrantha*), poverty oats grass (*Danthonia spicata*), and little bluestem (*Schizachyrium scoparium*).

Some other bird species observed at the site which are typical of this habitat type include Nashville Warbler (*Vermivora ruficapilla*), Eastern Towhee (*Pipilo erythrophthalmus*), Clay-colored Sparrow (*Spizella pallida*) and Chipping Sparrow (*Spizella passerina*). Also seen here were a number of birds identified as Species of Greatest Conservation Need in the State Wildlife Action Plan (Wisconsin Department of Natural Resources 2005), including Black-billed Cuckoo (*Coccyzus erythropthalmus*), Vesper Sparrow (*Pooecetes gramineus*), Brown Thrasher (*Toxostoma rufum*), and Field Sparrow (*Spizella pusilla*).

Plans for 2008

WDNR and FWS are actively planning for the upcoming 2008 nesting season, with the hope and expectation that Kirtland's Warblers will return to

the location where they were found in 2007. Given the multiple singing males and females found at this site, it seems likely that Kirtland's Warblers may have been present at the site prior to 2007, yet were undetected. We plan to monitor the site closely in 2008, and document any nesting attempts and their outcome. We also plan to construct and operate several cowbird traps in the nesting area, to diminish the negative effects of this nest parasite and enhance the chances for reproductive success.

In addition to the possibility that Kirtland's Warblers have been present at the Adams County site for more than one year, it seems equally likely that birds may be discovered at other suitable sites in Wisconsin. We are currently organizing a survey effort designed to identify potentially suitable habitat throughout the state, and then conduct surveys at those sites at the appropriate time, in an attempt to detect additional singing male Kirtland's Warblers.

Wisconsin DNR and FWS are also working with other partners to encourage proactive management in jack pine ecosystems in Wisconsin that could benefit Kirtland's Warblers. We have already initiated discussions with a number of entities that manage jack pine habitats, including the U.S. Forest Service, Plum Creek Timber Company, the Wisconsin DNR, and multiple County Forest Administrators. These proactive management actions are likely to also benefit a number of rare and declining species found in this type of habitat such as Vesper Sparrow, Brown Thrasher, Black-billed Cuckoo, and the federally endangered Karner blue butterfly (*Lyaeides melissa samuelis*), to name but a few.

We are optimistic that Kirtland's Warblers can be encouraged to continue nesting in Wisconsin, and hopeful that we can establish a small and growing population of this rare species. The establishment of new breeding areas such as in Wisconsin could prove critical to ensuring the survival of the species, and may eventually contribute towards the species removal from the federal list of threatened and endangered species.

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Kim Grveles is an assistant zoologist/ornithologist with the Wisconsin Department of Natural Resources. She works on the Natural Heritage Inventory Program, protection of migratory bird stopover sites, and Kirtland's Warblers. Kim holds a B.S. in biology and a M.S. in conservation biology from Central Michigan University.

Dean DiTommaso is an environmental consultant working on various utility projects throughout the United States. His current job assignment is in Wisconsin as an environmental compliance monitor, representing the Wisconsin DNR on a petroleum pipeline project. He holds a B.S. degree in Forest Biology from SUNY College of Environmental Science and Forestry and a B.A. in Computer Science from SUNY at Buffalo.

Jon Robaidek is a wildlife biologist for the Wisconsin Department of Natural Resources at Friendship, Wisconsin. His responsibilities are with the wildlife management programs in Adams and Juneau County. He holds a B.S. degree from the University of Wisconsin-Green Bay.

Eastern Bluebird by John Krerowicz

The Birds of Barron County, Wisconsin

Craig A. Faanes

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Wisconsin is fortunate among states because its avifauna has been studied and described for many years: Hoy (1853), Barry (1854), Willard (1885), Grundtvig (1895), Schoenebeck (1902), Kumlien and Hollister (1903), Cahn (1913), Lowe (1915), Schorger (1929, 1931), Jackson (1941–1943), and Buss and Mattison (1955). Contemporary ornithologists and birders have carried on that early tradition with several authoritative analyses of local and regional avifaunas including Bernard (1967), Kemper (1973, 2007), Faanes and Goddard (1976), Faanes (1981), Vanderschaegen (1981), and Mueller and Idzikowski (2004).

The avifauna of northwestern Wisconsin (the "Indianhead Region") has been covered in whole or in part in several papers that extend from Pepin County north and west to include Douglas County. Barron County (Fig. 1), on the other hand, has received hardly any attention with the exception of brief mentions in Kumlien and Hollister (1903), Jackson (1943), and peripherally in Kemper (1973, 2007). The county's bird list is 280 species or about 65 percent of the avifauna of Wisconsin. If one combines the data from the Wisconsin Breeding Bird Atlas (WBBA) collected in 1995–2000 (Cutright et al. 2006) and other sources, at least 136 species are known to nest inside the county boundaries. That total is more than 56 percent of the state's breeding avifauna. Although Barron County lacks a connection to areas like Lakes Michigan and Superior, and is removed from the migration traps provided by the Mississippi and St. Croix Rivers, its avifauna is decidedly robust as evidenced by the diversity and abundance of species, particularly in summer.

The main purpose of this paper is to fill in a gap in our knowledge of the avifauna of northwestern Wisconsin. The paper also serves as a base against which future changes in habitats and bird distributions can be assessed. A secondary purpose of this paper is to provide natural resource managers and conservation decision-makers with contemporary information on the county's avifauna. As human population growth maintains its steady increase, more and more areas will be subjected to conversion to other uses. Fields used for agriculture today will likely become housing developments in the future. Relatively intact

Figure 1. Map of Wisconsin showing the location of Barron County.

lakeshores will no doubt be platted and planned for development. Tracts of forest not in public ownership will also likely be viewed as prime areas for another house. How will these changes affect bird life? What actions can be taken to mitigate losses of habitats? What birds will be negatively affected and what species will benefit? These and other questions will be the subject of considerable debate in future years.

Resource managers and others often have to scramble to find useful data that can be applied to the analysis of development projects. Statewide surveys such as Robbins (1991) and Cutright et al. (2006) are excellent starting points for the analysis, but more site-specific information is almost always needed to understand the potential effects.

Given the importance of more site specific information in resource decision making, I encourage ornithologists and birders in Wisconsin to make a concerted effort to update existing papers on county or bi-county avifaunas. Where no information currently exists, I encourage others to make similar analyses and publish that information in a professional outlet such as

The Passenger Pigeon. This is especially important around major human population centers such as Dane County, the corridor from Kenosha County north through Door County, the watershed of the Fox River in northeast Wisconsin, and areas along the Mississippi River from Grant County north through Buffalo County.

Description of Barron County

British explorers first claimed this area and French explorers set up an early trading post at Rice Lake dealing with the Sioux Indians. It was claimed by the United States in 1787 as part of the Northwest Territory and later became part of the Territory of Wisconsin. This area was at that time part of Crawford County and in 1840 was annexed to St. Croix County. In 1859 Dallas County was established and it became Barron County in 1869.

Located almost entirely inside the boundaries of the Central Plain Physiographic Province (Martin 1965), it has a surface area of 2,235 sq km of which 70 sq km are water. The Red Cedar River is the principal stream. Secondary streams include the Brill, Hay, and Yellow Rivers. All of Barron County was subjected to glacial activity in the Pleistocene glacial epochs. Accordingly the topography is gently rolling and often pocked with closed basins that are now occupied by wetlands. The Blue Hills (Barron Hills) in the northeastern part of the county provide the greatest geographic relief. The elevation at Barron is about 340 meters above sea level.

Unlike many other areas of Wisconsin, population growth in Barron County has been relatively slow. In 1970 there were 33,955 residents and in 2000 the population had grown to 44,963, an increase of 11,008 people or about 25 percent in 30 years. This rate of growth is likely to continue.

Vegetation is quite varied, including mixed forests dominated by sugar maple (*Acer saccharum*), eastern hemlock (*Tsuga canadensis*), quaking aspen (*Populus tremuloides*) and white birch (*Betula papyrifera*). In the late 1800s, Barron County was in the center of the "lumber baron" days that were of major importance in the early history of the state. Extensive stands of virgin white pine (*Pinus strobus*) lured the early loggers who virtually exterminated that forest type. Today small remnants of what once was can be seen in scattered locations such as Bandli Park north of Canton.

Vegetation in the southern third of the county more closely mimics the oak (*Quercus spp.*) forests of nearby Dunn and St. Croix Counties. This is the portion of the county that exists inside the boundaries of the "Tension Zone" described by Curtis (1959) where so many southern plant species reach their northern limit, and northern (boreal) species reach their southern limit. The presence of the Tension Zone contributes substantially to the county's bird diversity, especially in the breeding season. Classically southern species occur only several kilometers from decidedly northern birds.

Methods

This paper is based in part on my personal observations from 1964 through May 1997, with limited field time in 1999 and 2004. This experi-

ence includes active bird watching, bird banding studies primarily in the area near Mikana, conducting the Cumberland Breeding Bird Survey (BBS) route for several years, and also time spent working for the Wisconsin Department of Natural Resources. Data on the winter status of some species were gathered from the results of the Barron Christmas Bird Count (CBC) conducted in the 1960s and the Cedar Lake (later named Rice Lake) CBC conducted during 1971 through 1979. Some breeding season information was gathered from population sampling efforts conducted in a black spruce (*Picea mariana*)–tamarack (*Larix laricina*) bog near Rice Lake from 1972 through 1979, from a road transect I conducted near Mikana in 1973 through 1979, and from several sample plots I surveyed northwest of Cumberland in 1972.

The database of the Wisconsin checklist project (Rolley 2002) was scanned for unusual records. A request for records of birds observed in Barron County by Wisconsin Society for Ornithology members was published in the *Badger Birder.* I also relied heavily on the contributions of birders and ornithologists who visited the county and recorded their observations in *The Passenger Pigeon.* To that end, I searched each issue of *The Passenger Pigeon* from Volume 1 No. 1 in 1939 through the winter 2007 issue to find references to Barron County birds. Especially important among the birders were the contributions of Alta Goff of Hillsdale. Her observations from the 1970s to the early 21st century added considerably to our knowledge of the avifauna of Barron County, and especially information on arrival and departure dates of migrants. Unfortunately she passed away on 3 May 2007. This paper is dedicated to her memory and to the gusto with which she pursued birds for so many years.

The terms used to describe each species' status are adapted from Faanes (1981). The taxonomic treatment of birds follows American Ornithologists' Union (1998), and plant taxonomy follows Gleason and Cronquist (1956). The wetland classification used is a combination of the systems developed by Cowardin et al. (1979) and Curtis (1959). Cowardin et al. (1979) employed a hierarchical system with modifiers for water regime, water chemistry, and soil type. Three wetland types (sedge meadow, shrub carr, and bogs) were named and classified by Curtis (1959). Because these names are widely used and accepted in northern Wisconsin, I have deviated from Cowardin's system in that instance, despite its being the National standard for wetland classification and data reporting.

Annotated Checklist of the Birds of Barron County

Family Anatidae

Greater White-fronted Goose (*Anser albifrons*)—Accidental. I found a group of four with Canada Geese in a large flock 5 km north of Barron on 18 April 1977.

Snow Goose (*Chen caerulescens*)—A fairly common spring migrant and common fall migrant. The status of this species has changed markedly in recent years as the number of birds breeding in the Arctic has expanded almost exponentially. Most Snow

Geese in spring arrive from late March to the first week of April and are most numerous through mid-April. Spring departure is dependent on weather conditions but most are gone by early May. A single bird, likely injured, was present along Spring Creek east of Rice Lake on 31 May 1975. Fall migrants begin arriving in mid-September and are most numerous in mid-October. Most have departed by 10 November (latest, 23 November 1975; *Passenger Pigeon* 38: 115, 1976). Most migrating Snow Geese use agricultural fields for foraging. Night roosts are usually on larger rivers or lakes.

Ross's Goose (*Chen rossii*)—Accidental. Janine Polk found an adult Ross's Goose in southeastern Barron County on 4 October 2000 (*Passenger Pigeon* 63: 67–68, 2001). This observation was accepted by the Wisconsin Rare Bird Records Committee (Records Committee) (*Passenger Pigeon* 63: 82, 2001). This bird was found north of New Auburn on a wetland near the intersection of Highway 53 and Avenue 3 1/2, (J. Polk, pers. comm.). Given the explosion that has occurred in the continental population of this goose, it was only a matter of time until the first record was confirmed. As Arctic goose populations continue to expand, this small white goose can be expected to be recorded more regularly.

Cackling Goose (*Branta hutchinsii*)—On 12 October 1974, I shot an extremely small Canada Goose from a flock of Snow Geese about 3 km south of Bear Lake near Haugen. My curiosity about the bird was piqued because of its size, and the unusual white cheek patch when compared to a "normal" Canada Goose (*Branta canadensis*). I preserved the specimen and transported it to the University of Wisconsin at River Falls where I measured its morphometric and plumage characteristics and, with the assistance of Steve Goddard, my major professor, determined that it was *Branta canadensis hutchinsii*, the Richardson's subspecies of Canada Goose (Palmer 1976). This subspecies was later elevated to species status as "Cackling Goose" by the AOU (2004). Although I saw other "small" Canada geese during the 1960s and 1970s, this was the only one that was ultimately identified to subspecies at a time when little attention was paid to the various subspecies of *Branta canadensis*.

Canada Goose (*Branta canadensis*)—A common migrant and uncommon breeding species. Most migrants arrive in early March (earliest, 26 February 1981; *Passenger Pigeon* 43: 150, 1981) and are most numerous by mid-March. Those not remaining to nest have departed by mid-April. Fall migrants arrive in early September reaching peak numbers (100 to 300 per day) by 10 October. The bulk of the Canada Goose population has departed by late November. Most Canada Geese in Barron County are associated with agricultural fields for foraging and during migration, with large lakes used for night roosts. Breeding birds are usually associated with larger semipermanently flooded wetlands. Cutright et al. (2006) reported confirmed breeding by Canada Geese in 7 of 15 Barron County quadrangles during 1995 through 1999.

Trumpeter Swan (*Cygnus buccinator*)—The presence of this species is

the result of its establishment and rapid expansion from successful reintroduction efforts in the Minneapolis-St. Paul metropolitan area. The first county observation was reported, without dates, locations, or observer(s) during spring migration in 1992 (*Passenger Pigeon* 55: 317, 1993). Later, on 20 November 1996, I found one on a small lake 2 km northeast of Turtle Lake. This lake was frozen over when I returned on 22 November 1996, and the Trumpeter Swan had departed the area. Alta Goff reported this species present on 1 August 2000 (*Passenger Pigeon* 63: 46, 2001). During the summer of 2001, Nathan Carlsen reported that the first contemporary nesting attempt by Trumpeter Swan failed. These birds were on Sweeny Pond south of Poskin. Two banded birds remained in Barron County throughout the winter of 2002–2003 (*Passenger Pigeon* 65: 153, 2003). Carlsen later confirmed breeding, on Sweeny Pond, in the spring of 2004 (*Passenger Pigeon* 66: 396, 2004). Trumpeter Swan is closely associated with large semipermanently flooded wetlands and with lakes.

Tundra Swan (*Cygnus columbianus*)—A fairly common migrant. The first spring migrants arrive shortly after larger water bodies begin to open in early April, (e.g. 8 April 1957 *Passenger Pigeon* 19: 129, 1957). I observed a group of three Tundra Swans on Rice Lake on 10 April 1969. Alta Goff reported more than 800 Tundra Swans near Barron on 3 April 1994 (*Passenger Pigeon* 56: 267, 1994). Nathan Carlsen reported 1,100 Tundra Swans on 12 April 2002 (*Passenger Pigeon* 64: 287, 2002). Carlsen's birds were in a wet area north of 14½ Avenue, halfway between Highway 25 and 16th Street. He photographed some of the 800 Tundra Swans present in the same area in April 2007 (N. Carlsen, pers. comm.). Most Tundra Swans have departed by the first week of May, although Alta Goff reported this species still present on 31 May 1999 (*Passenger Pigeon* 61: 431, 1999) and again on 1 June 2002 (*Passenger Pigeon* 65: 58, 2003). Fall migration is more diffuse with most birds present during the first three weeks of October. One in an open patch of water above the dam in Mikana on 23 December 1977 did not appear to be injured. Tundra Swan is found primarily on large lakes including Red Cedar Lake and others of similar size.

Wood Duck (*Aix sponsa*)—A fairly common migrant and uncommon breeding species. Faanes (1975) reported that the average date of spring arrival was 4 April, with peak abundance 21 April (earliest, 24 February 1981; *Passenger Pigeon* 43: 151, 1981). Fall migration begins in mid-August with flock formation and reaches peak abundance in mid-September. Most have departed by the first week of November. One was found on the Red Cedar River below the Rice Lake dam on 23 December 1978 (*Passenger Pigeon* 41: 10, 1979). Breeding Wood Ducks are widely distributed, in low numbers, throughout the county (Cutright et al. 2006). Most Wood Ducks are found associated with forested semipermanently flooded wetlands and with woody vegetation adjacent to small streams and rivers. Water bodies associated with oak forests are especially important, given this species' apparent preference for acorns as a food item.

Gadwall (*Anas strepera*)—A rare and local migrant and casual summer resident. Most spring migrants are observed from 15 April to 10 May, and in fall from late September to about 20 October. Gadwall was recorded (with no location or date) during the 1983 breeding season (*Passenger Pigeon* 46: 84, 1984). Three were recorded on the Cedar Lake CBC on 23 December 1977 and one was on that count on 23 December 1978. These birds were all on the Red Cedar River below the dam in Rice Lake. Migrant Gadwalls are most frequently found on seasonally flooded wetlands and on temporary wetlands in agricultural fields.

American Wigeon (*Anas americana*)—An uncommon migrant and occasional summer resident. Faanes (1975) reported that American Wigeon made up 0.8 percent of the spring migrant waterfowl population in Barron County. Most American Wigeon arrive in the first 10 days of April and have departed by mid-May. Fall migrants return in mid-August, reach peak abundance in late September, and have departed by 5 November. Alta Goff reported this species present during the 1980 breeding season (*Passenger Pigeon* 43: 53, 1981). However, there was no mention of her having found a nest or seen young birds. The nearest location where this species has been confirmed breeding is the Crex Meadows WMA in Burnett County (Faanes 1981). Migrant American Wigeon are most commonly associated with open seasonally flooded and semipermanently flooded wetlands that support common cattail (*Typha spp.*) or reed canary grass.

American Black Duck (*Anas rubripes*)—An uncommon and local migrant and rare summer resident. Most spring migrants are observed singly or in pairs during late March to early May. Alta Goff reported one from 20 February to 1 March 1986 (*Passenger Pigeon* 48: 167, 1986). Its status as a wintering bird or a migrant is open to debate. Fall migrants are present mainly from late September to mid-November. One was on the Red Cedar River below the Rice Lake dam on 26 December 1975, another was there on 23 December 1977 and eight were there on 23 December 1978 (*Passenger Pigeon* 41: 5, 1979). American Black Ducks are usually associated with lakes in forested areas such as the acidic lakes southwest of Mikana. Winter birds are almost exclusively below dams.

Mallard (*Anas platyrhynchos*)—A common migrant and breeding species. Faanes (1975) reported that the mean date of arrival was 23 March with peak abundance occurring about 16 April. In fall, there is a noticeable increase in the number of Mallards beginning about 15 September. They are most numerous in mid-October and most have departed by Thanksgiving. One hundred ninety three Mallards were recorded on the Cedar Lake CBC 26 December 1976, and 209 were recorded on 23 December 1977. The bulk of these were on the Red Cedar River below the dam in Rice Lake. On 23 December 1978, 281 Mallards were observed in the same area during the Cedar Lake CBC. Cutright et al. (2006) reported Mallards breeding in 10 of the 15 Barron County quadrangles used for the WBBA. This duck occupies virtually all wetland classes from temporary wetlands in agricultural fields (migra-

tional habitat) to large lakes. Mid-winter birds are typically associated with moving water below dams.

Blue-winged Teal (*Anas discors*)—A common migrant and breeding species. The earliest arrival date was in late February (no date specified) in 2004 (*Passenger Pigeon* 66: 397, 2004). Faanes (1975) found that Blue-winged Teal is the latest arriving waterfowl species with an average spring arrival date of 13 April, reaching peak abundance 26 April. Fall migration begins with flock formation in late August with peak numbers by mid-September. Most Blue-winged Teal have departed by 10 October. Janelle Humphrey found a remarkably late Blue-winged Teal on 25 November 1979 (*Passenger Pigeon* 42: 106, 1980). Alta Goff reported that Blue-winged Teal broods were widespread in the summer of 1969 (*Passenger Pigeon* 32: 62, 1970). I have found breeding pairs with broods during late May to early July in every township in Barron County. Surprisingly Cutright et al. (2006) did not find Blue-winged Teal breeding in any of the Barron County quadrangles used for the WBBA. Blue-winged Teal are most often found in seasonally and semipermanently flooded wetlands, and adjacent to streams and rivers. Its avoidance of large water bodies is curious considering that I have seen this duck quite often on the open Atlantic Ocean and the Caribbean Sea.

Northern Shoveler (*Anas clypeata*)—An uncommon migrant; casual summer resident. Most migrants in spring arrive during the first ten days of April and have departed by 20 May. Fall migrants arrive in early September and have departed by late October. Alta Goff reported it during the summer of 1971 (*Passenger Pigeon* 34: 75, 1972). It was again reported through the summer of 1974 (*Passenger Pigeon* 36: 24, 1975) and almost yearly thereafter. Northern Shoveler is most often found on seasonally flooded and semipermanently flooded wetlands, often associated with agricultural fields.

Northern Pintail (*Anas acuta*)—A rare to uncommon migrant; occasional during the breeding season. Faanes (1975) found that Northern Pintail made up only 0.5 percent of the total spring migrant waterfowl population in Barron County. Spring migrants are usually found during early to mid-April. (earliest, 6 March 1973; *Passenger Pigeon* 35: 154, 1973). Fall migrants are found throughout October. Sam Robbins reported this species on 29 July 1970 (*Passenger Pigeon* 33: 92, 1971). Robbins (1991) shows that Barron County is well within the summer range of this species in Wisconsin. One was found on the Red Cedar River below the Rice Lake dam on 23 December 1978 (*Passenger Pigeon* 41: 10, 1979). A single bird on 25 February 2004 (*Passenger Pigeon* 66: 249, 2004) may have wintered locally, or it was an extremely early migrant. Most Northern Pintails use seasonally flooded and semipermanently flooded wetlands.

Green-winged Teal (*Anas crecca*)—A fairly common migrant and occasional breeding species. Spring migrants arrive in early April. They become most numerous during the third week of April, and most have departed by mid-May. Fall migrants arrive in late August and are most numerous the first 10 days of October. Most have departed by 5 November.

One was on the Red Cedar River below the dam in Rice Lake on 23 December 1977. This species was reported during the summers of 1961 (*Passenger Pigeon* 24: 23, 1962), and 1970 (*Passenger Pigeon* 33: 90, 1971). Alta Goff reported breeding (no locations or dates) during the summer of 1971 (*Passenger Pigeon* 34: 75, 1972). Another bird was located on 22 June 1974 (Passenger Pigeon 36: 24, 1975). Green-winged Teal are most commonly associated with seasonally and semipermanently flooded wetlands. At times they become almost abundant in fall migration in sedge meadows along Spring Creek east of Rice Lake.

Canvasback (*Aythya valisineria)*—An uncommon spring and rare fall migrant. Spring migrants arrive during the first week of April, reach peak abundance by mid-April and have departed by 10 May. Faanes (1975) reported that Canvasback make up 0.5 percent of the total spring migrant waterfowl population in Barron County. Fall migrants usually arrive in mid-September and have departed by 10 November. One was present on 1 August 2000 (*Passenger Pigeon* 63: 48, 2001). Canvasbacks appear to about evenly divide their habitat use between semipermanent wetlands and lakes in spring migration but are almost exclusive to lakes during fall migration.

Redhead (*Aythya americana*)—An uncommon migrant. Faanes (1975) reported that Redhead made up 0.5 percent of the total spring migrant waterfowl population in Barron County. Spring migrants arrive in early April and most have departed by mid-May. Fall migrants arrive in mid-September and most have departed by 10 November. This species was reported on 1 August 2000 (*Passenger Pigeon* 63: 48, 2001). Murray Berner found 100 on 7 October 1985 (*Passenger Pigeon* 48: 135, 1986). Spring migration habitat is almost exclusively semipermanent wetlands, but in fall this species is frequently associated with lakes. Red Cedar Lake is probably the most consistent place to find Redheads in fall migration.

Ring-necked Duck (*Aythya collaris*)—A common migrant and occasional breeding species. Faanes (1975) found Ring-necked Duck to be the fourth most numerous migrant duck in Barron County. It is also an occasional breeding species and summer resident. Faanes (1975) also reported that the mean date of spring arrival in Barron County was 1 April (earliest, 1 March 1981; *Passenger Pigeon* 44: 28, 1982), with peak abundance about 14 April. The bulk of Ring-necked Ducks have departed by 29 April. Alta Goff reported a brood (no date or location) from Barron County during the summer of 1970 (*Passenger Pigeon* 33: 91, 1971). From the mid-1970s until 1982 I regularly found a pair of Ring-necked Ducks on an unnamed lake in Section 20 of Cedar Lake Township about 3 km west of Mikana. Although I suspect they nested on this lake or one nearby, I never found a nest, nor did I see a brood. Fall migrants arrive in mid-September reaching peak abundance about 20 October and have largely departed by 20 November. Ring-necked Ducks are most commonly associated with lakes during migration and in summer.

Greater Scaup (*Aythya marila*)—A rare and irregular migrant. Most Greater Scaup in spring are found

during the first ten days of April and have largely departed by 1 May. Unusual for the date were two observed by Alta Goff on 12 July 1974 (*Passenger Pigeon* 36: 24, 1975). Fall migrants are present from early October until mid-November. This species is typically found in flocks of the next species. Greater Scaup are found almost always on large lakes.

Lesser Scaup (*Aythya affinis*)—An abundant migrant. Lesser Scaup is the most numerous migrant duck in Barron County (Faanes 1975). The average date of spring arrival is 1 April (earliest, 20 March 1976 *Passenger Pigeon* 38: 146, 1976), with peak abundance about 15 April. Most Lesser Scaup have departed Barron County by 6 May. A single bird on a wetland in the Mikana Swamp on 26 June 1974 (*Passenger Pigeon* 26: 24, 1975),and another on the same wetland on 1 June 1975 (*Passenger Pigeon* 38: 41, 1975) were unusual. Fall migrants arrive in mid-September reaching their greatest numbers in late October. At least 2,000 were present on Red Cedar Lake, 29 October 1976 (*Passenger Pigeon* 39: 287, 1977). Fall departure is largely dependent on weather conditions; most have departed by 15 November. One was on the Red Cedar River below the Rice Lake dam on 26 December 1975. In Barron County this duck is found almost exclusively on lakes.

Black Scoter (*Melanitta nigra*)—Accidental. On 19 October 1976, Robert Quillen shot a female Black Scoter from his blind at the north end of Red Cedar Lake. He was unsure of the identification of what he called a "strange looking duck." I examined the carcass and identified it as a Black Scoter, and then prepared it as a specimen for the museum in the Department of Biology at the University of Wisconsin at River Falls.

Long-tailed Duck (*Clangula hyemalis*)—Accidental. H. R. Huff reported that his father shot a female Long-tailed Duck on Prairie Lake south of Cameron during "October" 1943 (*Passenger Pigeon* 8: 59, 1946).

Bufflehead (*Bucephala albeola*)—A fairly common migrant and casual summer resident. Faanes (1975) reported that the mean date of arrival was 4 April, with peak abundance 21 April. Most Buffleheads have departed by 4 May. One reported by Alta Goff on 31 May 1977 (*Passenger Pigeon* 40: 373, 1978) and another on 31 May 1979 (*Passenger Pigeon* 42: 33, 1980) were both quite late. Fall migrants arrive in mid-September and have departed by early November. Goff also reported a Bufflehead during "early to mid-June" 2000 (*Passenger Pigeon* 62: 343, 2000) and on "multiple dates" during the summer of 2002 (*Passenger Pigeon* 65: 58, 2003).

Common Goldeneye (*Bucephala clangula*)—A common migrant. This is generally the earliest migrating duck to reach Barron County. Faanes (1975) reported that the mean date of spring arrival was 5 March, with peak abundance 25 March. Most Common Goldeneyes have departed by 12 April. I observed 300 Common Goldeneye in flocks of various sizes on lakes near Rice Lake on 6 April 1974 (*Passenger Pigeon* 37: 71, 1975). An extremely late bird was found by Janelle Humphrey on 6 June 1981 (*Passenger Pigeon* 42: 77, 1982). Fall migrants don't arrive until mid-October and

are common and conspicuous until mid-November. Fall departure is largely dependent on weather conditions. Seven were on the Red Cedar River below the Rice Lake dam on 26 December 1975, and 4 were there on 23 December 1977. A female I found below the dam in Rice Lake on 25 February 1995 was likely an early spring migrant (*Passenger Pigeon* 57: 191, 1995). Common Goldeneyes are found almost exclusively on lakes and below dams on large rivers in winter.

Barrow's Goldeneye (*Bucephala islandica*)—Accidental. Faanes (1975) reported two Barrow's Goldeneye (a pair on Upper Dietz Lake) on 26 March 1973.

Hooded Merganser (*Lophodytes cucullatus*)—An uncommon migrant and rare breeding species. Spring migrants arrive during the first 10 days of April and are most numerous by the last week of April. Those not remaining to nest have departed by mid-May. Fall migrants are most conspicuous in late September, with most departing by 1 November. Alta Goff observed 100 Hooded Mergansers on 31 October 1995 (*Passenger Pigeon* 58: 185, 1996). Cutright et al. (2006) reported confirmed breeding by this species in two Barron County quadrangles. Those quadrangles were at opposite ends of the county. A single bird in the Red Cedar River, below the dam in Rice Lake on 17 January 1977, was surprising because seven days earlier the temperature dropped to –60 degrees F. in Rice Lake. Almost all waterbirds that had lingered into January that winter had either perished or departed for warmer surroundings after the extreme cold. The lone male Hooded Merganser present on the Red Cedar River on 1 March 1977 may have been the same bird observed in mid-January. Alta Goff reported a remarkable five Hooded Mergansers from 30 January through 1 March 1986 (*Passenger Pigeon* 48: 168, 1986). Hooded Mergansers use habitat similar to Wood Ducks, preferring secluded lakes in forests and also vegetation associated with larger streams such as the Brill, Hay, or Red Cedar Rivers.

Common Merganser (*Mergus merganser*)—A common migrant. Faanes (1975) reported that the average date of spring arrival was 6 March, with peak abundance about 25 March. Most Common Mergansers have departed the county by 12 April. Cutright et al. (2006) reported a confirmed breeding record from a Washburn County quadrangle directly adjacent to the northwestern corner of Barron County. I found one male on the Red Cedar River below the dam in Rice Lake on 23 December 1977. Common Merganser was reported to have wintered (no location given) during the winter of 1972-1973 (*Passenger Pigeon* 35: 165, 1973). Alta Goff reported one (probably below the dam in Rice Lake) from 14 February to 1 March 1985 (*Passenger Pigeon* 47: 145, 1985). One reported on 28 February 2000 was likely an early spring migrant (*Passenger Pigeon* 62: 189, 2000). Alta Goff reported this species present from 1 February to 1 March 1986 (*Passenger Pigeon* 48: 168, 1986). These could likely have been wintering birds that had not been observed earlier in the season.

Red-breasted Merganser (*Mergus serrator*)—An uncommon and local migrant. This merganser is observed

most frequently on large lakes. I have never seen one in Barron County that used "pothole" wetlands. Faanes (1975) reported that this species made up only 0.8 percent of the migrant waterfowl assemblage. Spring migrants are most commonly seen from late March to early May, and in fall my observations are from 3 October to 4 November. On 23 October 1976, I shot one from a flock of Lesser Scaup while hunting on Red Cedar Lake. Extremely late was one in a patch of open water above the dam in Mikana on 23 December 1973.

Ruddy Duck (*Oxyura jamaicensis*)—A rare and local migrant and occasional summer resident. No nests have been found. The spring migration records I have for Barron County are concentrated from 25 April to 10 May. Fall migration records are equally scarce, occurring from mid-September to 20 October.

Family Phasianidae

Gray Partridge (*Perdix perdix*)—Accidental. I found a covey of eight Gray Partridge foraging in an agricultural field in Section 28 of Almena Township on 24 February 1995 (*Passenger Pigeon* 57: 192, 1995). Gray Partridge is uncommon and quite local in St. Croix County (Faanes 1981).

Ring-necked Pheasant (*Phasianus colchicus*)—An uncommon and local introduced species. Pheasants occur most commonly in agricultural areas in central and southern Barron County. Most are found in or near fields of corn and other grain crops grown for agricultural purposes. Large wetlands such as those at the New Auburn WMA provide important wintering habitat for this species. Fall populations of this species are augmented by put-and-take releases of pen-raised birds. This expensive and ineffective management tool is designed to provide shooting opportunities for hunters but does little to enhance populations of Ring-necked Pheasants.

Ruffed Grouse (*Bonasa umbellus*)—Fairly common but cyclical permanent resident. Cutright et al. (2006) reported Ruffed Grouse breeding in 6 of the 15 Barron County quadrangles used for the WBBA. Breeding Ruffed Grouse occur in a variety of upland deciduous forest types; they are most commonly associated with medium-aged quaking aspen forests that contain scattered openings. A well-developed shrub layer consisting of prickly ash (*Zanthoxylum americanum*) and beaked hazel (*Corylus cornuta)* is usually associated with high-quality Ruffed Grouse habitat.

Spruce Grouse (*Falcipennis canadensis*)—Extirpated. One contemporary record. Scott (1943) presented a map showing that the extreme northeastern corner of Barron County was part of the "probable recent range—vacated since 1900" for this species. Later, Spruce Grouse was mentioned in terms of an "encouraging comeback" in 1948 involving records from the Blue Hills in adjacent Rusk County (*Passenger Pigeon* 11: 84, 1949). While hunting Ruffed Grouse near Mikana on 30 October 1976, I mistakenly shot a Spruce Grouse (*Passenger Pigeon* 39: 288, 1977). This represents the only known contemporary record for the county, although the historical record suggests it was present proba-

bly at the time of European settlement.

Sharp-tailed Grouse (*Tympanuchus phasianellus)*—Extirpated. Gregg and Niemuth (2000) provided maps showing the historical range of Sharp-tailed Grouse in Wisconsin included the southern fringe of the county in 1850. By 1930 much of the northwest corner of Barron County supported this species. Sharp-tailed Grouse was extirpated by 1950 although it was still present in much of Rusk County at that time.

Greater Prairie-Chicken (*Tympanuchus cupido*)—Extirpated. Our only knowledge of this species in Barron County comes from Gross (1930) who reported it still present in the 1920s. Robbins (1991) provides an excellent description of the rise and fall of this species' population in Wisconsin.

Wild Turkey (*Meleagris gallopavo*)—Rare and local, but increasing, permanent resident. A recent arrival. Wild Turkey was first reported (no dates or location) during the fall of 1998 (*Passenger Pigeon* 61: 181, 1999). They were then reported throughout the winter of 1998–1999 (*Passenger Pigeon* 61: 228, 1999) and the winter of 1999–2000 (*Passenger Pigeon* 62: 192, 2000). Nathan Carlsen reported 60 Wild Turkey on 20 November 2001 (*Passenger Pigeon* 64: 96, 2002). Nathan Carlsen (pers. comm.) confirmed breeding in a small woods north of his Barron home annually since 2003. Given this species' recent expansion northward in Wisconsin, this should be a fairly common resident in the near future.

Family Odontophoridae

Northern Bobwhite (*Colinus virginianus*)—Casual. Alta Goff reported Northern Bobwhite near Hillsdale during the fall of 1974 (no dates or locations given) (*Passenger Pigeon* 37: 124, 1975). Janelle Humphrey reported one on 10 June 1981 (*Passenger Pigeon* 42: 77, 1982). Stephanie Hinz reported Northern Bobwhite on 29 June 1997 near Dority Creek (*Passenger Pigeon* 60: 81, 1998).

Family Gaviidae

Common Loon (*Gavia immer*)—A common migrant and local breeding species. Spring migrants arrive in early April (earliest, 5 April 1957 *Passenger Pigeon* 19: 128: 1957) and are most numerous by 20 April. I found 168 Common Loons scattered among several lakes near Rice Lake on 15 April 1974 (*Passenger Pigeon* 37: 69, 1975). During this period flocks of 5 to 10 birds are frequent, and flocks totaling 15 to 20 are occasional on larger lakes. Fall migrants arrive in late September and remain until the larger lakes freeze in late November. Common Loons primarily use large lakes, especially those containing small islands. Most wetlands used for breeding are bordered by deciduous forest, chiefly quaking aspen and sugar maple, and contain peripheral zones of emergent aquatic vegetation. Cutright et al. (2006) reported confirmed breeding by Common Loons in 2 of the 15 WBBA quadrangles in Barron County and probable breeding in a third quadrangle.

Family Podicipedidae

Pied-billed Grebe *(Podilymbus podiceps)*—A common migrant and rare and local breeding species. Most spring migrants arrive during the last week of March (earliest, 6 March 1973. *Passenger Pigeon* 35: 153, 1973) and are most numerous during late April. Fall migrants begin to concentrate in early September. Peak fall abundance occurs during the second week of October, with departure by 10 November. Pied-billed Grebe occurs most frequently during the breeding season on seasonally and semipermanently flooded wetlands with lush stands of emergent aquatics that are preferred for breeding. Cutright et al. (2006) did not report this species breeding, although Stephanie Hinz found an adult near Barron on 24 June 1997.

Horned Grebe (*Podiceps auritus*)—A common migrant. Most arrive in mid-April and have departed by mid-May although one was still present on 31 May 1974 (*Passenger Pigeon* 37: 70, 1975) and 31 May 1977 (*Passenger Pigeon* 40: 372, 1978). Fall migrants arrive during the third week of September. Peak abundance occurs about 15 October when occasional flocks of 50 to 60 individuals are observed on larger lakes. Fall migrants have departed by late October. Two on 24 October 1977 (*Passenger Pigeon* 40: 455, 1978) are my latest record. Both of these birds were swimming through my decoy spread while I was duck hunting on Red Cedar Lake. On 4 October 1976, I encountered a duck hunter on Bear Lake who had shot seven Horned Grebes claiming they were Lesser Scaup. He paid a substantial fine. Migrant Horned Grebes use a variety of wetland classes including seasonally and semipermanently flooded wetlands and lakes.

Red-necked Grebe (*Podiceps grisegena*)—Casual. The first county record was obtained when John Butler reported a single bird in breeding plumage on Kagamo [sic] Lake (most likely Pokegama Lake near Chetek) on 17 April 1955 (*Passenger Pigeon* 17: 124, 1955). Others were reported on 8 April 1956 (*Passenger Pigeon* 18: 128, 1956) and on 2 April 1982 (*Passenger Pigeon* 45: 27, 1983). I found three groups of two each on Rice Lake on 10 May 1969. The latest spring record was a bird reported by Alta Goff on 22 May 1982 (*Passenger Pigeon* 45: 37, 1983). Murray Berner reported six Red-necked Grebes on 2 August 1985 (*Passenger Pigeon* 48: 113, 1986).

Eared Grebe *(Podiceps nigricollis)*—Accidental. Alta Goff reported this species on 21 April 1982 (*Passenger Pigeon* 45: 27, 1983).

Family Pelecanidae

American White Pelican *(Pelecanus erythrorhynchos)*—A casual migrant. The earliest record for the county was provided by Schorger (1954) who mentioned an observation from Rice Lake on 16 September 1898. I observed a flock of 22 on Rice Lake on 11 May 1974 (*Passenger Pigeon* 37: 70, 1975). Alta Goff found one on 21 July 1990 that remained "for several days." A photo of this bird appeared in the *Rice Lake Chronotype* (*Passenger Pigeon* 53: 86, 1991). Given the dramatic increase in the abundance and distribution of this bird in Wisconsin in recent years, American White Pelican can be

expected to be recorded with greater frequency in the future.

Family Phalacrocoracidae

Double-crested Cormorant (*Phalacrocorax auritus*)—Anderson and Hamerstrom (1967) summarized the decline of Double-crested Cormorants in Wisconsin associated with the age of DDT use. With the elimination of legal DDT use, the cormorant population has rebounded to nearly nuisance proportions in many areas of Wisconsin including Barron County. Five birds on Rice Lake on 10 May 1969 were the first I had ever seen. Ten years later they were rapidly increasing in numbers and currently are a common migrant, arriving in early April and remaining until mid-May. Fall migrants are most numerous in mid-September, and almost all have departed by late October. Double-crested Cormorants use large lakes almost exclusively while on migration through the county. Stephanie Hinz found adult Double-crested Cormorants near Lower Vermillion Lake on 2 June 1997, and Don Overend found them near Mikana on 1 June 1996. The nearest regular breeding location is at Crex Meadows WMA in Burnett County.

Family Ardeidae

American Bittern *(Botaurus lentiginosus)*—Now an uncommon and local migrant and breeding species. Most arrive about 20 April and are most commonly encountered in early May (earliest, 13 April 2002; *Passenger Pigeon* 64: 285, 2002). Records of fall migration are too diffuse to determine any patterns. The latest record is one observed by Alta Goff on 7 November 1971. Indicative of the widespread decline in this species' population throughout North America, Cutright et al. (2006) reported probable breeding for this species in only one Barron County quadrangle during the WBBA. During the 1960s and 1970s this species was commonly encountered in and near large sedge-dominated wetlands like those adjacent to the east end of Lake Montanis southeast of Rice Lake (Section 35 Rice Lake Township), the large sedge meadow along the south end of Bear Lake west of Haugen (Section 11, Bear Lake Township) and the New Auburn WMA (Section 23, Dovre Township). American Bittern occupy a variety of wetland classes during migration and the breeding season. Preferred habitat seems to include reed canary grass (*Phalaris arundinacea*) in seasonally flooded wetlands. Occasionally this species uses upland fields including hayland and retired cropland for breeding. Pairs are occasionally found in sedge (*Carex spp*) meadows and along the edge of black spruce-tamarack bogs.

Least Bittern *(Ixobrychus exilis)*—A casual breeding species. One pair of Least Bittern nested annually from 1970 through 1976 in a small bay on the west shore of Rice Lake behind the Lakeview Medical Center. The pair arrived in early May (usually 5-10 May) and would last be seen in early August. This is the only location where I have seen Least Bittern. The one found by Murray Berner on 11 September 1985 (*Passenger Pigeon* 48: 133, 1986) is the only other county record with which I am familiar.

Great Blue Heron *(Ardea herodias)*—A common migrant and summer resi-

dent. Spring migrants arrive in early April. Three active observers reported their county arrival records for spring migration 2003 as 2, 6, and 9 April (*Passenger Pigeon* 65: 304, 2003); they are most frequently encountered during late April to mid-May. Fall migration begins in early August. Peak fall migration occurs from late August to mid-September and most have departed by late October. The bird reported on 7 November 1971 was quite late (*Passenger Pigeon* 34: 108, 1972). Eugene Butler found one along Meadow Creek south of Rice Lake on 26 December and on 29 December 1956 (*Passenger Pigeon* 19: 86, 1957). Kumlien and Hollister (1903) reported, without location information, a colony in Barron County apparently in the late 1800s. Stephanie Hinz confirmed breeding near Lower Vermillion Lake on 18 June 1997. Great Blue Herons use a range of habitats but are most regular along lake shorelines and adjacent to streams.

Great Egret (*Ardea alba*)—A rare summer resident. From 1938 through 1948 there were two reports of this species in Barron County (King 1949). However by the early 1970s Great Egret was recorded with greater frequency, especially on the edge of lakes near the western border of the county. Several were reported in early August 1985 (*Passenger Pigeon* 48: 133, 1986). Most records are from late May through mid-August, with no discernible pattern. The bulk of the observations have been of birds occupying the edge of large lakes although on 28 May 1975, I found a single bird foraging in a patch of wild rice (*Zizania aquatica*) along Sweeny Pond Creek about 1.6 km east of Poskin.

Green Heron (*Butorides virescens*)—A fairly common migrant and breeding species. Spring migrants arrive during mid-April and are most common in early May. Fall migration begins in late August with most having departed by mid-September (latest, 10 October 1976 *Passenger Pigeon* 39: 286, 1977). Cutright et al. (2006) reported Green Herons widely distributed during the breeding season. Most breeding Green Herons occupy seasonally and semipermanently flooded wetlands but also occupy shrub carr wetlands with a scattering of open water areas.

Black-crowned Night-Heron (*Nycticorax nycticorax*)—Casual. Robbins (1991) indicated that there were records since 1960 for Barron County during late May through early September. However I have never seen this species in Barron County despite its being fairly common in nearby Burnett and St. Croix Counties (Faanes 1981).

Family Threskiornithidae

Ibis sp. (*Plegadis sp*)—Accidental. Alta Goff reported a White-faced Ibis (*P. chihi*) from Quarderer Creek southwest of Barron on 28 and 29 April 1983 (Goff 1984). Mel Jensen photographed the bird and Goff provided a good written description of it. However the Records Committee believed that because of the quality of the pictures provided, this bird could not be safely separated from Glossy Ibis (*P. falcinellus*). The Records Committee believed the bird should be accepted only on the hypothetical list

(*Passenger Pigeon* 46: 26, 1984). Given the time of year and the geographic location of the sighting it could very easily have been either of the dark ibises. Later, however, the Records Committee accepted this as a hypothetical record of White-faced Ibis (*Passenger Pigeon* 46: 78, 1984). Regardless of the bird's identity, this remains a remarkable find.

Family Cathartidae

Turkey Vulture (*Cathartes aura*)—A rare migrant; occasional in summer. Jim Hale reported one at Cameron on 21 September 1948 (*Passenger Pigeon* 11: 83, 1949). This was the first Barron County record of this species. Most Turkey Vultures arrive in mid-April (earliest, 3 March 2004; *Passenger Pigeon* 66: 401, 2004) and have departed in fall by 20 September. Alta Goff reported one on 26 October 1975 (*Passenger Pigeon* 38: 116, 1975). Stephanie Hinz and John Dadisman found adult Turkey Vultures in widely scattered areas of Barron County during 25 May (1999) to 10 July (1997). Unfortunately no evidence of breeding was confirmed. Most Turkey Vultures observed are soaring over agricultural areas and near highways where food items are more likely to be found.

Family Accipitridae

Osprey (*Pandion haliaetus*)—A fairly common migrant and rare breeding species. Numbers of Osprey have increased dramatically since the early 1970s when organochlorides were widely used in North America. Spring migrants arrive shortly after ice-out but usually by 10 April (Alta Goff reported one on 31 March 1991 (*Passenger Pigeon* 53: 340, 1991), and are most conspicuous during the last week of April. Most fall migrants have departed by late September. Sindelar (1971) reported only three active Osprey nests in Barron County in 1969. This was at the worst of the population decline caused by organochlorides in the environment. I conducted aerial Osprey nest surveys in Barron County during 1974–1976 and found two active territories. Later, Eckstein et al. (2007) reported 11 active territories in Barron County in 2006 and also demonstrated the dramatic increase in this species' statewide breeding population from a low of 82 active nests in 1974 to 457 active nests in 2006. Cutright et al. (2006) reported confirmed breeding by Osprey in five eastern and northeastern Barron County quadrangles. Ospreys are almost always associated with larger lakes and rivers.

Bald Eagle (*Haliaeetus leucocephalus*)—A fairly common migrant, breeding species, and winter resident. Spring migrants arrive in early March. They are most conspicuous during late March and early April. There is a noticeable increase in fall migrants during early October with most departing by 1 December. Bald Eagles were not known to nest in the county as recently as the late 1930s (Deusing (1940). Later, Cutright et al. (2006) reported confirmed breeding by Bald Eagles in eight northern and eastern Barron County quadrangles. Eckstein et al. (2007) reported 25 active Bald Eagle territories in Barron County and 1,065 statewide in 2006. Wintering birds are most commonly found near open water areas of large rivers including the Red Cedar below the dams in Mikana and Rice Lake, the

Yellow River in Barron, and along the Hay River where open water exists. Breeding habitat typically consists of a large tract of forest in which there are suitable trees near water that can support its huge nest. One breeding pair persisted in the forest east of Red Cedar Lake until the late 1970s when pressure for building second homes and residences caused the birds to abandon their territory.

Northern Harrier (*Circus cyaneus*)—A fairly common migrant and local summer resident. Spring migrants arrive in late March and are most conspicuous in mid-April. Fall migration begins in late August, and most birds have departed by 1 November. Eugene Butler reported a Northern Harrier during "December" 1960 (*Passenger Pigeon* 23: 101, 1961). A Northern Harrier that Alta Goff found on 10 February 1987 (*Passenger Pigeon* 49: 187, 1987) may have been an early migrant or, more likely, it wintered in the area. This species is found almost exclusively in areas of remnant grasslands, farm fields, and near large sedge-dominated wetlands such as on the south shore of Bear Lake, at the New Auburn WMA, and on the east side of Lake Montanis.

Sharp-shinned Hawk (*Accipiter striatus*)—A common migrant; occasional summer resident. Spring migrants arrive in late March and are most numerous by 20 April. Fall migration begins in mid-August, with peak abundance during the second week of September. Most have departed by 10 October. The first winter report was during the 1963–1964 winter (*Passenger Pigeon* 26: 148) including three on the Barron CBC on 29 December 1963. I found one on the Cedar Lake CBC on 26 December 1975. By the mid-1980s this hawk was rare but regular throughout the winter, especially in the southernmost tier of townships. Migrant and breeding season Sharp-shinned Hawks are usually associated with brushy areas at the periphery of forests. Most found in winter are in cities and towns where they frequently hunt at bird feeders.

Cooper's Hawk (*Accipiter cooperii*)—A fairly common migrant and rare breeding species. Spring migrant Cooper's Hawks arrive in late March and are most conspicuous in late April. Fall migration begins in mid-August, with peak numbers in mid-September. Most Cooper's Hawks in fall have departed by 15 October. Two were reported on the Barron CBC on 29 December 1963. I found an active nest in Section 19, Cedar Lake Township, on 28 April 1976. This nest was later reported in the summer of that year (*Passenger Pigeon* 39: 254, 1977). Bielefeldt et al. (1998) reported that active Cooper's Hawk nests were confirmed during 1980 through 1996. Stephanie Hinz found an active nest near Almena on 12 June 1997. Most migrant and breeding season birds are associated with second-growth forest and brushy edge habitats.

Northern Goshawk (*Accipiter gentilis*)—Rare migrant and winter resident; occasional breeding species. Observations of migrant birds are too sporadic to determine any patterns although in fall migration Northern Goshawks are seen most commonly after mid-October. I found two adults attending a nest on 30 April 1974 in a mixed deciduous forest in Section 25 of Doyle Township. These birds were less than 500 m from the Rusk County

boundary. While conducting the Cumberland BBS on 12 June 1975, I recorded an adult Northern Goshawk 1.6 km south of the border with Washburn County. Three were recorded on the Barron CBC on 29 December 1963. One was recorded on the Cedar Lake CBC on 30 December 1974 (*Passenger Pigeon* 36: 11, 1975). Zirrer (1947) reported that forests dominated by yellow birch (*Betula alleghaniensis*) provided the preferred breeding habitat for this species in northwestern Rusk County.

Red-shouldered Hawk (*Buteo lineatus*)—A rare migrant and summer resident. Spring migrants are most commonly observed in late March to mid-April and in fall during late August to mid-September (earliest, 6 March 1973; *Passenger Pigeon* 35: 154, 1973). Extreme dates in fall include 1 August 1978 (*Passenger Pigeon* 41: 164, 1979), and 2 October 1975 (*Passenger Pigeon* 38: 117, 1976). Stephanie Hinz observed an adult near Cumberland on 7 June 1997. Randy Hoffman (pers. comm.) found a nest with young in Rusk County along Spring Creek less than 300 m from Barron County. Most Red-shouldered Hawks are associated with extensive areas of deciduous forest, quite often adjacent to a river.

Broad-winged Hawk (*Buteo platypterus*)—A common migrant and breeding species. Spring migrants arrive in early April and are most conspicuous by 25 April. Fall migration begins in late August and peaks during the second week of September. Most Broad-winged Hawks have departed by early October. A remarkably early and undocumented bird was reported by Alta Goff on 18 March 1973 (*Passenger Pigeon* 35: 154, 1973). Alta Goff reported 5,000 Broad-winged Hawks over Hillsdale on 14 September 1979 (*Passenger Pigeon* 42: 108, 1980). This date conforms almost exactly with the usual peak date of migration of Broad-winged Hawks at Hawk Ridge in Duluth, Minnesota, about 161 km north. One migrant was very late on 25 October 1983 (*Passenger Pigeon* 46: 113, 1984). I found a pair breeding annually in the extensive second-growth forest west of Mikana during the 1970s. Cutright et al. (2006) reported confirmed breeding in four Barron County quadrangles, and probable breeding in a fifth. Broad-winged Hawks use mixed coniferous and deciduous forests for breeding.

Swainson's Hawk (*Buteo swainsoni*)—Accidental. Steve Betchkal found one on 6 April 2004 (*Passenger Pigeon* 66: 402, 2004). The bird was seen from Highway 53 while he was driving south from Chetek (S. Betchkal pers. comm.). The record was accepted by the Records Committee (*Passenger Pigeon* 66: 436, 2004).

Red-tailed Hawk (*Buteo jamaicensis*)—A common permanent resident exhibiting conspicuous migration. The first spring migrants return to their breeding territories in late February and are most numerous by early April. Fall migrants reach peak abundance in late September and have largely departed by 5 November. Orians (1955) showed the approximate winter range of this species in Wisconsin to bisect central St. Croix and Dunn Counties, and extreme southern Chippewa County. This has changed substantially in recent years with Red-tailed Hawks now fairly regu-

lar in winter. This is by far the most conspicuous hawk species. Despite its conspicuousness, breeding Red-tailed Hawks were confirmed in only 1 Barron County quadrangle and probable breeding in three more quadrangles (Cutright et al. 2006). This species occupies a variety of habitats usually associated with agricultural fields and forests. Each nest I have found was near the edge of a deciduous forest overlooking a farm field.

Rough-legged Hawk (*Buteo lagopus*)—A fairly common migrant and uncommon winter resident. Fall migrants arrive in mid-September (earliest, 4 September 1974; *Passenger Pigeon* 37: 124, 1975), and are most numerous by late October. Spring migration begins in late March and most have departed by late April. Alta Goff reported one "at the beginning of June" 1990, a very late date for this species (*Passenger Pigeon* 53: 87, 1991). Migrant and wintering birds are almost always associated with agricultural fields or with extensive areas of sedge-dominated wetland.

Golden Eagle (*Aquila chrysaetos*)—A rare winter resident. This eagle is most commonly found from late October through early April. Records are too sporadic to determine patterns. One on 22 November 1972 (*Passenger Pigeon* 35: 139, 1973) in Section 25 of Rice Lake Township was scouting a dead calf that had been placed to attract red fox (*Vulpes fulva*) for trapping. Most Golden Eagles are found associated with agricultural fields.

Family Falconidae

American Kestrel (*Falco sparverius*)—A common migrant and breeding species; rare winter resident. Spring migrants are most common during mid- to late April and fall migrants from early August to early September. Eugene Butler reported the peak of migration was 20 September 1957 (*Passenger Pigeon* 20: 35, 1958). Wintering birds have been reported more regularly since the late 1980s as winter temperatures have steadily risen. American Kestrels were found breeding in 6 of 15 Barron County quadrangles (Cutright et al. 2006). They use edge situations associated with agricultural clearings, and areas that are managed for wildlife production. Wintering American Kestrels are usually found along roadsides, hunting from overhead electrical lines.

Merlin (*Falco columbarius*)—Casual. John Butler observed one on 17 April 1955 (*Passenger Pigeon* 17: 126, 1955). Alta Goff reported one on 17 April 1975 (*Passenger Pigeon* 38: 43, 1976). Another was observed on 31 May 1981 (*Passenger Pigeon* 44: 30, 1982). A Merlin was reported with no details during the summer of 1971 (*Passenger Pigeon* 34: 76, 1972).

Gyrfalcon (*Falco rusticolus*)—Casual. Goff (1973) described her observation of a white phase Gyrfalcon near Hillsdale on 20 January 1973. In early February that year I saw what was probably a Gyrfalcon at the New Auburn WMA. I was not able to get a convincing view of the bird so it cannot be considered valid. Dan Williams reported an immature bird at Rice Lake on 26 December 2000 (*Passenger Pigeon* 63: 95, 2001). This observation was later accepted by the Records Committee (*Passenger Pigeon* 63: 111–112, 2001).

Peregrine Falcon (*Falco peregrinus*)—Casual. I found one near Rice Lake on 25 April 1976 (*Passenger Pigeon* 39: 191, 1976). John Butler observed one on 20 November 1955 (*Passenger Pigeon* 18: 37, 1956). Don Overend found one near Mikana on 1 June 1996.

Family Rallidae

Yellow Rail (*Coturnicops noveboracensis)*—Rare and local migrant and summer resident. The first county record was a male I heard calling from a large sedge meadow near Haugen early in the morning of 22 May 1976 (*Passenger Pigeon* 39: 191, 1976). Randy Hoffman found one on 25 June 1988 (*Passenger Pigeon* 51: 114–115, 1989) in the same sedge meadow on the road to the Boy Scout camp. He reported another sighting there (pers. comm.) in "mid-June" 1994. This area provides excellent breeding habitat for this elusive rail. Areas of large sedge meadows similar to the one on the south side of Bear Lake should be examined regularly during the breeding season to determine if this species is more widespread in the county.

Virginia Rail (*Rallus limicola*)—A fairly common migrant and breeding species. Virginia Rails arrive about 20 April and are most commonly heard calling through late May when they become quite secretive. Fall migration records are diffuse and no patterns can be determined. I found them most commonly during the first three weeks of October, but that coincided with waterfowl hunting season when I spent more time in marshes. I shot one along Spring Creek east of Rice Lake on 29 October 1974 (*Passenger Pigeon* 37: 125, 1975) and another there on 23 October 1977 (*Passenger Pigeon* 40: 461, 1978). Cutright et al. (2006) did not report Virginia Rail breeding in Barron County during the WBBA. I found nests of Virginia Rail along Spring Creek in Section 24, Rice Lake Township in the 1968 and 1969 breeding seasons. This bird is encountered most frequently in seasonally and semipermanently flooded wetlands with cattail, river bulrush (*Scirpus fluviatilis)*, and reed canary grass the predominant vegetation. Breeding Virginia Rails are occasionally found in sedge meadow habitats, along well-vegetated streams and in shrub-carr wetlands.

Sora (*Porzana carolina*)—A fairly common migrant and breeding species. The first spring migrants arrive in mid-April and are most conspicuous during the first ten days of May. Fall migration begins in late August, and most have departed by 15 October. The two latest dates I have are 31 October 1975 (*Passenger Pigeon* 38: 118, 1976) and 31 October 1976 (*Passenger Pigeon* 39: 288, 1977). This species is found most commonly in seasonally and semipermanently flooded wetlands where cattail, river bulrush, and softstem bulrush (*Scirpus validus*) are the predominant vegetation types. Soras also use wetlands that are more acidic.

American Coot (*Fulica americana*)—A common migrant and occasional summer resident. Faanes (1975) reported that the average date of spring arrival was 8 April, with peak abundance about 14 April. Most American Coots have departed by 5 May. Fall migrants arrive in early September and are most numerous during the first 10 days of October. Most have departed

by 5 November. One was still present on the Red Cedar River below the dam in Rice Lake on 30 November 1976. Alta Goff found one below the dam in Rice Lake on 17 February 1984 (*Passenger Pigeon* 46: 153, 1984). This species is most commonly associated with seasonally flooded and semipermanently flooded wetlands during the summer. Most migrants are found on large bodies of water where occasional flocks of 100 to 200 individuals have been observed.

Family Gruidae

Sandhill Crane (*Grus canadensis*)—An uncommon migrant and breeding species. John Marcon observed the first contemporary record of this species on 8 October 1957 (*Passenger Pigeon* 20: 35, 1958), and it was reported as "present" on 1 August 1976 (*Passenger Pigeon* 39: 288, 1977). Since the early 1980s this species has increased dramatically in abundance in Barron County. The International Crane Foundation's annual statewide Sandhill Crane Count reported 38 Sandhill Cranes in Barron County during 2005. During the WBBA, Sandhill Cranes were confirmed breeding in one northwestern Barron County quadrangle and probably breeding in three others in the southeast corner of the county (Cutright et al. 2006). In an exhaustive analysis of Sandhill Crane populations and distribution in the state, Su et al. (2004) demonstrated that by 2003 there were at least 100 Sandhill Cranes in Barron County. Birds during the breeding season are most commonly associated with extensive areas of sedge meadow.

Family Charadriidae

Black-bellied Plover (*Pluvialis squatarola*)—An uncommon migrant. In spring this species is usually found from late April until about 20 May. The earliest fall record was 17 August 1961 by William Southern (*Passenger Pigeon* 24: 51, 1962). Most have departed by 15 September. Murray Berner found 26 in Barron County on 30 September 1985 (*Passenger Pigeon* 48: 137, 1986). During spring migration this species is found almost exclusively on temporarily flooded wetlands in plowed agricultural fields. In fall it's more commonly associated with exposed beaches of larger lakes.

American Golden-Plover (*Pluvialis dominica*)—A rare spring migrant; one fall record. American Golden-Plover are found in Barron County in spring between 25 April and 15 May. Two were found on 19 September 1956 (*Passenger Pigeon* 19: 38, 1957). This species is found almost exclusively on temporarily flooded wetlands in plowed agricultural fields.

Semipalmated Plover (*Charadrius semipalmatus*)—A fairly common migrant. The earliest spring date is 19 April 2002 (*Passenger Pigeon* 64: 291, 2002). Most Semipalmated Plovers arrive about 1 May and have departed by 25 May (latest 31 May 1979; *Passenger Pigeon* 42: 35, 1980). Fall migrants arrive in late July and most have departed by 1 September. This species is most commonly found in temporarily flooded wetlands. It's occasionally found in wet areas of Kentucky bluegrass *(Poa pratensis)* pastures used by grazing bovines.

Killdeer (*Charadrius vociferus*)—A common migrant and breeding species. Spring migrants arrive in early April (earliest, 10 March 2004; *Passenger Pigeon* 66: 404, 2004) and are most numerous by late April. Fall migration begins in early August with a peak in late August. I recorded 156 Killdeer in various parts of the county on 31 August 1975 (*Passenger Pigeon* 38: 118, 1976). Most fall migrants have departed by mid-October. Cutright et al. (2006) reported this species widely distributed during the breeding season except for the southwest corner of the county. Killdeer occupy a range of habitats from cropland, summer fallow pastures, shorelines, and lawns to flat-topped roofs in residential areas.

Family Recurvirostridae

American Avocet (*Recurvirostra americana*)—Accidental. The only county record was reported without details on the date, location, or observer, during the spring of 2001 (probably in April) (*Passenger Pigeon* 63: 195–196, 2001).

Family Scolopacidae

Spotted Sandpiper (*Actitis macularius*)—A fairly common migrant and breeding species. Spring migrants arrive in late April (earliest; 21 April 1987; *Passenger Pigeon* 50: 66, 1987) and are most numerous from 10 to 20 May. Fall migration begins in early August and most have departed by mid-September. Alta Goff reported one on 9 October 1975 (*Passenger Pigeon* 38: 118, 1976). Stephanie Hinz found fledged young on 25 June 1997. During the 1960s and 1970s this was a common and regular breeding species along the shore of Desair Lake in Rice Lake Township. Found primarily at the edge of seasonally, semipermanently, and permanently flooded wetlands, this species also makes extensive use of river edge and exposed islands in larger streams.

Solitary Sandpiper (*Tringa solitaria*)—An uncommon migrant. Alta Goff reported Solitary Sandpipers from Barron County on 25 April 1969 (*Passenger Pigeon* 32: 23, 1970) and on 31 May 1981 (*Passenger Pigeon* 44: 31, 1982). These dates largely enclose the migration period of this species in spring. Nathan Carlsen reported an early fall migrant on 28 June 2001 (*Passenger Pigeon* 63: 308, 2001). Most fall migrants arrive in mid-July and have departed by early September. Primarily found on flooded agricultural fields and the muddy edges of wetlands, it is occasionally observed in sedge meadow and shrub carr wetlands.

Greater Yellowlegs (*Tringa melanoleuca*)—An uncommon migrant. The first birds in spring arrive during mid-April, and most have departed by 20 May (latest; 31 May 1976; *Passenger Pigeon* 39: 194, 1977). Fall migrants return in early July, are most conspicuous during August, and most have departed by mid-September. Greater Yellowlegs occur in a variety of wetlands, flooded grasslands, plowed agricultural fields, sedge meadow, and along the edge of seasonally, semipermanently, and permanently flooded wetlands.

Willet (*Tringa semipalmata*)—Accidental. Ruth Faanes and I saw a single Willet with 3 Hudsonian Godwits on a small seasonal wetland 5 km east of

Rice Lake on 27 May 1979 (*Passenger Pigeon* 42: 28, 1980).

Lesser Yellowlegs (*Tringa flavipes*)—A common migrant. The first spring migrants arrive during early April and most have departed by 20 May (latest, 2 June 1981; *Passenger Pigeon* 44: 78, 1982). Fall migrants arrive in early July, reach peak abundance in early August, and most have departed by 15 September. Lesser Yellowlegs occur in a variety of wetlands, flooded grasslands, plowed agricultural fields, and sedge meadow.

Upland Sandpiper (*Bartramia longicauda*)—A rare migrant and occasional summer resident; may nest. Spring migrants are most regularly encountered during 20 April to 10 May and in fall during late July through August. Stephanie Hinz found adults near Hillsdale on 18 June 1997, and near Poskin on 23 June 1997. Characteristic habitats include sedge meadows, unmowed alfalfa (*Medicago sativa)* and timothy (*Phleum pratensis*) fields, and pastures used by grazing bovines.

Hudsonian Godwit (*Limosa haemastica)*—Casual. Ruth Faanes and I saw three Hudsonian Godwits on the edge of a small seasonal wetland 5 km east of Rice Lake on 27 May 1979 (*Passenger Pigeon* 42: 28, 1980). Alta Goff reported one on 19 May 1980 (*Passenger Pigeon* 43: 23, 1981) and again from 24–27 May 1981 (*Passenger Pigeon* 44: 32, 1982). Goff observed this species again on 7 June 1981 (*Passenger Pigeon* 44: 79, 1982) and 14 May 1982 (*Passenger Pigeon* 45: 31, 1983).

Marbled Godwit *(Limosa fedoa)*—Accidental. On 30 April 1976, I found a group of three Marbled Godwits foraging along the edge of a temporarily flooded wetland in an agricultural field 3 km east of Turtle Lake.

Ruddy Turnstone (*Arenaria interpres*)—Accidental. A group of four with Lesser Yellowlegs and other shorebirds on a flooded field near Almena on 18 May 1974 are the only ones I have observed in Barron County.

Red Knot (*Calidris canutus*)—The only county record is three birds observed by Darryl Tessen on 7 August 1968 (*Passenger Pigeon* 31: 248, 1969).

Sanderling (*Calidris alba*)—A lone Sanderling observed 12 September 1974 on a small seasonal wetland in Rice Lake Township is my only record of this species for the County.

Semipalmated Sandpiper (*Calidris pusilla*)—A common migrant. The first spring migrants arrive in late April. They are most abundant in the first ten days of May, and most have departed by 20 May. Fall migrants return in early July, reach peak abundance in early August, and have departed by mid-September. Semipalmated Sandpiper is primarily a species of flooded agricultural fields, and the exposed edges of seasonally flooded and semipermanently flooded wetlands.

Western Sandpiper (*Calidris mauri*)—Accidental in spring migration and rare in fall migration. My only spring migration record is a group of three Western Sandpipers with Semipalmated and Least Sandpipers on a temporarily flooded wetland in an agricultural field 3 km east of Rice Lake on 10 May 1974. Fall migrants arrive in late July and remain

until mid-September (latest, 5 October 1983; *Passenger Pigeon* 46: 115, 1984). Fall migrants are usually found along the edge of semipermanently flooded wetlands.

Least Sandpiper (*Calidris minutilla*)—A common spring migrant; fairly common in fall. Spring migrants arrive in late April and remain until late May (latest, 1 June 1975; *Passenger Pigeon* 38: 76, 1976). Fall migrants return in early July and remain until early September. Most Least Sandpipers use temporarily flooded wetlands in agricultural fields or the exposed edge of semipermanently flooded wetlands.

White-rumped Sandpiper (*Calidris fuscicollis*)—Casual migrant. The earliest spring record is 11 May 1983 (*Passenger Pigeon* 46: 29, 1984). Alta Goff reported one on 17 May 1981 (*Passenger Pigeon* 44: 40, 1982) and another on 31 May 1969 (*Passenger Pigeon* 32: 23, 1970. The one fall migration record was also reported by Goff from 14 September through 20 September 1971 (*Passenger Pigeon* 34: 113, 1972).

Baird's Sandpiper (*Calidris bairdii*)—Casual. Judy Haseleu reported one on 19 May 2003, and Alta Goff saw one at least until 2 June 1990 (*Passenger Pigeon* 53: 88, 1991). This species was reported with no accompanying data from Barron County during fall migration 1961 (*Passenger Pigeon* 24: 51, 1962). Other records include 21 July 1983 (*Passenger Pigeon* 46: 86, 1984), 5 August 1980 (*Passenger Pigeon* 43: 126, 1981), 6 August 1969 (*Passenger Pigeon* 32: 65, 1970), 10 August 1970 (*Passenger Pigeon* 33: 92, 1971), and 14–20 September 1971 (*Passenger Pigeon* 34: 113, 1972).

Pectoral Sandpiper (*Calidris melanotos*)—A fairly common migrant. Most Pectoral Sandpipers in spring arrive during the first five days of May and have departed by 25 May (latest, 31 May 1976; *Passenger Pigeon* 39: 194, 1977). Alta Goff reported Pectoral Sandpiper during "early June" 2002 (*Passenger Pigeon* 65: 60, 2003). Fall migrants arrive in mid-July and are most common during early August. Most Pectoral Sandpipers have departed by 15 September. This species is associated almost exclusively with temporarily flooded wetlands.

Dunlin (*Calidris alpina*)—A rare and local spring migrant; no known fall records. In the mid-1970s I regularly found one to four birds each spring on flooded agricultural fields between Brill and Haugen adjacent to CTH V. Most of the records were tightly packed between 15 and 22 May.

Stilt Sandpiper (*Calidris himantopus*)—Accidental. I recorded one foraging with other shorebirds in a flooded field 2 km south of Mikana on 15 May 1976.

Buff-breasted Sandpiper (*Tryngites subruficollis*)—Accidental. "Several" observed near Haugen on 30 August 1960 (*Passenger Pigeon* 23: 70, 1961) made up the ninth record of this species in Wisconsin (Robbins 1962).

Short-billed Dowitcher (*Limnodromus griseus*)—Accidental. One was observed on 24 October 2001 (*Passenger Pigeon* 64: 98, 2002). No location or observer was included with the record.

Long-billed Dowitcher (*Limnodromus scolopaceus*)—An uncommon migrant in spring. No fall records. This

species is most regularly found from 1 to 20 May (latest 27 May 1979; *Passenger Pigeon* 42: 36, 1980). Primarily a species of temporarily, and seasonally flooded wetlands

Wilson's Snipe (*Gallinago delicata*)—A common migrant and rare summer resident; may nest. Spring migrants arrive in late March and reach peak abundance in mid-April. Most have departed by 10 May. Fall migrants arrive in early August and reach peak abundance in mid-September. Most have departed by late October. I shot one while duck hunting along Spring Creek east of Rice Lake on 16 November 1967. Although Cutright et al. (2006) reported no Wilson's Snipe breeding in Barron County during the WBBA, one was repeatedly heard winnowing over a sedge-dominated wetland near Mikana during June and early July, 1974 and 1975. I was never able to determine if this was a breeding pair or a solitary male.

American Woodcock (*Scolopax minor*)—A fairly common migrant and breeding species. Spring migrants arrive in late March (earliest, 12 March 1981 *Passenger Pigeon* 44: 31, 1982) and quickly establish territories and begin their sky dance. Non-breeding birds have departed by late April. Fall migrants are most conspicuous in mid-September and most have departed by 15 October. Murray Berner found 15 in various parts of the county on 21 October 1985 (*Passenger Pigeon* 48: 138, 1986). The latest date is two that I shot near Mikana on 22 November 1972 (*Passenger Pigeon* 35: 140, 1973). In the mid-1970s I found breeding pairs (with broods) in a large area of recently-logged quaking aspen in the Mikana Swamp. Stephanie Hinz found adults in four widely scattered areas of the county during 25 May to 30 June 1997. Open stands of medium-aged quaking aspen, maple forest and alder (*Alnus* sp.) thickets are optimum habitat.

Wilson's Phalarope (*Phalaropus tricolor*)—A rare migrant and summer resident. Although I suspect that it nests at least occasionally, no nests or recently fledged young have been found. Spring migrants are usually found about 10–15 May and are most frequently observed using temporarily flooded wetlands. Summer records are largely restricted to semipermanent wetlands especially near Almena. The latest I have recorded this species is 10 August 1974.

Red-necked Phalarope (*Lobipes lobatus*)—Accidental. I found one on a small wetland near Brill on 13 September 1976 (*Passenger Pigeon* 39: 290, 1977).

Family Laridae

Franklin's Gull (*Larus pipixcan*)—Accidental. One was reported on 6 October 1979 (*Passenger Pigeon* 42: 111, 1980).

Bonaparte's Gull (*Larus philadelphia*)—A rare migrant. Spring migrants return in late April and have departed by 20 May. Fall migrants arrive about 10 September and depart by 25 October. Bonaparte's Gull is primarily a species of large semipermanently flooded wetlands and lakes.

Ring-billed Gull (*Larus delawarensis*)—An abundant migrant. This is by far the most frequently observed gull in Barron County. Spring migrants return in late March and are most nu-

merous from mid-April to 1 May, with departure by 20 May. Fall migrants arrive in early September and are most numerous between 15 September and 1 October. Flocks totaling 200 individuals are common during this period. Most have departed by early November. This species was recorded through 14 December 1998 (*Passenger Pigeon* 61: 229, 1999). Ring-billed Gulls use a variety of wetland types during migration including semipermanently flooded wetlands. During fall migration they make extensive use of recently plowed agricultural fields.

Herring Gull (*Larus argentatus*)—A common migrant. Herring Gulls arrive in late March and are most common in mid-April when the ice is mostly melted from the larger lakes. Most have departed by early May. Fall migrants return in early September and remain until mid-November; later if weather conditions permit. Alta Goff reported 2,000 American Herring Gulls on 2 November 1982 (*Passenger Pigeon* 45: 94, 1983). This gull is mostly found on lakes.

Caspian Tern (*Hydroprogne caspia*)—A rare but regular migrant. Most spring migration records are concentrated in the first 10 days of May. Fall migrants are most frequently found in September (latest 5 October 1974; *Passenger Pigeon* 37: 127, 1975). Almost all of my records are from large lakes.

Black Tern (*Chlidonias niger*)—A fairly common migrant and uncommon and local breeding species. Most Black Terns arrive from 25 April to 5 May and are most numerous about 15 May. Fall migrants are most conspicuous in late July until about 20 August. The familiar "kek-kek-kek" call of this species is heard regularly on large semipermanent wetlands throughout the county where breeding is regular but never in large numbers. Although more common on prairie wetlands such as those in Polk and St. Croix Counties (Faanes 1979), those breeding in Barron County are regularly associated with growths of wild rice.

Common Tern (*Sterna hirundo*)—An uncommon migrant. Spring migrants arrive in late April (earliest, 17 April 1982 *Passenger Pigeon* 45: 32, 1983) and most have departed by 20 May. Fall Migrants return in late August and depart by 1 October. This species is most commonly associated with large semipermanently flooded wetlands and with large lakes.

Forster's Tern (*Sterna forsteri*)—A fairly common spring and rare fall migrant. Spring migrants arrive in late April and most depart by 25 May. Fall migrants arrive in early September and depart by 1 October. Forster's Tern is casual in summer, usually associated with large wetlands with extensive growths of emergent vegetation. I have never seen more than one Forster's Tern at a time in summer in this county. Most migrant Forster's Terns are associated with large lakes.

Family Alcidae

Ancient Murrelet (*Synthliboramphus antiquus*)—Accidental. On 12 November 1975, one was found dead 8 km west of Barron by Jerry Perkins. It was originally identified as a Dovekie (*Alle alle*). The bird was brought to me for identification on 19 November 1975. At the time this was the fourth specimen and fifth record for Wisconsin. The Barron County bird was made

into a study skin and deposited in the museum of the Biology Department at the University of Wisconsin at River Falls.

Family Columbidae

Rock Pigeon (*Columba livia*)—A common and widespread introduced permanent resident of cities, towns, and near farm buildings.

Mourning Dove (*Zenaida macroura*)—A common migrant and breeding species; increasingly regular in winter. Migrants in spring arrive in late March, reaching peak abundance by mid-April. Breeding occurs from mid-April until late August, with three broods per season not unusual. Fall migration begins with flock formation among juvenals in mid-August. Peak abundance occurs in mid-September and most have departed by the last week of October. The first county record in winter was one recorded during the Barron CBC on 29 December 1963. Mourning Doves remained throughout the winter of 1971–1972 near Hillsdale (*Passenger Pigeon* 34: 171, 1972) and near Hillsdale and Rice Lake during the winter of 1975–1976 (*Passenger Pigeon* 38: 148, 1976). Since the late 1970s this species has been recorded with increasing frequency during the winter months. Mourning Dove is a characteristic edge species, occurring in largest densities in pine plantations (Faanes 1976), shelterbelts, and fencerows. It also occurs commonly in ornamental trees planted in residential areas.

Passenger Pigeon (*Ectopistes migratorius*)—Extinct. Schorger (1951) conducted an exhaustive analysis of Passenger Pigeon migration information gleaned from state newspapers. From his work he mentioned two records for Barron County. These included observations from Rice Lake on 26 September 1879, and Chetek on 7 April 1885.

Family Cuculidae

Yellow-billed Cuckoo (*Coccyzus americanus*)—An uncommon migrant and breeding species. Spring migrants arrive in mid-May (earliest, 1 May 1983; *Passenger Pigeon* 46: 30, 1984) and are most conspicuous during the first week of June. There is a general exodus of fall migrants in mid-August and the last birds depart by mid-September. Stephanie Hinz found apparent pairs in six widely scattered areas of southern Barron County between 12 June and 4 July 1997. I found two recently fledged young being fed by an adult at the edge of a quaking aspen clear cut near Mikana on 7 July 1974. Most Yellow-billed Cuckoos are found in brushy margins of deciduous forests and in clear cuts.

Black-billed Cuckoo (*Coccyzus erythropthalmus)*—A fairly common migrant and breeding species. Spring migrants arrive in early May, becoming most numerous during the last two weeks of May. Night migrants are frequently heard during the first week of June (Sam Robbins, pers, comm.). Peak fall abundance occurs in mid-August with departure by 20 September. Alta Goff reported one on 7 October 1996 (*Passenger Pigeon* 59: 140, 1997). Cutright et al. (2006) reported confirmed or probable breeding of this species in 9 of the 15 WBBA quadrangles covering Barron County. This species is most commonly found in brushy margins of mature deciduous

forest, deciduous clear cuts, and mixed coniferous-deciduous forest.

Family Strigidae

Eastern Screech-Owl (*Megascops asio*)—An uncommon resident. Determining this species' status is difficult because so few records exist, especially in the winter. During the breeding season Eastern Screech-Owls are most commonly found in the southwestern corner of Barron County, especially in forested areas near the Hay River. A nest I found in a natural cavity in a quaking aspen tree near Haugen is the only confirmed nest record I have for this species. Cutright et al. (2006) did not report evidence of breeding. I have regularly recorded this species in early to mid-December. One was recorded on the Barron CBC on 29 December 1963. The lack of mid-winter records suggests that it migrates out of the county. However this could be the result of it being extremely quiet during winter. Most Eastern Screech-Owls occur in mature deciduous forests.

Great Horned Owl (*Bubo virginianus*)—A fairly common permanent resident. This large owl occupies almost all wooded habitats including wooded areas in cities like Rice Lake and Cumberland. However this species is most frequently encountered in mature deciduous forests. On 30 November 1969, I accidentally caught a very pale plumaged Great Horned Owl in a steel jaw trap set in Section 25 of Rice Lake Township. Given the pale nature of its plumage I have long considered this to be the subspecies *subarticus*. The bird was captured by one toe on its left foot and was successfully extracted from the trap and released. This is the only example of this northern race of Great Horned Owl that I have seen, although its presence here, especially in harsh winters, is probably more common than suspected.

Snowy Owl (*Bubo scandiacus*)—An uncommon and irregular migrant and winter resident. Yearly abundance varies considerably, and migrating and wintering populations appear to be regulated by a 4-year cycle of small mammal populations on this species' tundra breeding areas. Fall migrants arrive in mid-November and during "invasion" years reach peak abundance during late December and early January. Spring migration begins in late February and departure occurs by late March. As part of a larger analysis of Snowy Owl migration in Wisconsin during 1960 to 1965, Sindelar (1966) reported a Snowy Owl from near Prairie Farm in 1960 and one northwest of Cumberland in 1961. Nicholls (1968) reported three Snowy Owls during the 1966 to 1967 invasion. My first Snowy Owl was a juvenal seen on 25 December 1967 in a large sedge meadow adjacent to the south shore of Bear Lake (Section 11, Bear Lake Township). This bird remained in the area of the sedge meadow until late February when excessive snowfall probably forced it to seek food elsewhere. Another bird remained on this same sedge meadow during the brutal cold of the 1976–1977 winter. Snowy Owls regularly use open agricultural fields and sedge meadow or shrub carr.

Northern Hawk Owl (*Surnia ulula*)—Casual. I observed one bird perched in an American elm (*Ulmus americana*) 2 km east of Turtle Lake

along Highway 8 on 12 November 1976 (*Passenger Pigeon* 39: 291, 1977). It was not seen there when I checked again on 14 November or the following weekend when Bob Ake thoroughly searched the area. Nathan Carlsen (pers. comm.) found a Northern Hawk Owl adjacent to Highway 48, just east of 21st Street, in February 2002.

Barred Owl (*Strix varia*)—An uncommon permanent resident. I found eight Barred Owls during the Cedar Lake CBC on 26 December 1976. Barred Owls occupy a range of wooded habitats but appear to be most numerous in mixed coniferous-deciduous forests and those adjacent to large rivers and streams.

Great Gray Owl (*Strix nebulosa*)—Casual. On 20 November 1975, Neil Beranek observed a Great Gray Owl about 3 km southwest of Mikana. My repeated attempts to relocate the bird on 22 November through 24 November proved fruitless. Follen (1985a) reported without dates or locations that Great Gray Owls were observed in Barron County during 1982 and 1983. Follen (1984b) captured and banded a Great Gray Owl near Clayton just west of the Barron County line. Semo (1989) observed at least one Great Gray Owl during the 1988–1989 invasion. Aaron Stutz (pers. comm.) found one on 28 December 2004. This latter record is from the huge influx of boreal forest owls into the northern Great Lakes states during the 2004–2005 winter.

Long-eared Owl (*Asio otus*)—A rare migrant and winter resident and possible breeding species. In spring, this owl is most frequently found in March and early April. One was recorded on 10 April 1983 by Janelle Humphrey and another on 29 May 1983 by Daryl Tessen (*Passenger Pigeon* 46: 30, 1984). Fall migrants are most likely found during mid-October. A pair was seen and the male heard intermittently throughout the summer of 1974 in the forested area between Mikana and Brill in Cedar Lake Township. Although no nest or young were ever found, I suspect that at least an attempt was made at breeding, given their consistent use of a small area and their aggressive behavior on two occasions, A male was vocalizing in this same area during the early morning hours of 24 May 1979. I recorded one bird by voice in this same area on 26 December 1975 and a single bird was there on 23 December 1977. Most Long-eared Owl observations have been obtained from mixed deciduous-coniferous forests.

Short-eared Owl (*Asio flammeus*)—An uncommon migrant and winter resident. Spring migrants arrive in mid-March and are most commonly observed in mid-late April. Most have departed by mid-May. Fall migrants arrive in late September. Peak occurrence is during November and most have departed by 1 December. Two were recorded during the Rice Lake CBC on 23 December 1978 (*Passenger Pigeon* 41: 11, 1979). This is a characteristic species of open grassy agricultural fields and sedge meadows. The two Short-eared Owls observed on 23 December 1978 were in the large sedge meadow on the south side of Bear Lake.

Northern Saw-whet Owl (*Aegolius acadicus*)—An uncommon migrant and winter resident. Fall migrants are

first observed during mid-September and are most commonly found during mid- to late October. Evans (1975) reported that the typical migration period for this owl at Hawk Ridge in Duluth, Minnesota, (about 161 km north of Barron County) is from mid-September to mid-November with a peak in mid-October. Murray Berner found this owl between 1 and 16 November 1985 (*Passenger Pigeon* 48: 139, 1986). Janelle Humphrey reported Northern Saw-whet Owls present on 1 December 1981 (*Passenger Pigeon* 44: 163, 1982) and on 1 March 1982 (*Passenger Pigeon* 45: 32, 1983). One Northern Saw-whet Owl was heard singing during the pre-dawn hours of 23 December 1978 from a spruce forest southwest of Mikana (*Passenger Pigeon* 41: 11, 1979). In spring this species is most conspicuous when singing in March and is scarce after early April. I found one singing in the Mikana Swamp 3 km west of Mikana on 16 April 1976 (*Passenger Pigeon* 39: 194, 1977). Follen (1981) provided information on breeding records or breeding season observations of this species in Chippewa (nest), Rusk (observation), and Sawyer (nest) Counties, each bordering Barron County. However there are still no known breeding records from Barron County. Stephanie Hinz observed an adult near Moose Ear Creek on 1 July 1997. The most likely places where this bird might be breeding are the Mikana Swamp area southwest of Mikana, in the heavily forested area between Bear Lake and Barronett, or in the extensive mixed deciduous-coniferous forests along and near Moose Ear Creek east of Canton. Most records of this owl have been obtained from mixed deciduous-coniferous forests.

Family Caprimulgidae

Common Nighthawk (*Chordeiles minor*)—An uncommon migrant and breeding species. Most Common Nighthawks arrive during the first ten days of May and are most numerous by the last week of May. Cutright et al. (2006) reported confirmed breeding from two Barron County quadrangles. Fall migration begins in early August and most have departed by mid-September (latest 5 October 1970; *Passenger Pigeon* 33: 147, 1971). In cities and towns, an abundance of flat roofs and gravel roadways provides excellent breeding habitat. Away from human habitation, most birds are associated with mixed deciduous-coniferous forest with sandy soils and open or barren understory.

Whip-poor-will (*Caprimulgus vociferus*)—An uncommon migrant and breeding species. Spring migrants arrive in early May and are widely distributed by 20 May. The status of this species in the fall is poorly understood. Whip-poor-wills are quiet during this period and they are almost never reported. Most observations have been made during late July through late August. Cutright et al. (2006) reported probable breeding of this species in the northeastern corner of the county. This species is most common in medium-aged deciduous forest, jack pine (*Pinus banksiana*), and pine plantations.

Family Apodidae

Chimney Swift (*Chaetura pelagica*)—A fairly common migrant and breeding species. Most Chimney Swifts arrive in late April (earliest, 19 April 1980; *Passenger Pigeon* 43: 24, 1981)

and are most numerous during mid-May. During the breeding season, Chimney Swifts are fairly well distributed among villages and cities. Surprisingly, Cutright et al. (2006) recorded this species in only two WBBA quadrangles. Fall migration begins in late July with flock formation and most have departed by mid-September. Chimney Swifts are most numerous in villages and cities. Breeding Chimney Swifts also occur in forested areas where they occupy hollow trees and other natural cavities.

Family Trochilidae

Ruby-throated Hummingbird (*Archilochus colubris*)—A fairly common migrant and breeding species. Spring migrants arrive during the second week of May (earliest, 6 May 1988; *Passenger Pigeon* 50: 350, 1988), with peak abundance during late May. Peak fall abundance occurs in mid-August and most have departed by the third week of September (latest, 2 October 1965 *Passenger Pigeon* 28: 119, 1966). Breeding Ruby-throated Hummingbirds occur in a variety of habitat, most commonly in brushy margins, openings of deciduous forests, and deciduous clear cuts. I found two nests in June 1976 in a deciduous clear cut southwest of Mikana. Jackson (1942) noted that this species seemed to prefer tamarack bogs for breeding. He speculated that the abundant *Usnea* lichen that grows on tamarack was important for nest building.

Family Alcedinidae

Belted Kingfisher (*Megaceryle alcyon*)—A common migrant and nesting species; several winter records. Spring migrants return in early April and are most conspicuous by late April. Peak fall migration occurs in early September and most have departed by late October. I recorded Belted Kingfishers annually on the Cedar Lake CBC from 1971 through 1978. Eugene Butler found this species present until 23 February 1958 (*Passenger Pigeon* 20: 86, 1958). It is usually found near permanent lakes and streams that support populations of fish and amphibians. Nests are usually in steep banks adjacent to streams or lakes.

Family Picidae

Red-headed Woodpecker (*Melanerpes erythrocephalus*)—An uncommon migrant and rare breeding species; causal in winter. The first noticeable influx of spring migrants occurs in late April, reaching peak abundance in mid-May. Fall migration begins about mid-August and peak abundance is during early September. Most have departed by mid-October. Eugene Butler reported an "unusually high number" of Red-headed Woodpeckers during the winter of 1960–1961 but did not provide any quantitative data (*Passenger Pigeon* 23: 106, 1961). Alta Goff reported it throughout the 1968–1969 winter (*Passenger Pigeon* 31: 176, 1969). A remarkable 15 Red-headed Woodpeckers were reported from the Barron CBC on 28 December 1968. I recorded single Red-headed Woodpeckers at a Rice Lake feeder on 26 December 1975 and 26 December 1976. Cutright et al. (2006) reported confirmed breeding by Red-headed Woodpecker in four Barron County quadrangles. This woodpecker makes extensive use of second growth oak

forest and open-oak forest. Forests dominated by green ash (*Fraxinus pennsylvanica)* and American elm (*Ulmus americana*) are also important. Suitable breeding habitat is enhanced by the presence of dead or dying trees.

Red-bellied Woodpecker (*Melanerpes carolinus*)—A rare permanent resident. Barron County is near the northern limit of this species' range in Wisconsin (Robbins 1991). First mention of this species was one observed (no location given) on 10 November 1946 (*Passenger Pigeon* 9: 31, 1947). Peterson (1951) reported that through 1950 this was the only record for the county. At that time the range of this species in Wisconsin extended north to St. Croix Falls in Polk County. Two were reported from the Barron CBC on 31 December 1962. By 1963 these were the only records for the county (Hamerstrom and Hamerstrom 1963) and were near the northern limit of the species' reported range in the state at that time. Seven were recorded during the Barron Christmas Count on 3 January 1965. I recorded up to three Red-bellied Woodpeckers during the Cedar Lake CBC in 1974, 1976, 1977, and 1978. Since that time, Red-bellied Woodpeckers have been recorded annually in all seasons. Cutright et al. (2006) reported confirmed breeding from near Almena, Cumberland, and Poskin. This species is most often found in mature deciduous forest.

Yellow-bellied Sapsucker (*Sphyrapicus varius*)—An uncommon migrant and breeding species; one winter record. Spring migrants arrive in late March and peak numbers occur in late April. Cutright et al. (2006) reported breeding in three quadrangles. Fall migration begins in mid-August, and most have departed by mid-October. Murray Berner found 10 on 11 September 1985 (*Passenger Pigeon* 48: 140, 1986). Two were recorded on the Barron CBC 2 January 1966. This species is most common during the breeding season in mature deciduous forest dominated by sugar maple and basswood (*Tilia americana*).

Downy Woodpecker (*Picoides pubescens*)—A fairly common permanent resident. Cutright et al. (2006) reported breeding in all but one quadrangle. I recorded 32 Downy Woodpeckers on the 1977 Cedar Lake CBC. Habitat used by Downy Woodpecker is characterized by both upland and lowland coniferous and deciduous forests. Edge situations are used more extensively by this species than by the Hairy Woodpecker, especially for feeding. During winter Downy Woodpeckers occupy habitat similar to that used for breeding. In agricultural areas they also use corn (*Zea mays*) stubble fields regularly for feeding.

Hairy Woodpecker (*Picoides villosus*)—A fairly common permanent resident. Cutright et al. (2006) recorded it in 10 of 15 county quadrangles during the breeding season. I recorded 15 on the Cedar Lake CBC on 23 December 1978. Hairy Woodpecker occupies a range of deciduous and mixed deciduous-coniferous forest types.

Northern Flicker (*Colaptes auratus*)—A common migrant and breeding species. Noticeable spring movements are observed by late March. Spring migrants usually travel in small scattered groups, consequently few

large concentrations are observed. Fall migration begins in late August with dispersal of young from the breeding areas. Peak fall migration occurs by mid-September, and most have departed by mid-October. This species is widely distributed throughout the county during the breeding season (Cutright et al. 2006). It is characteristic of mixed deciduous-coniferous forests.

Pileated Woodpecker (*Dryocopus pileatus*)—An uncommon permanent resident. Pileated Woodpecker is most commonly found in large expanses of mixed deciduous-coniferous forest especially in the northern and eastern portions of the county.

Family Tyrannidae

Olive-sided Flycatcher (*Contopus cooperi*)—An uncommon migrant. The Olive-sided Flycatcher is among the latest arriving songbird species. Average date of spring arrivals is 20 May. Dates of peak abundance are not provided, primarily because this bird migrates singly or in small groups. Consequently, very few individuals are recorded daily during periods when they would be expected to be numerous. Migrants have usually departed by 5 June. Alta Goff reported it during the summer of 1969 (no dates given) (*Passenger Pigeon* 32: 66, 1970). Fall migrants arrive during early August and become most conspicuous in mid-August, with departure by 5 September. Murray Berner found three on 11 September 1985 (*Passenger Pigeon* 48: 140, 1986). Most Olive-sided Flycatchers I've seen occupied early successional stage deciduous forest near wetlands.

Eastern Wood-Pewee (*Contopus virens*)—A fairly common migrant and breeding species. Eastern Wood-Pewees are usually not observed until after mid-May. Janelle Humphrey found one on 22 April 1979 (*Passenger Pigeon* 42: 38, 1980). Peak spring migration occurs during the last 10 days of May. Fall migration begins in early August. Peak abundance is during the last two weeks of August and most have departed by mid-September (latest, 27 September 1976 *Passenger Pigeon* 39: 292, 1977). Cutright et al. (2006) reported Eastern Wood-Pewees during the breeding season in 13 of 15 Barron County quadrangles. During the breeding season Eastern Wood-Pewee's are most commonly found in mature deciduous forest. They use a variety of wooded habitats in migration and appear to be quite numerous in deciduous clear cuts.

Yellow-bellied Flycatcher (*Empidonax flaviventris*)—An uncommon migrant. Earliest spring migrants arrive by mid-May. Peak migration occurs about 20 May, and most have departed by 5 June. Fall migration begins by early August. Peak movements occur in late August and most depart by mid-September. Alta Goff reported one on 1 August 1998 (*Passenger Pigeon* 62: 185, 1999) and another on 30 September 1976 (*Passenger Pigeon* 39: 291, 1977). Most Yellow-bellied Flycatchers are found in edge habitats.

Acadian Flycatcher (*Empidonax virescens*)—Accidental. I found a male singing from a rich mesic forest adjacent to the Hay River near Prairie Farm on 31 May 1976. Subsequent checks of the area proved fruitless.

Alder Flycatcher (*Empidonax alnorum*)—A fairly common migrant and uncommon breeding species. Robbins (1974) recorded Alder Flycatcher during the breeding seasons of 1969 through 1974. Migrants are first recorded about 15 May and are most numerous about 30 May. Fall migrants are common in early August and most have departed by 5 September. Murray Berner found seven on 3 August 1985 and saw the last one for the year on 18 September 1985 (*Passenger Pigeon* 48: 140, 1985). Breeding pairs have been recorded in northern hardwood forest, black spruce-tamarack bogs, and deciduous clear cuts.

Willow Flycatcher (*Empidonax traillii*)—A rare summer resident in southern Barron County. In 30 years of travel throughout Wisconsin, Robbins (1974) never recorded this species in Barron County. I found one near Prairie Farm during the middle two weeks of June, 1972. It no doubt was breeding although no nests were found. A Willow Flycatcher was reported on 1 August 1985 (*Passenger Pigeon* 48: 140, 1986). An extremely late bird was recorded by Alta Goff on 30 September 2002 (*Passenger Pigeon* 65: 85, 2003). Cutright et al. (2006) did not report this species breeding in Barron County. Willow (*Salix* sp.) thickets and shrub carr are the primary habitats of this bird.

Least Flycatcher (*Empidonax minimus*)—A fairly common migrant and breeding species. Spring migrants arrive in mid-May and are most numerous by 25 May. Fall migration begins with a gradual exodus in early August and most have departed by 10 September (latest, 30 September 1980; *Passenger Pigeon* 43: 130, 1981). Murray Berner found 14 Least Flycatchers on 11 September 1985 (*Passenger Pigeon* 48: 140, 1986). Most Least Flycatchers use mesic forest and deciduous clear cuts.

Eastern Phoebe (*Sayornis phoebe*)—A fairly common migrant and breeding species. Spring migrants arrive in early April. The earliest county record was found by John Butler on 31 March 1955 (*Passenger Pigeon* 17: 128, 1955). Aldo Leopold once stated that he believed there was an Eastern Phoebe breeding under every bridge in Wisconsin; his only concern was that he didn't have enough time to check them all out. During the 1974–1976 breeding seasons I set out to determine if Leopold was correct. And he was (Faanes 1980). The mean date of laying the first egg was 7 May (range 5–8 May). Peak breeding activity or the maximum number of active nests, for first breeding attempts occurred between 30 May and 10 June. Second breeding attempts (those occurring after successful first attempts) reached a peak during mid-July. Breeding activity ceased by 10 August each year, and most Eastern Phoebes have departed the county by mid-September. Eastern Phoebes use edge habitats, primarily woods-field border and streamside habitats. During the breeding season they are usually associated with bridges, culverts, other man-made structures, and rocky outcroppings.

Great Crested Flycatcher (*Myiarchus crinitus*)—A common migrant and breeding species. Spring migrants generally arrive about 5 May (earliest, 20 April 1972; *Passenger Pigeon* 35: 25, 1973), and peak abundance occurs during the last 10 days of May. Fall mi-

gration begins in mid-August, reaching peak abundance by 1 September. Most migrants have departed by mid-September. Cutright et al. (2006) reported Great Crested Flycatchers breeding throughout Barron County. Great Crested Flycatcher is a forest species, generally associated with the upper canopy of medium-aged to mature deciduous forest. In late July 1972 I watched a Ruby-throated Hummingbird foraging on some flowers with several bumblebees (*Bombus spp.*) at the edge of a forest in Section 27 of Doyle Township. As I watched the hummingbird, a Great Crested Flycatcher flew by me, captured the hummingbird in its mouth, and then returned to a perch in a tree where I assume it had visions of consuming the hummingbird. The flycatcher was unable to swallow the hummingbird and eventually let its carcass fall to the forest floor. I have often wondered if the flycatcher mistook the hummingbird for a bumblebee.

Western Kingbird (*Tyrannus verticalis*)—Accidental. Murray Berner observed one on 6 June 1983 (*Passenger Pigeon* 46: 87, 1984).

Eastern Kingbird (*Tyrannus tyrannus*)—A common migrant and breeding species. Most spring migrants begin arriving in late April and are conspicuous in mid-May. Fall migration begins in early August and most have departed by late August (latest, 20 September 1978; *Passenger Pigeon* 41: 169, 1979). Cutright et al. (2006) reported Eastern Kingbirds from all but one Barron County quadrangle. Eastern Kingbirds use edge habitats probably more than any other flycatcher. Characteristic breeding habitat includes woodlots, scattered clumps of tall shrubs, fence lines, open fields, and edges of sedge meadows. Fences and transmission lines are used extensively as hunting perches.

Family Laniidae

Loggerhead Shrike (*Lanius ludovicianus*)—A casual migrant and summer resident. Jackson (1943) reported a single Loggerhead Shrike "at Rice Lake" on 9 August 1918. He also reported several birds at locations north of Barron County suggesting that this species was much more widespread 90 years ago than it is currently. Erdman (1970) reported a single breeding attempt in 1968 near Clayton, Polk County. On 9 July 1978, I observed a pair perched on a wire about 5 km east of Rice Lake (*Passenger Pigeon* 41: 87, 1979). This is the only record I have of this species during the breeding season in Barron County. Much later, Alta Goff reported one near Hillsdale on 5 May 1979 (*Passenger Pigeon* 42: 39, 1980). Goff also found one on 20 October 1970 (*Passenger Pigeon* 33: 150, 1971).

Northern Shrike (*Lanius excubitor*)—An uncommon migrant and winter visitor. Fall migrants arrive in late October and are most frequently found in mid-November. Apparently wintering birds were recorded annually on the Cedar Lake CBC from 1974 through 1978. Spring migrants are most frequent in mid-March and have departed by early April. Northern Shrike is primarily a species of semi-open natural habitats and agricultural communities during migration and winter. Most Northern Shrikes are observed perched near the edge of wooded habitats and open fields or along fencerows and highway

rights-of-way. It's observed infrequently in coniferous habitat, including lowland coniferous forest and black spruce-tamarack bogs

Family Vireonidae

Bell's Vireo (*Vireo bellii*)—Accidental. Martin (1972) reported an observation by Alta Goff from near Hillsdale on 24 May 1970.

Yellow-throated Vireo (*Vireo flavifrons*)—An uncommon migrant and breeding species. Most Yellow-throated Vireos arrive in early May and reach peak abundance about 20 May. Fall migrants are most numerous in mid-late August and have departed by late September. Cutright et al. (2006) reported this vireo to be generally distributed throughout the county. During the breeding season, this species is most commonly found in mature deciduous forest and occasionally in coniferous forest.

Blue-headed Vireo (*Vireo solitarius*)—A fairly common migrant. Spring migrants arrive in early May and are most numerous about 15 May. Fall migration begins in mid-August. Peak abundance occurs in mid-September, with departure by 1 October. Murray Berner found 10 on 11 September 1985 (*Passenger Pigeon* 48: 143, 1986). Cutright et al. (2006) reported confirmed breeding from two quadrangles in north-central Barron County. Blue-headed Vireos occupy a variety of deciduous and coniferous forest types.

Warbling Vireo (*Vireo gilvus*)—A common migrant and breeding species. Spring migrants arrive in early May and are most numerous by 20 May. Fall migration begins in early August and most have departed by late September (latest, 2 October 1983 *Passenger Pigeon* 46: 120, 1984). Cutright et al. (2006) reported Warbling Vireos to be widely distributed during the breeding season. This species is characteristic of deciduous forest and deciduous clear cuts.

Philadelphia Vireo (*Vireo philadelphicus*)—A rare migrant. This is the latest arriving Vireo. Most arrive in mid-May and have departed by early June. Fall migrants arrive in mid-August and have departed by mid-September. Virtually all of my records of this species have been from regenerating quaking aspen forest.

Red-eyed Vireo (*Vireo olivaceus*)—A common migrant and breeding species. Spring arrivals are usually in mid-May with peak abundance by 25 May. Fall migration begins in late July, peak abundance is in mid-August, and most have departed by mid-September. Red-eyed Vireos are largely restricted to stands of mature deciduous forest.

Family Corvidae

Gray Jay (*Perisoreus canadensis*)—Casual. I observed one adult Gray Jay at the edge of a black spruce-tamarack forest near Mikana on 23 November 1976. It was feeding vigorously on the remains of a white-tailed deer (*Odocoileus virginianus*). Three more Gray Jays were in the same black spruce-tamarack wetland on 23 December 1977. In neither year was this species seen in any other season. One was reported with no details provided during the 1987–1988 winter (*Passenger Pigeon* 50: 255, 1988).

Blue Jay (*Cyanocitta cristata*)—A common migrant and breeding species; fairly common winter resident. The first migration movements in spring are usually noted in early April, with peak abundance about 1 May. Peak movements during fall occur in early September, and most migrants have departed by mid-November. Blue Jays are among the few conspicuous members of the winter avifauna. Bielefeldt (1974) compared relative abundances of Blue Jays on CBCs throughout Wisconsin. His analysis revealed that Barron County lies slightly north of the area of greatest winter abundance in Wisconsin. That abundance was closely related to the presence of oak forests in the state. We recorded from 26 to 142 Blue Jays each year on the Cedar Lake CBC between 1971 and 1978. Blue Jays use a variety of habitats for breeding, including deciduous and coniferous communities, edge situations, and ornamental plantings areas.

American Crow *(Corvus brachyrhynchos)*—A regular migrant, breeding species, and winter resident. Spring migration begins in mid-February, and the number of migrants gradually increases, reaching abundance in early April. Fall migration begins with flock formation in late August, and peak numbers occur during late September to mid-October. Most have departed by mid-November. American Crow is a common and well-distributed breeding species. It is primarily an edge species using several woodland habitat types. Most breeding habitat is further characterized by its association with agricultural fields or old fields. The occurrence of large farming operations and the resultant abundance of waste grains probably enhance conditions for wintering American Crows.

Common Raven (*Corvus corax*)—An uncommon permanent resident. At age six I heard a "funny crow" calling one June morning in 1958 while walking in a forest near Desair Lake. My grandfather, not the least bit trained in ornithology, told me that the difference between an American Crow's voice and that of Common Raven was that "the raven sounds like a crow with a cold." It's a description I have used for this species every subsequent time I have heard its voice. Breeding has been confirmed in the northwest corner of Barron County (Cutright et al. 2006). Common Ravens are undiscriminating in their use of habitats, even hunting in and over wetlands in winter.

Family Alaudidae

Horned Lark (*Eremophila alpestris*)—A common migrant and uncommon breeding species. The first spring migrants reach the county in late January and are most numerous during late February and early March. A flock of 200 Horned Larks was found 20 February 1977 on a plowed field 3 km east of Turtle Lake. Fall migrants are most conspicuous in mid-October and most have departed by mid-December. Nathan Carlsen reported 300 Horned Larks on 21 October 2002 (*Passenger Pigeon* 65: 86, 2003). The first wintering record was obtained from open agricultural fields east of Rice Lake during the brutal winter of 1976–1977. Since then Horned Larks have been recorded with increasing frequency, almost always in small groups. Cutright et al. (2006) re-

ported confirmed or probable breeding by this species in four Barron County quadrangles. Characteristically these were in the more heavily farmed part of the county where bare soil is much more prevalent. This species has adapted well to man's increased agricultural production, and breeding pairs regularly use bare cultivated fields.

Family Hirundinidae

Purple Martin (*Progne subis*)—A fairly common migrant and breeding species. Spring migrants arrive in mid-April and are most numerous during the first ten days of May. Fall migration begins in early August, with peak abundance during late August. Murray Berner found 125 in Barron County on 4 August 1985 (*Passenger Pigeon* 48: 141, 1986). Most have departed by 20 September (latest, 8 October 1982; *Passenger Pigeon* 45: 97, 1983). Cutright reported confirmed breeding in only four Barron County quadrangles. Colonial martin houses in residential and rural areas are quite important to this species.

Tree Swallow (*Tachycineta bicolor*)—A common migrant and breeding species. Spring migrants arrive during the first ten days of April and reach peak abundance by 30 April. Fall migration begins in late July. Peak fall abundance occurs in early September and most have departed by 10 October. Goff reported "thousands" on 10 September 1998 (*Passenger Pigeon* 61: 186, 1999). Tree Swallow is widely distributed throughout the county and especially near water bodies during the breeding season (Cutright et al. 2006). Tree Swallows nest in loose, semi-colonial associations. Extensive use is made of the edge between deciduous forest and natural openings or agricultural fields.

Northern Rough-winged Swallow (*Stelgidopteryx serripennis*)—A fairly common migrant and breeding species. Spring migrants arrive in mid-April and are most numerous in early May. Fall migration begins in late July with gatherings of family groups. Peak abundance occurs in early August with departure by 1 September. Breeding Northern Rough-winged Swallows are much more common in open areas near agricultural fields than they are in forested areas of the county. Breeding birds are usually associated with exposed banks along rivers and streams.

Bank Swallow (*Riparia riparia*)—A common migrant and breeding species. The first spring migrants arrive about 25 April (earliest, 13 April 1994; *Passenger Pigeon* 56: 275, 1994) and are most numerous in mid-May. Fall migration begins in late July and most have departed by late August (latest, 13 September 1987; *Passenger Pigeon* 50: 240, 1988). Breeding Bank Swallows are usually associated with natural banks along rivers, streams, and lakes. Gravel pits and roadside banks that were exposed during highway construction are also used.

Cliff Swallow (*Petrochelidon pyrrhonota*)—A common migrant and fairly common breeding species. Spring migrants return in late April and are most numerous in mid-May. Fall migration begins in late July with flock formation, and peak abundance is usually reached in mid-August. Most have departed by early September. The widespread breeding and subse-

quent distribution of Cliff Swallow in Barron County is a relatively recent phenomenon. Aumann and Emlen (1959) reported only three breeding colonies of Cliff Swallow in Barron County in 1957 and 1958. Cutright et al. (2006) reported it from 8 of 15 quadrangles. They found it absent from the southwest corner of the county near Prairie Farm. It is primarily a colonial or semi-colonial breeding species using barns, sheds, and bridges for nest placement.

Barn Swallow (*Hirundo rustica*)—A common migrant and breeding species. The first spring migrants arrive by 20 April (earliest, 14 April 2003; *Passenger Pigeon* 65: 312, 2003) and are most numerous the first week of May. Fall migration begins in late July when sometimes enormous flocks of this and other swallows can be found on electrical lines, particularly near large water bodies. Murray Berner found a peak of 325 Barn Swallows on 21 August 1985 (*Passenger Pigeon* 48: 141, 1986). Most have departed by mid-September (latest, 12 October 1974 *Passenger Pigeon* 37: 128, 1975). Cutright et al. (2006) reported confirmed breeding in all but one Barron County quadrangle. This is primarily a species of open habitats, usually associated with human habitation. Most nests are found under bridges or on buildings

Family Paridae

Black-capped Chickadee (*Poecile atricapillus*)—An abundant permanent resident. Next to the American Robin this species is probably the most commonly recognized passerine. I recorded 209 Black-capped Chickadees on 26 December 1975 and 192 on 26 December 1976. The Black-capped Chickadee is rather cosmopolitan in its choice of habitats during the breeding season. Extensive use is made of northern hardwood forest, primarily stands of medium-aged mixed forest that is dominated by sugar maple, basswood, and scattered white pine. Also important are coniferous forest, black spruce-tamarack bog, and remnant stands of white pine.

Boreal Chickadee (*Poecile hudsonica*)—Casual winter visitor. One was reported from the Barron CBC during late December 1967 (*Passenger Pigeon* 29: 139, 1967). I found one in an extensive area of black spruce and tamarack southwest of Mikana on 23 December 1978 (*Passenger Pigeon* 41: 11, 1979).

Tufted Titmouse (*Baeolophus bicolor*)—A rare permanent resident. The first county record was a bird on 17 May 1958 (*Passenger Pigeon* 21: 164, 1959). Another was reported as wintering during the 1961–1962 winter (*Passenger Pigeon* 24: 99, 1962). By the late 1960s, Young (1967) reported that the frequency of Tufted Titmice on Barron County CBCs was <0.1 bird per party hour. This was similar to other Wisconsin Counties north of Curtis' (1959) "Tension Zone." One was found on the Barron CBC on 28 December 1968. Eugene Butler found a nest with young on 16 May 1957 (*Passenger Pigeon* 19: 135, 1957). At the time this was likely one of the most northerly breeding records of this species in Wisconsin. Tufted Titmouse was not recorded during thorough searching of the county during the WBBA effort in 1995 through 2000. More recently, Nathan Carlsen re-

ported it on 18 May 2002 (*Passenger Pigeon* 64: 298, 2002). Carlsen (pers. comm.) has found Tufted Titmouse most regularly at Veterans Memorial Park southeast of Cameron along Prairie Lake. Tufted Titmouse is usually associated with mature deciduous forest along large streams and rivers.

Family Sittidae

Red-breasted Nuthatch (*Sitta canadensis*)—An irruptive species. Red-breasted Nuthatch is usually an uncommon migrant and winter resident. It is also a rare breeding species. During years of peak migration, Red-breasted Nuthatches are common to locally abundant. In years when this species stages a major population influx, the first migrants may arrive by mid-July and numbers build gradually through early October. Peak spring migration occurs from mid-March through mid-April, and most have departed by mid-May. John Butler found one on 20 May 1955 (*Passenger Pigeon* 17: 171, 1955). Cutright et al. (2006) reported Red-breasted Nuthatches breeding in the extreme northeast corner of the county. Winter abundance is likewise cyclical. We recorded 109 Red-breasted Nuthatches on the Cedar Lake CBC, 23 December 1977. The bulk of these birds were in and near a remnant patch of virgin white pine in Bandli Park, 3 km north of Canton. During the 1976 CBC we recorded zero Red-breasted Nuthatches, and during the 1978 count we recorded one. The Red-breasted Nuthatch is characteristic of coniferous forest that supports black spruce, tamarack, and yellow birch.

White-breasted Nuthatch (*Sitta carolinensis*)—A fairly common permanent resident. Cutright et al. (2006) reported it breeding in all but one Barron County quadrangle. White-breasted Nuthatch is primarily a species of deciduous forest. It is rarely encountered during the breeding season in pure coniferous forest. Although nests are frequently placed in coniferous trees, breeding pairs are usually associated with extensive mixed deciduous-coniferous forest.

Family Certhiidae

Brown Creeper (*Certhia americana*)—An uncommon migrant and rare breeding species. Spring migrants are most common in mid-late April and have departed by mid-May. Fall migrants arrive in early September. Alta Goff reported it present on 1 August 1969 (*Passenger Pigeon* 32: 171, 1970). Most have departed by the end of November. We recorded it on the Cedar Lake CBC during late December in 1973, 1974, 1976, and 1977. One wintered during 1972–1973 (*Passenger Pigeon* 35: 156, 1973) and another during 1984–1985 (*Passenger Pigeon* 47: 147, 1985). It was reported breeding in one WBBA quadrangle (Cutright et al. 2006). Most of my observations have been confined to extensive stands of northern hardwood forest that are dominated by sugar maple, basswood, white birch, and quaking aspen.

Family Troglodytidae

Carolina Wren (*Thryothorus ludovicianus*)—Accidental. Pete DeLong reported that a single Carolina Wren remained at a Barron County feeder from 1 December 1966 through at least 31 January 1997 (*Passenger Pigeon* 59: 228, 1997).

House Wren (*Troglodytes aedon*)—A common migrant and breeding species. Spring migrants arrive during the last week of April (earliest, 17 April 2004; *Passenger Pigeon* 66: 414, 2004) and are most numerous during mid-May. Peak fall migration occurs during early September and most have departed by 10 October (*Passenger Pigeon* 32: 171, 1970). Cutright et al. (2006) reported that breeding House Wrens were found in all but two of Barron County's 15 quadrangles. This is a characteristic species of mature deciduous forest, old fields, and deciduous clear cuts.

Winter Wren (*Troglodytes troglodytes*)—A fairly common migrant and probable breeding species. Spring migrants arrive in mid-April and are most numerous in the first ten days of May. Fall migration begins in late August. Peak fall abundance occurs during early October with departure by 1 November. During 1968 through 1977 I consistently recorded this species on an apparent territory along Pigeon Creek, 300 m upstream from its confluence with Red Cedar Lake (Section 12, Cedar Lake Township). Despite diligent searches I did not find a nest, nor did I see adults carrying food. In an exhaustive analysis of Winter Wren distribution and occurrence in Wisconsin, Wolf and Howe (1990) reported that there were no confirmed or published records of this species in Barron County. Those authors, however, showed that Winter Wren was present in the breeding season in Burnett, Chippewa, and Sawyer Counties, each bordering Barron County. Much later, Cutright et al. (2006) reported Winter Wren as a probable breeding species in the northeastern corner of Barron County, possibly from the area where I recorded it more than 30 years earlier. Winter Wren is a characteristic species of coniferous forest dominated by black spruce, balsam fir (*Abies balsamea*), and yellow birch. Migrating Winter Wrens make extensive use of regenerating quaking aspen clear cuts.

Sedge Wren (*Cistothorus platensis*)—A fairly common migrant and breeding species; quite variable in annual abundance. Spring migrants arrive in early May. One reported by Alta Goff on 5 April 1988 was remarkably early (*Passenger Pigeon* 50: 351, 1988). Peak abundance occurs during late May and early June. Fall migration begins during early August with a gradual exodus from breeding areas. Peak fall migration occurs in early September, with departure by 1 October. I found one in the Bear Lake sedge meadow on 11 October 1975 (*Passenger Pigeon* 38: 122, 1976). Sedge Wren is widely distributed during the breeding season (Cutright et al. 2006). This species is found most frequently in sedge meadow dominated by tussock sedge (*Carex stricta*), manna grass (*Glyceria canadensis*), and bluejoint grass (*Calamagrostis canadensis*).

Marsh Wren (*Cistothorus palustris*)—An uncommon migrant and breeding species. Spring migrants arrive in the first 10 days of May. Fall migration begins in late August, with most departing by late September. Marsh Wren is a characteristic breeding species of seasonally and semipermanently flooded wetlands and lakes. The principal vegetation associated with its habitat includes cattail, hardstem bulrush (*Scirpus acutus*), river bulrush, burreed (*Sparganium eurycarpum*), and

reed canary grass. This species is occasionally found in the breeding season in emergent vegetation along rivers.

Family Regulidae

Golden-crowned Kinglet (*Regulus satrapa*)—A fairly common migrant; one mid-winter record. Spring migrants are most conspicuous from late March through late April, with most departing by 10 May. Janelle Humphrey reported this species still present on 31 May 1979 (*Passenger Pigeon* 42: 39, 1980). Fall migrants arrive in early September and most have departed by 1 December. I recorded one near Mikana on 23 December 1977. One rather puzzling bird was recorded on 18 February 1975 (*Passenger Pigeon* 37: 163, 1975). This could have been a bird that over-wintered or more likely an extremely early migrant. This species is most commonly recorded in coniferous habitats including black spruce bogs, and in pine plantations.

Ruby-crowned Kinglet (*Regulus calendula*)—Spring migrants arrive in late April (earliest, 13 April 1975; *Passenger Pigeon* 38: 47, 1976) and most have departed by 20 May. One reported during "early June" 2000 (*Passenger Pigeon* 62: 347, 2000) was unusual. Fall migrants arrive in early September. Alta Goff reported one on the remarkable date of 1 August 1969 (*Passenger Pigeon* 32: 172, 1970). They are most numerous by 20 September and have departed by mid-October. On migration this species uses both deciduous and coniferous communities. During these periods, they appear to prefer brushy communities including deciduous clear cuts.

Family Sylviidae

Blue-gray Gnatcatcher (*Polioptila caerulea*)—This is one of the most enigmatic species recorded in Barron County. John Butler observed the first county record on 6 May, 1955 (*Passenger Pigeon* 17: 172, 1955). Another was recorded on 19 May 1957 (*Passenger Pigeon* 19: 136, 1957). In subsequent years there were sporadic observations in the 1970s and 1980s, but not enough information existed to determine migration patterns or breeding status. However, Cutright et al. (2006) reported confirmed or probable breeding in three central Barron County quadrangles and in one southeastern quadrangle. Nathan Carlsen (pers. comm.) has recorded Blue-gray Gnatcatchers occasionally at the Barron Golf Course. The range of this species, once considered closely aligned with the Tension Zone of Curtis (1959), is obviously expanding (see Cutright et al. 2006). Areas of extensive deciduous forest near large streams and rivers should be monitored to determine if Blue-gray Gnatcatcher occurs more frequently and becomes more widespread as a breeding species.

Family Turdidae

Eastern Bluebird (*Sialia sialis*)—A common migrant and breeding species. Spring migrants arrive in early April, and peak numbers are observed during the last two weeks of April. Fall migration begins with the formation of loose family groups in mid-August. Peak fall abundance occurs in late September, with departure by 1 November. Cutright et al. (2006) reported confirmed breeding by East-

ern Bluebirds in 13 of 15 Barron County quadrangles. Eastern Bluebird is a characteristic species of fencerows, early successional stage deciduous forest, and deciduous clear cuts.

Veery (*Catharus fuscescens*)—A common migrant and breeding species. Spring migrants arrive about 5 May, with peak abundance from 15 to 20 May. Fall migration begins in early August. Peak abundance occurs about 1 September with departure by 1 October. Murray Berner reported an astonishing 100 Veeries on 9 September 1985 (*Passenger Pigeon* 48: 142, 1986). Cutright et al. (2006) reported Veeries breeding along the eastern and western boundaries of the county; it was largely absent from the more heavily farmed central area. Veery is primarily a species of various age classes of moist deciduous forest including mature stands dominated by sugar maple, basswood, quaking aspen, and white birch. Shrub carr, alder thicket, and black spruce-tamarack bogs are also used.

Gray-cheeked Thrush (*Catharus minimus*)—An uncommon migrant. Spring migrants arrive about 10 May. Remarkably early was the bird Alta Goff observed on 17 April 1979 (*Passenger Pigeon* 42: 38, 1980). Peak migration occurs rapidly and most have departed by 5 June. Fall migrants arrive in mid-August (earliest, 1 August 1982; (*Passenger Pigeon* 45: 98, 1983). Peak fall migration occurs during mid-September, with departure by 1 October. The latest county record was a bird observed on 8 October 2001 (*Passenger Pigeon* 63: 56, 2001). Gray-cheeked Thrush is largely restricted to mature tracts of deciduous and coniferous forests.

Swainson's Thrush (*Catharus ustulatus*)—A common migrant. Most spring migrants arrive about 25 April (earliest, 17 April 1979; *Passenger Pigeon* 42: 38, 1980), reaching peak abundance about 10 May. Most have departed by 25 May (latest, 31 May 1975; *Passenger Pigeon* 39: 195, 1977). Fall migrants arrive in early August (earliest, 27 July 1974; *Passenger Pigeon* 36: 27, 1975), reaching peak abundance in early September. Most have departed by 1 October. Swainson's Thrushes use deciduous and coniferous forests.

Hermit Thrush (*Catharus guttatus*)—A common migrant and possible breeding species. This is the first of the *Catharus* thrushes to arrive in spring, some returning as early as the last week of March. Peak numbers occur in late April, and most have departed by 10 May. Fall migrants arrive in late August, reaching peak abundance in mid-September and have departed by late October (latest, 29 October 1976; *Passenger Pigeon* 39: 293, 1977). Cutright et al. (2006) reported this species as a probable breeding species in the northeastern corner of Barron County. I recorded this thrush on territory during June and July 1969 through 1977 in a spruce-tamarack forest along an unnamed stream in Section 21 of Cedar Lake Township, about 1 km southwest of Mikana. Despite repeated searches I was never able to find a nest. This species is characteristic of wet coniferous-deciduous forests. Its ethereal voice is one of the most pleasant sounds in Barron County forests in spring.

Wood Thrush (*Hylocichla mustelina*)—A fairly common migrant and breeding species. Spring migrants

aren't usually recorded until late April and are most frequent in early May. Fall migrants are most numerous in late August, and most have departed by mid-September. Alta Goff reported one on 8 October 1999 (*Passenger Pigeon* 62: 65, 2000) and on 8 October 2000 (*Passenger Pigeon* 63: 56, 2001). Cutright et al. (2006) found Wood Thrush to be widely distributed throughout Barron County. This species uses northern hardwood forest and is occasionally found in lowland coniferous forest. In all instances Wood Thrushes appear to select woodlands with a closed canopy of mature trees.

American Robin (*Turdus migratorius*)—A common migrant and breeding species. Spring migrants arrive in early March (earliest, 25 February 1966) and are most numerous in early April. Fall migrants are most numerous in mid-September and most have departed by mid-November. I recorded one on 26 December 1976, during the Cedar Lake CBC. Breeding has been confirmed throughout the county (Cutright et al. 2006). Breeding American Robins are found in nearly all habitat types except wetlands. This species has adapted well to man's continued alteration of the landscape and is a common breeding species in residential areas. The establishment of pine plantations has provided increased areas of breeding habitat.

Varied Thrush (*Ixoreus naevius*)—Casual. One remained at Alta Goff's feeder near Hillsdale from 2 December 1984 through 28 February 1985 (*Passenger Pigeon* 47: 148, 1985). Another was reported by Gloria Worden during "late November" 1994 (*Passenger Pigeon* 57: 110, 1995).

Family Mimidae

Gray Catbird (*Dumetella carolinensis*)—A common migrant and breeding species. Spring migrants arrive during the first ten days of May and reach peak abundance by 20 May. Fall migration begins in mid-August, with peak abundance in early September. Most have departed by 30 September. Cutright et al. (2006) reported Gray Catbirds breeding in each of Barron County's 15 quadrangles. This is primarily a species of deciduous forest edge habitats. Important among these are second-growth northern hardwood forest, deciduous clear cuts, old field, and fencerows; black spruce-tamarack bogs receive limited use. Ornamental shrubbery is used frequently in residential areas.

Northern Mockingbird (*Mimus polyglottos*)—Accidental. Sam Robbins observed a Northern Mockingbird on 21 May 1981 (*Passenger Pigeon* 44: 34, 1982).

Brown Thrasher (*Toxostoma rufum*)—A fairly common migrant and breeding species. Spring migrants begin arriving in late April and are most conspicuous by 10 May. Fall migration begins in mid-August, and most Brown Thrashers have departed by 1 October. Jackson (1943) reported this species as "not common" in northwestern Wisconsin in 1919. That status changed rapidly as much of the forested area of Wisconsin was cleared for agricultural purposes, and an abundance of brushy fence rows and similar edge habitats was established. This is primarily a species of natural

clearings in forests, in old fields, and in deciduous clear cuts. The status of this species should be closely monitored as more brushy habitats and old fields are converted to human habitation and as agricultural fields expand.

Family Sturnidae

European Starling (*Sturnus vulgaris*)—Introduced. Ralph Hopkins reported the first European Starlings from Barron County (in Cumberland) during June 1936, with a second group there on 15 August 1936 (*Passenger Pigeon* 1: 140, 1939). They are now an abundant migrant and breeding species; it's fairly common in winter. Large increases in the number of European Starlings occur from late February through mid-March. During fall migration flocks begin forming in early August and peak movements occur from mid-September to mid-October. European Starlings nest in cavities in a variety of vegetation types. They also use residential buildings and nest boxes erected for other species.

Family Motacillidae

American Pipit (*Anthus rubescens*)—An uncommon and local migrant. Most spring migrants are observed during late April and early May. Nathan Carlsen reported American Pipits on 22 May 2003 (*Passenger Pigeon* 65: 313, 2003). Fall migrants are usually found from late August until mid-October. Eugene Butler observed this species from 20 September to 24 October 1957, with a peak on 7 October (*Passenger Pigeon* 20: 40, 1958). Nathan Carlsen observed 80 on 22 October 2001 (*Passenger Pigeon* 64: 103, 2002). Primary habitat use is of seasonally flooded wetlands, agricultural fields, and the edges of small water impoundments. During fall migration this species is especially numerous in recently plowed agricultural fields.

Family Bombycillidae

Bohemian Waxwing (*Bombycilla garrulus*)—Casual. Eugene Butler recorded a single bird in Barron County on 1 January 1962, a year of an unprecedented irruption of this species into Wisconsin (*Passenger Pigeon* 24: 100, 1962). I observed a flock of 15 in a mountain ash (*Sorbus americana*) on South Wisconsin Avenue in Rice Lake on 2 March 1975 (*Passenger Pigeon* 37: 163, 1975). Janelle Humphrey reported this species from 1 to 10 March 1982 (*Passenger Pigeon* 44: 34, 1982).

Cedar Waxwing (*Bombycilla cedrorum*)—A common migrant and fairly common but widespread breeding species. One winter record. In most years Cedar Waxwings aren't observed in spring until late April and then sometimes aren't numerous until late May or early June. Fall migration can be equally as diffuse but usually occurs from late August until mid-November. This species remained through the winter of 1975–1976 (*Passenger Pigeon* 38: 149, 1976). Cutright et al. (2006) reported breeding Cedar Waxwings from 13 of 15 Barron County quadrangles. Cedar Waxwing is primarily a species of deciduous forests and black spruce-tamarack bogs.

Family Parulidae

Blue-winged Warbler (*Vermivora pinus*)—A rare migrant and nesting

species. This is a recent addition to the Barron County avifauna. Based on sight records and specimens from adjacent counties, Southern (1962b) inferred that Barron County was within its range. However at that time there were no confirmed records. The next mention of it was one Alta Goff reported (no detail on dates or locations) during the 1994 breeding season (*Passenger Pigeon* 57: 48, 1995). Later, Cutright et al. (2006) reported confirmed breeding by this species in two quadrangles in the southwest corner of Barron County and probable breeding in three other quadrangles. One migrant was reported on 21 May 2002 (*Passenger Pigeon* 64: 300, 2002). In nearby Pierce and St. Croix Counties this species is characteristic of extensive areas of lowland deciduous forest, usually along major water courses (Faanes 1981).

Golden-winged Warbler (*Vermivora chrysoptera*)—An uncommon migrant and breeding species. The first spring migrants arrive in early May and are most numerous in mid-May. Fall migration begins in early August, and most have departed by mid-September (latest, 28 September 1974 *Passenger Pigeon* 37: 129, 1975). Southern (1962b) included Barron County in the range of this species and cited two historical records: 22 June 1953 (*Passenger Pigeon* 14: 179) and 12 May 1956 (*Passenger Pigeon* 18: 136). In the mid-1970s I found this species breeding regularly in a quaking aspen forest that was regenerating after a recent clear cut. Later, Cutright et al. (2006) reported confirmed or probable breeding by Golden-winged Warblers in 10 of 15 Barron County quadrangles. Golden-winged Warbler is characteristic of second-growth deciduous forest in early developmental stages. Data from a study area near Mikana in the mid-1970s show that largest densities occur in recent deciduous clear cuts (9 pairs per 40 ha). This density decreases to < 0.1 pair per 40 ha in mature quaking aspen forest. Breeding Golden-winged Warblers also use brushy edges of retired agricultural fields, openings in spruce woods, and black spruce-tamarack bogs.

"Lawrence's Warbler"–Berner reported one in Barron County on 6 July 1985 (*Passenger Pigeon* 48: 87, 1986). This is the only county record of either of the hybrids of Blue-winged Warbler and Golden-winged Warbler.

Tennessee Warbler (*Vermivora peregrina*)—A common migrant. The first migrants arrive in early May (earliest, 1 May 1981; *Passenger Pigeon* 44: 35, 1982), and are most numerous by 20 May. Most have departed by 1 June (latest, 5 June 1983; *Passenger Pigeon* 46: 88, 1984). Fall migrants return in mid-August and are most numerous in late August. Murray Berner recorded 33 on 25 August 1985 (*Passenger Pigeon* 48: 143, 1986). Most have departed by late September (latest, 26 October 1978; *Passenger Pigeon* 41: 172, 1979). Migrant Tennessee Warblers regularly use both deciduous and coniferous woods and residential shrubbery.

Orange-crowned Warbler (*Vermivora celata*)—An uncommon spring and fairly common fall migrant. Alta Goff reported a very early migrant on 19 April 1982 (*Passenger Pigeon* 45: 34, 1983). Most arrive in early May and have departed by 25 May. The earliest fall record is 12 August 1972 (*Passen-*

ger Pigeon 35: 145, 1973). This species is most numerous in late August and most have departed by 1 October (latest, 21 October 1975; *Passenger Pigeon* 38: 123, 1976). Most observations of Orange-crowned Warblers have been in early successional stage deciduous woods.

Nashville Warbler (*Vermivora ruficapilla*)—A fairly common migrant and breeding species. Most spring migrants arrive in early May (earliest, 2 May 1957; *Passenger Pigeon* 19: 137, 1957) and are most numerous by 20 May. Fall migrants are most numerous in late August. Murray Berner reported 31 on 25 August 1985 (*Passenger Pigeon* 48: 143, 1986). Most have departed by mid-September. Cutright et al. (2006) reported confirmed breeding in one eastern Barron County quadrangle and probable breeding in two quadrangles in the northwest corner. During 1972 through 1978, I recorded a density of 2.0 pairs per hectare in a black spruce–tamarack bog south of Lake Montanis. This was the most numerous breeding species in that bog at that time. Migrants are found in a variety of deciduous and coniferous habitats. Breeding birds are largely restricted to coniferous forests, especially black spruce and tamarack.

Northern Parula (*Parula americana*)—A fairly common migrant; one summer record. Spring migrants arrive in early May, and most have departed by 25 May. One was reported on 12 July 1961 (*Passenger Pigeon* 24: 27, 1962). Fall migrants arrive in mid-August and are most numerous in the first 10 days of September. Most have departed by 25 September. Despite its apparent preference for coniferous habitats during breeding, most of my records of Northern Parula in Barron County are from deciduous forests, and especially quaking aspen that is regenerating after a recent clear cut.

Yellow Warbler (*Dendroica petechia*)—A common migrant and breeding species. Spring migrants arrive about 10 May and rapidly become numerous in wet forest habitats. Fall migration begins with dispersal from breeding areas in late July. Peak fall movements are noted in mid-August with departure in early September. This warbler appears to use a range of habitats, including second-growth deciduous and coniferous woodland, deciduous clear cuts, black spruce-tamarack bogs, alder thicket, shrub carr, and edges of various natural basin wetlands.

Chestnut-sided Warbler (*Dendroica pensylvanica*)—A fairly common migrant and breeding species. Most spring migrants arrive about 10 May. Nathan Carlsen reported this species on 6 May 2003 (*Passenger Pigeon* 65: 314, 2003). Migrants reach peak abundance about 25 May. Fall migrants are at peak abundance in late August. Murray Berner recorded 13 on 25 August 1985 (*Passenger Pigeon* 48: 143, 1986). Most have departed in fall by 20 September. Alta Goff reported one on 7 October 1995 (*Passenger Pigeon* 58: 194, 1996). Cutright et al. (2006) reported Chestnut-sided Warblers well-distributed throughout the county. Early successional stages of deciduous and coniferous habitats are used for breeding. Deciduous clear cuts that are predominantly quaking aspen support the greatest density of breeding Chestnut-sided Warblers. Deciduous forest that is dominated by

sugar maple and basswood is also important. Management by the Wisconsin Department of Natural Resources to retard vegetational succession by clear-cutting or selectively logging mature deciduous forest to benefit whitetailed deer and Ruffed Grouse is very beneficial for this warbler.

Magnolia Warbler *(Dendroica magnolia)*—A fairly common migrant. Spring migration is very compact between 5 and 20 May. Fall migration is more prolonged with peak numbers in late August and departure by late September. Migrant Magnolia Warblers occupy both deciduous and coniferous habitats. This species is most frequently encountered during migration in early successional stages of deciduous forest and in deciduous clear cuts. I regularly observed this species in mid-June 1974 and 1975 in an extensive black spruce-tamarack bog near Mikana. Because of the tenacity of the singing males and the time of year I have often suspected that this species was breeding in that area in those years. Cutright et al. (2006) reported confirmed Magnolia Warbler breeding records from as close as central Sawyer County, a linear distance of only 50 km. I believe that concentrated observations in the northeast corner of Barron County will result in confirmation of breeding activity in the near future.

Cape May Warbler (*Dendroica tigrina*)—An uncommon migrant; one summer record. Spring migrants arrive in early May (earliest, 6 May 2002; *Passenger Pigeon* 64: 300, 2002) and are most frequently observed from 10 to 20 May. Departure is usually by 30 May. Fall migrants are most numerous in late August and have departed by 20 September. Murray Berner found 12 on 27 August 1985 *Passenger Pigeon* 48: 143, 1986. Cutright et al. (2006) reported confirmed breeding by Cape May Warbler in the southeastern Washburn County quadrangle adjacent to Barron County. I recorded a singing male Cape May Warbler in the Lake Montanis bog (Section 35, Rice Lake Township) on 15 June 1974. Because it was recorded only on that one day during the breeding season, I suspect it was an extremely tardy migrant. Most migrants are found in early successional stage deciduous forest.

Black-throated Blue Warbler (*Dendroica caerulescens*)—Casual. The first record was a fall migrant on 20 September 1972 (*Passenger Pigeon* 35: 145, 1973). My only record was a singing male on 31 May 1979 (*Passenger Pigeon* 42: 40, 1980). Janelle Humphrey reported this species from Barron County during the 1983 breeding season (*Passenger Pigeon* 46: 89, 1984) but unfortunately there was no information provided on location or dates for her observations.

Yellow-rumped Warbler (*Dendroica coronata*)—An abundant migrant and uncommon breeding species. Spring migrants arrive in mid-April (earliest 12 April 1955; *Passenger Pigeon* 17: 131, 1955) and are most numerous by 5 May. Most have departed by 20 May. Fall migrants arrive in early September, reach peak abundance in mid-September, and have largely departed by 5 October. One observed near Hillsdale through December 1976 finally succumbed to the cold on 24 December (*Passenger Pigeon* 39: 339, 1977). Cutright et al. (2006) reported confirmed or probable breeding in

three Barron County quadrangles including the one that overlays Cedar Lake township in the northeastern corner. I regularly recorded Yellow-rumped Warblers during June and early July in several black spruce and tamarack forests west and east of Mikana. However, I was never able to find a nest or dependent young. This species' habitat use is generalized in fall migration.

Black-throated Green Warbler (*Dendroica virens*)—A fairly common migrant and probable breeding species. Spring migrants arrive about 10 May and have largely departed by 30 May. Fall migrants are most numerous in mid-August and have departed by mid-September. Cutright et al. (2006) reported probable breeding by this species in the northeastern and northwestern corners of the county. Mature northern hardwood forest dominated by sugar maple, basswood, and quaking aspen is used extensively.

Blackburnian Warbler (*Dendroica fusca*)—An uncommon migrant and probable breeding species. Most spring migrants arrive about 5 May and have largely departed by 25 May. Fall migrants arrive in mid-August, reach peak abundance in early September and have departed by 20 September. Cutright et al. (2006) reported probable breeding in the northeastern corner of Barron County. Blackburnian Warbler is characteristic of northern coniferous forests.

Pine Warbler (*Dendroica pinus*)—A fairly common migrant and breeding species. Spring migrants arrive in early May and are most numerous by 20 May. Fall migrants are most numerous in late August and have departed by 30 September. Cutright et al. (2006) reported probable breeding in four Barron County quadrangles, and confirmed breeding in one. Pine Warbler is a characteristic species of pine forests, especially remnant white pine and also red pine (*Pinus resinosa*) forests.

Kirtland's Warbler (*Dendroica kirtlandii*)—Hypothetical. An intriguing sighting was made of a probable Kirtland's Warbler on 8 May 2004. This record was not accepted by the Records Committee (*Passenger Pigeon* 66: 440, 2004). The Records Committee rejected the record because Canada Warbler (*Wilsonia canadensis*) was not eliminated from consideration. The fact that the bird was observed tail wagging (something all Kirtland's Warblers do) makes the record more believable. However the lack of reference to the back color and the breast streaking render the observation unacceptable. Lending credence to the likelihood of this sighting being correct are the confirmed records of Kirtland's Warbler in Washburn County during June 1988 and 1992. With the recent expansion in the breeding population in Michigan, and the first breeding record for Wisconsin in 2007, it would be wise to pay attention in Barron County to dark-backed, yellow-breasted, tail-wagging warblers. This species is not included in the county list total.

Prairie Warbler (*Dendroica discolor*)—Accidental. Eugene Butler carefully studied a Prairie Warbler on 4 October 1956 (*Passenger Pigeon* 19: 42, 1957). This is not only the lone record for the county but one that is

quite late for this species in Wisconsin.

Palm Warbler (*Dendroica palmarum*)—A common migrant. Spring migrants arrive in late April (earliest, 17 April 2003; *Passenger Pigeon* 65: 315, 2003). They are most numerous by 10 May and have departed by 25 May. Fall migrants arrive in late August and are most numerous in mid-September. Murray Berner found 31 on 16 September 1985 (*Passenger Pigeon* 48: 144, 1986). Departure in fall is by 1 October. Palm Warblers occupy medium-aged deciduous forest extensively while on migration. Lowland coniferous forest, black spruce-tamarack bogs, and sedge meadow are also important.

Bay-breasted Warbler (*Dendroica castanea*)—A rare and irregular migrant. Spring migrants arrive about 10 May and have departed by 25 May. Fall migrants are most numerous in early September and have departed by 25 September. Murray Berner found a remarkable 28 Bay-breasted Warblers on 16 September 1985 (*Passenger Pigeon* 48: 144, 1986). An excellent year in Barron County is finding five Bay-breasted Warblers during migration. Migrant Bay-breasted Warblers are most commonly recorded in coniferous forest but also occur (at least in spring) in quaking aspen forest.

Blackpoll Warbler (*Dendroica striata*)—A common spring migrant; rare in fall. Spring migrants arrive in early to mid-May and are most numerous from 20 to 30 May. Most have departed by 5 June. Fall migrants arrive in mid-August and have departed by mid-September (latest 3 October 1985; *Passenger Pigeon* 48: 144, 1986). This warbler is most numerous in mature deciduous forest.

Cerulean Warbler (*Dendroica cerulea*)—A casual migrant and possible summer resident. There are no discernible patterns to its occurrence. The first county record was obtained by John and Eugene Butler and Bob Weise who reported one on 17 May 1958 (*Passenger Pigeon* 21: 167, 1959). It was reported with no accompanying information from Barron County during the summer of 1961 (*Passenger Pigeon* 24: 27, 1962). Sam Robbins observed one during mid-May (no date given) 1962 (*Passenger Pigeon* 24: 146, 1962). Southern (1962a) described the first nest of a Cerulean Warbler in Wisconsin from the Audubon Camp near Sarona, Washburn County, in 1960 and another nest there in 1961. This area is less than 10 km from Barron County. Sam Robbins reported one on 7 July 1968 (*Passenger Pigeon* 31: 249, 1969). Randy Hoffman (pers. comm.) found three territorial male Cerulean Warblers along Spring Creek in Rusk County less than 300 meters from the Barron County border. Fall migrants have been reported on 28 August 1980 (*Passenger Pigeon* 43: 133, 1981), 24–25 August 1985 (*Passenger Pigeon* 48: 144, 1986), and 26 September 1979 (*Passenger Pigeon* 42: 116, 1980).

Black-and-white Warbler (*Mniotilta varia*)—A fairly common migrant and breeding species. Most migrants arrive in early May (John Butler found one on 29 April 1955 *Passenger Pigeon* 17: 130, 1955) and are most numerous about 20 May. Fall migrants are most numerous in mid-August and most have departed by 20 September. Alta Goff recorded one on 4 October 2003

(*Passenger Pigeon* 66: 146, 2004). Cutright et al. (2006) reported breeding Black-and-white Warblers widely distributed throughout the county. Migrants make heavy use of early successional stage deciduous forest. Territorial males during the breeding season show a preference for mature deciduous forest characterized by extensive stands of sugar maple and basswood. This species also occupies black spruce-tamarack bogs, and white cedar (*Thuja occidentalis*) stands.

American Redstart (*Setophaga ruticilla*)—A common migrant and breeding species. Spring migrants arrive in early May and are most numerous by 15 May. Fall migrants are most numerous in late August and most have departed by 25 September (latest, 10 October 1975; *Passenger Pigeon* 38: 124, 1976). Cutright et al. (2006) reported breeding American Redstarts to be widely distributed. This species is found most regularly in medium-aged to deciduous forest that is dominated by basswood, sugar maple, and white birch.

Prothonotary Warbler (*Protonotaria citrea*)—Accidental. I found one singing in an alder thicket along Rice Creek, 2 km northeast of Cameron on 5 July 1975 (*Passenger Pigeon* 38: 78, 1976).

Ovenbird (*Seiurus aurocapilla*)—A common migrant and breeding species. Spring migrants arrive in the first five days of May and are most numerous by 15 May. Fall migration begins in mid-August with a peak in abundance in early September. Most have departed by 5 October. Twelve were recorded by Murray Berner on 30 September 1985 (*Passenger Pigeon* 48: 144, 1986), a very late date for that many birds. Cutright et al. (2006) reported breeding Ovenbirds widely distributed with confirmed or probable breeding in 14 of 15 Barron County quadrangles. This was, by far, the most commonly recorded warbler along a road transect I maintained through the Mikana Swamp during 1973–1978. A characteristic breeding species of mature deciduous forest, where the predominant tree species include sugar maple, basswood, quaking aspen, and white birch. Banding records suggest that migrants make extensive use of regenerating quaking aspen.

Northern Waterthrush (*Seiurus noveboracensis*)—A fairly common migrant and probable breeding species. Spring migrants arrive in early May, reach peak abundance by 20 May, and have departed by 30 May. Fall migrants return in early August, reach peak abundance in early September and have departed by 20 September. I recorded this species annually during June 1974 through 1977 along Pigeon Creek near its confluence with Red Cedar Lake. Although I suspected breeding, I was never able to find a nest or fledged young. Cutright et al. (2006) reported probable breeding by this species in each of the Rusk County quadrangles bordering Barron County. This species uses a narrow range of wet habitats including black spruce forest, alder thicket, and sedge meadow that has been invaded with various shrubs including speckled alder and gray dogwood (*Cornus racemosa).* Deciduous clear cuts are used extensively during migration.

Louisiana Waterthrush (*Seiurus motacilla*)—Accidental. One was re-

ported with no dates or location information during spring migration in 1976 (*Passenger Pigeon* 39: 197, 1977). Randy Hoffman (pers. comm.) recorded this species along Spring Creek in Rusk County less than 300 m from the Barron County line in mid-June 1994.

Kentucky Warbler (*Oporornis formosus*)—Casual. Alta Goff observed a Kentucky Warbler in her yard near Hillsdale on 18 September 1971 (*Passenger Pigeon* 34: 119, 1972). She found another Kentucky Warbler on 11 September 1972 (*Passenger Pigeon* 35: 146, 1973) and a third Kentucky Warbler on 19 August 1999 (*Passenger Pigeon* 62: 66, 2000).

Connecticut Warbler (*Oporornis agilis*)—An uncommon migrant and rare breeding species. Connecticut Warbler is among the latest of the warblers to arrive in spring with most not appearing until after 15 May. Most have departed by 5 June. I banded two near Mikana on 24 May 1975. The few observations I have of Connecticut Warbler in fall are from early September. There are no other fall data. Alta Goff reported a nest and an adult feeding one young during the summer of 1970 (*Passenger Pigeon* 33: 95, 1971). Unfortunately no information was provided on the date(s) of observation or where the nest was located. Cutright et al. (2006) reported that the nearest breeding locations to Barron County in the late 1990s were in Burnett and Sawyer Counties. Migrants make extensive use of brushy edges and early successional deciduous forest.

Mourning Warbler (*Oporornis philadelphia*)—A fairly common migrant and breeding species. Most Mourning Warblers arrive about 15 May (earliest, 8 May 1976; *Passenger Pigeon* 39: 197, 1977), and are most numerous by 25 May. Fall migrants are most numerous in late August and have departed by 30 September. Cutright et al. (2006) found breeding Mourning Warblers widely distributed throughout the county. Characteristic habitat of this warbler appears to be areas of dense understory in mature stands of deciduous forest, such as those resulting from openings in the overstory that allow ample sunlight to penetrate. The edge between medium-aged quaking aspen forest and open fields or highway rights-of-way is also important habitat. Two nests located near Brill in the mid-1970s were each concealed under the large leaves of *Trillium grandiflorum.*

Common Yellowthroat (*Geothlypis trichas*)—A very common migrant and breeding species. Most migrant Common Yellowthroats arrive in early May and are most numerous by 20 May. Fall migrants are most numerous in early August (Murray Berner found 40 on 3 August 1985 *Passenger Pigeon* 48: 144, 1986). Most have departed by late September (latest, 28 October 1975; *Passenger Pigeon* 38: 123, 1976). Cutright et al. (2006) reported breeding Common Yellowthroats widely distributed with confirmed or probable breeding in all but one county quadrangle. This warbler most commonly occupies alder thickets, sedge meadows, tamarack bogs, black spruce forests, dry upland fields, and brushy areas. Extensive use is made of regenerating quaking aspen during migration.

Hooded Warbler (*Wilsonia citrina*)—Accidental. A male was singing vociferously from a patch of regenerating quaking aspen 4 km west of Mikana on 16 May 1974. Curiously, a singing male was found and tape recorded in Washburn County on 18 July 1974 (Passenger Pigeon 37: 29, 1975). That location is about 20 km north of where I recorded this species two months earlier.

Wilson's Warbler (*Wilsonia pusilla*)—An uncommon migrant in spring; fairly common in fall. The first spring migrants arrive in early May (earliest, 5 May 2004; *Passenger Pigeon* 66: 419, 2004), reaching peak abundance about 20 May. Most have departed by 30 May. Fall migrants arrive in mid-August, are most numerous in early September and have departed by 20 September. This species uses brushy fencerows, deciduous clear cuts, and medium-aged deciduous forest dominated by quaking aspen and white birch.

Canada Warbler (*Wilsonia canadensis*)—An uncommon migrant and breeding species. Spring migrants arrive in mid-May and are most numerous by 25 May. Most have departed by 5 June. Fall migrants arrive in early August, reach peak abundance in early September, and have departed by 20 September. The Canada Warbler reported by Alta Goff on 15 October 1969 (*Passenger Pigeon* 32: 173, 1970) is the latest departure date on record for Wisconsin (Domagalski 1999). Cutright et al. (2006) reported probable breeding in the northeast corner of Barron County, and confirmed breeding in the adjacent Rusk County quadrangle. Observations of this bird's habitat use suggest that brushy understory associated with deciduous forest is probably most regularly occupied. Deciduous clear cuts receive moderate use as does the brushy edge between forest and adjacent open areas.

Family Thraupidae

Scarlet Tanager *(Piranga olivacea)*—A fairly common migrant and breeding species. Spring migrants arrive about 5 May and are most numerous by 15 May. Peak fall migration occurs in mid- to late August with departure by 1 October. Scarlet Tanager is a characteristic breeding species of deciduous forest and appears to be most numerous in mature forests. Cutright et al. (2006) confirmed breeding by Scarlet Tanager along the border with Rusk County, and also reported probable breeding in seven other quadrangles.

Family Emberizidae

Eastern Towhee (*Pipilo erythrophthalmus*)—An uncommon migrant and breeding species. Spring migrants usually arrive in late April and are most numerous by mid-May. Fall migrants are most numerous in early September, and most have departed by mid-October. This species is widely distributed throughout the county during the breeding season. Typical breeding habitat includes semi-open stands of northern hardwood forest. Eastern Towhees can become particularly numerous where jack pine is present.

American Tree Sparrow (*Spizella arborea*)—A common migrant and regular winter resident. Fall migrants arrive in mid-September and are most

numerous by early November. More than 100 were recorded during the Barron CBC on 29 December 1963. One hundred thirty three were found on the Cedar Lake CBC on 23 December 1978. Peak spring migration occurs in late March and most have departed by 20 April. Alta Goff reported one on 29 April 1987 (*Passenger Pigeon* 50: 73, 1988). During migration this species uses agricultural fields, retired cropland, and wetland edges. During midwinter extensive use is made of retired croplands that support dense weedy patches.

Chipping Sparrow (*Spizella passerina*)—A common migrant and breeding species. Spring migrants arrive in mid-April and are most numerous by early May. Fall migrants reach peak abundance in mid-September and have departed by 15 October. Murray Berner found 32 in Barron County on 16 September 1985 (*Passenger Pigeon* 48: 145, 1986). Cutright et al. (2006) reported confirmed breeding by Chipping Sparrows from all but one Barron County quadrangle. It is primarily a breeding species of various coniferous habitats including lowland coniferous forest, black spruce-tamarack bogs, and jack pine. In residential areas this sparrow is common in ornamental shrubs.

Clay-colored Sparrow (*Spizella pallida*)—A fairly common migrant and breeding species. Most migrants arrive in early May (earliest, 25 April 1972 *Passenger Pigeon* 35: 30, 1973), and are most numerous by 15 May. Fall migrants are most numerous in early September and most have departed by mid-October (latest, 30 October 2003; *Passenger Pigeon* 66: 147, 2004). Clay-colored Sparrow is widely distributed throughout the county during the breeding season where it is primarily a species of edge situations including brushy fields. This species becomes numerous in recently burned areas or where there are relatively young conifer plantings. It is commonly associated with retired agricultural fields and old fields where coarse perennial weeds have become established.

Field Sparrow (*Spizella pusilla*)—A fairly common migrant and breeding species. Field Sparrows are much more widespread in the southern and western parts of the county away from more extensive forests. Spring migrants arrive in late April and are most numerous in mid-May. Fall migrants reach their largest numbers in early August and most have departed by mid-September. I found one Field Sparrow with a flock of American Tree Sparrows in a weedy ditch near Campia on 23 December 1978. Cutright et al. (2006) reported Field Sparrow more frequently as a breeding species in western Barron County. It is characteristic of retired fields where it is associated with early successional species including box elder, quaking aspen, staghorn sumac (*Rhus hirta*), and choke cherry (*Prunus virginianus*). During early stages of development, Field Sparrows are found regularly in pine plantations during the early states of their growth.

Vesper Sparrow (*Pooecetes gramineus*)—A fairly common migrant and breeding species. Most Vesper Sparrows arrive about 10 April (earliest, 1 April 1978 *Passenger Pigeon* 41: 38, 1979) and are most numerous in late April. Fall migrants are most numerous in mid-September and have de-

parted by mid-October. Cutright et al. (2006) reported breeding Vesper Sparrows most commonly in the southwestern corner of Barron County. This is a characteristic breeding species of edge situations including fencerows adjoining agricultural fields and the border of retired cropland with deciduous forest.

Lark Sparrow *(Chondestes grammacus)*—Accidental. I recorded a singing male in some scrubby jack pine near Barronett on 15 May 1971.

Savannah Sparrow (*Passerculus sandwichensis*)—A common migrant and breeding species. The first Savannah Sparrows arrive in early April and quickly occupy their preferred wetland and grassy habitat. They are most numerous by late April and nonbreeding birds have departed by mid-May. Fall migrants are most numerous in mid-September, and most have departed by late October. Janelle Humphrey reported a very late bird on 30 November 1979 (*Passenger Pigeon* 42: 118, 1980). Cutright et al. (2006) reported breeding Savannah Sparrows widely distributed throughout the county. This is a characteristic breeding species of various grassland communities including retired cropland, old field, highway rights-of-way, and lightly to moderately grazed tame pasture that is predominantly timothy or Kentucky bluegrass. Also important, although to a lesser degree, are alfalfa and oats (*Avena sativa*) fields, and they make extensive use of wet meadow habitats, primarily sedge meadow.

Grasshopper Sparrow (*Ammodramus savannarum*)—An uncommon and local migrant and breeding species. Most migrants arrive in late April and are most numerous in the first 10 days of May. Because of its secretive nature and inconspicuousness, few Grasshopper Sparrows have been recorded after the cessation of singing in late July. Cutright et al. (2006) reported Grasshopper Sparrows breeding in central and southwestern Barron County. The first nest I ever found was in a cattle pasture on our farm east of Rice Lake on 11 June 1968. Grasshopper Sparrow is primarily a species of various grassland communities. Important among these are retired croplands, unmowed highway rights-of-way, and lightly grazed tame pasture that are predominantly Kentucky bluegrass or timothy.

Henslow's Sparrow (*Ammodramus henslowii*)—Accidental. Alta Goff reported one on 1 August 1975 (*Passenger Pigeon* 38: 124, 1976).

Le Conte's Sparrow (*Ammodramus leconteii*)—A rare spring migrant and breeding species; three fall records. Spring migrants are usually recorded in mid-May. Barron County's first known record was near Barronett on 1 July 1963 (Robbins 1969). A singing male was found in an abandoned hayfield in Section 16 of Cedar Lake township on 24 May 1975. Another was in the same field on 22 May 1976 (*Passenger Pigeon* 39: 199, 1977). Sam Robbins found singing Le Conte's Sparrows on 21 May 1981 (*Passenger Pigeon* 44: 38, 1982). Randy Hoffman found 27 Le Conte's Sparrows in various locations on 25 June 1988 (*Passenger Pigeon* 51: 119, 1989). Hoffman (pers. comm.) reported this species in the Bear Lake Sedge Meadow along the road to the Boy Scout camp west of Haugen during mid-June 1992,

1994, 1995, 2002, 2004, and 2007. Cutright et al. (2006) reported that this species was confirmed breeding in west-central Barron County near Turtle Lake. Murray Berner reported one on 16 August 1985, 4 on 20 August 1985, and one on 28 September 1985 (*Passenger Pigeon* 48: 145, 1986). This species has been found almost exclusively in abandoned hayfields and in extensive areas of sedge meadow.

Nelson's Sharp-tailed Sparrow (*Ammodramus nelsoni*)—Casual. I recorded this sparrow three times in spring from the Bear Lake Sedge Meadow west of Haugen. The first record was a singing male late in the evening of 20 May 1975. Another male was found here on 29 May 1979. My third record was also a singing male on 17 May 1996. All three records were obtained from sedge wetland adjacent to the road to the Boy Scout camp. With the frequency this species is being recorded in similar habitat at the Crex Meadows WMA in Burnett County, increased efforts should be placed on searching this sedge meadow for this species. My past efforts to find Nelson's Sharp-tailed Sparrow here in summer have failed; the Bear Lake Sedge Meadow may only serve as a spring migration stopover site.

Fox Sparrow (*Passerella iliaca*)—A fairly common migrant. Spring migration begins in mid-March, reaching peak abundance in early April. Most Fox Sparrows have departed by 5 May. Fall migrants return in late September (earliest, 21 September 1957; *Passenger Pigeon* 20: 45, 1958), and reach peak abundance in mid-October. Murray Berner found 16 on 8 October 1985 (*Passenger Pigeon* 48: 145, 1986). Most fall migrants have departed by 10 November. Participants on the Barron CBC recorded one Fox Sparrow on 2 January 1966. Whether this bird remained to spend the winter is open to speculation. Fox Sparrows use brushy edges and heavy undergrowth in deciduous forest made up mainly of quaking aspen, sugar maple, basswood, white birch, and green ash. I banded several in a patch of young quaking aspen that was regenerating after a clear cut.

Song Sparrow (*Melospiza melodia*)—A common migrant and breeding species. Spring migrants return in late March and are most numerous by late April. Fall migrants reach peak abundance in September and most have departed by 10 November (latest, 30 November 1976; *Passenger Pigeon* 39: 296, 1977). Cutright et al. (2006) confirmed breeding in all but one Barron County quadrangle. This species uses a great variety of habitats, including shrub carr, alder thicket, retired agricultural fields, old field, highway rights-of-way, and brushy openings in upland deciduous forest.

Lincoln's Sparrow (*Melospiza lincolnii*)—A fairly common migrant and probable breeding species. Most spring migrants arrive in early May (earliest, 27 April 2003; *Passenger Pigeon* 65: 317, 2003), are most numerous about 15 May, and have departed by 25 May. I found one near Mikana on 1 June 1975 (*Passenger Pigeon* 38: 79, 1976). Fall migrants arrive in mid-September (earliest, 2 September 1968; *Passenger Pigeon* 31: 201, 1969) with peak numbers in early October. Murray Berner found 13 on 2 October 1985 (*Passenger Pigeon* 48: 145, 1986). Most have departed by 1 No-

vember. Cutright et al. (2006) reported Lincoln's Sparrow as a probable breeding species in the northeastern corner of Barron County. This sparrow is regularly found in wet coniferous habitats, brushy borders of sedge meadow, and in alder thickets.

Swamp Sparrow (*Melospiza georgiana*)—A common migrant and breeding species. Spring migrants arrive in late April and are most common in mid-May. Fall migrants reach peak abundance in late September, and have departed by late October. Eugene Butler found this species until 13 December 1957 (*Passenger Pigeon* 20: 89, 1958). Cutright et al. (2006) found breeding Swamp Sparrows to be widely distributed in the northern and eastern portions of the county. This is a characteristic breeding species of alder thicket and sedge meadow. It is also fairly regular in black spruce-tamarack bogs.

White-throated Sparrow (*Zonotrichia albicollis*)—An abundant migrant and probable breeding species. Spring migrants arrive in early April and are most numerous by 1 May. Most have departed by 15 May. Fall migrants arrive in early September, reach peak abundance in mid-September, and most have departed by 1 November (latest, 30 November 1989; *Passenger Pigeon* 52: 195, 1990). One remained at a Barron County feeder during the winter of 2003–2004 (*Passenger Pigeon* 66: 256, 2004). I found three probable breeding pairs of White-throated Sparrow during the 1977 breeding season west of Mikana. I recorded two males along the route of the Cumberland Breeding Bird Survey on 19 June 1976, and two more males again (at different locations) on this route on 19 June 1977. The Barron County portion of this BBS route traverses an unnamed township road that travels northwest from CTH V to the Washburn County line just west of Bear Lake. Cutright et al. (2006) reported probable breeding by White-throated Sparrow in east-central Barron County adjacent to the border with Rusk County. Deciduous habitats that are most regularly used include stands of mature northern hardwood forest with sugar maple, basswood, and silver maple (*Acer saccharinum*) the predominant vegetation. Recent deciduous clear cuts of predominantly quaking aspen with scattered patches of black raspberry (*Rubus occidentalis*) are important migrational habitat. My summer records are all from black spruce-tamarack bogs.

Harris's Sparrow (*Zonotrichia querula*)—A rare and irregular migrant. Spring migration dates range from 7 May 1996 (*Passenger Pigeon* 58: 443, 1996) to 24 May 1974 (*Passenger Pigeon* 37: 83, 1975). Fall migration dates are more numerous, including birds present 20 September through 4 October 1956 (*Passenger Pigeon* 19: 44, 1957), 23 September through 20 October 1975 (*Passenger Pigeon* 38: 125, 1976), 28 September through 13 October 1970 (*Passenger Pigeon* 33: 153, 1971), 6 October 1957 (*Passenger Pigeon* 20: 45, 1958), and 30 October 1976 (*Passenger Pigeon* 39: 296, 1977). Harris's Sparrow is almost exclusively an edge species during migration.

White-crowned Sparrow (*Zonotrichia leucophrys*)—A fairly common migrant. White-crowned Sparrows usually arrive in mid-April, reach peak abundance in early May and have departed

by 20 May (latest, 31 May 1974; *Passenger Pigeon* 37: 83, 1975). Fall migrants return in mid-September and reach peak abundance in early October. Murray Berner reported 38 on 2 October 1985 (*Passenger Pigeon* 48: 145, 1986). Most have departed by early November (latest, 20 November 1986; *Passenger Pigeon* 49: 155, 1987). White-crowned Sparrows are most commonly associated with edges of deciduous woods with a brushy understory, brushy edges of retired fields, and hedgerows.

Dark-eyed Junco (*Junco hyemalis*)—An abundant migrant, uncommon winter resident, and probable breeding species. Spring migrants are most conspicuous in late March to early April; they reach peak abundance in late April, and most have departed by 15 May (*Passenger Pigeon* 18: 140, 1956). Fall migrants arrive in mid-September, reaching peak abundance in late October, and those not remaining to spend the winter have departed by late November. Alta Goff found two *oreganus* subspecies in Barron County on 20 October 1970 (*Passenger Pigeon* 33: 153, 1971). I found a singing male in a small black spruce-tamarack bog west of Haugen (Section 9, Bear Lake Township) during the summers of 1975 and 1976. Given its persistent presence in the same territory and its continued singing well into early July, I am tempted to believe that this was part of a mated pair. Another was reported by Alta Goff on 1 August 1976 (*Passenger Pigeon* 39: 295, 1977). Dark-eyed Junco is primarily a species of drier upland deciduous forest during migration. The two breeding season records are a black spruce-tamarack bog. Winter habitat use is more varied and includes residential habitats especially near feeders.

Lapland Longspur (*Calcarius lapponicus*)—An abundant migrant and occasional winter resident. Fall migrants arrive in late September and are most numerous by late October. Most have departed by 1 December. Spring migrants arrive mid-March (earliest, 26 February 1958; *Passenger Pigeon* 20: 89, 1958), and are most numerous during early April. Most have departed by 10 May. This species was recorded on the Cedar Lake CBC on 23 December 1973 (4 birds) and 23 December 1978 (7 birds). It is an open country bird using primarily tame pasture, fall-plowed agricultural fields, as well as both corn stubble and oats stubble.

Snow Bunting (*Plectrophenax nivalis*)—A common (sometimes abundant) migrant and winter resident. The first migrants arrive in mid-November (earliest 14 November 1982 *Passenger Pigeon* 45: 102, 1983) and are most numerous through late December. I estimated a flock of 500 Snow Buntings foraging in a field containing recently-spread cow manure near Canton on 17 January 1977 (*Passenger Pigeon* 39: 340, 1977). Eighty were recorded northeast of Rice Lake on 23 December 1977. Spring migrants are most numerous during early March and have largely departed by mid-April. Like the Lapland Longspur, this is an open country bird that uses tame pastures, fall-plowed agricultural fields, and corn and oats stubble.

Family Cardinalidae

Northern Cardinal (*Cardinalis cardinalis*)—A fairly common permanent

resident. Young et al. (1941), Young (1946), and Hedrick (1962) described the rapid advancement of Northern Cardinal from southern to northern Wisconsin during the mid-20th century. Cutright et al. (2006) reported Northern Cardinals breeding in almost all of Barron County; in the early 1970s it was rare in all but the southwest corner of the county. I consistently found from 2 to 8 Northern Cardinals on the Cedar Lake CBC in the mid- to late 1970s. This is primarily a species of deciduous forest edge. In winter I found them regularly at my banding station established in a remnant patch of virgin white pine in Bandli Park north of Canton.

Rose-breasted Grosbeak (*Pheucticus ludovicianus*)—A common migrant and breeding species. Spring migrants arrive in early May (earliest, 25 April 2003; *Passenger Pigeon* 65: 317, 2003) and are most numerous by 15 May. Fall migrants reach peak abundance in late August, and most have departed by 30 September. The latest record is an observation by Alta Goff on 13 October 1989 (*Passenger Pigeon* 52: 194, 1990). Cutright et al. (2006) reported Rose-breasted Grosbeaks to be widely distributed during the breeding season when it is characteristic of mature deciduous forest and forest edge.

Indigo Bunting (*Passerina cyanea*)—A common migrant and breeding species. Most spring migrants arrive in early May and reach peak abundance by 15 May. Alta Goff found a group of 12 male Indigo Buntings at a feeder in Barron on 14 May 1994 (*Passenger Pigeon* 56: 279, 1994). Fall migrants are most numerous in late August and most have departed by 30 September. Cutright et al. (2006) reported breeding Indigo Buntings widely distributed throughout the county. Indigo Bunting is a characteristic breeding bird of shrubby "edge" habitat types. They are particularly numerous during migration in regenerating patches of quaking aspen that have recently been clear cut.

Dickcissel (*Spiza americana*)—An irruptive and irregular migrant and breeding species. Spring migrants usually arrive in late May. The earliest migration record was by Alta Goff on 6 May 1986 (*Passenger Pigeon* 48: 34, 1987). They usually reach peak abundance in early to mid-June. Fall migration is diffuse with no discernible patterns. The one found by Alta Goff on 2 September 1974 (*Passenger Pigeon* 37: 131, 1975) is the latest record. Taber (1947) recorded Dickcissel in Wisconsin only as far north as Dunn County into the late 1940s. Emlen and Wiens (1965) analyzed and interpreted a massive incursion of Dickcissel into Wisconsin in the spring of 1964, including observations as far north as Barron County. Cutright et al. (2006) reported probable breeding in two Barron County quadrangles. Dickcissel characteristically breeds in retired agricultural fields that have become overgrown with a rank growth of vegetation and with fields of alfalfa.

Family Icteridae

Bobolink (*Dolichonyx oryzivorus*)—A common migrant and breeding species. Spring migrants arrive in early May and are most numerous by 20 May. Fall migration begins in early August, and most have departed by 1 September. The latest was reported by Alta Goff on 18 September 1986 (*Pas-*

senger Pigeon 49: 155, 1987). Cutright et al. (2006) reported breeding Bobolinks to be widely distributed across the county. It is a characteristic species of grassland communities including retired cropland, alfalfa fields, and tame pasture. It is occasionally found using sedge meadow and shrub carr; however, these habitats apparently receive higher use during migration. The first nest I ever found was in my grandparents' alfalfa field (Section 6, Rice Lake Township) in early June 1960.

Red-winged Blackbird (*Agelaius phoeniceus*)—An abundant migrant, common breeding species, and occasional winter resident. Spring migrants return in late March and are most numerous in mid-April when many males are preoccupied with territorial establishment and defense. Fall migrants reach peak abundance in late September, and most have departed by early November. I observed a group estimated at 10,000 individuals northeast of Rice Lake on 28 September 1975 (*Passenger Pigeon* 38: 124, 1976). Two were recorded at feeders in Rice Lake on 23 December 1977. Alta Goff reported this species throughout the winter of 1999–2000 (*Passenger Pigeon* 62: 196, 2000). This was the first known instance of Red-winged Blackbird remaining throughout a winter period. Cutright et al. (2006) reported confirmed breeding in all but two Barron County quadrangles. Red-winged Blackbirds use a variety of wetland and upland sites for breeding. Wetlands include sedge meadows, seasonally, semipermanently, and permanently flooded wetlands dominated by cattail, river bulrush, hardstem bulrush, and reed canary grass. Alder thicket, shrub carr, and black spruce-tamarack bogs are also important. Upland breeding sites include agricultural fields, old field, and alfalfa fields.

Eastern Meadowlark (*Sturnella magna*)—A fairly common migrant and breeding species; one mid-winter record. Most spring migrants return in late March (earliest, 14 March 2003; *Passenger Pigeon* 65: 318, 2003) and are most numerous by late April. Fall migrants reach peak abundance in late September, and most have departed by late October. One of the first mid-winter records of a meadowlark species was recorded from the Barron CBC on 2 January 1966. Another was reported at Rice Lake on 2 January 1950 by Robert Bailey (*Passenger Pigeon* 12: 94, 1950). Lanyon (1953a, 1953b) provided an exhaustive analysis of the ecology and early range distribution of both meadowlark species in Wisconsin. During the breeding season Eastern Meadowlarks are a familiar sight near agricultural fields. Cutright et al. (2006) reported this species to be widely distributed throughout the county. Eastern Meadowlarks occupy a variety of grassland habitats including domestic hayfields, retired croplands, cattle pastures, old-field communities, and drier portions of shrub-carr wetlands.

Western Meadowlark (*Sturnella neglecta*)—An uncommon migrant and local breeding species. Spring migrants return in early April and are most numerous in late April. Fall migrants are most conspicuous in mid-September and most have departed by late October. Cutright et al. (2006) reported breeding Western Meadowlarks in only 3 of Barron County's

15 WBBA quadrangles. I inadvertently destroyed the nests of both Eastern Meadowlark and Western Meadowlark in the late afternoon of 21 June 1968 while mowing a field of alfalfa on our family farm in Section 25 of Rice Lake Township. Alfalfa fields, cattle pastures, abandoned agricultural fields that have been allowed to return to a rank growth of herbaceous vegetation, roadside rights-of-way, and the drier portions of sedge meadow are most frequently occupied by this species.

Yellow-headed Blackbird (*Xanthocephalus xanthocephalus*)—A rare and local migrant and summer resident. Migrants arrive in spring in late April and depart in fall by mid-September. This species was unknown from Barron County as late as 1950 (Ellarson 1950). One of the first county records was obtained by Phyllis Faanes who found a singing male on a semipermanently flooded wetland north of Barron on 12 June 1982. Subsequently Alta Goff reported this species almost annually during the 1980s and 1990s with most of her observations coming from wetlands adjacent to Quarderer Creek southwest of Barron. This species is characteristic of semipermanently flooded wetlands.

Rusty Blackbird (*Euphagus carolinus*)—An uncommon migrant. Spring migrants are first observed in mid-April, reach peak abundance in late April, and have departed by mid-May. Fall migrants are usually first observed in mid-September, reach peak abundance in mid-October, and have departed by 15 November. Latest records are one on 1 December 1976 (*Passenger Pigeon* 39: 295, 1977), and four that were recorded on 23 December 1977. These birds were at the verge of a black spruce wetland near Mikana. The Rusty Blackbird is primarily a species of wetland habitats. Fall concentrations of these birds are typically observed in large alder thickets and shrub carr.

Brewer's Blackbird (*Euphagus cyanocephalus*)—An uncommon migrant and breeding species. Spring migrants are first observed in late March (earliest, 5 March 1983; *Passenger Pigeon* 46: 35, 1984), reaching peak abundance in mid-April. Fall migrants are most conspicuous in early September and have departed by early October. Cutright et al. (2006) reported breeding Brewer's Blackbirds primarily in central and northern Barron County. Brewer's Blackbirds characteristically use fencerows, railroad rights-of-way, and old field habitats. Occasional breeding pairs are encountered in sedge meadow, open bog habitats, and in highway rights-of-way.

Common Grackle (*Quiscalus quiscula*)—An abundant migrant and breeding species and rare winter resident. The first spring migrants return in mid-March and are most numerous by 10 April. Fall migrants form massive flocks with other blackbird species in early September and most have departed by late October. One was reported from the Barron CBC on 31 December 1962 and again during the 1966 count. By the mid-1970s Common Grackle was recorded annually in small numbers throughout the winter months near Rice Lake and near Barron. Curiously, Cutright et al. (2006) found breeding Common Grackles in only 8 of 15 WBBA quadrangles. Common Grackles are fairly opportunistic in their selection of breeding habitats.

Highest breeding densities are usually associated with pine plantations, deciduous woodlots, or ornamental conifer plantings. The increased planting of coniferous trees has enhanced Common Grackle breeding populations and may be a factor in their expanding and increasing populations (Faanes 1976).

Brown-headed Cowbird (*Molothrus ater*)—An abundant spring and uncommon fall migrant and common during the breeding season. Spring migrants arrive in late March, and are most numerous by mid-April. Fall migration begins with flock formation in late June and most have departed by mid-September. Brown-headed Cowbirds use virtually all habitats in this region, but the largest breeding populations occur in woodland edge.

Orchard Oriole (*Icterus spurius*)—Accidental. The only county record was observed by John Butler on 23 May 1955 (*Passenger Pigeon* 17: 178, 1955).

Baltimore Oriole (*Icterus galbula*)—A common migrant and breeding species. Spring migrants arrive in early May and are most numerous by 20 May. I banded an adult male Baltimore Oriole in a recently clear cut quaking aspen forest near Mikana on 15 May 1974. This bird was re-trapped in the same net at nearly the same hour on 14 May 1975 and again on 15 May 1976. It was not observed or recaptured after the lone date in each year. My supposition is that it was a migrant enroute to a breeding area farther north that consistently used the same patch of forest during its northward movement. Fall migrants are most numerous in late August, most having departed by 20 September. Alta Goff reported one on 1 October 2002 (*Passenger Pigeon* 65: 92, 2003). Cutright et al. (2006) found breeding Baltimore Orioles to be widely distributed throughout the county. The Baltimore Oriole is primarily a species of mature deciduous forest. It is also fairly common in ornamental plantings in residential areas. The largest breeding densities occur in mature northern hardwood forest that is dominated by sugar maple and basswood.

Family Fringillidae

Pine Grosbeak (*Pinicola enucleator*)—An uncommon migrant and sporadic winter visitor. Fall migrants arrive in mid-November and are most conspicuous through late December. John Butler reported this species as "fairly common" during the 1954–1955 winter (*Passenger Pigeon* 17: 131, 1955). The latest spring date is 16 February 1956 (*Passenger Pigeon* 19: 91, 1957). Indicative of its cyclical nature, 77 Pine Grosbeaks were recorded in and near Mikana on 23 December 1977 while 5 were recorded there in 1976 and 6 in 1978. This species is generally restricted to extensive stands of lowland coniferous forest. During invasion years Pine Grosbeaks occupy deciduous forests, especially if both box elder (*Acer negundo*) and sumac (*Rhus* sp.) are heavily laden with seeds.

Purple Finch (*Carpodacus purpureus*)—An uncommon migrant and breeding species; occasional in winter. Fall migration begins in early September, peak numbers occur in mid-October, and most have departed by late November. Spring migrants arrive in

mid-March. Peak abundance occurs in mid-late April and most have departed by mid-May. Two were recorded on the Barron CBC on 3 January 1965. Cutright et al. (2006) reported confirmed breeding of Purple Finch from 5 of 15 Barron County quadrangles; none were in the southwest corner. I consistently found this species on territory in Cedar Lake, Doyle, and Rice Lake Townships during the late 1960s to early 1980s, but I was never able to find a nest. Singing male Purple Finches were present (one indicated pair) in the Lake Montanis bog (Section 35, Rice Lake Township) each year from 1973 through 1979. During the breeding season Purple Finch is characteristic of cool, moist, coniferous forest. Principal vegetation associated with this habitat includes black spruce, tamarack, and yellow birch. During migration they are also found in deciduous habitats. Wintering birds are usually found in black spruce.

House Finch (*Carpodacus mexicanus*)—Uncommon permanent resident. In early 1977 there had been only three records of this species in the state, and its official status was still hypothetical (Bielefeldt 1977). The first county record was obtained in June 1995 during the Cumberland BBS. I first heard this species on 20 November 1996 in a residential area of Rice Lake. Its explosive expansion not only in the state but across most of the nation is evidenced by its presence in 7 of 15 quadrangles in Barron County (Cutright et al. 2006) who reported it as confirmed or probable breeding in each of Wisconsin's 72 counties. House Finch is strongly associated with residential areas.

Red Crossbill (*Loxia curvirostra*)—An uncommon and irregular migrant and winter resident. Because of their erratic movements, it is difficult to determine their migration periods. The normal period of occurrence is early October to mid-April. Alta Goff reported this species on 15 September 1977 (*Passenger Pigeon* 40: 471, 1978), Stragglers remain until mid-May. I saw 30 Red Crossbills in various areas of northeastern Barron County on 1 December 1976 (*Passenger Pigeon* 39: 339, 1977). Except for birds observed at artificial feeding stations, Red Crossbill is found almost exclusively in coniferous forests including black spruce-tamarack bogs.

White-winged Crossbill (*Loxia leucoptera*)—A rare and irregular migrant and winter visitor. The normal period of occurrence ranges from mid-October to mid-March. I found 207 White-winged Crossbills near Mikana on 20 October 1977 (*Passenger Pigeon* 40: 471, 1978). Twenty-four White-winged Crossbills were recorded near Mikana on 23 December 1977. None were found there in 1976 or 1978. This species primarily uses extensive stands of white spruce (*Picea glauca*) and black spruce.

Common Redpoll (*Carduelis flammea*)—A common migrant and winter resident during invasion years; rare at other times. Fall migrants usually arrive in late October (earliest, 12 October 1974, *Passenger Pigeon* 37: 131, 1975). Peak abundance occurs in mid- to late November. Peak spring migration occurs in early to mid-March with departure by mid-April. I counted 376 Common Redpolls in several locations near Rice Lake on 23 December 1977. Common Redpoll uses a variety of

open habitats including agricultural fields, retired cropland that has become heavily overgrown with various weeds, highway rights-of-way, and mixed deciduous-coniferous forest.

Hoary Redpoll (*Carduelis hornemanni*)—During years of Common Redpoll invasion, this is a casual winter resident. It's absent at other times. The first county record was obtained on 1 March 1974 (*Passenger Pigeon* 37: 82, 1975). Sam Robbins reported one in Barron County on 28 February 1976 (*Passenger Pigeon* 38: 150, 1976). Ruth Faanes and I found 2 Hoary Redpolls in a flock of Common Redpolls frequenting a bird feeder in Mikana on 23 December 1977. A single bird was found in weedy vegetation along the side of a township road near Brill on 22 January 1978 (*Passenger Pigeon* 40: 509, 1978). I found a solitary Hoary Redpoll foraging on the catkins of speckled alder (*Alnus rugosa*) along Rice Creek about 4 km northeast of Cameron on 25 February 1995. Hoary Redpolls are usually with flocks of Common Redpolls foraging in weedy field edges.

Pine Siskin (*Carduelis pinus*)—A common migrant and fairly common winter resident. Spring migrants are most numerous in mid-late March and have largely departed by early May. One was still present on 31 May 1974 (*Passenger Pigeon* 37: 82, 1975). Fall migrants usually arrive in mid-September (earliest, 1 August 1976; *Passenger Pigeon* 39: 295, 1977) and are most numerous through mid-to-late December. Depending on snow cover and the severity of winter weather, Pine Siskins will spend the winter season in areas of mixed deciduous and coniferous forest. They are especially attracted to feeding stations near human habitation.

American Goldfinch (*Carduelis tristis*)—A common migrant and breeding species, increasingly common as a winter resident. Although it is difficult to discern migrants from winter residents, there is a noticeable increase in number of American Goldfinch during late March, reaching largest numbers in early May. Fall migration begins in mid-August and peak populations occur in mid-September. Most have departed by mid-November. Departure from the northern areas occurs by 15 November. It typically nests in edge including stream banks, brushy edges of woods, highway rights-of-way, and ornamental shrubbery in residential areas.

Evening Grosbeak (*Coccothraustes vespertinus*)—A common yet erratic migrant and winter resident. In flight years the first Evening Grosbeaks appear in mid-October and become particularly conspicuous by late November. During non-invasion years it reaches peak abundance in mid-March and has largely departed by early May (latest, 31 May 1979; *Passenger Pigeon* 42: 42, 1980). The only summer record, with no location or dates, was during 1986 (*Passenger Pigeon* 49: 112, 1987). Cutright et al. (2006) reported confirmed breeding in nearby areas of Rusk, Sawyer, and Washburn Counties. If this species is found breeding in Barron County it will likely be in the extensive forests west of Mikana or those along the east shore of Red Cedar Lake. Box elder and maple trees that retain their fruits are preferred during migration. Most winter records are obtained near feed-

ing stations or from tracts of black spruce and tamarack.

Family Passeridae

House Sparrow (*Passer domesticus*)—An abundant introduced species. The largest concentrations of House Sparrows occur in residential areas and other sites of human habitation, including rural developments and farms. This species is less numerous and more localized in heavily forested habitats away from the influence of humans.

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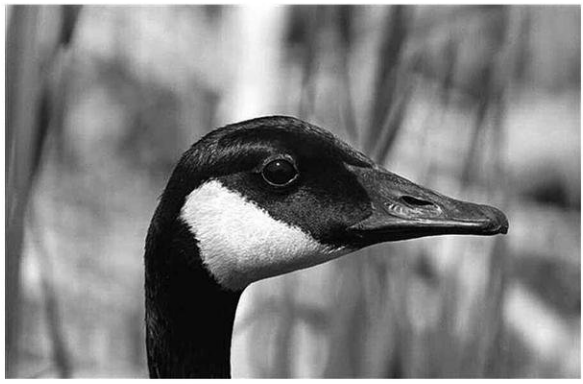

Up close with a Canada Goose by Sandy Pfotenhauer

Nest Monitoring and Prey of Northern Goshawks in Wisconsin

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Abstract

We monitored 99 active nests at 70 territories of Northern Goshawks (Accipiter gentilis) *for occupancy and productivity across Wisconsin from 2002–2007. Annual productivity ranged from 0.93 to 1.67 fledglings per active nest and nest success varied from 43 to 87% during our study. Prey remains collected near goshawk nests were primarily comprised of Ruffed Grouse* (Bonasa umbellus), *Blue Jay* (Cyanocitta cristata), *red squirrel* (Tamiasciurus hudsonicus), *American Crow* (Corvus brachyrhynchos), *and eastern chipmunk* (Tamias striatus). *This information is useful in our goal to better understand the ecology of goshawks in Wisconsin, but a statewide abundance estimate is needed to assess status of this rare and elusive forest raptor.*

Introduction

The Northern Goshawk (*Accipiter gentilis*) occurs at the southern margin of its breeding range in Wisconsin. In the Great Lakes region, it breeds at low densities, may have a cyclical abundance, and has a generally secretive nature (Lewis 1998). These characteristics make estimates of abundance and population trends difficult to obtain. As a result, little or no information is available to assess the goshawk's status in Wisconsin or elsewhere in the region. Breeding range expansion, based on observations of

occupied nests and territories during the past 50 years, was reported in Michigan (Postupalsky 1991), Wisconsin (Robbins 1991), and the New England region (DeStefano 2005). This change in distribution is likely attributable to habitat changes related to increased forest age and area across these regions (DeStafano 2005). Mostly due to the uncertainty of population status in the western Great Lakes region, goshawks were classified as a species of special concern in Wisconsin (Wisconsin Department of Natural Resources 2006), Michigan (Michigan Natural Features Inventory 2007), and within Region 3 of US Fish and Wildlife Service, and as a sensitive species and management indicator species in all National Forests located in Wisconsin, Michigan, and Minnesota (Woodbridge and Hargis 2006).

State and Federal natural resource agencies in the Great Lakes region have coordinated monitoring activities for nesting success of Northern Goshawk territories found under their management jurisdiction for decades. In general these efforts were similar, but lacked standardized protocols and terminology that prevented meaningful comparisons or pooling of data among study areas (Andersen et al. 2004). With the exception of nest monitoring, little has been done to determine status of goshawks across the breeding range east of the Mississippi River. More recently, an effort to monitor goshawks with goals of estimating relative abundance, monitoring changes in abundance, and assessing how habitat alteration affects abundance at a bioregional scale was designed (Woodbridge and Hargis 2006).

Northern Goshawks are considered prey generalists across much of their breeding range, but their diets do vary between and across regions and landscape types (Squires and Reynolds 1997). Recently, emphasis has shifted to include prey availability and diversity as an important element for conserving goshawks elsewhere in North America (Lewis et al. 2004). Few studies have reported on diets of goshawks in the Great Lakes region. Those available used both indirect (Meng 1959, Eng and Gullion 1962, Grzybowski and Eaton 1976, Pettingill 1976) and direct (Pettingill 1976, Smithers et al. 2005) techniques to describe goshawk diets.

Our objectives were to 1) develop and use a standardized protocol to monitor Northern Goshawks, and 2) describe the diet of goshawks using prey remains collected from nesting areas in northern Wisconsin.

Methods

Study Area

We studied historic and newly reported Northern Goshawk nesting areas across most of their breeding range in Wisconsin from 2002–2007 (Fig. 1). Nesting areas were located within all major ecological landscape types within the study area on both public and private property. This area is predominantly comprised of coniferous, deciduous, and mixed forests interspersed with large tracts of forested and non-forested lowlands. Open areas used for agriculture or recreational and residential development were common, but predominantly located along the southern and western edges of the study area. We used standardized nest monitoring

Figure 1. Wisconsin's counties where monitoring for Northern Goshawk nesting activities occurred (light and dark gray), and where active nests were found (dark gray) during 2002–2007.

and productivity terms and definitions (Appendix) consistent with those prescribed elsewhere for goshawks (Andersen et al. 2004).

Nest Monitoring

We made two to four visits annually to each goshawk territory monitored during the study. Each visit was timed to best collect critical information needed to determine nest or territory status and to avoid jeopardizing nest success. We avoided nest visits during periods when wind speeds exceeded 24 km/hr^{-1}, air temperature was ≤ 0 °C, or there was steady precipitation. At each visit we assessed nest status, searched for evidence of predation, and collected prey remains. We collected prey remains found in, below, and within 30m radius of all nest trees, placed them into a sealed plastic bag and archived them in a freezer. In addition, we collected nest tree species, diameter at breast height, nest area habitat type, landscape features (e.g., aspect, slope), and estimated diameter and depth of the stick nest for all new nest trees found during any visit.

The first visit was timed to determine occupancy during the courtship or incubation period prior to leaf-out of deciduous trees when nests are more visible. Generally, this visit occurred from 20 March to 10 May each year and we checked all previously known nests for evidence of occupancy. If a nest appeared unoccupied, we then searched the entire nest area (minimum area searched = 79 ha) and adjacent stands looking for alternative nests. When a new occupied nest was found, we collected Global Positioning

Systems (GPS) coordinates and immediately left the area to minimize disturbances to territorial birds.

Territories recorded as unoccupied during the first visit were revisited between 15 May and 30 June to check for nesting activity that may have been missed during the first visit. In addition to visual searching, we broadcasted conspecific calls throughout the area to find new nests or territorial adults missed during the first visit. The broadcast surveys were completed following methods described by Hargis and Woodbridge (2006), using a FoxPro digital game caller (Models 16B and 48, FoxPro Systems, Lewiston, PA).

We visited (between 1 June and 21 June) all territories found occupied during the first or second monitoring visit to count young in nests. Nestling counts were documented by either a wireless video camera mounted on a 15 m-telescoping pole or by climbing the nest tree. Because older nestlings could jump from the nest before they can fly, we attempted to complete all counts before nestlings were 25 d old.

Between 15 June and 14 July, we visited all nests with young a final time to count fledglings. This visit occurred within 5 days of the estimated fledging date. The estimated fledging date was based on nestling age determined during the nestling count visit. Because nestlings may have fledged prior to this visit, if no evidence of predation or nestling mortality was found, we considered the nest successful.

Prey Remains

We searched for and collected prey remains during all visits to goshawk nesting areas. The area searched included the nest tree area, all likely plucking perches within 30 m of the nest tree, and the nest (if it was being climbed to count young). All items collected during each search were combined into one bag regardless of condition or duplication between areas (i.e., nest, below nest, or perch), and placed into a plastic bag, labeled, and frozen.

Prey remains consisted of regurgitated pellets, fresh kills, and fragments of hair, bones, and feathers. They were identified through comparisons with reference collections and materials located at the University of Wisconsin-Stevens Point. All samples were identified to species when possible. Unidentifiable remains were placed into the proper taxonomic class or summarized as unknown.

Results

Nest Monitoring

We monitored 70 nesting areas throughout the study period. Five territories were found while testing the efficacy of systematic surveys for goshawks; all others were based on new reports or historic observations. Twenty-five (36%) of the nesting areas were new reports; however, all of these were within areas previously identified as Northern Goshawk breeding range in Wisconsin. An active nest was documented at 43 (61%) of these territories in one or more nesting seasons. The number of territories visited annually varied slightly (range = 35–45), but the search effort was consistent throughout the study. Goshawk productivity and nest success ranged from 0.93–1.79 young per active nest and 43–87%, respectively (Table 1). The

Table 1. Results from Northern Goshawk Nest Monitoring in Northern Wisconsin, 2002–2007.

Year	Territories Monitored	Active Nests	Successful Nests	Young Fledged	Yng./Active Attempt	Yng./ Successful Nest	Nest Success (%)
2002	43	12	6	12	1.00	2.00	50
2003	45	15	13	25	1.67	1.92	87
2004[a]	45	16	10	22	1.57	2.20	71
2005[b]	40	20	11	23	1.21	2.09	58
2006	35	21	9	21	1.00	2.33	43
2007	38	15	7	14	0.93	2.00	47
mean	41	16	9	20	1.23	2.09	59
SD	4.0	3.4	2.6	5.2	0.32	0.15	16.8

[a]Two active nests not included in productivity results because outcome was unknown.
[b]One active nest not included in productivity results because outcome was unknown.

variability observed in our results was similar to those reported for Northern Goshawk populations elsewhere in the region and North America.

We observed active nests in 62 different trees. Tree species used and frequency included yellow birch (*Betula alleghaniensis*; 31%), aspen (*Populus* spp.; 21%), sugar maple (*Acer saccharum*; 10%), white birch (*Betula papyrifera*; 10%), white pine (*Pinus strobus*; 8%), eastern hemlock (*Tsuga canadensis*; 8%), red maple (*Acer rubrum*; 5%), red oak (*Quercus rubra*; 5%), and basswood (*Tilia americana*; 2%). Mean nest tree diameter at breast height was 43 ± 12 cm (range = 23–82 cm). Goshawk nesting areas were found primarily in northern hardwood (60%) and eastern hemlock/hardwood (23%) forest types; however, aspen, white pine, red pine (*Pinus resinosa*) plantations, and oak were also used.

Prey

We collected 261 individual prey items from 32 goshawk territories located in northern Wisconsin. From this sample we identified 11 bird and five mammal species representing 72% and 26% of the total collection, respectively (Table 2). Species with the highest total frequency of occurrence were Ruffed Grouse (25%; *Bonasa umbellus*), Blue Jay (14%; *Cyanocitta cristata*), red squirrel (9%; *Tamiasciurus hudsonicus*), American Crow (7%; *Corvus brachyrhynchos*), and eastern chipmunk (5%; *Tamias striatus*) (Table 2). Ruffed Grouse (75%) and Blue Jay (56%) were the only species detected at ≥40% of the territories sampled (Table 2). Remains of one snake were found at the base of a nest tree in 2002. To our knowledge, this was only the second record of goshawks preying on a reptile in North America.

Discussion

An accurate and defensible assessment of the Northern Goshawk's status in the western Great Lakes could be achieved through continued nest monitoring and a region-wide survey to determine occupancy. This ap-

Table 2. Diet Composition of Northern Goshawks Based on Prey Remains and Pellets in Northern Wisconsin.

Prey Category	Scientific Name	N	% of Total[a]	# Territories[b]
Class Aves				
Ruffed Grouse	*Bonasa umbellus*	64	25	24
Blue Jay	*Cyanocitta cristata*	36	14	18
American Crow	*Corvus brachyrhynchos*	17	7	12
Northern Flicker	*Colaptes auratus*	8	3	6
Hairy Woodpecker	*Picoides villosus*	6	2	4
Mallard	*Anas platyrhynchos*	6	2	6
American Woodcock	*Scolopax minor*	2	1	2
Unknown Duck	Family: Anatidae	2	1	2
American Robin	*Turdus migratorius*	1	0	1
Mourning Dove	*Zenaida macroura*	1	0	1
Pileated Woodpecker	*Dryocopus pileatus*	1	0	1
Red-tailed Hawk	*Buteo platyrhynchos*	1	0	1
Large Unknown		3	1	3
Unknown Fledgling		1	0	1
Unknown Bird		42	16	19
Total		**191**	**72**	—
Class Mammalia				
Red Squirrel	*Tamiasciurus hudsonicus*	23	9	12
Eastern Chipmunk	*Tamias striatus*	13	5	11
Eastern Gray Squirrel	*Sciurus carolinensis*	9	3	8
Snowshoe Hare	*Lepus americanus*	3	1	3
Hare/Cottontail	Family: Leporidae	3	1	3
Short-tailed Shrew	*Blarina brevicauda*	2	1	1
Unknown Mammal		16	6	14
Total		**69**	**26**	—
Other				
Unknown Snake	Genus *Squamata*	1	0	1
Total		**1**	**0**	—

[a]Percent of total occurrence.
[b]Number of territories with species detected out of 32.

proach would require coordinated monitoring using uniform methodologies and protocols across multiple landscape types in the region. The bioregional monitoring protocol (Woodbridge and Hargis 2006) meets these criteria. A number of behavior characteristics of goshawks have made attempts to estimate abundance and population trend difficult to attain. These characteristics include: (1) goshawk pairs may maintain a large territory for multiple years building a new nest some years, or rebuilding and occupying a nest made in the past, (2) goshawks will defend a territory but not lay eggs in some years, and (3) in Wisconsin they are elusive, low-density breeders. Further, Reynolds et al. (2005) report territories in Arizona with up to 9 alternative nests; we observed two territories with six alternative nests in our study (J. Woodford unpublished data). For the most part, the bioregional monitoring protocol (Woodbridge and Hargis 2006) minimizes the effects these characteristics have on survey results.

We found no evidence that goshawks were expanding their breeding range in Wisconsin during our study, which contradicts findings reported for the period 1950–1995 (Robbins 1991, Rosenfield et al. 1998). This conclusion was reached after saturating resource managers, field staff, and the general public with requests for goshawk observations through training workshops, presentations, and questionnaires, and following up on all credible reports. In addition, during our study there was only one nesting area found with an active nest or territorial adults present south of State Highway 29, even though we searched 10 historic nesting areas and actively requested new observations in these areas. There were a number of explanations to explain the apparent halting of the goshawk's breeding range expansion we observed. One possibility was increased nest and adult depredation in the past 25 years (Erdman et al. 1998). We observed at least 10 nests (J. Woodford, unpublished data) that appeared to be depredated by arboreal mammals, with seven (70%) remaining unoccupied by territorial adults during subsequent years of monitoring. A second possibility may be the decrease in mean property size of privately-owned forests in Wisconsin (Wisconsin Department of Natural Resources 2007). This shift in forest land use, from large area management to smaller parcels, has potential to increase both the rate of disturbance to goshawk nesting areas and forest fragmentation. But, because most of the territories we monitored were located on public lands, this factor was probably negligible. Some forest management practices are generally considered to have negative effects on local goshawk nesting areas and therefore should be considered as a possible explanation. However, this factor appears less likely because the forests of Wisconsin have been increasing in both area and age during most of the past 50 yr (Wisconsin Department of Natural Resources 2007). Clearly, additional work is needed to understand the effects these factors and others are having on Northern Goshawks in Wisconsin.

Prey availability during both winter and summer seasons was linked to abundance and productivity of goshawks in higher elevations and more northern latitudes (Doyle and Smith 1994, Boyce et al. 2006). During our study, there was little evidence that prey availability had much influence on goshawk productivity. For example, Ruffed Grouse abundance in Wisconsin, in 2004 and 2005, was at its lowest level recorded since surveys began in 1964 (Wisconsin Department of Natural Resources 2006), yet goshawk productivity during those years was greater than all but 1 yr (2003) of our study (Table 1). It appears that past relationships (positive or negative) reported between Ruffed Grouse and snowshoe hare (*Lepus americanus*) abundance and goshawk productivity were not relevant during our study.

Future Work

Government and non-government collaborators from across the western Great Lakes are united in the goal to monitor Northern Goshawk occupancy throughout the region. Results from these surveys would provide

managers with the data needed to both assess status and guide management decisions for this species and the forests they occupy. Currently, regional partners have adopted a standardized protocol and have completed preparatory work to begin field surveys. However, funding to complete the surveys remains uncertain. If the field surveys are not implemented, agencies will likely continue to monitor nest activity and survey in local project areas that add little to our overall understanding of goshawk ecology and status in this region.

Appendix

We used the following terms and definitions for Northern Goshawk monitoring and productivity reporting in 2002–07.

Active nest: is a nest where evidence of an egg being laid was found. Such evidence includes observation of eggs, egg shells, or young, recently molted feathers observed on the nest structure, or an adult observed sitting in the nest in incubating or brooding posture.

Alternative nest: one of several stick nests available for use within a nesting area.

Breeding area: is the area used by goshawks in the past or present.

Fledgling: a nestling that has left the nest, or reached 32 d post-hatch.

Nest area: the area immediately surrounding a goshawk nest; a smaller unit of the breeding area.

Nest attempt: a nest that shows any evidence that it was used during the breeding season.

Nest success: the proportion of active nests producing at least one fledgling.

Occupied territory: an area with at least one territorial goshawk present during the nesting season.

Successful nest: is a nest producing at least one young to fledgling age.

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Carol Eloranta is a Natural Resources Research Technician currently working at Rhinelander for the Wisconsin Department of Natural Resources. She enjoys the woods and waters that work has taken her to over the years while researching Northern Goshawks, martens, ducks, and various fishes.

Kristy Craig completed an internship with the Wisconsin Department of Natural Resources while an undergraduate in the Wildlife Program at the University of Wisconsin-Stevens Point.

Dennis Malueg found this singing Eastern Meadowlark
in Winnebago County on 14 April 2007.

Documentation of Nesting by White-eyed Vireo in Wisconsin

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In the summer of 2006 I had been birding the Arena boat landing [Iowa County] regularly when a trail was cut through the brush and fields to the east of the road that leads to the boat landing. From what I have heard the trail was put in by the DNR for access in case of future forest or brush fires. On 24 August 2006, during my second walk along this new trail I found a White-eyed Vireo singing from an area of dense brush about a mile out on this trail. On 23 September, a White-eyed Vireo was again found singing within 100 yards of the first location where it was seen a month earlier.

With the bird being in the area for around a month in late summer I was looking forward to finding out if it would return in the spring of 2007. On a walk along the trail on 5 May 2007 I found two male White-eyes singing in the same area as the previous summer. At least one individual was found singing on two more occasions, and then on 17 June I found and photographed a pair of White-eyed Vireos (Figs. 1 & 2). I was able to watch this pair of Vireos for nearly 10 minutes as the male was singing, while the female was perched nearby. At one point the male began to pursue the female vireo though the brush, fluttering his wings in a courtship display.

From 23 June thru 10 July despite making several visits to this location I was unable to find the White-eyed Vireos, most likely due to the fact that the birds were not singing. With the dense brush in this area it's difficult to find the vireos when they are not singing.

Then on the morning of 12 July I found a White-eyed Vireo singing in the usual location along the trail. After a short search a White-eye flew into view, but I noticed right away that it was not the bird which was singing. I also noticed that this White-eyed Vireo had a black eye and dull plumage; an immature bird. The young bird flew up into a taller tree, perched next to the singing male White-eyed Vireo, and started begging for food. I watched the White-eyes for about 15 minutes and I only saw one immature bird at a time, but there may have been more than one imma-

Figure 1. Adult White-eyed Vireo observed at the Arena boat landing in Iowa County on 17 June 2007 by Aaron Holschbach.

Figure 2. An adult White-eyed Vireo pursuing a female White-eyed Vireo at the Arena boat landing on 17 June 2007. Documenation is by Aaron Holschbach.

ture. I base this on the fact that I only got a look at the singing male White-eye twice, but I was able to see immature birds at least six times, even though they were not calling at all.

A couple weeks after seeing the immature vireo it started raining, and then it rained, and rained, and rained, with a total of about 17.5″ of rain falling in the Arena area between 26 July and 27 August. This ended up flooding areas along the trail and I was unable to return to the White-eye location until 30 September, over two months later. The vireos were not found on this most recent visit, but I will be looking forward to their return next spring.

Aaron Holschbach is 30 years old and works in Spring Green, WI, as an engineer. He began birding in Manitowoc County with his father at the age of 8 (actually before, but that is when he began keeping lists), and has participated in many bird counts including over 50 Christmas counts. He worked for the Wisconsin Breeding Bird Atlas one summer and on a volunteer basis another three summers.

American White Pelicans seen in flight by John Van Den Brandt

Singing Grasshopper Sparrow by Scott Franke.

Cooper's Hawks Use Artificial Nest Structure

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For many years it has been a common practice to construct artificial nesting platforms for a variety of bird species. Conservation practices have employed artificial structures for a variety of species including Canada Geese, Great Blue Herons, Double-crested Cormorants, Ospreys, and Ferruginous Hawks (Yocom, 1952, Meier 1981, Bohm 1977, Postupalsky and Stackpole 1974). Nest boxes have also been erected for everything from bluebirds and House Wrens to screech owls and American Kestrels. What is more unusual is the use of artificial structures by species not typically known to utilize man-made constructions.

While not typically done for conservation purposes, nest structures have been constructed for use by Great Horned Owls. I first encountered the use of artificial nest structures for Great Horned Owls while helping to build such a structure on the property of Fred and Fran Hammerstrom in 1970. Since working at the Chicago Botanic Garden in Glencoe, Cook County, Illinois, I have utilized similar structures to encourage Great Horned Owls to nest close to the horticultural areas of the Garden as a means of helping to control rabbits and other small mammal populations in and around the landscape plantings. The nest structures are constructed utilizing bowl-shaped steel wire baskets lined with a fabric weed barrier. These baskets are normally used for horticultural hanging planters for growing plant material. The baskets are 57.2 cm in diameter and 17.8 cm deep. In constructing the nest, we placed coarse woodchips inside the basket, consuming approximately 3/4 of the volume. Then a cup is fashioned in the center and lined with the soft needles of white pine (*Pinus strobus*). Grape vine (*Vitis* sp.) is wrapped around the rim of the basket and wired on to make a more substantial perching substrate. The baskets are placed in the crotch of a tree anywhere from 20–30 feet high.

The Great Horned Owls have used these structures most years since 1990. During this time, a few of the structures have been neglected and have lost most or all of the lining and weed barrier fabric and are now just wire

Figure 1. Two Cooper's Hawk young and an egg in a nest placed in an artificial nest structure on the grounds of the Chicago Botanical Gardens, 2006.

Figure 2. Three Cooper's Hawk young successfully fledged from their nest in an artificial structure at the Chicago Botanical Gardens in 2006.

baskets that occasionally capture a few falling twigs and leaves. In 2006, one of these wire baskets located in a shagbarked hickory (*Carya ovata*) was chosen as a nesting site by a pair of Cooper's Hawks (Fig. 1). This is only the second account of such a nesting that I have been able to find in the literature. The first known account occurred in Alberta, Canada, in 1987 (Hoffmann 1988). In that case, the structure was installed for Long-eared Owls. This case differs from the nesting at the Botanic Garden in that the Canadian structure was in good condition with an artificially constructed nest in place.

The Cooper's Hawk pair at the Botanic Garden consisted of a subadult female and an adult male. They were successful in producing three nestlings (Fig. 2), two males and a female, which eventually fledged after being banded.

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Jim Steffen is a graduate of the University of Wisconsin-Green Bay and has worked for the past 18 years as an ecologist in the Restoration Ecology Department at the Chicago Botanic Garden. His main work involves oak woodland restoration. Recent projects have included studies of ground litter spiders, exotic earthworm populations, and the effects of invasive plants on soil microorganisms.

Common Loon photographed by Patrick Ready

Blackburnian Warbler pictured at Solon Springs in Douglas County
by Dennis Malueg on 31 May 2007.

Wisconsin Big Day Counts: 2007

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Big Day—two words that likely have significant meaning for many readers. At the simplest level, Big Days are an attempt to maximize the number of bird species seen within a 24-hour period. For some, this means weeks of planning, scouting, and scheming to devise a productive route during favorable weather conditions. These might be wide-ranging routes that cover numerous landscapes across the state or more exclusive routes focused only on local birding hotspots. For others, route selection may be secondary to the shared experiences and memories during the 24-hour marathon. Thus, the camaraderie is more meaningful than the quantity of birds observed.

Regardless of the personal meaning that Big Days have to each of you, they can hold meaning in other ways. Consider the information that you are collecting during your route. Big Day participants are acting as citizen scientists and thus bridging a gap between the birding and scientific communities. The birds observed on your route do not simply need to be a check on your checklist but rather can be a data point providing insight into Wisconsin's bird community. With the invention of eBird (http://ebird.org/), Big Day participants now can enter their sightings into a centralized database and make an important contribution to science. Although it is not necessary to record numbers of individuals into eBird, doing this will strengthen the potential analyses derived from your data. If recording every individual bird seems daunting, consider selecting either a few species or a few locations along your route for a more intensive count.

Big Days can be meaningful to bird conservation. What if each Big Day count in Wisconsin raised $1 for each species recorded? In 2007 there were 18 Big Days conducted, each recording a minimum of 100 species. Even at $1 a species, Big Day participants could have raised more than $2,000 for bird conservation. Many nonprofit conservation organizations struggle to meet their annual budget needs and would benefit greatly from even this small sum of money.

Big Days also can be meaningful educational tools. Make a statement to your birding community by using carbon-neutral transportation methods. "Big sits" have gained popularity in recent years because of their independence from fossil fuels. Grab a comfortable chair, plenty of sunscreen

and snacks, and consider conducting a big sit at your favorite birding location. Walking, bicycling, and public transportation are other environmentally-friendly options for Big Day travel that present exciting opportunities for those up to the challenge. Finally, bring along a non-birder friend and introduce them to the wonderful world of nature and birding. The more converts we have, the better off the natural world and our own future will be.

Summary

Data from 18 Big Day counts were submitted, including six from Daryl Tessen, six from Steve Betchkal, two from Kay Kavanagh, two from Jim Frank, one from Wayne Rohde, and one from Andy Paulios and Kim Kreitinger. All counts occurred in May with the exception of one June count. The team of Andy Paulios and Kim Kreitinger had the highest species count at 156, followed by Jim Frank at 151.

Thirty-four common and widespread species were recorded on every count, including Canada Goose, Sandhill Crane, Chimney Swift, and Common Yellowthroat. Coincidentally, there also were 34 species that were only recorded on a one count. Many of these are rare species to Wisconsin such as Western Grebe, Little Gull, Lark Bunting, and one—Rock Wren—that had not been previously recorded in our state.

The Counts

Andy Paulios and **Kim Kreitinger**, *156 species*, 20 May, the Hoffman Route. Highlights: Andy and Kim were the only team to find the three Caprimulgids expected in Wisconsin—Common Nighthawk, Whip-poor-will, and Chuck-will's-widow. They observed ten out of the eleven expected blackbird species and more flycatcher species than any other count, including Yellow-bellied, Acadian, and Willow Flycatcher. This also was the only count to detect Greater Prairie-Chicken, Short-eared Owl, and Louisiana Waterthrush.

Jim Frank, *151 species*, 18 May, Ozaukee County. Highlights: Jim observed the highest number of waterfowl (14 species) and gulls (6 species) of all counts submitted, including uncommon species such as Harlequin Duck, Thayer's Gull, and Lesser Black-backed Gull. This was the only count to record Glaucous Gull and one of the few to record Northern Bobwhite, Black-bellied Plover, and Sanderling.

Daryl Tessen, *143 species*, 28 May, Stones Bridge, Wisconsin Point, Brule River, Douglas County Wildlife Area, CTY M Road, Crex Meadows Wildlife Area, Grantsburg. Highlights: Daryl detected the most raptors of any count, which included Osprey, Bald Eagle, Northern Harrier, Cooper's Hawk, Broad-winged Hawk, Red-tailed Hawk, American Kestrel, and Merlin. This was the only count to record three owl species—Great Horned, Barred, and Northern Saw-whet—and one of the few to record Sharp-tailed Grouse, Yellow Rail, Connecticut Warbler, and LeConte's Sparrow.

Jim Frank, *141 species*, 14 May, Ozaukee County. Highlights: Jim observed 12 waterfowl, 11 shorebird, and 5 gull species, including several species seldom seen on other counts such as Common Goldeneye, Bufflehead, Red-breasted Merganser, Upland

Sandpiper, and Thayer's Gull. This was the only count to record Whimbrel, Laughing Gull, and American Pipit and one of the few for Horned Grebe and Carolina Wren.

Daryl Tessen, *141 species*, 20 May, Arena Boat Landing, Mazomanie Bottoms State Natural Area, Pheasant Branch, 9 Springs, Harvey Pond, Beaver Dam/Waupun ponds, Horicon Marsh. Highlights: Wetland-associated species were well-represented on this count. Daryl detected seven wading species, including Least Bittern, Great Egret, Black-crowned Night-Heron, and a rare sighting of Glossy Ibis. This was the only count to record Western Sandpiper and Red-necked Phalarope and one of the few for Black Scoter and Ruddy Turnstone.

Wayne Rohde, *132 species*, 18 May, Rock, Green, Dane, Columbia, and Dodge Counties. Highlights: Wayne detected the most vireo species of any count submitted. In addition to the expected Yellow-throated, Blue-headed, Warbling, and Red-eyed Vireos, Wayne also recorded Philadelphia, White-eyed, and Bell's Vireos in Green County. Other highlights included finding Acadian Flycatcher, Hooded Warbler, and Cerulean Warbler at the Cook Arboretum near Janesville.

Steve Betchkal, *130 species*, 27 May, Dodge, Fond du Lac, Marathon, Wood, and Portage Counties. **Highlights:** This was the only count to record Cattle Egret, Little Gull, and all four expected tern species—Caspian, Common, Forster's, and Black. Steve also observed 17 warbler, 12 waterfowl, 8 shorebird, and 8 blackbird species and was one of the few to record Glossy Ibis and Stilt Sandpiper on their Big Day.

Steve Betchkal, *127 species*, 19 May, White River Marsh, Riveredge Nature Center, Kletzsch Park, Sheboygan Harbor, Cleveland, Manitowoc Containment, and Two Rivers Beach. Highlights: Steve recorded 23 warbler species on this count, the second highest Big Day total for 2007. He also detected five thrush species, including Gray-cheeked, Swainson's, Wood, American Robin, and Veery. This was the only count to record Great Black-backed Gull and Peregrine Falcon and one of the few for Merlin, Ruddy Turnstone, Sanderling, Lesser Black-backed Gull, and Hooded Warbler.

Kay Kavanagh, *124 species*, 20 May, Florence County. Highlights: Kay recorded the most finches (6 species) of any count, including two that were not detected on any other 2007 Big Day—White-winged Crossbill and Evening Grosbeak. This was one of the few counts to record Boreal Chickadee, Yellow-billed Cuckoo, Barred Owl, and Winter Wren.

Steve Betchkal, Brian Brezinski, Terry Balding, *124 species*, 25 May, Trempealeau National Wildlife Refuge, Tiffany Bottoms, Eau Claire, Crex Meadows Wildlife Area. Highlights: Despite inclement weather conditions, Steve, Brian, and Terry managed to find the only Lark Bunting of the 2007 Big Day counts. They also observed a diversity of waterbirds, including Red-necked Grebe, American White Pelican, Trumpeter Swan, Black-bellied Plover, and Greater Yellowlegs.

Daryl Tessen, *123 species*, 25 May, Crex Meadows Wildlife Area, Fish Lake, 3 Lakes Marsh, Van Patten Rd. Highlights: Daryl observed Sora, Virginia Rail, and the elusive Yellow Rail and thus had the highest rail diversity

of any Big Day. This was the only count to record Western Grebe and Nelson's Sharp-tailed Sparrow. Other highlights included Sharp-tailed Grouse, LeConte's Sparrow, Least Bittern, and five thrush species including Swainson's, Hermit, Wood, Veery, and American Robin.

Daryl Tessen, *122 species*, 17 May, Wyalusing State Park, Governor Dodge State Park, Spring Green Prairie, Bakken's Road. Highlights: This was an excellent route for detecting woodpeckers and warblers. Daryl observed Red-headed, Red-bellied, Downy, Hairy, Pileated, Northern Flicker, and Yellow-bellied Sapsucker, thus nearly all of the woodpeckers expected in Wisconsin. He also had the highest warbler count of any 2007 Big Day (25 species), which included uncommon or local species such as Prothonotary, Yellow-throated, Cape May, Cerulean, and Kentucky. Other highlights included Olive-sided Flycatcher, Acadian Flycatcher, Bell's Vireo, and Lark Sparrow.

Daryl Tessen, *122 species*, 11 May, Horicon Marsh. Highlights: On this first day of the Horicon Marsh Festival, conditions were ideal for shorebird watching. Daryl observed 15 shorebird species, the highest shorebird diversity of any 2007 Big Day. Included were Black-bellied Plover, White-rumped Sandpiper, Baird's Sandpiper, Dunlin, Wilson's Phalarope, and the only recording of American Golden-Plover. Other highlights included Black Scoter and Common Tern.

Kay Kavanagh, Marilyn Bontly, Joan Sommers, *122 species*, 14 June, Florence County, Highlights: Kay, Marilyn, and Joan were the only team to record Spruce Grouse, Red-shouldered Hawk, Eastern Screech-Owl, and Black-backed Woodpecker on their count. They also observed several species seldom recorded on other counts, such as Barred Owl, Boreal Chickadee, Purple Finch, and Pine Siskin.

Steve Betchkal, *110 species*, 13 May, Vernon Marsh, South Kettle Morraine, Necedah National Wildlife Refuge. Highlights: This was an excellent route for sparrows. Steve observed 11 sparrow species, which included Eastern Towhee, Chipping, Clay-colored, Field, Vesper, Savannah, Grasshopper, Henslow's, Song, Swamp, and White-crowned. Other highlights included Great Egret, Black-crowned Night-Heron, Trumpeter Swan, and Eurasian Collared-Dove.

Steve Betchkal, *109 species*, 4 May, La Crosse to 9 Springs. Highlights: This was another good route for woodpeckers with seven species seen. This was the only count to record Common Merganser and Common Moorhen and one of the few for Bufflehead, Northern Shoveler, Hooded Warbler, and Lark Sparrow.

Steve Betchkal, *107 species*, 5 May, Bong State Recreational Area to Harrington Beach. Highlights: Steve observed a diverse species assemblage on this count, including 12 waterfowl, 12 warbler, and 8 sparrow species as well as uncommon species such as White-eyed Vireo, Horned Grebe, and Black-crowned Night-Heron.

Daryl Tessen, *100 species*, 1 May, Warnimont Park, Coast Guard Impoundment, Lake Park, Harrington Beach State Park, Sheboygan, Cleveland, Manitowoc, Collins Marsh, B Pond (Calumet Co.). Highlights: Although this early date may not have

produced high numbers, it did provide many unique sightings. This was the only count to record Long-tailed Duck, Willet, Golden Eagle, and American Tree Sparrow and one of the few for Harlequin Duck, Horned Grebe, and White-eyed Vireo. Most unusual were the four species of wren recorded—the expected House and Marsh, the less expected Carolina, and the much unexpected **Rock Wren**. This was a state record found the previous day by Steven Lubhan which graciously stuck around for Daryl and others to see.

THE RULES

For all who wish to participate in future Big Day counts, please remember these rules and guidelines:

- The count must be taken within a 24-hour calendar day (midnight to midnight).
- The count must be taken within the state boundaries, but it may cover as many parts of Wisconsin as birders can reach in the time limit.
- All participants must be within direct conversational contact at all times during the birding and traveling periods. This excludes meal and rest stops if birding is not conducted during those times. This limits the number of parties involved to one, and participants to the number safely and comfortably seated in one vehicle.
- Areas can be revisited during the day.
- The same areas may be covered on different Big Day counts.
- No fees are involved in conducting the counts.
- Be sure to drive safely. Sleep deprivation is characteristic of those engaging in Big Days, and drivers and passengers alike are urged to use great caution while driving.
- Counting individual birds is optional.
- Please note that there is no special Big Day form. Standard checklists, such as WSO's ***Wisconsin Birds—Field Checklist***, may be used.
- It is critical that all unusual species—whether they are early or late sightings, or rare species—be completely documented. Reports of rarities are subject to review by the WSO Records Committee.
- Completed Big Day results should be sent directly to Randy Hoffman, WSO Bird Reports Coordinator [see inside front cover of this issue for address], and clearly marked as a Big Day report. All 2008 Big Day reports must reach Randy Hoffman no later than 15 January 2009 to be included in *The Passenger Pigeon* report on Big Days 2008.

Kim Kreitinger recently left her position as an avian Research Scientist with the Wisconsin Department of Natural Resources to return to California where her fiancé lives. She continues to work under contract on the Wisconsin All-Bird Conservation Plan and other Midwestern conservation planning projects with the U.S. Fish and Wildlife Service. Kim previously worked in California for seven years for PRBO Conservation Science and the Endangered Species Recovery Program. She is a bona fide conservation geek and enjoys traveling to far flung places to broaden her cultural and ecological horizons. She has visited more than 20 countries in her travels.

Sandhill Crane in flight by John Van Den Brandt

"From Field and Feeder"

These five stories are observations of fascinating or unusual behaviors by Peregrine Falcons, a Barred Owl, Prothonotary Warblers, an Indigo Bunting, and a Common Grackle.

Peregrine at Breakfast

19 June 2007, Racine, Racine County—My office is on the 11th floor of a twelve story building where a pair of Peregrine Falcons have their nest on the 12th floor. The young this year decided that my window area was their feeding location once they were old enough to fly. This picture (Fig. 1) was taken at breakfast the other day, 19 June 2007. The look up is because one of the parents was circling and scolding the chick for not leaving the food when I appeared at the window. In fact I had opened the window for fresh air and that really got the parent upset. The look was to acknowledge the scolding but not give up breakfast.—*Rob Richardson, Racine, WI.* [*When Greg Septon was shown the picture, he determined that "the falcon in the photo appears to be banded B/39 which would make him Eric. I banded him along with his two siblings at the [Racine County] Courthouse on May 25th."*]

Sports Fan?

25 February 2008, Dretzka Park, Milwaukee County—Disc Golf (Frisbee to us old-timers) has become a passion for my wife and me since last summer. We've played daily throughout the winter. Cold, snow, foggy-mist—we're out there.

On Monday, 25 February 2008, at noontime, we were out tossing the discs on the course at Dretzka Park (Milwaukee County). My wife Linda "drove" her bright pink disc toward hole (basket) number 8. Down swooped a Barred Owl to observe the landing of the disc on the 12–18 inches of snow. We were both surprised and impressed to see this beautiful-plumaged bird of prey. I then tossed my bright orange disc and the owl went to check out its landing. It then perched in a nearby tree and waited patiently for us to pick up our discs for the next toss. It allowed us to get within 60 feet of him/her as we would relocate our discs, which at times can be six to ten inches under the snow.

The owl then followed us, exhibiting this same behavior. It was like a game for the bird. My wife dubbed it SteLi (Steve/Linda) as we conversed with it over the next four holes. It disappeared into the trees and about a minute later, I heard the cawing of

Figure 1. "Eric" at breakfast on the Racine County Courthouse on 19 June 2007, looking up at one of his parents overhead. Photo by Rob Richardson.

crows to the north and realized why we had lost friend and caddie for the rest of the round.

There is a dark-phased Rough-legged Hawk that frequents the park daily and a resident Red-tailed Hawk that passes over hourly. We also had a Cooper's Hawk on Monday, which has appeared sporadically throughout the fall and winter. Last week, a Northern Shrike visited for two consecutive days. And every now and then, an American Kestrel will do a fly-by. In late fall, we heard the hooting of the Great Horned Owl on numerous occasions as we finished our round in twilight. So, three cheers to the Milwaukee County Parks for providing the good habitat for these raptors and allowing my wife and me a great form of exercise.—*Steve Kupcho, Northwest Milwaukee County.*

Unusual Behavior of Prothonotary Warbler

19 May 2007, Wyalusing State Park boat landing, Grant County—Unable to attend the WSO convention due to conflicting personal and work schedules (an annual conflict until I retire I am sad to say), Carol and I managed to spend Saturday morning birding at Wyalusing State Park to pick up some of the usual suspects. One such suspect: Prothonotary Warblers.

For the past few years they have been quite active at the park's public boat landing. This year was no exception. One Prothonotary in particular was feeding under and around the numerous vehicles and boat trailers parked at the landing—not unlike activity of House Sparrows in parking lots looking for insects stuck to vehicles. As we sat and ate our breakfast we were entertained by the unusual feeding behavior we would not typically associate with this warbler.

While we were at the landing a car with three birders from Minnesota arrived. They made their way to the edge of the water and out onto the floating fishing dock. A Prothonotary was calling on the opposite side of the landing but they seemed to be looking

in the wrong direction. I walked toward the group and inquired if they might be looking for the Prothonotary. They answered in the affirmative so I pointed to the right side exterior rear-view mirror of a Chevy Silverado pickup where the Prothonotary was presently perched. We all gathered to watch the bird as it proceeded to the rear of the truck and quite unexpectedly disappeared into the truck's tail pipe! Totally amazed we watched—and watched, and watched—for over thirty seconds, waiting for the bird to reappear. It finally stuck its head out, looked around a bit, and disappeared back into the tail pipe. The bird repeated this three times before finally flying off.

Standing there I commented, "Yes, a Pronthonotary Warbler in the tail pipe of a Chevy pickup—right where you'd expect to find one". One of the other birders replied, "And silly us—we were looking for it in the trees!". We surmised that because the warblers have in past years nested in the pipe railing of the floating dock that pipes in general are an attraction. Not a terribly good long-term nesting solution, given the amount of time needed to bring young off a nest and the time a pickup might remain parked at the landing.—*Tom Sykes, Appleton, WI.*

Fancy Footwork for Feeding

26 June 2007, Schlitz Audubon Center, Milwaukee County—Again while doing the Breeding Bird Census at Schlitz Audubon, I noticed something interesting. A male Indigo Bunting was feeding from the ripe seed head of some tall grass by flying out from his perch on a low bush, grabbing the seed head in his beak, pulling it back to his perch, placing one foot on the stem to hold the grass in place, and then leisurely eating the grains. When he finished with one seed head he would let it go to spring back upright and fly out to grab another. Since if he had tried to stand on the grass stem to feed, it would have bent down to the ground, this seemed like a very clever solution; the sort of thing a famously intelligent bird like a crow would come up with.—*Judith Huf, Milwaukee County, WI.*

Aiding and Abetting an Egg Thief

10 May 2007, Dane County—Yesterday morning as I rolled down a town road on my way to work, I observed a Common Grackle in the road near what appeared to be "road kill." As I approached, the bird hopped away and my vehicle rolled over the "road kill." It was then that I heard the distinct POP of an egg breaking under my tires. In my rear view, I saw the grackle hop back to the track to enjoy its scrambled egg. There was something about the casual attitude of this grackle that tells me he had done this before. The location was about a foot to the right of the center of the road, thereby maximizing the chances for a squash. So I have been made an accomplice to the bird's egg-stealing crime.—*Don Bush, Dane County, WI.*

"Taking Flight" — Bald Eagle by John Van Den Brandt

50 Years Ago in *The Passenger Pigeon*

DDT took center stage at the 1958 annual convention held in Milwaukee. Dixie Larkin presented a stirring protest against the indiscriminate use of DDT and other highly poisonous sprays in her paper entitled *Another Look at Poison Spraying*. She asked for WSO to back her in a fight against this practice.

During the annual business meeting Sam Robbins moved that the WSO urge the State Department of Health, Agriculture and Conservation to devise a code through which they will exert careful and strict control over the use of poison insecticides in Wisconsin. The motion carried.

Later during this meeting, Sam spoke warmly of the work done in respect to the DDT spraying of insecticides by Mrs. Dixie Larkin and moved a vote of thanks to her for this labor in so important a cause. A rising vote of thanks was called for by President Stanley Polacheck.

In another note in this issue there was a call for WSO members to attend a Wisconsin Conservation Commission meeting in September. During a winter hearing, a handful of WSO members had attended and spoke their minds. Although outnumbered by the sprayers and the paper mill operators at the hearing, the Wisconsin Conservation Department did propose a spraying code to be presented at the September meeting.

Another news note appeared on Page 78. "Concern over the indiscriminate use of poison sprays is growing. President Eisenhower recently signed a bill passed by Congress directing the Secretary of the Interior to study the effects on wildlife of insecticides, fungicides, and other pesticides. The latest issue of *Wildlife Review* contains abstracts of 11 articles about the effects of spraying on fish, insects and wildlife, and most of them sound a note of alarm."

Excerpt from Vol. 20(2), 1958 by WSO Historian Noel J. Cutright, 3352 Knollwood Road, West Bend, WI 53095. h. 262 .675. 2443, w. 262. 268. 3617, noel.cutright@we-energies.com.

Bald Eagle captured by John Van Den Brandt

Lessons From the Seasons: Summer 2007

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The first confirmed nesting Kirtland's Warbler was the ultimate Wisconsin bird conservation story for the summer of 2007. Not merely one nest, but three were discovered on industrial forest land. Dean DiTommaso, an environmental consultant working on a major pipeline project, first found 3 singing males on 19 May in a central Wisconsin pine plantation. After reporting the sighting to the Wisconsin DNR, Dean continued observations at the site and eventually was able to document 8 singing males, 3 females, and three nests.

Kirtland's Warblers were carefully monitored at the site by DNR biologists to determine nest success. No definitive evidence of fledged Kirtland's nestlings was found. Two nests raised Brown-headed Cowbirds, and the third nest was found empty with the nestling's fate unknown. Plans are being made for cowbird trapping at the site in 2008, similar to what has been conducted in Michigan for decades.

Confirmed nesting changes the birder's playing field. In the past few decades, birders had a relatively easy system for checking Kirtland's Warbler on their lists. Males appeared with enough regularity that once a bird was sighted an informal pipeline got the word out. A friend would tell a trusted friend, who tell another trusted friend and so on. This pipeline was extremely effective in 2006. A well-worn path led to the Jackson County Kirtland's found closest to the road. The rationale—it's just a wayward male, so my listing or photographing will not affect the population in any way.

Kirtland's Warbler observations in the state are not new. Records of the species and changes in birder attitudes regarding how to approach searching for this endangered species have been occurring for more than a century. From the days of Philo Hoy, who recorded the first Kirtland's Warbler in the state on 20 May 1853 through the mid-1970s all the sightings were in late May. The chances to actively search for Kirtland's Warblers were basically nonexistent, because sightings were mostly happenstance. The timing coincided with the expected dates for the species. Each of these sightings was considered an overflight of birds on their way to the traditional breeding grounds in the

northern part of Michigan's lower peninsula.

Then in 1978, the birder's playing field changed. The primary change was the enactment of the Endangered Species Law, which prohibits harassment of a listed species. Simple acts, such as staying on a bird until the birder could get a definitive visual confirmation or the use of play back tapes could be considered harassment. Listers would still need to travel to Michigan and go on an "official" field trip to get a tick mark for the species in a legal sense.

The local opportunity for finding Kirtland's Warbler was also changing. DNR personnel found male birds in June of 1978 residing both in Juneau and Jackson counties. These records of males during the nesting season were the first for the summer and led to rampant speculation. Was there any evidence of nesting? Would closer inspection find females? Would they come back to the same location? Conservation officials attempted to keep the information somewhat guarded, but news got out to the network of more ardent birders. The next two years birders recorded a male bird in Jackson County, then the sightings ceased for a few years.

In 1977, several large wildfires occurred in barrens-jack pine habitat in Jackson, Washburn, and Douglas Counties. Not unexpectedly, in 1988 when these burned jack pine areas were at the preferred age to be considered habitat, a few more males were located. Sightings of males from these three counties mobilized the Kirtland's Warbler Recovery Team to fund search efforts for males, females, and nests in the subsequent years.

A true conundrum was presented to recovery efforts at the time. While tantalizing reports of birds in the upper peninsula of Michigan, Wisconsin, and Ontario were surfacing, the species population remained alarmingly low with annual counts of singing males hovering around 200 plus or minus a few tens of birds. In the early 1970s, cowbird trapping was initiated with an average of 4,000 birds euthanized every year. This method of nest parasite control increased the average clutch size from 2.3 eggs per nest to 4 and decreased the percent of nests parasitized from nearly 75% to 5%.

This successful method of cowbird control had greatly improved productivity, but seemingly had little effect on the warbler population. In the mid-1970s some 134,000 acres were dedicated to Kirtland's Warbler management and twenty years later an additional 20,000 acres were committed for habitat. The key to habitat management is to get the most amount of preferred habitat instead of a boom/bust cycle. If this 150,000 plus acres of habitat were all the same age, and estimating a traditional 50-year harvest rotation, then the warbler really only has fifteen years out of that fifty when the habitat is right. It could wink out before the next cycle of preferred habitat is available. To alleviate this problem, the committed habitat is managed to maintain at least 38,000 acres of preferred age and structure at all times.

The early 1990s was the start of population expansion. The combined effects of cowbird control and the management of habitat resulted in the expansion. It took awhile, because habitat cannot be instantly created. The long-term commitment eventu-

ally got us to the 2007 estimate of 1,697 territorial males.

In concert with the population expansion was the regularity of sightings from Wisconsin. Male birds were showing up in more places and on a near annual basis. Additional counties hosted males in June, thus offering ample opportunities for the general birding public to add Kirtland's Warbler to their life lists without going to Michigan. Adding to the intrigue, a fall 2002 record from Waukesha County was most enlightening and offered speculation that a population may be found to the north and west of there.

In 2007, the birding for Kirtland's playing field again changed. Females were found. Nests were found. We are no longer a satellite for a few, albeit fairly regular records of males. We are now part of the recovery. Plans for cowbird trapping are in place. If we can raise a few birds, they should come back over and over. The next few years may be critical for establishing a breeding colony in the state. Birds imprinted to the habitat in the state may come back to the same site as if it had always been that way.

Excepting those persons with clearance to work on the recovery, all birders should stay away from the recovery area. Disruption of one nesting Michigan bird may not adversely affect the population there, but the same action here could eliminate them from establishing a foothold in the state. We as ethical birders need to adhere to the basic guidelines established for persons in Kirtland's Warbler habitat.

1. Stay out of the posted nesting areas, no exceptions.
2. Operate all vehicles only on open roads or designated trails.
3. Pets are not allowed to run in posted areas.
4. Do not use recordings, playbacks, imitations, or pishing to attract the birds.
5. Learn more about endangered species and share your conservation ethics with others.
6. Be extremely careful with fire.

If we are patient for a few years and do not disrupt nesting birds, a population of Kirtland's Warbler may become part of the Wisconsin scene and we, too, may have "official" field trips for new birders to get their life bird here.

Red-headed Woodpecker by John Krerowicz

Dunlin by Scott Franke

The Summer Season: 2007

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The number of observers who include weather-related comments in their reports has all but disappeared. From her Jefferson County perspective, Hale said this: "June was rainy the first week but mostly hot and dry after that, especially the week of 10 June when it was in the upper 80s and 90s. July was dry and sunny and quite hot most of the month." The Schwalbes' Columbia County perspective was similar. The Lukes said that northern Door County was suffering from severe drought. Randy Hoffman, in his introduction to the Wisconsin Summer Season Report for *North American Birds*, said "June was epitomized by moderate temperature and adequate rainfall, except locally in the north where it continued to be dry. July was above average temperatures and well below normal rainfall, except isolated locales such as Grant County, which received inordinate amounts of water, causing local flooding."

Observers recorded 266 species during the season, several more than in the past few summers. The account that follows gives details on 173 of them. An additional 55 species that are not mentioned are common and widespread enough to be reported from more than 25 counties. The remaining 38 species, generally noted in 10–25 counties, are listed here, along with the number of counties in which each was recorded: Ruddy Duck (14), Ring-necked Pheasant (16), Ruffed Grouse (21), Wild Turkey (21), Common Loon (25), Pied-billed Grebe (12), American Bittern (20), Green Heron (25), Turkey Vulture (29), Osprey (12), Bald Eagle (23), Sharp-shinned Hawk (14), Broad-winged Hawk (25), Merlin (11), American Coot (11), American Woodcock (17), Ring-billed Gull (24), Herring Gull (13), Great Horned Owl (14), Barred Owl (11), Whip-poor-will (21), Ruby-throated Hummingbird (23), Pileated Woodpecker (22), Least Flycatcher (20), Horned Lark (18), Purple Martin (17), Northern Rough-winged Swallow (25), Bank Swallow (17), Cliff Swallow (24), Brown Thrasher (20), Golden-winged Warbler (17), Black-and-white Warbler (15), Field Sparrow (22), Vesper Sparrow (19), Bobolink (22), Yellow-headed Blackbird (18), Brewer's Blackbird (25), and House Finch (22).

Report Formats

As you look at the Contributors and Cited Observers list at the end of the

report, you should know that about half of the 111 people who submitted reports did so via WSO single- and multi-county and rare bird report forms, sometimes at least partially via electronic versions of those forms. The other half submitted their reports exclusively electronically, presumably most of them via eBird.

County Coverage

If one accepts a minimum number of species count of 25 for a county, one can say that this year's reports justify stating that 45 of our 72 counties received reasonable coverage. Adding counties in the 20–25 range would increase that number to 50. I'm not sure one should go any further in that direction. It might be best simply to say that some relatively small number of counties received poor coverage (or if they were covered, whoever birded there did not submit reports). If you would like the chance to beef up our knowledge of birds in relatively neglected counties, think about investigat-

ing Barron, Buffalo, Calumet, Clark, Lafayette, Marquette, Menominee, Pepin, Portage, Waushara, and Wood Counties, all of which yielded fewer than 10 reported species this season.

Rarities

Birders found a larger number of rarities than is the case many years, especially of water birds. Heading the list was the Common Eider first located in the Sheboygan harbor by Ross Mueller, which on a single day was able to be seen and well documented by a number of birders. This bird turned out to be Wisconsin's first summer record of this species and only its fifth overall. Other birds of special note included a number that depend on water: Harlequin Duck, Snowy Egret, Little Blue Heron, Cattle Egret, Yellow-crowned Night-Heron, Glossy Ibis, King Rail, Piping Plover, Black-necked Stilt, American Avocet, Willet, Marbled Godwit, Red Knot, Western Sandpiper, Buff-breasted Sandpiper, Black-headed, Laughing, Iceland, and Lesser Black-backed Gulls, Black-legged Kittiwake, and Arctic Tern. A number of non-water birds also were of note, including Chuck-will's-widow, Black-backed Woodpecker, Loggerhead Shrike, White-eyed Vireo, Boreal Chickadee, Northern Mockingbird, Cape May, Black-throated Blue, and Yellow-throated Warbler, and Wisconsin's first summering Blue Grosbeaks in 12 years.

Reports
(1 June–31 July 2007)

Mute Swan—Found in Ashland, Dane, Door, Manitowoc, Milwaukee, Waukesha, and Waupaca Counties.

Trumpeter Swan—Reported from Burnett and Washburn (Haseleu), Douglas (LaValleys), Forest (Gustafson), Grant (Romano), Iron (Brandt), Jackson (Paulios), Juneau (Zdeb), Oneida (Spahn), Polk (DeLong), St. Croix (Persico), and Shawano (Belter) Counties.

Gadwall—Noted in these counties: Bayfield, Burnett, Columbia, Dane, Dodge, Fond du Lac, Manitowoc, Walworth, and Winnebago.

American Wigeon—Observed in only 5 counties: Bayfield, Dane, Fond du Lac, Sheboygan, and Winnebago.

American Black Duck—Observers found this species in 10 counties this season: Bayfield, Brown, Dodge, Fond du Lac, Manitowoc, Marathon, Oneida, Racine, Sheboygan, and Vilas.

Northern Shoveler—Only 9 counties harbored this species this year: Adams, Bayfield, Dane, Dodge, Fond du Lac, Jefferson, Manitowoc, Milwaukee, and Walworth.

Northern Pintail—Noted in only these counties this season: Fond du Lac (Tessen), Jefferson (Hale), and Juneau (Zdeb).

Canvasback—Present in Fond du Lac (Moretti) and and Ozaukee (Frank) Counties.

Redhead—Noted through the season in Bayfield County, with a high count of 20 (Brady). Also observed in these counties: Brown, Dodge, Fond du Lac, Jefferson, Manitowoc, Milwaukee, Outagamie, Sheboygan, and Waukesha.

Ring-necked Duck—Reported from a few more counties than usual: Bayfield, Burnett, Dane, Forest, Iron, Marathon, Milwaukee, Monroe, St. Croix, and Vilas.

Greater Scaup—Frank observed these in June in both Ozaukee and Sheboygan Counties.

Lesser Scaup—Reports of these came from Bayfield (Brady), Manitowoc (Sontag), Marathon (Belter), and Milwaukee and Sheboygan (Frank) Counties.

Common Eider—A bird in the Sheboygan harbor on a single day, 5 June, enabled a number of observers to enjoy this sea duck (Brassers, Gustafson, Korducki, Malueg, Sontag, and Tessen). See "By the Wayside" for some excellent write-ups.

Harlequin Duck—Two birds in Sheboygan County during the first week of June provided a treat for a number of observers (Brassers, Frank, Gustafson, Hansen, Schneider, Siekmann, Stutz, Tessen, and T. Wood.

Surf Scoter—Brady reported one in Bayfield County on 2 June.

Common Goldeneye—Gustafson and Tessen noted a bird on 5 June in Sheboygan County. Single birds were seen 9 June in Milwaukee (Wilson) and Vilas (Paulios) Counties.

Hooded Merganser—Reported from 24 counties overall. Although a fair number of observations were made in southern and/or eastern counties, more birds were seen in northern counties, with the reports of more than one or 2 birds coming from the counties farthest north.

Common Merganser—Recorded in 13 counties overall, over half of them being ones in the far north.

Red-breasted Merganser—Noted in these 7 counties: Ashland, Bayfield, Door, Manitowoc, Ozaukee, Racine, and Sheboygan.

Gray Partridge—Bucci's observation of one in Dane County 22 July constitutes the season's only record.

Spruce Grouse—More were seen this year than have been reported in most summers of the past decade: Florence County 14 and 30 June (Kavanagh), Forest County 29 June (Gustafson), and Oneida County 8 June, (8 birds, Yaeger).

Sharp-tailed Grouse—Noted in Burnett (Haseleu, Prestby), Douglas (LaValleys), and Taylor (Kavanagh) Counties.

Greater Prairie-Chicken—There were no reports this summer.

Northern Bobwhite—Observed in these counties: Dane, Dodge, Dunn, Kenosha, La Crosse, Marquette, Monroe, Ozaukee, Richland, Rock, Sauk, Vernon, Walworth, and Winnebago.

Red-necked Grebe—Noted only in Columbia County (Gustafson, the Schwalbes, Stutz).

American White Pelican—Observers found these in no less than 19 counties. The largest numbers were noted in Horicon Marsh and near Lake Winnebago and Green Bay. Ziebell observed 350 in Winnebago County on 9 June.

Double-crested Cormorant—Ziebell estimated no less than 4,000 in Winnebago County 13 June. Reported from 19 counties in all.

Least Bittern—Reported from Columbia, Dane, Dodge, Fond du Lac, Marathon, Ozaukee, Rock, Sauk, Sheboygan, Waukesha, and Winnebago Counties.

Great Egret—Observers found these in 25 counties overall. Ziebell estimated nearly 400 in Winnebago County on 9 June. Horicon Marsh also hosted large numbers. The most northern report came from Marinette County TTP (Campbell).

Snowy Egret—There were reports of a bird on 3 June in the Mead Wildlife Area, Marathon County (Schoen) and of birds seen on various June and July dates in Brown County (Baumanns, T. Wood).

Little Blue Heron—Sightings came from various parts of Horicon Marsh, Fond du Lac and Dodge Counties, 2–28 July (Baumanns, Frank, Freriks, Holschbach, Martin, Prestby, Stutz, Sundell, Tessen, and T. Wood).

Cattle Egret—Very few reports, from Fond du Lac (Kavanagh and Tessen), La Crosse (Lesher), and Winnebago (Ziebell) Counties.

Black-crowned Night-Heron—Ziebell estimated 420 in Winnebago County 9 June. Reported from 13 additional counties.

Yellow-crowned Night-Heron—Noted in 2 counties: Walworth 8 June (Boyle, Paulios) and Manitowoc 23–29 July (Prestby, Sontag, T. Wood).

Glossy Ibis—For a written account of one photographed in Waukesha County 8 June (Winze), see "By the Wayside." Varying numbers of this species were reported from the Fond du Lac County portion of Horicon Marsh in early June (Kavanagh, Moretti).

Northern Goshawk—Reported from these 8 counties in July: Douglas (LaValleys), Forest and Florence (Kavanagh), Iron (Brandt), Langlade (3 birds!) and Oneida (Richmond), Marinette (Wiese), and Vilas (Spahn).

Red-shouldered Hawk—Observers found this species in 17 counties: Dane, Door, Dou-

glas, Dunn, Grant, Iowa, La Crosse, Marinette, Monroe, Oconto, Outagamie, Pierce, Rock, St. Croix, Sauk, Washington, and Waupaca.

Peregrine Falcon—Reported from Bayfield, Columbia, Jefferson, La Crosse, Manitowoc, Marathon, Milwaukee, Ozaukee, Pepin, and Sheboygan Counties.

King Rail—Tessen heard one in Dodge County 21 July.

Virginia Rail—Observers found these in Columbia, Dodge, Fond du Lac, Milwaukee, Outagamie, Ozaukee, and Winnebago Counties.

Sora—Noted in Dodge, Fond du Lac, Kenosha, Manitowoc, Milwaukee, Outagamie, Sauk, Sheboygan, and Winnebago Counties.

Common Moorhen—Reported from Adams, Columbia, Dodge, Fond du Lac, Jefferson, Kenosha, La Crosse, Walworth, and Winnebago Counties.

Sandhill Crane—Noted in 19 counties overall, with numbers in excess of 80 reported from 6 of them. The Winnebago County count was about 200 both on 17 June (Ziebell) and 29 July (Prestby).

Whooping Crane—Tessen saw 2 in Juneau County 12 July; others also found this species there later in the month. Holschbach reported one in Dodge County 28 July.

Black-bellied Plover—All dates: Marinette County 1 June (Campbell), Dane County 12 June (Kavanagh), and Milwaukee County 1 July (Frank) and 3 July (Wilson).

American Golden-Plover—The only report was of a single bird in Jefferson County 28 June (Kollath).

Semipalmated Plover—Most northbound birds had left by about 10 June, but some departed between 12 June and 16 June. Birds began to return as early as 9 July, with others showing up within the next week.

Piping Plover—Last year's good news continues with Matteson's report of 5 confirmed nestings this season, with at least 11 chicks fledged. Sontag reported the appearance of this species in Manitowoc on 30 July.

Black-necked Stilt—After a few recent summers in which lucky birders might at least have had the chance to see one of these in the Horicon Marsh area, this year provided that opportunity for multiple folks, over almost the full month of July. Nearly all these sightings were north of Highway 49, in Fond du Lac County, although a few were in Dodge County. Tessen led off on 1 July, and reported seeing the bird almost until month's end. Other sightings were on 6 July (Dixon and Gustafson) and 29 July (Freriks, who obtained a spectacular photo—Fig. 1). The excellent write-ups by these observers all emphasized these characteristics of this striking bird: its very long, pinkish-red legs, its very slender, long and thin, black bill, and its strikingly bright white undersides, which were in sharp contrast to the very black back of the very thin neck, part of the face, and wings. The line of demarcation between the white and black areas of the plumage was very sharp. There were additional reports, all in July, from Frank, Goodman, Heikkinen, Holshbach, Martin, Matney, Mooney, Prestby, R. Rohde, Schorsch, Seiser, and T. Wood.

American Avocet—All this summer's reports come from Fond du Lac and Dodge Counties, on 4 July (Frank, Mooney) or 29 July (Frank, Martin, Prestby, R. Rohde, Schorsch, and T. Wood). [Fig. 1]

Solitary Sandpiper—Returning birds appeared in 5 counties during the first week of July.

Greater Yellowlegs—Returning birds were noted first 30 June in Dodge County (Martin), followed by arrivals 4–6 July in several counties and within the next week in a number more.

Willet—Noted in 3 counties: Ashland, 8 June, 3 birds, (Brady), Manitowoc 30 June (Sontag), and Fond du Lac 9 July (Knuth).

Lesser Yellowlegs—One was still present in Dane County 2 June (Stutz). The first returning migrants appeared in Fond du Lac (Tessen) and Manitowoc (Sontag) Counties on 25 June, and within a week observers found them in 2 additional counties, with birds following in 4 more counties within the next few days.

Upland Sandpiper—Observers found this species in fewer counties than in the past few years: Bayfield, Burnett, Dane, Douglas, Florence, Green, Marinette, Ozaukee, and Portage.

Marbled Godwit—Reported in Fond du Lac County by Knuth on 9 July and also 28–31

Figure 1. Dave Freriks managed to catch the Black-necked Stilt, American Avocet, and Marbled Godwit in one photograph on 29 July 2007 along Hwy 49 at Horicon Marsh.

July by many observers (Frank, Helland, Holschbach, Martin, Prestby, R. Rohde, Schiffman, Tessen, and T. Wood). Freriks obtained an excellent photo on 29 July (Fig. 1). Ziebell also reported one in Winnebago County 21 July.

Ruddy Turnstone—Noted in early June in 5 counties, latest on 9 June in Winnebago County (Ziebell) and 11 June in Bayfield County (Brady). Was a bird in Florence County June 23 (Kavanagh) heading north or south? More certainly returning birds were in Milwaukee County 1 July (Frank, Mooney) and 3 July (Wilson) and in Bayfield County 28 July (Oksiuta).

Red Knot—Single birds were reported 20 July (Bucci) and 22 July (Schiffman) in Fond du Lac County.

Sanderling—One was in Sheboygan County 4 June (Tessen). Sontag reported it to be present from 14 July through EOP in Manitowoc County. The other reports came from these counties: Milwaukee 16 July (Mastroianni), Dodge 28 July (Tessen), and Fond du Lac 31 July (6 birds, Schiffman).

Semipalmated Sandpiper—Birds remained through the first week in June and even beyond in a number of areas. The latest stragglers were in Bayfield (Brady) and Fond du Lac (Tessen) Counties 16 June. Returning birds showed up in Burnett County by 6 July (Prestby, at least 70 birds), with others not being evident until about 2 weeks later.

Western Sandpiper—A bird was seen well (and documented; see "By the Wayside") in Milwaukee County 10 July (Gustafson).

Least Sandpiper—Sontag reported spring stragglers in Manitowoc County through 28 June, with the earliest southbound birds appearing there 13 July. Was a 4 July bird in Iowa County (Holschbach) heading north or south? The data available don't allow easy characterization of a precise pattern of this season's migration.

White-rumped Sandpiper—Observed in Eau Claire County 8 June (Polk), Milwaukee (Mooney, Wilson), St. Croix (Persico), and Winnebago (Bruce) Counties 9 June, and Bayfield County 11–16 June (Brady). Returning (?) birds appeared in Racine County 26 June (Fare) and

in Fond du Lac County 29 July (Martin, Moretti).

Baird's Sandpiper—Present in Eau Claire County 8 June (Polk) and St.Croix County 9 June Persico). Returning birds appeared first in Milwaukee County 15 July (Mooney), Marathon County 20 July (Belter) and Fond du Lac County 21 July (Stutz). Later reports came from Dodge, Iowa, and Jefferson Counties.

Pectoral Sandpiper—Sontag reported the last spring migrants in Manitowoc County on 18 June, with southbound birds returning by 17 July. Prestby found 50 birds in Burnett County 6 July, and returning birds appeared in 9 additional counties between 20 July and 29 July.

Dunlin—Birds lingered in a number of counties in June, as usual, remaining as late as 16 June in Fond du Lac County (Tessen), 17 June in Bayfield County (Brady), and 22 June in Manitowoc County (Sontag). The only report after June comes from Fond du Lac County on 6 July (Goodman).

Stilt Sandpiper—Reported earliest in Fond du Lac County on 4 July (Tessen) and 6 July (Gustafson). Noted in an additional 8 counties, from mid-month through EOP.

Buff-breasted Sandpiper—A bird in Columbia County 31 July provides the first summer report of this species since 2005 (N. Cutright).

Short-billed Dowitcher—Noted from 3 July through EOP in Manitowoc County (Sontag). Appeared in 5 additional counties between 4 July and 6 July, with subsequent observations in 5 more counties before the end of the month.

Long-billed Dowitcher—Tessen found birds in Fond du Lac County 21 July and Dodge County 28 July. Other reports came from Brown County 24 July (Atwater), Columbia County 28 July (Schwalbes), and Fond du Lac County 2 July (Baumanns), 28 July (Holschbach) and 29 July (Martin).

Wilson's Snipe—Noted in fewer counties than usual: Dodge, Marathon, Waukesha, and Winnebago.

Wilson's Phalarope—Reported from Dodge, Fond du Lac, Jefferson, and Walworth Counties.

Laughing Gull—Webb provided a photograph of a bird he saw 2 June in Dane County. That bird had been seen by several other birders the day before (Evanson, Kreitinger, T. Wood), that day (Bucci, Stutz, Yoerger), or a day or 2 later (Heikkinen, McDonald). There were Dane County reports of this species from others from over a week later, but it is not known whether they were of this same bird. There were reports also from Ozaukee County 21 June (Frank), Manitowoc County BOP through 30 June (Sontag), and Sheboygan County 4 June (Tessen, an adult bird). [Fig. 2]

Franklin's Gull—Tessen found an adult in Sheboygan County 12 June.

Little Gull—Reported from several counties: Manitowoc (Sontag, 2 June), Ozaukee (Frank, 21 June, 2 birds), and Sheboygan (Brassers, Goodman, Hansen, Kavanagh, Tessen, Weber, and T. Wood, various June dates).

Black-headed Gull—Schaufenbuel found one of these not-often-seen gulls in Sheboygan County 16 July. For details, see "By the Wayside."

Bonaparte's Gull—Both Manitowoc and Sheboygan Counties harbored several hundred birds in early June. Also noted in Ashland, Dodge, Racine, and Winnebago Counties.

Thayer's Gull—Tessen found one adult in Sheboygan County 4 June.

Iceland Gull—Present 4 and 5 June in Sheboygan County (Brassers, Gustafson, Tessen).

Lesser Black-backed Gull—Frank found one in Ozaukee County 2 June. Also reported from Sheboygan County on various dates 2 June–12 June (Brassers, Gustafson, Mooney, Schneider, Siekmann, Tessen, and T. Wood).

Glaucous Gull—Tessen saw a second year bird in Sheboygan County 4 June.

Great Black-backed Gull—Present TTP in Manitowoc County (Sontag) and through 19 June in Winnebago County (Ziebell). Jarvis found one in Racine County 25 June. A number of people saw birds at various times in Sheboygan County.

Black-legged Kittiwake—Tessen and T. Wood provided documentation of a bird seen 2 June through 4 June in Sheboygan County. A

Figure 2. This Laughing Gull was photographed by Dave Freriks near North Point, Sheboygan on 8 July 2007.

few others reported seeing this bird but unfortunately did not provide details.

Caspian Tern—Present TTP in Manitowoc (Sontag), Sheboygan (Brassers), and Winnebago (Ziebell) Counties. Over 1000 nested off the Door County peninsula (Matteson). Reports also came from these additional counties: Bayfield, Brown, Fond du Lac, Kenosha, Marinette, Milwaukee, Oconto, Ozaukee, Racine, and Waukesha.

Black Tern—Several observers reported good numbers in their area. Noted in 17 counties in all.

Common Tern—Matteson reported that more than 400 pairs nested at four sites. Observers found this species in Ashland, Dodge, Door, Douglas, Fond du Lac, Manitowoc, Milwaukee, Oconto, Racine, Sheboygan, and Winnebago Counties.

Arctic Tern—Wisconsin birders have not reported this species in summer since 1988. This year an obliging bird spent 5 June in Sheboygan County, long enough for Gustafson to document its presence (see "By the Wayside").

Forster's Tern—Present TTP in Manitowoc (Sontag) and Winnebago (Ziebell) Counties. Matteson reported that over 300 pairs nested, at 5 sites. Observers found birds in these counties: Ashland, Dodge, Fond du Lac, Green Lake, Kenosha, La Crosse, Marinette, Milwaukee, Oconto, Outagamie, Ozaukee, Racine, Sheboygan, and Waukesha.

Eurasian Collared-Dove—Raflik encountered one in Waupun, Dodge County, 16 and 17 July (Fig. 3). Holschbach and Kavanagh both reported 2 birds from Grant County, where this species has been found previously.

Yellow-billed Cuckoo—This species was noted in no less than 39 counties, the most northern of which were Florence, Forest, Marinette, Sawyer, and Washburn.

Black-billed Cuckoo—Also reported from 39 counties, from all parts of the state.

Eastern Screech-Owl—Noted in Florence (Kavanagh), Milwaukee (Vargo), Outagamie (Tessen), Racine (Kennedy), Sheboygan (Brigham), and Winnebago (Ziebell) Counties.

Great Gray Owl—Brady couldn't spend much time searching for these in Bayfield County, but he kept track of one for most of June and was aware of 2 others in the area.

Figure 3. Jeff Raflik provided documentation of the pair of Eurasian Collared-Doves near his home in Waupun on 18 July 2007. Their nest was later found, but no evidence of any eggs or young was determined.

Northern Saw-whet Owl—The only reports were from Grant County 21 July (Schneider) and Douglas County TTP (LaValleys).

Common Nighthawk—The lowest number of reports ever, from only 6 counties: Douglas TTP (LaValleys), Forest (Spahn), Jackson 15 June (Evanson) and 7 July (Prestby), Manitowoc BOP through 21 June (Sontag), Marathon (Belter), and Marinette 2 June (Kavanagh).

Chuck-will's-widow—Jackson and Kieser heard a bird at a previously known location in Jackson County and carefully described its call (see "By the Wayside").

Red-headed Woodpecker—Observed in 29 counties this season, about the same as the 30 of 2005. But this comparison may be misleading, since the reports based on last year's 22 counties probably were not derived much from eBird reports, of which there were quite a number this year.

Red-bellied Woodpecker—Among the 24 reporting counties, the most northern were Burnett (McInroy), Marathon (Belter), Marinette (Campbell), and Washburn (Haseleu).

Yellow-bellied Sapsucker—Noted in 42 counties. Of these, the most southern were Dane, Dodge, Grant, Iowa, La Crosse, Pepin, Racine, Richland, Sauk, Trempealeau, and Vernon.

Black-backed Woodpecker—Spahn found a male in Vilas County 5 July. Kavanagh found one in Florence County 24 June. Both she and Prestby found 2 in Sawyer County 5 June.

Olive-sided Flycatcher—Birds lingered into the first week of June in some southern counties, latest in Milwaukee 7 June (Vargo). Birds were observed in later June or July in Bayfield, Douglas, Florence, Forest, Iron, Oneida, and Vilas Counties.

Yellow-bellied Flycatcher—Early June reports came from several southern counties, latest of 2 birds on 5 June in Milwaukee (Bontly). Present 11 June in Sauk County (Gustafson). Mertins found one 23 June in Waukesha County, presumably in the part of the county that over the years has hosted an amazing variety of "northern" species. Observers found this species in 11 northern counties later in June and July.

Acadian Flycatcher—Moretti found 12 in Waukesha County on 16 June. Other reports came from these additional 14 counties: Dane, Fond du Lac, Grant, Green Lake, Iowa, Jefferson, Juneau, Marinette, Outagamie, Pepin, Rock, Sauk, Vernon, and Walworth.

Alder Flycatcher—Reports came from 16 counties. As is usual, most of these are northern. Present TTP in St. Croix County (Persico) and through 17 June in Winnebago County (Ziebell).

Willow Flycatcher—Reported from 36 counties, including these more northern ones: Marathon (Belter), Oconto (Smiths), and Shawano (Szymczak).

Loggerhead Shrike—There were only 3 reports: BOP through 15 June (Bayfield County, Brady), 17 June (Ashland County, Oksiuta), and 12 July (Pierce County, Holschbach).

White-eyed Vireo—Noted in 4 counties: Green, 1 June (T. Wood), Iowa, BOP through 20 July (Holschbach) [*see* Holschbach's documentation of first confirmed breeding in state], Jefferson, 28 July (Gustafson), and Waukesha, 6 June (Moretti).

Bell's Vireo—Seen and/or heard by at least 8 observers in these counties: Dane, Dunn, Eau Claire, Green, Iowa, La Crosse, and Vernon.

Yellow-throated Vireo—Among the 22 counties in which this species was found, the most northern were Burnett, Douglas, Marathon, Oconto, and Washburn.

Blue-headed Vireo—Observers found these in 20 counties, most of them northern ones. Birds in Jefferson County on 13 June and 29 June were unusual (Szymczak). The 3 birds that Gustafson found in Waukesha County through much of the season also may seem unusual, but they might well have been in a part of the Kettle Moraine Forest that has harbored quite an assortment of "northern" species over the years.

Gray Jay—Kavanagh found these in Florence, Forest (along with Gustafson), and Marinette Counties. The other reports came from Iron (Brady) and Sawyer (Prestby) Counties.

Common Raven—Among the 28 counties in which these were observed, the most southern are Polk (Holschbach) in the west and Outagamie (Tessen) in the east.

Boreal Chickadee—Located in Forest, Florence, and Vilas Counties this summer (Gustafson, Kavanagh, Spahn).

Tufted Titmouse—Observers found these in no less than 16 counties: Chippewa, Columbia, Dane, Dunn, Eau Claire, Grant, Green, Iowa, La Crosse, Monroe, Richland, Rock, Sauk, Vernon, Walworth, and Waukesha.

Red-breasted Nuthatch—A good year. Spahn found them "abundant in the Nicolet Forest, with LOTS of young", and multiple birds were present in several southern counties, sometimes TTP. Noted in 20 counties overall.

Brown Creeper—Observed in 14 counties, sometimes TTP and/or with young: Columbia, Door, Florence, Iron, Juneau, Langlade, Marinette, Oconto, Oneida, Outagamie, Price, Sawyer, Shawano, and Vilas.

Carolina Wren—There were reports from these counties: Adams (Helland), Brown (Prestby), Dane and Jefferson (Heikkinen), Eau Claire (Polk), Grant (Romano), Milwaukee (Mooney), and Racine (Kennedy).

Winter Wren—Frank observed birds in Washington County 18 and 19 June, and Holschbach found 4 birds in Sauk County 23 June. The remaining reports came from 12 counties considerably further north.

Golden-crowned Kinglet—Szymczak reported birds in Waukesha County 28 June and 24 July; they have previously occurred there. Spahn observed a number in black spruce areas in the Nicolet Forest, many in family groups. Noted in 7 additional northern counties.

Ruby-crowned Kinglet—The only observation this season was of 2 birds in Iron County 12 June (Brandt).

Blue-gray Gnatcatcher—The most northern reports this year came from these counties: Marathon (Belter), Oconto (Smiths), and Washburn (Haseleu). Among the 18 more southern counties, the largest number of birds reported was of 11 on 16 June in Kenosha County (Howe).

Eastern Bluebird—We anticipated that with the possible likelihood of our getting generally more reports for this season than in the past because of the increased ways to report sightings, it was a surprise to find that reports of this species came from a total of only 23 counties, not much more than half of the numbers for each of the last 2 seasons. Whatever the reason(s), this lower number of reports may be cause for concern.

Veery—Reported from no less than 47 quite well distributed counties this season, representing the various parts of the state rather well.

Swainson's Thrush—Late migrants were noted in 3 counties during the first few days of June: Shawano (Ewing), Sheboygan (Brassers), and Winnebago (Bruce). Mooney found a likely migrant in Milwaukee County 29 July. It is difficult to know what to make of a bird in Burnett County 4 July (Harold).

Hermit Thrush—Evanson counted 26 in Jackson County on 16 June. Reported from 11 counties in all.

Wood Thrush—Kavanagh heard 4 in Florence County 15 July. Observers noted birds in 18 counties in all.

Northern Mockingbird—Tessen was surprised by a bird that he saw well while he was in his yard in Outagamie County 17 June. Noel Cutright was treated to a 15-minute serenade by one in Marinette County 25 June.

Blue-winged Warbler—Of the 30 reporting counties, the most northern were Marathon (Belter), Marinette (Bontly), and Oconto (Smiths).

Tennessee Warbler—A migrant was in Fond du Lac County 2 June (McLeod). Interesting was a bird in Douglas County that remained through 18 June (LaValleys). A fall migrant appeared in Door County 21 July (Lukes).

Nashville Warbler—Of the 27 reporting counties, the most southern were Grant (Romano) and Ozaukee (Boyle).

Northern Parula—This species occurred in 15 counties within its usual "northern" range.

Chesnut-sided Warbler—Reported from no less than 40 counties, giving quite a good distribution among the different parts of the state.

Magnolia Warbler—Birds lingered in Racine County until 2 June (Kennedy) and in Winnebago County until 10 June (Ziebell). Residents were tallied in these counties: Ashland, Bayfield, Douglas, Florence, Forest, Marathon, Marinette, Oconto, Sawyer, and Vilas.

Cape May Warbler—Observed in these 6 counties: Ashland (Boyle), Douglas (Stutz), Forest (Atwater), Florence and Marinette (Kavanagh), and Sawyer (Prestby).

Black-throated Blue Warbler—Noted in only 4 counties: Florence and Marinette (Kavanagh), Iron (Brandt), and Vilas (Spahn).

Yellow-rumped Warbler—Reported from only 6 counties this season, Adams (Tessen) being the most southern one.

Black-throated Green Warbler—Present TTP in Waukesha County (Gustafson). Also observed in Sauk County (Gustafson, Holschbach). The remaining 6 reporting counties were all considerably further north.

Blackburnian Warbler—This is another of the periodic Waukesha County "northern" specialties. Szymczak found 2 of these there on 23 June. There also were reports from Sauk County 11 June and 23 June (Holschbach). The remaining 14 reporting counties were all decidedly further north.

Yellow-throated Warbler—Present again this year in Grant County, on 11 June (Kavanagh) and 15 July (Holschbach).

Pine Warbler—Present BOP through 21 July in Sheboygan County (Brassers), BOP through 15 June in Manitowoc County (Sontag), and TTP in Waukesha County

(Gustafson). Except for a 12 July record in La Crosse County (Lesher), the remaining reports come from 6 central or northern counties representing normal range.

Palm Warbler—Spahn, who visits the Nicolet Forest area many summers, has encountered this species on numerous occasions. This summer he found a family with fledged young and also heard several singing males in other areas. Other reports came from 3 counties: Iron (Brandt), Sawyer (Prestby), and Vilas (David).

Blackpoll Warbler—Lingered through 3 June in several counties. Was a bird in Florence County on 14 June (Sommer) just lingering longer?

Cerulean Warbler—Observers found these in these 13 counties: Dane, Dunn, Fond du Lac, Grant, Green Lake, Iowa, Jefferson, Juneau, Marathon, Rock, Sauk, Walworth, and Waukesha.

American Redstart—This widespread species was reported from 31 counties.

Prothonotary Warbler—Observed in numerous counties this season: Brown (Atwater), Dane and Dodge (Paulios), Grant (Kavanagh, Romano), Green (Evanson), Iowa (Holschbach), Jefferson (Gustafson), Outagamie (Petznick), Pierce (Persico), Richland (Paulios), Rock (Evanson), and Sauk (Holschbach).

Worm-eating Warbler—Gustafson heard a bird 19 July at a Waukesha County location where one had been reported in May. Its song "was a buzzy trill, somewhat like a Chipping Sparrow (several were singing nearby)." The song "was delivered at a faster rate, was more insectlike (as the books describe it) and increased a little in volume at the end".

Northern Waterthrush—Noted in Bayfield, Door, Douglas, Florence, Fond du Lac, Langlade, Lincoln, Marathon, Marinette, Sauk, Sawyer, Shawano, Sheboygan, St. Croix, Vernon, Walworth, Washburn, and Waupaca Counties.

Louisiana Waterthrush—Reported from Sauk (Gustafson, Kavanagh), Vernon (Duerksen), and Walworth (Black) Counties.

Kentucky Warbler—Five observers account for records from 3 counties: Grant (Fenske, Holschbach, Kavanagh), Sauk (McDonald), and Vernon (Duerksen).

Connecticut Warbler—Noted in 5 counties: Douglas (LaValleys, Stutz), Iron (Brandt), Price (Kavanagh), Sawyer (Kavanagh, Prestby), and Vilas (Yaeger).

Mourning Warbler—Present BOP through 17 June in Manitowoc County (Sontag) and TTP in Sheboygan County (Brassers). Also reported from Douglas, Florence, Langlade, Marathon, Oconto, Outagamie, Shawano, and Waupaca Counties.

Hooded Warbler—Not only were these observed in more counties than usual, but several birders had high counts of this species. Szymczak counted 7 in Walworth County on 8 July and an amazing 24 in Waukesha County on 21 July (Gustafson had tallied at least 9 there during the summer). Other reports came from these additional counties: Dane (Stutz), Fond du Lac (McLeod), Jefferson (Szymczak), Richland (West), Rock (Paulios), Sauk (Gustafson, Holschbach), and Sheboygan (T. Wood).

Wilson's Warbler—There were early June reports of these in 4 counties.

Canada Warbler—Of the 6 June reports in southern counties, by far the latest was a bird in Racine County on 17 June (Kennedy). Noted in these counties later in the season: Bayfield, Douglas, Florence, Iron, Langlade, Lincoln, Marathon, Marinette, and Sawyer.

Yellow-breasted Chat—Found in 6 counties: Dane (McDowell, Mettel), Fond du Lac (Tessen), Iowa (Kavanagh), Kenosha (Gustafson), Marinette (N. Cutright, Kavanagh), and Walworth (Howe).

Lark Sparrow—Several observers found this species in Sauk County: Gustafson, Holschbach (16 on 17 July), and Stutz (10 on 12 July). Paulios reported birds in Adams, Rock, and Waushara Counties, and Prestby found two birds in Monroe County on 8 July.

Grasshopper Sparrow—Of the 30 counties from which these were reported, the most northern were Chippewa in the west (Betchkal) and Florence and Marinette (Kavanagh), Oneida (Spahn), and Vilas (Yaeger) in the east.

Henslow's Sparrow—Surprisingly, observed in no less than 29 counties, most of them southern and central. The highest counts reported were in Green Lake (12, Schultz) and Monroe (10, Epstein) Counties.

Le Conte's Sparrow—Burnett County yielded 2 reports, by Haseleu (5 June) and Prestby, (5 birds on 6 July). Brady found 7 in Bayfield County on 20 July and 4 in Vilas County on 1 June. Paulios found single birds in Barron County on 11 June and in Jackson County on 6 June. The LaValleys reported this species BOP through 21 July in Douglas County. Yaeger found 5 birds in Oneida County on 24 June.

Nelson's Sharp-tailed Sparrow—The only report was of 2 birds in Burnett County on 6 July (Prestby).

Lincoln's Sparrow—Reported from 7 counties: Douglas (LaValleys), Florence, Forest and Marinette (Kavanagh), Marathon (Belter), Oneida (Gustafson, Yaeger), and Vilas (Peczynski).

White-throated Sparrow—One surprised Tessen in his yard in Outagamie County on 2 July. An immature was in Oconto County from 8 June to EOP (Smiths). Other reports came from 7 northern and central counties.

Dark-eyed Junco—Kavanagh observed birds in Florence and Marinette Counties, and Spahn found many in Vilas County in early July, some feeding young.

Northern Cardinal—Birders found these in 24 counties, of which the most northern were Marathon, Marinette, Oconto, and Washburn.

Blue Grosbeak—A stunning, fairly cooperative male spent enough time in an accessible part of Fort McCoy, Monroe County, to permit quite a number of birders to see and hear it. Summers and E. Wood found it on 2 July, and it was seen by several others on various occasions during the next 10 days (Jackson, Lesher, Prestby, and Tessen). Amazingly, a second bird was seen in Sauk County on 14 July (Holschbach). For accounts by several of these observers, see "By the Wayside."

Dickcissel—Reported from 35 counties, not many fewer than the 41 of last summer. The most northern ones this year were Bayfield, Douglas, Marathon, Oconto, and Vilas. In general, the average number of individuals reported this year tended to be considerably less, compared to last year.

Eastern Meadowlark—Noted in 24 counties this season.

Western Meadowlark—A possibly hopeful sign is the fact that there were not many fewer counties yielding Westerns (19) than Easterns this year, in contrast to last year, when the Eastern/Western County ratio was greater than 3 to 1.

Orchard Oriole—Observers found this species in almost twice as many counties as was the case last year (29 vs. 14). A bird in Florence County provided by far the most northern record (Peczynski). Frank found 6 in Ozaukee County on 19 July, and observers in 6 other counties reported at least 3 individuals in a given day.

Purple Finch—Reported from 21 mostly northern counties.

Red Crossbill—Brady witnessed a rather bizarre migration along the Lake Superior shore in Iron County on 9 June. Along with about 800 waxwings, he counted 236 Red Crossbills, the largest number he had ever seen in one day. He also found this species in Bayfield County on 30 June. Other reports of this species came from Forest County 10 June (Atwater) and Sawyer County 5 June (Prestby).

White-winged Crossbill—Noted in June in Bayfield (Brady), Forest (Gustafson), Sawyer (Prestby), and Shawano (Ewing) Counties.

Pine Siskin—Present TTP in Bayfield County, with a high of 84 on 9 June (Brady). Also reported from Eau Claire County 8 June (Forsgren), Langlade County 12 June (Szymczak), Marathon County 10 June (Belter), and in these counties further north: Douglas (Haseleu, LaValleys), Florence, Forest, and Marinette (Kavanagh), Iron (Brandt), Oneida (Robinson), and Sawyer (Prestby).

Evening Grosbeak—Present from 9 June to EOP in Bayfield County (Brady). Present TTP in Douglas County, where adults brought young to feed (LaValleys). Also observed in Florence and Marinette (Kavanagh), Iron (Brady), Sawyer (Prestby), and Vilas (Paulios) Counties.

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Nesting? Canada Geese photographed by Sandy Pfotenhauer

"By the Wayside"—Summer 2007

These reports of rare species include Common Eider, Glossy Ibis, Western Sandpiper, Black-headed Gull, Black-legged Kittiwake, Arctic Tern, Chuck-will's-widow, and Blue Grosbeak.

COMMON EIDER
(*Somateria mollissima*)

5 June 2007, North Point area in Sheboygan—(*The following accounts describe the same bird, seen by all of these observers on the same date and place.*) [Fig. 1]

About the same size as the many female Mallards nearby. Shape similar to the female Mallards, except that the head wasn't rounded; it had a long sloping forehead, with the angle continuing straight into the bill. Plumage and color pattern brown, colored similarly to the female Mallards, except where it had vertical barring on the sides of the body. There was a thin horizontal line in back of the eye. Bare parts: bill was grayish-brown; the feathers on the sides of the head extended forward along the sides of the bill, almost to the nostrils. Eliminated most other species by sloping profile of the head and bill. Female King Eider has crescent-shaped barring on the sides of the body.—*David and Margaret Brasser, Sheboygan, WI.*

As soon as I found the duck in my scope, it was obvious it was an eider. It was a large, dark brown diving duck, **slightly larger than adjacent Mallards**, but riding low in the water compared to Mallards. I mentally compared it to a King Eider, which I am more familiar with. This eider had a **much less slope to the forehead** than King Eiders (more Canvasback like than Redhead type). The most obvious trait was the **distinct barring** on the back and flanks (compared to the very scaly pattern of King Eiders). The dark **bill was very long** looking compared to King Eiders, with the lobes **extending far up on the face**. The end of the bill drooped some and was yellowish. The loral feathering was rounded, indicating a West Arctic subspecies. A dark line extended back from the eye, curving down towards the nape (pale in King Eiders). The entire body color was a medium brown, a little darker than most female King Eiders I have seen, but close to others.—*Dennis Gustafson, Muskego, WI.*

This chunky, brown duck had a very large bill and was obviously an eider. The profile was unique. The angle of the forehead sloping to the bill was

Figure 1. Female Common Eider seen on 5 June 2007 at the North Point area of the Sheboygan lake shore. Photo by Dennis Malueg.

very gentle unlike the steeper angle of a King Eider. This made for an elongated profile like that of a Canvasback but even more dramatically so. The feathering on the bill was quite extensive. It extended forward in a wedge shape and nearly reached the nostril. The bill was dark gray except near the tip where the distal end was yellow. The color was a warm brown but was not as rusty as a female King Eider. It was a more grayish brown with a yellowish undertone. There was a dark line through the eye. The feathering on the back was a darker brown. The tail was held up slightly somewhat like a Ruddy Duck. There was prominent vertical barring along the flanks. The bird flapped a few times and showed a darker trailing edge to the wing but no prominent speculum or patches. At one point, a pair of Mallards swam near the duck and it was clear that this bird was a few inches larger.—*Mark Korducki, New Berlin, WI.*

I rushed to Sheboygan soon after Daryl Tessen alerted me to the female Common Eider. Upon arriving about 9:30, interested observers were in the area of the North Point parking lot. Daryl arrived about 10:00. The bird at that time was on the shore less than 50 feet from where we were standing. Using telescopes and my binocs, the bird was thoroughly examined for critical characteristics. On first glance, the bird looked like a female Mallard. However, it was slightly larger and stockier. I immediately looked at the head which seemed to be half bill and half cranium, with the eyes very high on the head. The bill extended to the eye, where a dark line continued from the bill through the eye and extended

beyond and curled down behind the eye outlining the auricular area. The feathered nasal area extended anteriorly forming a U shape with the upper mandible and gape. The nasal part of the upper mandible had a hump giving the appearance of a "Roman" nose where the bill ended. The forehead extended out as a "brow-like" feature. The bill was dark gray with a lighter colored tip. The breast, sides, and abdominal area were barred with cream and dark brown feathering. The back was also barred. This gave a "herringbone" appearance where the mantle/wing met the sides. The feet were dark when seen standing on the shore. The bird was not observed in flight, so other wing/tail characteristics were not seen.—*Charles Sontag, Manitowoc, WI.*

Glossy Ibis (*Plegadis falcinellus*)

8 June 2007, Engel Conservation Area, Muskego, Waukesha County—While digiscoping for the first time I noticed a bird that had moved in front of the Great Egret I was photographing. The bird was about the size and color of a Green Heron. However, the bird was foraging too actively to be a heron. I immediately recognized the bird as an Ibis after observing it with my binoculars. The bird had a long down-curved bill, the neck and upper body of the bird were brown, and the wings and tail were dark green. A photograph that I took of the bird shows blue-gray facial skin from the base of the bill extending to the eye.—*John Winze, Wind Lake, WI.*

Western Sandpiper (*Calidris mauri*)

10 July 2007, Coast Guard Impoundment, Milwaukee County—Among the numerous Least Sandpipers, I noticed a slightly larger "peep" with an apparently long, wide bill. Some material which had been sticking to the bill came off, and I was more able to study the bill. It was one third to one half **longer** than the [bills of] adjacent Least Sandpipers (L.S.), and **much thicker** at the base. Only a slight droop towards the distal end of the back bill was noted. The overall body color was gray, unlike the brown of Least Sandpipers. Spotting was extensive on the breast, extending as small streaks along the flanks, much like the distinctly larger White-rumped Sandpiper. Some **rufous** was still present **on the scapulars and crown**. Undertail coverts to the belly were white. Legs were distinctly black, unlike the yellow of Least Sandpipers. Wingtips and tail were equal, unlike the longer wingtips of White-rumped Sandpiper (a larger "peep"). The grayish rump also eliminated the White-rumped Sandpiper.—*Dennis Gustafson, Muskego, WI.*

Black-headed Gull (*Larus ridibundus*)

16 July 2007, North Point Beach, Sheboygan County—As the bird rose and moved away, I was immediately struck by the unmarked light overall gray color of the mantle with no dark on the leading edge of the wing and some dark at the outer edge of the primaries. The leading two or three feathers were clean white and con-

trasted neatly with the rest of the wing. The gray seemed lighter than a Bonaparte's Gull and contrasted less with the rump than that species. In structure the bird had wider and longer wings than a Bonaparte's and flew less buoyantly and overall appeared larger in my mind though no direct comparison was made. The gull was missing a primary feather (8 or 9) on each wing. My impression was that the bird was in a worn delayed plumage because of the light color of the upper parts and missing feather. After reflecting on my observation I don't think it was in fact as worn as I first believed. Upon landing it faced towards me. I noted its size in relation to nearby Ring-billed Gulls and was certain the bird was nearly as large, much larger than a Bonaparte's should be. It also had a more erect posture and seemed longer necked never using the head-on-shoulders resting posture of a "Boni." The most obvious feature of the bird was its bright red bill with little darkening at the tip. The bill was longer and thicker than a "Boni." It had very muted smudging just around the eye with one dark small circular mark on the auricular area. The legs were nearly the color of the bill though slightly brownish which may have been due to shadowing. In flight the under wing was poorly seen though did display light leading edge of under wing with darker inner primary. The head, neck, underparts, rump, and tail were otherwise clean white.—*Joe Schaufenbuel, Stevens Point, WI.*

Black-legged Kittiwake (*Rissa tridactyla*)

4 June 2007, North Point area of Sheboygan harbor, Sheboygan County—While I was checking out the birds around the first pier the Kittiwake and a Bonaparte's landed on the pier. The Kittiwake was larger than the Bonaparte's. The legs were black. There was a spot behind the eyes. While the bill was turning yellow, there was no noticeable dark collar. However, in flight it still retained the black "M" pattern. The tip of the tail had some black.—*Daryl Tessen, Appleton, WI.*

Arctic Tern (*Sterna paradisaea*)

5 June 2007, North Point, Sheboygan harbor—When the Arctic Tern was first announced, it was flying south with Common Terns, a little off shore. When I located it, I saw an immature tern (incomplete black cap with white forehead) with uniform gray on the upper wings. Compared to Common Terns, the very limited dark primary tips were hard to see (much more obvious and extensive on the Common Terns at that distance). The underwings were very white with almost no black showing on the primary tips (due to distance?). The more extensive black primary tips could be seen on the Common Terns. One other wing difference was the upper secondaries, which were whiter than the coverts in the Common Tern. Because of the distance, bill and leg color and length could not be determined. The head of the Arctic Tern did not project very far in front of the wings, compared to the longer head

of the Common Tern (like comparisons of Sharp-shinned and Cooper's Hawks). These marks, plus the flight pattern described below, helped to clinch an ID, even at a distance. In addition, unlike the even steady flight (like rowing) of the Common Terns, the flight of the Arctic Tern was much more uneven, with quick lifts and slower downbeats (like pulling up on strings of a marionette and gradually letting it down). The overall impression was of a much more buoyant flight with deep wingbeats.—*Dennis Gustafson, Muskego, WI.*

CHUCK-WILL'S-WIDOW (*Caprimulgus carolinensis*)

8 June 2007, Near the Bartos Road/Kirch Road intersection, about a mile north of Highway 54, Jackson County—Heard the bird under calm conditions on 3 dates, from distances of 50 to 100 yards. The Chuck-will's-widow and a couple of Whip-poor-wills were heard simultaneously, allowing a direct comparison of their calls. Both species have calls that say their names and their cadences are different. The Whip-poor-wills sounded like "WHIP poor WILL" while the Chuck-wills-widow sounded like "chuck WEoo WEEooo." The bird called repeatedly, every few seconds.—*Dan Jackson, Chaseberg, WI.*

16 June 2007, Bartos Road, 0.25 miles west of Kirch Road southeast of Hatfield, Jackson County—It was twilight, with the sky still fairly light. Wind was very light. The bird was approximately 250 meters north of this spot, giving a four-syllable chuck-weel-wid-oh call, with emphasis on the third "Wid" syllable. The opening "chuck" call was easily heard and sounded like a cluck, or 2 pieces of wood struck together. The bird was singing at a rate of about 1 call every 3 seconds, but did pause occasionally. The call was easily distinguished from the three-syllable calls of 2 audible Whip-poor-wills.—*Douglas Kieser, Minneapolis, MN.*

BLUE GROSBEAK (*Passerina caerulea*)

2 July 2007, Fort McCoy, Monroe County—Large, chunky grosbeak. Easily identified and separated from Indigo Bunting based on size, massive bill, rufous wing and black lores. Bird flushed into the woodland edge. Although the bird was singing he did not appear to be territory defending since his song was somewhat erratic and only given while in the woodland. In the open successional shrub, the grosbeak was only calling.—*Beth Summers and Eric Wood, Madison, WI.*

10 July 2007, Northwest corner of the Warrens Drop Zone in Fort McCoy, Monroe County—The bird was a Northern Cardinal sized bird that was an overall indigo blue in color (similar to Indigo Bunting). It had dark wings with a chestnut bar at the shoulder and a less distinct chestnut bar at the lower edge of the wing coverts. The area between the two chestnut bars was black. The bird had a large bill similar to that of a Rose-breasted Grosbeak. The upper mandible was black and the lower mandible was light blue. The lower mandible was very broad and large. The bird had a black eye and dark feet and legs. It had a black mask at the base of the bill and around its eyes.

Figure 2. Blue Grosbeak at Fort McCoy on 10 July 2007 was seen and photographed by Dan Jackson.

The bird had a dark tail. On the underside, the under-tail coverts were edged in white or cream color. The bird did a complete call that was a rambling jumble of clear notes and also short CHINK sounds. The calls matched those found on the Stokes CD. The bird was directly compared to a neighboring Indigo Bunting. This bird was significantly larger than the Indigo Bunting. This bird had a much larger and blunter bill (Fig. 2) that was obviously two-colored (black upper mandible and light blue lower mandible). The Indigo Bunting had a much smaller and sharper beak. The two birds called simultaneously. The Indigo Bunting's song was made up of a series of 2 note phrases and the Blue Grosbeak's song was more of a rambling jumble of clear notes. The Blue Grosbeak also had a chink call similar to that of a Rose-breasted Grosbeak.—*Daniel E. Jackson, Chaseburg, WI.*

14 July 2007, West end of the Spring Green Preserve, Sauk County—My dad and I were walking along the west end of the preserve when we heard a song that we did not recognize. The song was somewhat similar to that of a House Finch, but a bit longer and rougher sounding. As we were searching for the bird that was singing, a dark blue bird flew up from the brush ahead of us, at which point we realized we had a Blue Grosbeak. The bird flew to the top of a dead oak tree where we were able to see that the bird was deep blue color over most of the body, with wide rusty colored wing bars. The bird was a bit larger and heavier built than the nearby Lark Sparrows, and had a very thick bill. The bird's legs and bill were dark. We watched the bird for about a minute before it flew off, and we were able to take a couple low quality photos.—*Aaron Holschbach, Arena, WI.*

WSO Records Committee Report Summer 2007

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The WSO Records Committee reviewed 30 records of 12 species for the summer 2007 season, accepting 25 of them. An additional record from summer of 2006 was reviewed. Included in these records is Wisconsin's 5th Common Eider record.

Accepted Records

Common Eider—

#2007-052 Sheboygan Co.; 5 June 2007, Maleug (photo), Gustafson (photo), Sontag, Tessen, Brasser, Brasser, Korducki.

This sizable, brown duck was larger than adjacent Mallards, with a Canvasback-like slope to the forehead and beak. The flanks exhibited distinct barring instead of the more scaly pattern of a King Eider. The upper bill reached far up the face toward the eye; most significantly the cheek feathering extended down into the beak structure to the level of the nostril. The cheek feathering ended in a more rounded contour and the upper reach of the bill ended in a more pointed contour, traits consistent with the western subspecies *v-nigrum.*

This is Wisconsin's fifth Record of a Common Eider, the first since 1968.

Glossy Ibis—

#2007-053 Waukesha Co., 8 June 2007, Winze (photo).

This Green Heron-sized bird was dark brown-bodied, with dark green wings. The long, down-curved bill was dark gray-brown. The diagnostic facial skin was blue-gray with a thin white border limited to the cheeks and forehead. This white border was absent from the areas around the eyes.

Black-necked Stilt—

#2007-022 Fond du Lac Co., 5 June 2007, Gustafson; 1–30 July 2007, Tessen; 6 July 2007, Dixon; 29 July 2007, Freriks (photo).

This tall, thin shorebird was as large as a Greater Yellowlegs with even longer legs. The top of the head, back of neck, back, and wings were black;

the throat, front of neck, breast, and belly were white. The thin, straight bill was black; the long thin legs were pink.

Western Sandpiper—

#2007-054 Milwaukee Co., 10 July 2007, Gustafson.

This "peep" was a bit larger than the Least Sandpipers it accompanied. Its black bill was longer, thicker at the base, and drooped at the tip compared to the Least Sandpipers. The body was grayish with extensive spotting on the breast and flanks, not a brownish body with few streaks as seen on a Semipalmated Sandpiper. Rufous was reported on the scapulars and crown. The legs were black. The wingtips ended at the tail, not extending beyond as they would on a White-rumped Sandpiper.

Black-headed Gull—

#2007-037 Sheboygan Co., 16 July 2007, Schaufenbuel.

This gull was closer in size to the larger Ring-billed Gulls nearby than would be expected from a Bonaparte's Gull. The bill was a bit longer and thicker than that of a Bonaparte's Gull and was bright red with slight darkening at the tip. The bird stood longer necked than a Bonaparte's. The uniformly gray mantle seemed lighter than anticipated from a Bonaparte's, but did have a dark outer primary edge along the back of the wing and the outer 2–3 primaries were white. From underneath, the white outer primaries were evident in contrast to the black inner primaries. Finally, the legs were reddish.

Laughing Gull—

#2007-064 Dane Co., 2 June 2007, Webb (photo);

#2007-055 Ozaukee Co., 21 June 2007, Frank.

These gulls stood out from the similarly sized Ring-billed Gulls because of its darker gray mantle, a partial gray hood across the back of the head on the Ozaukee Co. bird and a completely black head in the case of the Dane Co. bird. The primary tips were black and extended proportionately longer behind the body than those of the Ring-billed Gulls. Thin white eyelids were outlined by the partial gray hood or black head in each of the two birds. A black-reddish bill, relatively long compared to those of the Ring-billed Gulls was noted to down turn slightly at the tip.

Black-legged Kittiwake—

#2007-020 Sheboygan Co., 4 June 2007, Tessen.

This gull was larger than nearby Bonaparte's Gulls and exhibited black legs and a yellow bill. Although the black spot behind the eye was evident, the expected black nape patch was not. In flight, the black "M" pattern across the gray mantle, secondaries, and primaries was seen.

Arctic Tern—

#2007-056 Sheboygan Co., 5 June 2007, Gustafson.

This tern was seen in flight in company with Common Terns. It had an incomplete black cap and white forehead along with uniformly gray upper wings. The dark primary tips were very limited relative to those of the Common Terns. A similar comparison was also made of the underwing tips, limited black on the Arctic Tern, but

more extensive on the Common Terns. The upper surface of the secondaries was whiter than the adjacent gray coverts of the Arctic Tern, a contrast not evident on the Common Terns. In flight, the head of the Arctic Tern did not project as far forward from the wings as the head of the Common Terns did. Finally, the flight pattern of the Arctic Tern was described as more uneven, with rapid upbeats and slower downbeats creating a more buoyant impression of the flight.

Eurasian Collared-Dove—

#2007-060 Dodge Co., 16, 17 July 2007, Raflik.

This dove was larger and lighter colored than a Mourning Dove with a dark mark on the nape of the neck. The call of the bird was heard repeatedly—a three note *coo*, with a prolonged and emphatic "*coooo*"on the second of the three notes.

Chuck-will's-widow—

#2007-057 Jackson Co., 8, 9, 22 June 2007, D. Jackson; 16 June 2007, Kieser.

Heard in comparison to a Whip-poor-will, this bird had a four syllable call in contrast to the three note Whip-poor-will. The three note Whip-poor-will call is emphatic on the first and third notes. The Chuck-will's-widow call has a low first note, not heard at a distance, and an emphasis on the third note.

Blue Grosbeak—

#2007-059 Monroe Co., 2 July 2007, Summers, E. Wood (photo); 10 July 2007, D. Jackson; 12 July 2007, Tessen.

#2007-063 Sauk Co., 14 July 2007, A. Holschbach (photo).

These cardinal-sized birds were a dark blue color, similar to that of an Indigo Bunting. The dark wings had two chestnut wingbars. The area around the base of the bill was black. The bill was large, similar in shape to a Rose-breasted Grosbeak's bill. Also noted was the dark color to the upper bill and the bluish color to the lower bill.

Old Records

White-winged Dove—

#2006-103 Ashland Co., 25 June 2006, Hines (photo).

A Mourning Dove-sized dove was exhibiting a white front edge to the folded wing contour in the photos. This was Wisconsin's seventh record.

Records Not Accepted

Common Eider—

#2007-052 Sheboygan Co., 5 June 2007.

This duck was considered larger than nearby Mallards, with overall dark brown coloring. An eyeline was indicated to be curving down behind the eye. Barring on the flanks was also evident.

This report did not indicate the shape of the bill nor the position of the nostril relative to the forward extent of the cheek feathering. Without this information, a King Eider is not eliminated from the identification possibilities.

Western Sandpiper—

#2007-054 Milwaukee Co., 21 July 2007.

Identification was based on a

"peep" with a grayish overall head, wings, and mantle with a very white breast, and longer than expected black legs. The shape of the front half of the bird was reported to be heavier than on a Semipalmated Sandpiper.

Specific mention of any spotting on the breast, rufous scapulars, or crown was not made. In addition, the bill length and drooping tip were also not reported. If this individual was in non-breeding plumage at this early date, it would be difficult to distinguish it from Semipalmated Sandpipers of similar plumage status.

Arctic Tern—

#2007-056 Sheboygan Co., 4, 5 June 2007.

This bird was seen at the same time as reported by other observers, but this individual was reportedly in a different plumage (breeding) than the other observers carefully described (non-breeding). Reconciliation of this discrepancy is difficult.

It should be noted the documentation was prepared two months after the observation, potentially leading to inaccurate recollection of events.

Chuck-wills'-widow—

#2007-057 Jackson Co., 13 July 2007.
#2007-061 Oneida Co., 11 July 2007.

Undoubtedly heard accurately, these reports relied on stating that the call was different than a Whip-poor-will heard at the same time without describing the emphasis on or the pause between notes that distinguish the calls.

Kirtland's Warbler—

#2007-058 Adams Co., 19 June 2007.

This "heard only" report was, as always, hard to translate into words. Without a recording, complex songs can be difficult to differentiate from other species' songs.

Dennis Malueg captured this Sanderling in Menomonee Park in Oshkosh on 26 May 2007.

About The Artists

Scott Franke has been a birding enthusiast for about 30 years and an amateur photographer for about the past three. He and his family live in Wauwatosa. During the day, Scott works as an information technology manager at Northwestern Mutual, but in his free time you can find him enjoying one of southeastern Wisconsin's great birding venues where he will be taking photographs of birds. More of his images are available at http://www.pbase.com/srfdrf.

John Krerowicz lives in Kenosha, Wisconsin, and has worked as a journalist since 1976. He has been an amateur photographer for almost as long. His interest in birding and nature began several years ago when his sons were interested in wildlife, especially eagles and owls. John maintains a family website with photos at: http://www.ourwildlifewebsite.info.

Dennis Malueg is a serious amateur wildlife photographer, who travels Wisconsin each year in search of his bird and other wildlife photos. He also takes many of his pictures at his home in Waushara County which includes yard, prairie, and an 80-acre forest.

Sandy Pfotenhauer grew up in the northern Kettle Moraine near Campbellsport and still calls that area home. She has been a member of WSO since 2000 and the Horicon Marsh Bird Club since 1995, having served on the bird club's board of directors and as secretary. She is also a member of The Camera Clique in West Bend and enjoys combining her interests in photography and nature.

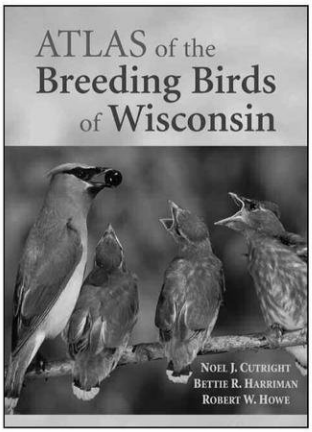
Patrick Ready is a graphic designer who lives in Stoughton, Wisconsin, where he keeps a watchful eye on the summer resident Osprey that nest on the Yahara River. He has been interested in birds and wildlife since his youthful days back in the 60s. Painting and photographing birds have become his passionate hobbies over the past few years. He is the editor/designer of the *Wisconsin Bluebird* and designs the newsletter, CAWS, for Madison Audubon. He and his wife Deb enjoy kayaking, nature hikes, and traveling.

John Van Den Brandt combines his two passions, birding and photography, by capturing bird images. An Appleton native, John has been very active in birding since 1990 and now has over 500 species on his lower-48 list. While birds are his primary subjects, he also has photographed a wide

variety of wildlife across North America, including grizzlies in Alaska, polar bears in Canada, and killer whales off the coast of British Columbia.

Dick Verch has had a long association with WSO as a seasonal contributor, convention chairperson (2 times), and past president. Since his retirement from Northland College five years ago he spends most of his birding times trying to digiscope birds and other wildlife. Selected images can be viewed at www.pbase.com/dverch.

Common Grackle by Dick Verch



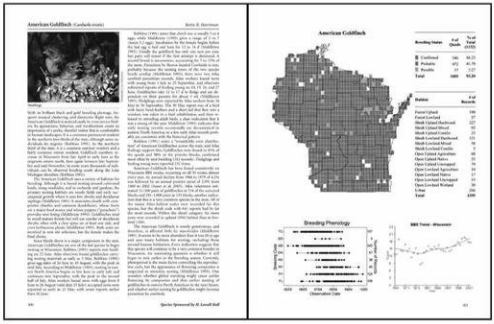
Atlas of the Breeding Birds of Wisconsin

- Features almost 1,400 photographs, distribution maps, and figures – **all in color**!
- Based on studies done by more than 1,600 field observers between 1995 and 2000.
- Edited by Noel J. Cutright, Bettie R. Harriman, and Robert W. Howe.

The largest natural history survey ever conducted in Wisconsin has resulted in this comprehensive guide to birds that breed in the state.

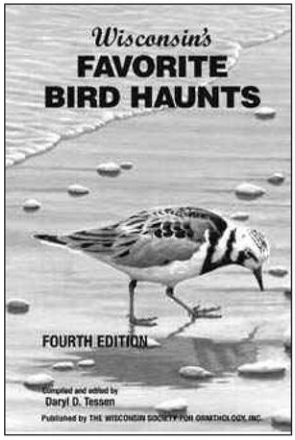
Hardcover, large format (9" x 11.25"), 624 pages. Copyright 2006. ISBN-10: 0-9774986-0-3; ISBN-13: 978-0-9774986-0-4.

Published by The Wisconsin Society for Ornithology, Inc., with proceeds used for projects supported by the organization.



The two-page species accounts – 214 of them in all – provide a host of information on the state's breeding species, including their range, habitat preference, breeding biology, conservation concerns, and population trends. An additional 23 less-common species also are covered. Also included are chapters on Atlas methodology, results, history, habitats, and conservation.

Contact WSO Bookstore for price and ordering information:
262-547-6128 or wsobookstore@hotmail.com



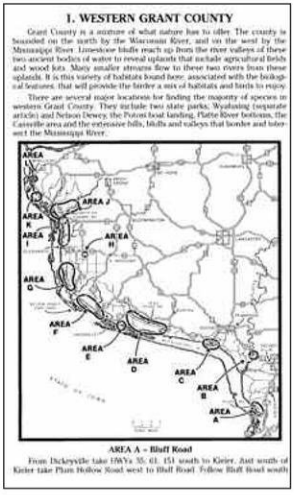
Wisconsin's Favorite Bird Haunts,

Fourth Edition (2000)

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

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

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


1. WESTERN GRANT COUNTY

Grant County is a mixture of what nature has to offer. The county is bounded on the north by the Wisconsin River, and on the west by the Mississippi River. Limestone bluffs reach up from the river valleys of these two ancient bodies of water to reveal uplands that include agricultural fields and wood lots. Many smaller streams flow to these two rivers from these uplands. It is this variety of habitats found here, associated with the biological features, that will provide the birder a mix of habitats and birds to enjoy.

There are several major locations for finding the majority of species in western Grant County. They include two state parks, Wyalusing (separate article) and Nelson Dewey, the Potosi boat landing, Platte River bottoms, the Cassville area and the extensive hills, bluffs and valleys that border and intersect the Mississippi River.

AREA A – Bluff Road

From Dickeyville take 151/Vs 35, 61, 151 south to Kieler. Just south of Kieler take Plum Hollow Road west to Bluff Road. Follow Bluff Road south

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Contact WSO Bookstore for price and ordering information.
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THE WISCONSIN SOCIETY FOR ORNITHOLOGY

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

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