

The passenger pigeon. Vol. 72, No. 4 Winter 2010

Madison, Wis.: Wisconsin Society for Ornithology, Winter 2010

https://digital.library.wisc.edu/1711.dl/E7VMCRO5KPRJT9A

http://rightsstatements.org/vocab/InC/1.0/

The libraries provide public access to a wide range of material, including online exhibits, digitized collections, archival finding aids, our catalog, online articles, and a growing range of materials in many media.

When possible, we provide rights information in catalog records, finding aids, and other metadata that accompanies collections or items. However, it is always the user's obligation to evaluate copyright and rights issues in light of their own use.



Journal of the Wisconsin Society for Ornithology





WSO website: wsobirds.org

EDITORS

Bettie R. and Neil A. Harriman 5188 Bittersweet Lane Oshkosh, WI 54901 920. 233. 1973 bettie@new.rr.com harriman@uwosh.edu BIRD REPORTS COORDINATOR Randy Hoffman 305 Fifth Street Waunakee, WI 53597 608.849.4502 ecurlew@hotmail.com **ASSISTANT EDITOR (Art)** David Kuecherer 726 Harvard Drive Neenah, WI 54956 920. 725. 7915 dkuecherer@new.rr.com FIELD NOTE COMPILER (Spring) Andrea Szymczak 822 Lemira Avenue Waukesha, WI 53188 262.370.8403 harrierhawk1@hotmail.com FIELD NOTE COMPILER (Summer) Randy Hoffman 305 Fifth Street Waunakee, WI 53597 608.849.4502 ecurlew@hotmail.com FIELD NOTE COMPILER (Autumn) Robert C. Domagalski W140 N8508 Lilly Road Menomonee Falls, WI 53051 262.251.6259 rcd2.wi.rr.com FIELD NOTE COMPILER (Winter) Kay L. Kavanagh 712 Lakeview Lane Niagara, WI 54151-9021 715.589.2299

kkav@uplogon.com

The Passenger Pigeon (ISSN 0031-2703) is published quarterly (Spring, Summer, Fall, Winter) by The Wisconsin Society for Ornithology, 2022 Sherryl Lane, Waukesha, WI 53188. Periodicals Postage Paid at Hartland, WI and at additional mailing offices, including Lawrence, KS 66044. Subscription rates are \$25 domestic; \$30 foreign. Back issues may be obtained for \$8 each. "POSTMASTER: Send address changes to *The Passenger Pigeon*, Jesse Peterson, 7680 Payvery Trail, Middleton, WI 53562."

Membership rates per year are: Individual, \$30; Family, \$35; Youth/Student, \$15.00; Senior, \$15.00; Sustaining, \$75; Library, (*Passenger Pigeon* only) \$25. Life membership (Single), \$600; Life (Couple), \$700; Patron, \$1,000 are one time payments. Contact Jesse Peterson, Membership Chair, 7680 Payvery Trail, Middleton, WI 53562 with membership and mailingrelated questions.

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.

Copyright ©2010 by The Wisconsin Society for Ornithology, Inc. Except for purposes of review, material contained herein may not be reproduced without written consent.

Front Cover: Rough-legged Hawk by Alan Stankevitz. All the art in this issue is of birds in flight as photographed by Alan Stankevitz.

President's Statement

Looking to the Future

A s usual, at our July 2010 board meeting we discussed a wide variety of topics—ranging from a planned assessment of the vegetation and trails on our Honey Creek property to the exciting possibility of a new bird and bat observatory in Wisconsin. One especially important topic that was raised was the need for a serious discussion that will help us define the current mission and direction of WSO. We are certainly overdue in making such an assessment, as several long-time board members mentioned that it has been many years since this important topic has been tackled. More planning for this will be forthcoming.

No matter what decisions are made about the future directions of WSO, one thing is clear—it will be critically important to expand our outreach to young people. Although many of us tend to be in denial about our advancing age, it is important to keep this reality in mind. It is certain that without effective recruitment of younger individuals who will share our love of birds and nature, our organization will slowly fade away.

We are all generally aware of the value of starting young—such as with introducing people to the beauty and wonder of the natural world at an early age. Very often, individuals who are exposed to concepts during their youth will tend to hold onto them to a greater extent as they grow older. I often like to consider the analogy of trying to build a fire, where what is always needed is that initial spark to get things going. I believe that children have the raw materials they need to build the fire—with lots of natural curiosity and energy—but it is very important for someone to provide them with that little flame that can get them started in a positive direction.

One of the ways that WSO has attempted to accomplish this outreach in the past has been by making available some wonderful sets of bird photos—in the form of slides (and accompanying scripts)—that teachers or outdoor educators could use with their students. This project was a labor of love for photographer Stephen Lang, who produced and distributed these wonderful images (with educational scripts developed by Laura Erickson) for many years. Inevitably, however, the communication technologies of schools began to change, and many of them started to phase out their use of slide projectors in classrooms and replace them with digital projectors—and it became clear that WSO would need to develop a new approach.

Over the past year or so, the board of directors has been considering various options for updating this educational program, both in content and format. Mariette Nowak, our Education Committee chair, has taken on the job of heading up this project, and she will be working to develop some new presentations. John Feith, a talented bird recordist and videographer, has offered to provide assistance with resolving some of the technical issues of these educational DVDs. We plan to solicit images from many of Wisconsin's talented bird photographers to illustrate Wisconsin's fascinating birdlife at various times of the year.

Our hope is to develop several different presentations that will provide good, factual information presented in a lively and informative manner, and I know that these DVDs will be chock-full of wonderful and inspirational bird images. We all know that our feathered friends surround us with great beauty and fascinating behaviors throughout the year, and it is important that we find ways to share this pleasure with the youth of our state.

As always, I would welcome our members to contact me with any questions, comments or suggestions: Home 920. 294. 3021, Cell 920. 960. 1796, or send E-mail to trschultz@centurytel.net.

Thomas RSchuly

President

Effects of Supplemental Food on the First Brood Period in the Eastern Bluebird

Christine M. Anhalt

Department of Biology Ripon College 300 Seward Street Ripon, Wisconsin 54971-0240 canhalt@wisc.edu.

Memuna Z. Khan

Department of Biology Ripon College 300 Seward Street Ripon, Wisconsin 54971-0240 khanm@ripon.edu

ABSTRACT

Some avian species raise two consecutive broods in a given breeding season and the decision to double brood is likely influenced by resource availability. We tested the hypothesis that food supplements can shorten the first brood interval allowing a second nest within the current breeding season in Eastern Bluebird (Sialia sialis). We supplemented nests with 18kcal of mealworms from nest completion until the brood fledged. Mealworm supplements did not affect the duration of the incubation period. Consistent with our hypothesis, the nestling period was shorter than in control nests and average asymptotic nestling mass was slightly greater at supplemented nests. Although double brooding was observed in 71% percent (5/7) of supplemented nests and 28% percent (2/7) of control nests these sample sizes were too small to interpret.

INTRODUCTION

The trade-off between current and future reproduction is fundamental to life-history evolution (Stearns 1992). Double brooding, the laying of a second clutch of eggs after a first clutch of nestlings has successfully fledged, exemplifies this tradeoff in that it represents high current reproductive effort at the possible cost of reduced survival (Nur 1984). Double brooding occurs in many avian species (Martin 1995), but individuals vary greatly in their propensity to double brood (Nagy and Holmes 2005a).

Breeding is energetically demanding (Reid et al. 2002) and Lack's

(1954) original proposal that avian reproduction is primarily limited by food availability is supported in both single-brooded and double-brooded species (reviewed in Martin 1987). Food availability can influence current reproductive effort in many ways. Abundant food may result in increased investment in current young. Palestine Sunbird (Nectarina osea) parents increased the rate at which food was delivered to their young and amplified other parental care activities as the energy content of their food source increased (Markman et al. 2002). Second, abundant food may lengthen the breeding season. For example, pairs on territories with supplemental food exhibited significantly earlier breeding than controls in Redwinged Blackbirds (Agelaius phoeniceus; Wimberger 1988) and suburban Florida Scrub Jays (Aphelocoma coerulescens; Fleischer Jr. et al. 2003).

Many studies have examined the effects of food availability on reproduction by supplementing birds at the territory establishment time of (Arcese and Smith 1988, 5 weeks before laying onset, Preston and Rotenberry, 6 weeks before nest initiation). However this type of experiment confounds the effects of laying date and food availability on the incidence of double brooding. Double brooding correlated with differences in food availability in the Black-throated Blue Warbler (Dendroica caerulescens, Nagy and Holmes 2005a,b) and with annual variation in food availability in the Common Tern (Sterna hirundo, Moore and Morris 2005). However, it remains unclear if double brooding occurs because of an extended breeding season or some other mechanism.

The Eastern Bluebird (Sialia sialis)

is a secondary cavity nesting species that may produce 1-3 broods in a season depending on latitude (Gowaty and Plissner 1998). Factors influencing double brooding have not been closely investigated in this species despite the frequent occurrence of this behavior (Dunn and Hall 2008). Here we explore the hypothesis that food availability influences double brooding by decreasing the length of the first brood period. We manipulated food availability with mealworm supplements after laying had commenced to investigate its effects on the length of the first brood period and subsequent double brooding in the Eastern Bluebird.

We predict that food supplements will increase the incidence of double brooding and propose a mechanism by which food availability might affect double brooding. Incubation ranges from 13-14 days in the Eastern Bluebird, while nestling period ranges from 16-22 days. If both incubation period and nestling period are flexible, increased food availability might shorten these periods, allowing time for a pair to produce a second nest within a given season. A shortened incubation and nestling period may relieve the constraints of both molting (Nolan et al. 1992, Morton et al. 2003) and breeding during a single restricted season. With supplementation a female may spend more time incubating, and less time foraging. Food supplements may shorten the incubation period because females can maintain optimal temperatures for development. Indeed, in other species, incubation periods decline with increased nest attentiveness (Martin et al. 2007). Similarly, supplementation may increase the rate at which adult pairs deliver food to nestlings resulting in a shortened nestling period because of steeper growth rates. Nestling growth rates responded positively to increased prey delivery rates (Brinkhof and Cave 1997, Naef-Denzer and Keller 1999) or food energy value (Markman et al. 2002) in other species. Therefore, we predict birds receiving food supplements will have shorter incubation periods and will reach fledging mass earlier, resulting in a shortened nestling period.

METHODS

Nest Monitoring—

This study was conducted in Ripon, WI, on a nest box trail established in 2007. We mounted North American Bluebird Society (NABS) style nest boxes on steel "U" fence posts fitted with 3 inch pipes as predator guards. The 35 nest boxes were monitored on a weekly basis using Bluebird Restoration Association of Wisconsin guidelines (BRAW, Hall 2008) to determine which species was using each box and to limit use of boxes by House Sparrows (*Passer domesticus*).

Eastern Bluebird nests were recognized as neat nests made of fine grasses or pine needles and eggs are typically shades of light blue (Hall 2008). Other bird species were allowed to complete nesting in the boxes, with the exception of House Sparrows. House Sparrow nests were destroyed once incubation commenced to deter further occupation of the nest box. Nests that were inactive for four consecutive weeks were removed, according to BRAW guidelines.

Once discovered, bluebird nests

were monitored on a daily basis to determine the incubation start date. A complete clutch is generally 4-5 eggs, one egg being laid daily until the clutch is complete. The start date for incubation was determined as the first day the eggs felt warm to the touch. The date that the first egg hatched was considered Day 0 of the nestling period. Starting at Day 1, nestlings were weighed individually to the nearest 0.5g using a spring scale (Pensola) and were weighed until Day 13. Individual nestlings were tracked by marking their tarsus with permanent marker. Survival of nestlings was also recorded.

Nestlings were marked with a unique color band combination including a USFWS aluminum band (Master Permit #23473). Nestlings were banded between Day 9 and 13, at which time their tarsus and wing chord length were measured, along with weight. Tarsus was measured to the nearest 0.5 mm using a Vernier caliper. Wing chord was measured to the nearest 0.05 mm using a wing rule.

After Day 13, daily nest box checks were no longer performed to prevent premature fledging (Hall 2008). To determine fledging date, nests were briefly observed daily for parental attendance, starting on Day 14. This was done from a distance of 30m in order to leave the box undisturbed. When an adult pair ceased to attend the nest, the box was checked to confirm that no birds were present. After fledging, nest boxes were cleaned out immediately, since Eastern Bluebirds are more likely to re-nest in a clean box (Stanback and Rockwell 2003).

Double brooding was determined to have taken place if an Eastern Blue-

bird pair successfully laid eggs and began incubating them in a particular nest box from which a brood had already successfully fledged. Because we were unable to successfully band all adult pairs (only 7 females and 2 males were banded), we could not ensure that the same pair raised more than one nest. Instead, we made inferences based on bluebird territoriality. Bluebirds generally defend a small territory around their nest box or nesting cavity and this species is socially monogamous and over 95% genetically monogamous (Gowaty & Plissner 1998). Boxes were placed a minimum of 100 m apart to minimize territory overlap assuming that bluebird territories in the Midwest are 1 ha (Gowaty and Plissner 1998). In addition, Eastern Bluebirds prefer identical and clean nest boxes when re-nesting (Stanback and Rockwell 2003). Since boxes in the present study were cleaned immediately after fledging it is likely that the same pair returned to double brood in the same nest box. One nestbox was not counted as a double-brood even though two nests were successfully fledged because the banded female disappeared after a successful first clutch and was replaced by an unbanded female.

Experimental Supplementation—

The first Eastern Bluebird nest discovered was randomly assigned to supplemented or non-supplemented treatment. Subsequent nests were alternatively assigned to a treatment upon discovery to compensate for any seasonal differences or inherent differences among pairs. Mock (1991) reported that one 9–12 day old Western Bluebird nestling required 15.5

kcal per day. We supplemented nests with approximately 6 grams or 17.9 kcal of mealworms per day assuming that mealworms deliver 2.9 kcal/g (Hope et al. 1999). A national mealworm shortage was experienced in 2008 because of a cold and wet spring. When mealworms were not available, 20 g or 92.4 kcal of Bluebird Banquet, a mixture of cornmeal, peanut butter, and suet was used as a substitute (Peterson 1999). More Bluebird Banquet was used because it was not as palatable to the bluebirds as the mealworms. Nests were supplemented once the nest was completed and remained supplemented until the brood fledged. Supplements were given in conjunction with daily nest box checks.

To verify that the supplementation was effective and used by the adult pair in feeding nestlings, we measured feeding rates at each box twice for one hour between Day 2 and 13. Observations were taken from approximately 30m using a spotting scope. All observations began within five minutes after the nest box was checked and the supplement, if required, given. Time, sex of the adult, fecal sac removal, approaching the nest with food, and approaching the nest without food were recorded. Whether the food delivered to the nest was a supplement or not, was recorded. All observations and measurements were taken between 06:00-12:00.

Feeding rate was determined by counting the number of times each male and female visited the nestbox with food. This was divided by the number of nestlings in the brood being observed because feeding rates often increase with brood size (Stoehr et al. 2001). Since each observation was

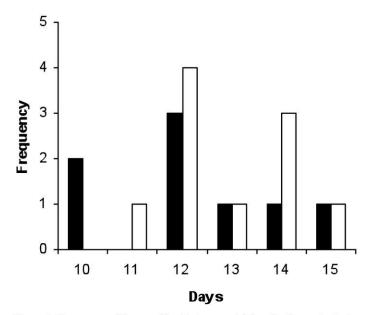


Figure 1. Frequency of Eastern Bluebird nests with incubation period of 10–15 days at supplemented (solid bars) and control (open bars) nests.

taken over one hour, the measure of feeding rate is feeding/nestling/hour.

Statistical Analyses—

We used Kolmogorov-Smirnov tests to determine if the data were normally distributed. Student's t-test was used to compare feeding rates, incubation period, and nestling period in supplemented and control nests. Kolomogorov-Smirnov goodness of fit tests were run using EasyFit software for Microsoft Excel. The growth curve analyses were conducted using R statistical software.

We modeled nestling mass as a function of food supplements and covariates such as nest id, individual and stage (early/late = nests laid before/ after May 20). We used a likelihood ratio statistic with a mixed effects generalized linear model utilizing a first order autoregressive covariance structure for temporal errors and an exchangeable covariance model for birds measured within the same nest. A post-hoc t-test was used to compare the average mass of nestlings after asymptotic growth was achieved between Day 10 and Day 13 after hatch.

A Fisher's exact test was used to test if the frequency of double brooding was affected by food supplements. This test was chosen because it is more robust than a G-test or chi-square test when the expected frequencies are small (Zar 1996). Results are presented as means ±SE and significance was accepted as P<0.05.

RESULTS

The incubation periods at supplemented and control nests were not

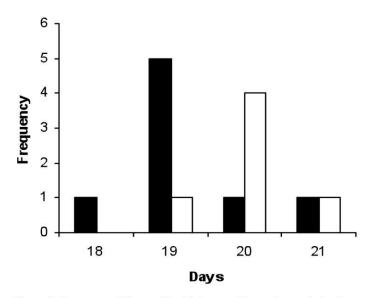


Figure 2. Frequency of Eastern Bluebird nests with nestling periods of 18–21 days at supplemented (solid bars) and control (open bars) nests.

different (12.25 ± 0.62 , 12.50 ± 0.41 , respectively, t = -0.88, p = 0.20, Fig. 1). However, nestling period was significantly shorter among supplemented nests compared to controls (19.17 \pm 0.31, 19.75 \pm 0.26, respectively, t = -1.85, p = 0.045, Fig. 2).

Although the effects of supplemen-

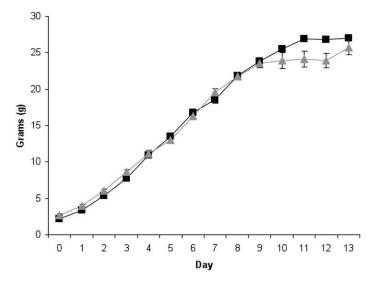


Figure 3. Mean mass (\pm SE) of Eastern Bluebird nestlings from day of hatch (Day 0) to 13 days after hatch at supplemented (triangle) and control (square) nests. Standard error bars are shown.

tation were not evident on nestling growth rates ($\chi^2 = 0.87$, p = 0.36), after nestling mass reached a plateau (10-13 days after hatch), nestlings in supplemented nests attained a higher mass (26.54 ± 0.28) than nestlings in control nests (23.68 ± 1.31 ; t_{0.05,17} = 2.14, p = 0.02, Fig. 3). Nestling mass in nests laid after May 20th was greater at supplemented nests than the control nests ($\chi^2=2.78$, p=0.095).

Feeding rates at supplemented nests were higher than control nests, confirming that supplementation was effective. Food supplements significantly increased male food contributions (t = 2.48, p = 0.01), but not female contributions (t = -0.17, p = 0.43, Fig. 4).

Half of Eastern Bluebird nestboxes were occupied with a second nest and we inferred these as second broods of the same pair. We observed inferred second broods at 71% percent (5/7) of supplemented nests and 28% percent (2/7) of control nests. However, this difference was not statistically significant (Fisher's exact test, p = 0.13).

DISCUSSION

We hypothesized that food availability would reduce the length of the nesting cycle thereby increasing the likelihood of double brooding. Supplemental food increased male feeding rate of nestlings, decreased the nestling period, and increased fledgling mass. Contrary to our expectations, supplemental food had no effect on the length of the incubation period. We present evidence that food supplements can reduce the first brood interval by decreasing the nestling period but cannot draw con-

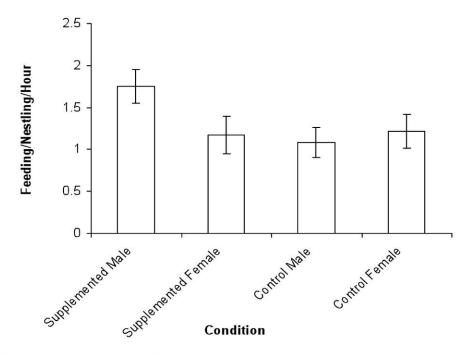


Figure 4. Mean feeding rates (\pm SE) of adult males and females at control and supplemented nests.

clusions about the probability of double brooding because of small sample sizes (n=7). The power of our analysis was low, we needed a sample size of 20 nests in each treatment group to have 80% chance of detecting a significant difference. It is possible that food supplements had no influence on double brooding. Eastern Bluebirds in this study may not have been constrained by energy availability similar to Western Bluebirds with 9-12 day old nestlings (Mock 1991). Alternatively, mealworms may not be perceived by adults as a high quality food and, although we supplemented based on caloric intake, mealworms may lack other essential nutrients that the birds need to double brood (Klasing et al. 2000).

The nesting cycle could be shortened by food supplements, by reducthe incubation or nestling ing periods, or reducing both. In general, hole-nesters tend to exhibit more developmental plasticity, or ability to adjust incubation and nestling periods, than open-cup nesters, presumably because cavity nesters experience less nest predation resulting in less selection for maximum possible growth rate (Bosque and Bosque 1995). Therefore, Eastern Bluebirds may exhibit more developmental plasticity than other species because they are hole-nesters. Contrary to our expectation, incubation periods did not decrease as a result of food supplements in this study. We assumed that nest attentiveness would increase and optidevelopmental temperatures mal would be maintained. However, nest attentiveness is not the only determinant of incubation period, it could not explain latitudinal differences in incubation period in another hole-

nester, the House Wren (Troglodytes troglodytes, Robinson et al. 2008). The length of the nestling period was shorter at supplemented nests than at control nests and the mass of nestlings was greater at supplemented nests. Many altricial birds can slow their growth in response to stressors such as food shortages (Sears and Hatch 2008) and parasitism (Bize et al. 2003) and accelerate their growth in response to increased food availability (Ardia 2006). We conclude that food supplements have the potential to shorten the nestling period of the Eastern Bluebird.

Our results are consistent with the hypothesis that reduced food availability over time reduces the likelihood of double brooding for all individuals late in the breeding season (Verboven and Verhulst 1996). In this study, all nests laid in late April double brooded regardless of supplementation treatment, however one supplemented nest that was started on 26 May did double brood, while a comparable control nest (31 May) did not. In addition, nesting may have started later in the season, decreasing the possibility of double brooding because the 2008 breeding season was characterized by a particularly cold, wet spring. First broods of Eastern Bluebirds monitored in Wisconsin were 84% successful in 2008, compared to 90% success in 2007, suggesting that fewer pairs had the opportunity to double brood because of first nest failures (Dunn & Hall 2008). This pattern suggests that future experiments should focus on supplementing later nests rather than early ones to better test if food supplements can shorten the nesting cycle.

A long-term study would be ideal, allowing one to separate environmen-

tal effects, particularly weather patterns from supplementation and to explore the timing of supplementation. It is important to understand the conditions of double brooding in light of climate change. If weather plays a role in the decision to double brood, a change in the structure of the breeding season can have important ecological and population dynamic impacts in the future (Dunn and Winkler 1999).

ACKNOWLEDGMENTS

This project was supported by Grant-In-Aid of Research from Sigma Xi (ID G20083150843), Wisconsin Society of Ornithology (CMA), Ripon College Trustee Grant (MZK) and an ACM FaCE grant (MZK). The Bluebird Restoration Association of Wisconsin (BRAW) donated boxes to the nest box trail. We thank Dr. Tim Hess for his advice on statistical analyses, the land owners of the property on which some of the nest trail was located: Jody Roy, Todd and Betty Berens, and Karl and Diane Beres. We thank Lydell Weir for donating starter mealworms and boxes.

LITERATURE CITED

- Arcese, P. and J. N. M Smith. 1988. Effects of population density and supplemental food on reproduction in Song Sparrows. Journal of Animal Ecology 57: 119–136.
- Ardia, D. 2006. Geographic variation in the trade-off between nestling growth rate and body condition in the Tree Swallow. Condor 108(3): 601–611.
- Bize, P., A. Roulin, L.-F. Bersier, D. Pfluger, and H. Richner. 2003. Parasitism and developmental plasticity in alpine swift nestlings. Journal of Animal Ecology 72: 633–639.
- Bosque, C. and M. T. Bosque. 1995. Nest predation as a selective factor in the evolution of

developmental rates in altricial birds. American Naturalist 145: 234–260.

- Brinkhof, M. W. G., A. J. Cave, S. Daan, and A. C. Perdeck. 2002. Timing of current reproduction directly affects future reproductive output in European Coots. Evolution 56: 400–411.
- Dunn, P. and K. Hall. 2008. Over 21,000 bluebirds fledged in 2008. Wisconsin Bluebird 23(4): 2–5.
- Dunn, P., and D. Winkler. 1999. Climate change has affected the breeding date of Tree Swallows throughout North America. Proceedings of the Royal Society B: Biological Sciences 266: 2487–2490.
- Fleischer Jr, A., R. Bowman, and G. E. Woolfenden. 2003. Variation in foraging behavior, diet, and time of breeding of Florida Scrub-jays in suburban and wildland habitats. Condor 105: 515–527.
- Gowaty, P. A. and J. H. Plissner. 1998. Eastern Bluebird (*Sialia sialis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http:// bna.birds.cornell.edu.bnaproxy.birds.cornell .edu/bna/species/381 doi:10.2173/bna.381
- Hall, K. C. 2008. Guidelines for successful monitoring of Eastern Bluebird nest boxes. Bluebird Restoration Association of Wisconsin.
- Hope, P. J., I Chapman, J. E. Morley, M. Horowitz and G. A. Wittert. 1999. Effect of diet on the response to leptin in the marsupial *Sminthopsis crassicaudata*. American Journal of Physiology: Regulatory, Integrative and Comparative Physiology 276: R373–R381.
- Klasing, K., P. Thacker, M. Lopez, and C. Calvert. 2000. Increasing the calcium content of mealworms (*Tenebrio molitor*) to improve their nutritional value for bone mineralization of growing chicks. Journal of Zoo and Wildlife Medicine 31: 512–517.
- Lack, D. 1954. The Natural Regulation of Animal Numbers. Oxford University Press. Oxford, p
- Markman, S., Pinshow, B. and J. Wright. 2002. The manipulation of food resources reveals sex-specific trade-offs between parental selffeeding and offspring care. Proceedings of the Royal Society B: Biological Sciences 269: 1931–1938.
- Martin, T. E. 1995. Avian life history evolution in relation to nest sites, nest predation, and food. Ecological Monographs 65: 101–127.
- Martin, T. 1987. Food as a limit on breeding birds: A life-history perspective. Annual Review of Ecology and Systematics. 18: 453–487.
- Martin, T. E., S. K. Auer, R. D. Bassar, A. Niklison, and P. Lloyd. 2007. Geographic variation in avian incubation periods and

parental influences on embryonic temperature. Evolution 61: 2558–2669.

- Mock, P. J. 1991. Daily allocation of time and energy of Western Bluebirds feeding nestlings. Condor 93: 598–611.
- Moore, D. J. and R. D. Morris. 2005. The production of second clutches in the common tern: Proximate effects of timing and food supply. Waterbirds 28: 458–467.
- Morton, M. L., Pereyra, M. E., Crandall, J. D., MacDougall-Shakelton, E. A., and T. P. Hahn. 2003. Reproductive effort and return rates in the Mountain White-crowned Sparrow. Condor 106: 131–138.
- Naef-Daenzer, B., and L. Keller. 1999. The foraging performance of Great and Blue Tits (*Parus major* and *P. caeruleus*) in relation to caterpillar development and its consequences for nestling growth and fledgling weight. Journal of Animal Ecology 68: 708–718.
- Nagy, L. R. and R. T. Holmes. 2005a. To doublebrood of not? Individual variation in the reproductive effort in Black-throated Blue Warblers (*Dendroica caerulescens*). Auk 122: 902–914.
- Nagy, L. R. and R. T. Holmes. 2005b. Food limits annual fecundity of a migratory songbird: An experimental study. Ecology 86(3): 675–681.
- Nolan, V. Jr., Ketterson, E. D, Ziegenfus C., Cullen, D. P. and C. R. Chandler. 1992. Testosterone and avian life histories: Effects of experimentally elevated testosterone on prebasic molt and survival in male Dark-eyed Juncos. Condor 94: 364–370.
- Nur, N. 1984. The consequences of brood size for breeding Blue Tits I. Adult survival, weight change and the cost of reproduction. Journal of Animal Ecology 53: 479–496.
- Preston, K. L. and J. T. Rotenberry. 2006. Independent effects of food and predator mediated processes on annual fecundity in a songbird. Ecology 87(1): 160–168.
- Peterson, L. J. 1999 (10 October 2002). The Bluebird Box. Minnesota Bluebird Recovery Program (http://audubon-omaha. org/bbbox/ljrecipe.htm) accessed 05 March 2009.
- Reid, J. M, G. D. Ruxton, P. Monaghan and G. M. Hilton. 2002. Energetic consequences of clutch temperature and clutch size for a uniparental intermittent incubator: the starling. Auk 119(1): 54–61.
- Robinson, W., J. Styrsky, B. Payne, R. Harper & C. Thompson. 2008. Natural History Note: Why are incubation periods longer in the tropics? A common-garden experiment with House Wrens reveals it is all in the egg. American Naturalist, 171(4), 532–535.

Sears, J., and S. A. Hatch. 2008. Rhinoceros

Auklet developmental responses to food limitation: An experimental study. Condor 110: 709–717.

- Stanback M. T., and E. K. Rockwell. 2003. Nestsite fidelity in Eastern Bluebirds (*Sialia sialis*) depends on the quality of alternate cavities. Auk 120: 1029–1032.
- Stearns, S. 1992. Evolution of life histories. Oxford University Press, Oxford, UK.
- Stoehr, A. M., K. J. McGraw, P. M. Nolan, and G. Hill. 2001. Parental care in relation to brood size in the House Finch. Journal of Field Ornithology 72: 412–418.
- Verboven, N., and S. Verhulst. 1996. Seasonal variation in the incidence of double broods: the date hypothesis fits better than the quality hypothesis. Journal of Animal Ecology 65: 264–273.
- Wimberger, P. H. 1988. Food supplement effects on breeding time and harem size. Auk 105: 799–802.
- Zar, J. H. 1996. Biostatistical Analysis. Prentice Hall, Englewood Cliffs.

Christine Anhalt earned a Bachelor of Arts, with majors in Biology and Psychology, from Ripon College in 2009. Currently a Master's student in Conservation Biology and Sustainable Development at the University of Wisconsin-Madison, her interests are in human-wildlife conflict. As a Doris Duke Conservation Fellow her research will focus on developing effective methods of managing wolf depredation of livestock.

Memuna Khan is an assistant professor of Biology at Ripon College where she teaches ornithology, behavioral ecology, vertebrate zoology, and scientific writing. She received a doctorate in biology from Virginia Tech. She has studied topics including the evolution of helping behavior in the Red-cockaded Woodpecker and hormones in baboon feces. Currently she and her students maintain the Ripon College Bluebird Trail to study the life-history, behavior, and hormones of these beautiful birds.

The Distribution of the Cliff Swallow (*Petrochelidon pyrrhonota*) in Wisconsin: A Comparison between 1959 and 1999

Gregory J. Davis

Dept. of Natural and Applied Sciences University of Wisconsin-Green Bay Green Bay, Wisconsin 54311 920. 465. 2369 davisg@uwgb.edu

Jennifer Hoff Davis

Green Bay, Wisconsin

ABSTRACT

The main goal of this paper is to compare the spatial distribution of Cliff Swallow colonies found in 1959 to that recorded 40 years later. During the 1957 and 1958 nesting seasons, Aumann and Emlen studied the distribution of Cliff Swallow (Petrochelidon pyrrhonota) colonies in Wisconsin. Beginning in the spring of 1995 and ending the summer of 2000, the Wisconsin Society for Ornithology sponsored the Wisconsin Breeding Bird Atlas (WBBA) data collection project. Data from the WBBA provide us with the most current spatial distribution of the Cliff Swallow in Wisconsin. Based on statistical analysis, we are able to show that the spatial distribution of the Cliff Swallow in Wisconsin has significantly changed over the 40-year period.

INTRODUCTION

The colonial Cliff Swallow is one of the most social avian species of North America. They make heavy use of artificial nesting structures such as bridges and buildings. The unique enclosed, gourd-shaped mud nests made by Cliff Swallows are now found in a wide variety of habitats including grasslands, towns, broken forest, and riparian edge. The species tends to avoid heavy forest, desert, and alpine areas. Most colony sites are located near open fields or pastures where the insectivorous birds forage, and a water source is often nearby (Brown and Brown 1995).

According to Brown and Brown (1995), Cliff Swallows originally were birds of the western mountains. Over the last century and a half Cliff Swallows have dramatically increased their range across the Great Plains and into eastern North America. The increase in range is likely correlated with new nesting sites available due to the construction of highway culverts, bridges, and buildings.

It is believed that in the northeastern

U.S., the Cliff Swallow began to increase in the early to mid-1800s as wilderness was cleared. When the House Sparrow (Passer domesticus) was introduced in the late 1800s, Cliff Swallow numbers began to decline in the northeastern U.S. due to usurpation of swallow nests. House Sparrows are an aggressive species and are the enemy of many cavity-nesting birds (Bent 1958). They are secondary cavity nesters and have been known to usurp the nests of Eastern Bluebirds (Sialia sialis) and to attack Bluebird adults and nestlings (Radunzel et al. 1997, Horn et al. 1996), as well as Cliff Swallow nestlings (Brown and Brown 1996, Brown and Brown 1987, Bent 1942). In northeastern U.S. Cliff Swallow populations remain low today (Silver 1993). However, it is only in this area that nest usurpation by House Sparrows appears to be limiting breeding-range expansion. (Brown and Brown 1995).

COMPARISON STUDIES

During the 1957 and 1958 nesting seasons, Aumann and Emlen studied the distribution of Cliff Swallow (*Petrochelidon pyrrhonota*) colonies in Wisconsin. The results of this spatial study were published in *The Passenger Pigeon* in 1959.

Beginning in the spring of 1995 and ending the summer of 2000, the Wisconsin Society for Ornithology sponsored a massive data collection project, the Wisconsin Breeding Bird Atlas (WBBA). The WBBA culminated with the 2006 publication, the "Atlas of the Breeding Birds of Wisconsin." Data from the WBBA provide us with the current spatial distribution of the Cliff Swallow in Wisconsin. The main goal of this paper is to compare the spatial distribution of Cliff Swallow colonies found in 1959 to that recorded 40 years later. Should differences be found, we will discuss possible reasons for the changes.

DATA COLLECTION METHODS

Aumann and Emlen Data—

The Aumann and Emlen survey was organized as a project of the Research Committee of the Wisconsin Society for Ornithology (WSO) and was supported by WSO through two nesting seasons, 1957 and 1958. The Aumann and Emlen study provides us with information of both the location and size of Cliff Swallow colonies in Wisconsin in the late 1950s.

In 1957, the authors sent survey form letters to all WSO members. Additionally, a form letter was sent to each of the 595 post offices in the state of Wisconsin along with 1200 survey forms, enough for all the rural mail carriers. A notice was published in the *Wisconsin Agriculturalist and Farmer* to inform farmers in several important regions of the state.

Apparently the participation rate was high by both WSO and non-members alike. It was noted that 385 postmasters and 621 rural mail carriers carried the survey to all but one of Wisconsin's 71 counties. Aumann and Emlen reported that the response was excellent, and collectively, post office employees reported more than half of all the Cliff Swallow colonies recorded in the survey.

Survey questions were worded so that misidentifications could be easily detected and Aumann and Emlen were able to follow up personally on questionable or otherwise challenging reports. Finally, the authors were able to visit many of the key areas of Cliff Swallow distribution personally and concentrated their efforts on areas in northern and west-central Wisconsin which had relatively poor coverage from the surveys.

A progress report covering the first season's activities were printed in the 1957 autumn issue of *The Passenger Pigeon.* Active participants from the 1957 surveys received new survey forms for the 1958 nesting season.

Upon the completion of the study, Aumann and Emlen were clearly attuned to the limitations of their study. In particular they noted that there were areas of the state where data collection was incomplete. However, they rightly point out, that they had increased the lower bound of knowledge related to the distribution of the Cliff Swallow. In fact, Aumann and Emlen state "Despite our very considerable efforts, the coverage in this survey was far from complete . . . Our figures, accordingly, must not be interpreted as complete: rather they indicate minimum numbers. More importantly they provide a reasonably reliable basis for examining the distribution of the species throughout the various regions of the state."

WBBA Data—

Beginning in the spring of 1995 and ending the summer of 2000, the Wisconsin Society for Ornithology sponsored a massive data collection project, the Wisconsin Breeding Bird Atlas (WBBA). The project culminated with the 2006 publication, the "Atlas of the Breeding Birds of Wisconsin."

Briefly, the WBBA data were pro-

cured as follows. Each 7.5 minute USGS topographic quadrangle in Wisconsin was divided into six block sectors-NW, NE, CW, CE, SW, SE-each of size 5km × 5km (about 10 sq mi). Within a given block sector, observers recorded each bird species detected, breeding code of the species, observation date, and optionally, habitat code and abundance code. Due to time constraints, it was not possible for observers to survey every block within a given quad, thus the centereast (CE) block was designated the Priority Block. In order for the Atlas to be complete, the Priority Block was surveyed for each quad. Additionally, there were 138 quads which contain one or more Specialty Blocks for which habitat information of each species observation was required.

Observers completed a new field card for every block they surveyed. The observer recorded the year, quad name, and block sector. Additionally, observers completed casual observation forms to record species in blocks the observer was not formally surveying. Abundance was desirable although optional. order In for observers to estimate the total number of breeding pairs in a given block, they were to determine how much suitable breeding habitat was in the block for a given species and extrapolate from the number of breeding pairs in the surveyed portion. This was not done for a significant number of survey cards that had recorded the presence of Cliff Swallow.

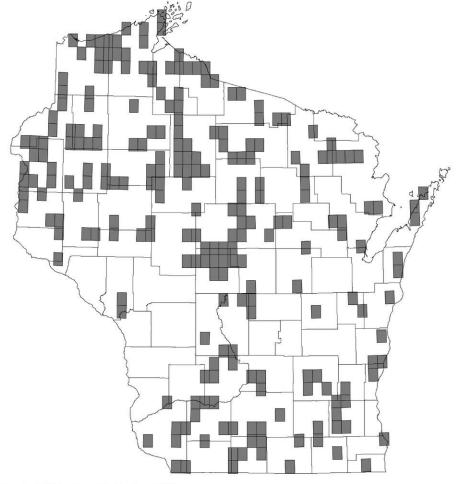
TRANSFORMING THE 1959 DATA

Because abundance information was optional in the WBBA, only the spatial (location) portion of the Aumann and Emlen data will be compared to the WBBA data. Additionally, only the Cliff Swallow records from the WBBA that were listed as probable or confirmed breeding were used for this comparative study. Finally, due to the methodology of the WBBA data, location of nesting colonies from both studies will be compared at the quad level.

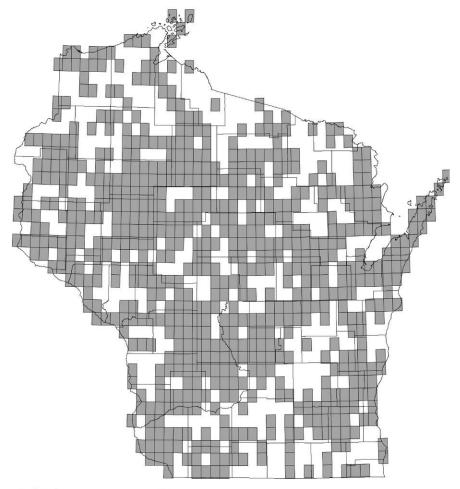
Emlen's field notebook was consulted to determine if geographical coordinates were available for the nesting sites presented on the Aumann and Emlen distribution map of Cliff Swallow colonies. As these data were not available, an enlargement of the 1959 distribution map was prepared. Next a quad map of Wisconsin was overlaid on the 1959 map. Each nesting location on the 1959 map was then aligned within the appropriate quad.

DISTRIBUTION MAPS

Based on the quad level data, the following distribution maps were prepared:



Map 1: Cliff Swallow distribution 1959



Map 2: Cliff Swallow distribution 1999

ANALYSIS OF DATA

There are 1136 quads that are predominately in Wisconsin, which are in turn represented on the distribution maps. Table 1 lists the number and percentage of quads in which Cliff Swallow colonies were detected from each study.

While obvious from Table 1, a hypothesis test was carried out to test whether or not the proportion of quads with breeding Cliff Swallows was significantly different between the two studies. The hypothesis test indicates the proportions are indeed not equal (p-value < 0.001).

From this result, we can conclude that the Cliff Swallow distribution in Wisconsin has increased since the late 1950s. This result naturally leads to the question of whether or not the increase in distribution was uniform over the entire state of Wisconsin.

Aumann and Emlen had discussed the spatial distribution of Cliff Swal-

Study Cliff Swalle	ads where breeding ws were located	Percent Quads where breeding Cliff Cliff Swallows were located		
1959	234	21%		
WBBA	668	59%		

Table 1. Cliff Swallow Distribution

low colonies in Wisconsin based on a geographic partition of Wisconsin into seven drainage basins. Using the same seven geographic regions, we determined the number of quads in which Cliff Swallow colonies had been recorded from each study. The summary data are presented in Table 2.

To determine if the increase in distribution was uniform across the state, a chi-square test was carried out using the data in Table 2. The chi-square test indicates the increased distribution of the Cliff Swallow is not uniform across Wisconsin (p-value < 0.005).

Further analysis was performed in order to better understand the nonuniform increase in spatial distribution. Using adjusted residuals (Agressi 2003), we were able to determine that three of the seven locations were statistically different than would be expected under the hypothesis of uniform distribution increase.

There was a significantly *smaller* increase in the number of reported quads from the WBBA in the Lake Superior region; i.e., the distribution of the Cliff Swallow did not increase as

much in the Lake Superior region as would be expected if all the regions had increased at the same rate (pvalue < 0.01). And there was a significantly *larger* increase in the number of reported quads with Cliff Swallows from the WBBA in the Black River Basin region and the Lake Michigan Shore & Fox River Basin region (pvalue < 0.01 in each case).

Data from the 1959 study were also compared to the North American Breeding Bird Survey (BBS) route data for the Cliff Swallow in each of the seven drainage basin regions. For this comparison, we only considered BBS routes that had been actively surveyed for 30 or more years (Table 3). Based on the number of routes with positive trend (noted by > 0 in table) and the number with negative trend (< 0), the BBS trend data were in agreement with our conclusions from the adjusted residuals analysis.

DISCUSSION

An increase in the distribution of the Cliff Swallow across Wisconsin

Table 2: Number of Quads with nesting Cliff Swallows by geographic region.

	Lake Superior	St. Croix & Chippewa River Basin	Black River Basin	Upper Wisconsin River Basin	Lower Wisconsin River Basin	Lake Michigan Shore & Fox River Basin	Rock River Basin
1959 WBBA	24 33	$\frac{80}{187}$	$\begin{array}{c} 6 \\ 67 \end{array}$	29 67	$\begin{array}{c} 31 \\ 100 \end{array}$	23 112	$\begin{array}{c} 40\\104\end{array}$

Lake Superior	St. Croix & Chippewa River Basin	Black River Basin	Upper Wisconsin River Basin	Lower Wisconsin River Basin	Lake Michigan Shore & Fox River Basin	Rock River Basin
$ \begin{array}{r} 1 < 0 \\ 3 < 0 \\ 4 < 0 \\ 5 < 0 \end{array} $	$\begin{array}{l} 9 > 0 \\ 10 > 0 \\ 12 > 0 \\ 13 < 0 \\ 17 < 0 \\ 19 < 0 \\ 31 > 0 \\ 32 < 0 \end{array}$	34 > 0 51 < 0 54 > 0	8 < 0 22 > 0 23 < 0 26 < 0 27 > 0	40 > 0 55 > 0 56 > 0	46 > 0 62 < 0 63 < 0	66 > 0

Table 3: Breeding Bird Survey routes surveyed for 30 plus years and associated trend by geographic region.

from 1959 to 1999 could be explained simply by an increase in spatial intensity associated with the WBBA as compared to the Aumann and Emlen 1959 study. However, the non-uniform increase in distribution indicates there may be other factors that influenced the distribution of Cliff Swallows across the state. For example, an increase in human population density with a resulting increase in construction of new buildings and other struchas provided additional tures locations for Cliff Swallows to build their nests.

Another explanation could be related to the species dynamics between the Cliff Swallow, the House Sparrow (Passer domesticus), and the House Finch (Carpodacus mexicanus). The presence of House Sparrows has a negative effect on Cliff Swallow populations (e.g., Davis and Davis 2002, Brown and Brown 1996, Silver 1993, Krapu 1986, Samuel 1969). This negative effect is typically manifested through the usurpation of Cliff Swallow nests. House Sparrows destroy eggs in attempts to usurp nests; a single House Sparrow may clean out 12-15 adjacent nests before selecting one as its own. Cliff Swallows seem

completely intimidated by House Sparrows and do not attempt nest defense against them. Alarm calls are not given by Cliff Swallows in response to House Sparrows (Brown and Brown 1995).

The House Finch is a competitor of the House Sparrow and has a negative impact on House Sparrow populations (e.g., Bennett 1990 and references within). The interaction between these two species is a competitive interaction over food sources. We are not aware of any direct interaction between Cliff Swallows and House Finches, however.

Our hypothesis is that in areas where the House Sparrow population has increased, the increase in successful Cliff Swallow colonies would be subdued, as the Cliff Swallow population would be negatively impacted by the increased presence of House Sparrows. In areas where the House Finch population has increased, however, competition between the House Finch and House Sparrow would result in a decrease of House Sparrow numbers, allowing a greater increase in successful Cliff Swallow colonies.

Once again BBS trend data were consulted — this time for population

trends of the House Sparrow and House Finch. Interestingly, the BBS trend data for the House Finch show strong growth in the lower half of Wisconsin over the past 30 years. Simultaneously, the House Sparrow population has been decreasing in these locations over the same time frame. We conjecture that one reason we have seen an increase overall in the number of Cliff Swallows in Wisconsin is due to the increase in the House Finch population. This is especially true for the non-uniform increase in distribution in Cliff Swallow populations in the Black River Basin and the Lake Michigan Shore & Fox River Basin regions of the state.

Overall it appears that the Cliff Swallow population in Wisconsin is healthy. Based on data we have examined, the spatial distribution of the Cliff Swallow has increased within the state of Wisconsin during the time period between the Aumann and Emlen 1959 study and the Wisconsin Breeding Bird Atlas. Although most likely, it is not possible to determine if the total population size of Cliff Swallows in Wisconsin has increased as well.

ACKNOWLEDGMENT

The authors would like to give special thanks to Steve Emlen for allowing us access to the original field notebook of John T. Emlen, Jr.

LITERATURE CITED

- Agresti, A. 2003. Categorical data analysis. Wiley Publishing Company, New York.
- Aumann, G. and J. T. Emlen, Jr. 1959. The distribution of Cliff Swallow nesting colonies in Wisconsin. The Passenger Pigeon 21(3): 95–100.

- Bennet, W. A. 1990. Scale of investigation and the detection of competition; an example from the House Sparrow and House Finch introductions in North America. The American Naturalist 135(6): 725–747.
- Bent, A. C. 1958. Life Histories of North American Blackbirds, Orioles, Tanagers, and their allies. United States National Museum, Bulletin 211.
- Bent, A. C. 1942. Life Histories of North American Flycatchers, Larks, Swallows, and their allies. United States National Museum, Bulletin 179.
- Brown, C. R. and M. B. Brown. 1996. Coloniality in the Cliff Swallow: the effect of group size on social behavior. University of Chicago Press, Chicago.
- Brown, Charles R. and Mary B. Brown. 1995. Cliff Swallow (*Petrochelidon pyrrhonota*), The Birds of North America (A. Poole, Editor). Ithaca: Cornell Lab of Ornithology.
- Brown, C. R. and M. B. Brown. 1987. Groupliving in Cliff Swallows as an advantage in avoiding predators. Behavioral Ecology and Sociobiology 21: 97–107.
- Cutright, N, J., B. R. Harriman, and R. W. Howe, editors. 2006. Atlas of the Breeding Birds of Wisconsin. Wisconsin Society for Ornithology.
- Davis, G. J. and J. H. Davis. 2006. Cliff Swallow. In Atlas of the Breeding Birds of Wisconsin. (N. J. Cutright, B. R. Harriman, and R. W. Howe, editors.) The Wisconsin Society for Ornithology.
- Davis, G. J. and J. H. Davis. 2002. House Sparrows usurp swallow nests. Journal of the North American Bluebird Society 24(3): 12–13.
- Horn, D. J., M. Benniger-Truax, and D. W. Ulaszewski. 1996. The influence of habitat characteristics on nestbox selection by Eastern Bluebirds and four competitors. Ohio Journal of Science 96(3): 57–59.
- Krapu, G. L. 1986. Patterns and causes of change in a Cliff Swallow colony during a 17year period. Prairie Naturalist 18(2): 109–114.
- North American Breeding Bird Survey (BBS) 2010. http://www.pwrc.usgs.gov/bbs/.
- Radunzel, L. A., D. M. Muschitz, V. M. Bauldry, and P. Arcese. 1997. A long-term study of the breeding success of Eastern Bluebirds by year and cavity type. Journal of Field Ornithology 68(1): 7–18.
- Samuel, M. 1969. House Sparrow occupancy of Cliff Swallow nests. Wilson Bulletin 81(1): 103–104.
- Sauer, J. R., J. E. Hines, and J. Fallon. 2008. The North American Breeding Bird Survey, results and analysis 1966–2007. Version

5.15.2008. USGS Patuxent Wildlife Research Center, Laurel, MD.

Silver, M. 1993. Second-year management of a Cliff Swallow colony in Massachusetts. Bird Observer 21(3): 150–155.

Gregory Davis is a Professor and serves as the Chair of Natural and Applied Sciences at UW-Green Bay. He earned a Ph.D. from Northwestern University and his research interests include dynamical systems, mathematical modeling of ecological systems, and Cliff Swallow-House Sparrow dynamics.

Jennifer Davis was the data manager for the Wisconsin Breeding Bird Atlas. She has a Master's in Environmental Science, with an emphasis in Quantitative Analysis (GIS, statistics, programming) from UW-Green Bay.



American Kestrel by Alan Stankevitz



Alan Stankevitz caught this Bald Eagle just as it caught its lunch.

Trolling for Martins

Noel J. Cutright

3352 Knollwood West Bend, Wisconsin 53095 262. 675. 2443 noel.cutright@we-energies.com

Seth Cutright

3352 Knollwood West Bend, Wisconsin 53095

Tom Schaefer

3712 Kettle Moraine Road Hartford, Wisconsin 53027

Carl Schwartz

7239 N. Barnett Lane Fox Point, Wisconsin 53217 cschwartz3@wi.rr.com

INTRODUCTION

"Almost every country tavern has a martin box on the upper part of its sign-board; and I have observed that the handsomer the box, the better does the inn generally prove to be." (Audubon 1831). After completing our survey for nesting Purple Martins, the authors generally agree with Audubon's observation, although of course, there are exceptions. Carl Schwartz also noted after completion of the martin-trolling exercise that "martins and people are similar; they both like to live in colonies," making the point that the people who cater to martins also seem to form colonies.

The Purple Martin (*Progne subis*) is North America's largest swallow and one of the best known and most popular migratory birds in North America. It is a secondary cavity nester that exhibits colonial nesting tendencies. The Purple Martin is a declining Neotropical migrant bird species that nests throughout Wisconsin. Although Robbins (1991) called the martin an abundant migrant and common summer resident, we think that most would agree with Ken Damro's statement in his Breeding Bird Atlas account that *Many birders in Wisconsin* now view this status as too positive (Cutright et al. 2006). Purple Martins were either confirmed or given a probable breeding status in approximately a quarter of the state's topographic quads during the 1995–2000 Atlas field seasons. They were more common in the southeastern and eastcentral regions of the state. Although their population decline in Wisconsin over the past three decades is a concern to many, the only survey that is tracking populations at this time is the North American Breeding Bird Survey (BBS; Sauer et al. 2008).

METHODS

On 13 July 2010, Noel and Seth Cutright, Carl Schwartz, and boat captain Tom Schaefer surveyed Purple Martin nesting structures for almost 12 hours from the water along the entire Lake Winnebago shoreline. Lake Winnebago, located in the counties of Calumet, Fond du Lac, and Winnebago, is about 30 by 10 miles, has a surface area of 137,708 acres, and has 88 miles of shoreline. It is the largest lake completely within Wisconsin and one of the largest inland lakes in the United States. Having only an average depth of 15.5 feet and a maximum depth of 21 feet, the lake is characterized by having many shallow reefs along the west shore and a drop-off type shoreline on the east. There are several islands along the west shore. The cities of Fond du Lac, Menasha, Neenah, and Oshkosh are located along the shore.

Using our four sets of eyes and binoculars, we attempted to detect every Purple Martin nesting structure located on the shore. Boat speed varied depending on the nature of the shoreline, water depth, and submerged hazards. As reported in the local media, we noted that the lake is exceptionally clear this summer, allowing for more sunlight to produce a bumper crop of aquatic plants that hindered boat progress in certain locations.

When a probable martin nest structure was sighted, we moved closer to shore and recorded GPS coordinates, number of poles supporting Purple Martin nest structures, number of nesting holes available to martins, whether a structure or group of structures appeared to be currently in use by nesting martins (i.e., active or inactive), and structure type (i.e., aluminum, gourd, wooden, other). Undoubtedly, we missed finding a few structures, but we feel confident that most were spotted. It was not possible to determine the exact number of holes in all structures because approximately half of the holes were often located on the side of the structure that was not visible from the water, so our best judgment was used to determine the number of holes. It also was a little difficult to determine the type of material (aluminum or wooden) for some structures, so again, best judgment prevailed. In assigning whether a site was active or not required listening and watching for flying or perched martins. We are confident for those sites that we assigned an active status, but it is quite possible that a few that we consigned to inactive status might have been active. Martins that were invisible or inaudible when we visited the area may have escaped detection. However, martins are quite vocal and visible during this period in the nesting cycle, and we feel that most locations were assigned a correct status.

RESULTS:

We had no preconceived notion of what we might find during the survey, although we knew of at least one occupied structure and the locations of a few larger nesting martin colonies. We found 228 poles at 131 locations that supported 200 wooden or aluminum nesting structures (n=103 wooden, 97 aluminum) and supplied 3,078 nest holes. The number of holes available at a site ranged between 5 and 98 (2 locations). Sites were active where there were >30 nest holes in 26 of 29 locations. Of these available holes, 349 were gourds, including 4 that were dried gourd fruit, and 26 that were plastic tubes or cylinders. We were surprised at the number of gourds that are being employed to attract martins. We noted a few houses that were completely sealed or had certain holes blocked with aluminum caps or cores of Styrofoam. Slightly more than half of the locations were active (n=67 active, 64 inactive).

No attempt was made to identify

how many locations had nesting House Sparrows, but several were sparrow apartments. Purple Martins and House Sparrows will occupy the same nesting structure. No European Starlings or other bird species were noted using nest holes.

Table 1 shows site activity status according to the type of nesting structure(s) at 131 locations along the Lake Winnebago shoreline. A third of the sites where there was only a wooden structure(s) available were active, whereas where only aluminum housing was available, half of the sites were active. We noted that wooden housing tended to be older and sometimes more dilapidated, was placed in less suitable locations to attract martins than aluminum housing, and served as ideal House Sparrow apartments. Sites where aluminum housing plus gourds were available had the highest active colony success (>80%). Brown (1981) found that reproductive success was no better in aluminum than in wooden houses. However, Brown recommended aluminum houses from a management perspective because they are lightweight, encouraging people to lower them for nest cleanouts. Hinged

Table 1. Nest structure type associated with Purple Martin presence at 131 locations on Lake Winnebago.

	Site Activity Status		
Structure Type	Active	Inactive	
Only Aluminum	18	15	
Only Gourd	2	4	
Only Wood	17	36	
Aluminum plus Gourd	13	3	
Aluminum plus Wood	8	3	
Gourd plus Wood	6	3	
Aluminum plus Gourd plus Wood	3	0	
Total	67	64	

doors, which few wooden houses have, further facilitate cleaning and maintenance. Aluminum houses do not require as much repair and repainting as wooden houses. For these reasons, aluminum houses enjoy longer life than most wooden houses and ultimately produce more Purple Martins, while starlings and House Sparrows take over neglected and aged wooden houses.

Figure 1 shows the location and activity status of martin colony sites along the Lake Winnebago shoreline. There were noticeable gaps in colony location with the southwestern shore in the city of Fond du Lac and the northeastern shore west and south of High Cliff State Park having none. There were also fewer colonies along the southern third of the eastern shoreline where the shoreline was steeper and had a more solid forest cover. The western shore had a significantly higher number of active colonies than the eastern shore. Stretches of shoreline east of Neenah and near Oshkosh and southward showed a clumping of active colonies.

DISCUSSION

According to Wisconsin's Wildlife Action Plan, <http://dnr.wi.gov/org/ land/er/wwap/>, there are 284 native bird species for which Wisconsin provides important breeding, wintering, or migratory habitat. Of these, 84 (30%) have been identified as Species of Greatest Conservation Need (SGCN), which are species that have low and/or declining populations that are in need of conservation action. They include birds that are:

- Already listed as threatened or endangered;
- At risk because of threats to their life history needs or their habitats;
- Stable in number in Wisconsin, but declining in adjacent states or nationally;
- Of unknown status in Wisconsin and suspected to be vulnerable.

However, the Purple Martin is not a SGCN in Wisconsin. The martin also is not listed as a SGCN in Minnesota, but it is for Michigan.

The Wisconsin All-Bird Plan <http:// wisconsinbirds.org/plan/purpose. htm>, a project of the Wisconsin Bird Conservation Initiative <http://www. wisconsinbirds.org/>, synthesizes the requirements and conservation issues of 116 priority bird species and provides recommendations for habitat protection, restoration, and management that will have the greatest impact on the populations for these species in Wisconsin. The Plan does not list the Purple Martin as a priority species based on five judgment criteria.

Because of the lack of conservation priority being given to martins in Wisconsin, a specific monitoring program for the Purple Martin is not currently in place. This leaves the BBS as the only real population monitoring program, and this survey appears to be giving high quality data. The BBS is particularly well suited for monitoring trends in Purple Martin populations east of the Rockies (Tautin 2007) for several reasons including: (a) geographical area coverage of BBS corresponds with breeding range; (b) the martin is a diurnal species, and the BBS is a diurnal survey; and (c) mar-

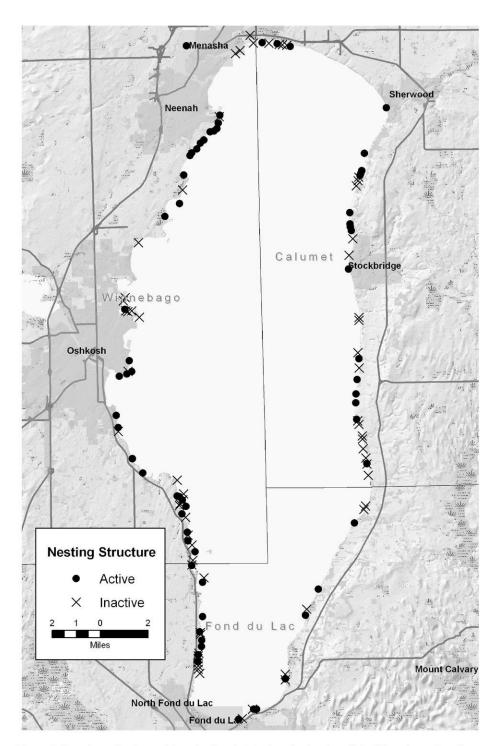


Figure 1. Locations of active and inactive Purple Martin colonies along Lake Winnebago shoreline on July 13, 2010.

tins are usually near martin housing that are often near residences located near the BBS roadside points. Across North America, the Purple Martin population has been stable over the years 1966–2007 (-0.1%/year, P=0.65; Sauer et al. 2008), with an estimated 4.52 birds per route (n=1,781 routes) observed, with little variation among years.

However, the BBS trend for Wisconsin shows a significant **annual** decline of 6.2% per year between 1980 and 2007. In neighboring states over the same period, the significant annual declines are 10.8% for Michigan and 6.6% for Minnesota, but there is only a nonsignificant decline of 0.8% for Illinois and 0.4% for Iowa. In the entire United States for this 1980–2007 period, the declining trend is 0.4%, and for Canada, the annual decline is 1.5%.

In the nine states (AL, AR, DE, FL, GA, LA, MS, NC, and SC) with relative abundances of more than 10 martins per BBS route during the 1966–2007 timeframe, the results are a mixed bag, with annual trends ranging from –3.1 to +2.1. For Canadian provinces, both Quebec and Ontario show declining trends, whereas Manitoba and Saskatchewan show increasing trends.

Purple Martins winter in South America lowlands east of the Andes south to northern Argentina (rarely) and southern Brazil; the main wintering area appears to be eastern Bolivia and four provinces in Brazil (Ridgely and Tudor 1989, Sick 1993). Birds marked with ultraviolet paint in a single roost at Barretos, São Paulo province, were later found nesting in TX, LA, MO, WI, KS, VA, MA, PA, NJ, and Ontario (Coulson 1985), indicating that birds from throughout the eastern half of North America use the same wintering area.

It would be very interesting to attach light-level geolocators to martins nesting in Wisconsin to learn more about their overwintering locations and their migratory pathways. Geolocators are retrieved during the next breeding season to analyze sunrise and sunset times to reconstruct migration routes and estimate wintering locations (Stutchbury et al. 2009). In August 2007, Stutchbury et al. (2009) strapped geolocator backpacks to 20 Purple Martins in northern Pennsylvania and retrieved 2 of the geolocators the following spring. Both martins flew south 1,553 miles to the Yucatan Peninsula in 5 days where they stayed for 2 to 4 weeks before continuing their migration into South America. The following spring, one martin left the Amazon basin in mid-April and flew about 4,660 miles in 13 days, 9 of which were spent migrating and 4 spent at stopovers. Overall migration rate was 2 to 6 times more rapid in spring than in fall.

Little is known about the causes of population change for this species, although weather probably plays a role at least in northern North America. Anecdotes suggest that Purple Martins were more abundant in the 19th century (Morton 1988); current populations may be lower because of nest-site competition from introduced House Sparrows and European Starlings. Overall availability of nest sites (birdhouses) now may be greater than in the 19th Century, however, so it is unclear how much population has changed in size in the last 200 years (Brown 1997).

To bridge the science-management gap, we **strongly recommend** the for-

mation of a Purple Martin working group in Wisconsin, where the situation is most urgent. Since no Wisconsin-based organization has taken action to address the decline, we believe that formation of a martin organization is likely necessary to halt the decline. By default, the management of Purple Martins has remained largely up to layperson landlords and their supporting martin organizations outside the state.

Nationally, the martin seems to be in good hands. The original organization devoted to the Purple Martin is the The Nature Society http://www. naturesociety.org/> established in 1962 in Griggsville, Illinois, by J. L. Wade. A quote by Wade is relevant to this discussion: "It had come to my attention that a species of bird was in trouble-the Purple Martin. By the 1960s, the Purple Martin's natural habitat had all but disappeared. In 1962, I began a crusade to save this beneficial bird from becoming a statistic."

There are two additional martin organizations on the national scene. The Purple Martin Conservation Association <http://purplemartin.org/ index.html> is dedicated to the conservation of Purple Martins through scientific research, state of the art management techniques, and public education, with the end goal of increasing martin populations throughout North America.

The Purple Martin Society, NA has a web site <http://www.purplemartins. com/> dedicated to Purple Martin landlords, past, present, and future. The society's purpose is to educate the Purple Martin public, to stimulate their interest and enthusiasm in learning about these birds and caring for them, and to bear testimony to what other enthusiasts have found so gratifying in perpetuating this bird's much needed support.

A third martin organization also has a national presence although it is headquartered in southwestern Pennsylvania. The Purple Martin Preservation Alliance <http://purple-martin org/> is dedicated to the recovery and preservation of the Purple Martin through hands-on conservation projects, public education, and scientific research. This group has been banding hundreds of martins since 2001 to study dispersal trends, housing preference, and longevity.

In recent years, organizations devoted to martins have formed in Minnesota and Michigan. These can serve as models for the formation and organization of a dedicated martin effort in Wisconsin. Michigan Purple Martins has a website <http://michiganmartins. com/> devoted to the study of martins in Michigan in hopes of reversing the downward population trend of martins through data collection and data analysis. The MNMartin website <http:// mnmartins.org/>, directed by the Minnesota Purple Martin Working Group, was started in 2006 and is dedicated to the preservation of the Purple Martin, more specifically the martins located in Minnesota. The goal of this site is to provide information that is specific to attracting and keeping these birds at colonies in Minnesota and its surrounding states. Finally, the East Central Minnesota Purple Martin Recovery project <http://www.purple martinrecovery.org/> was established in 2007 and has grown to six public colony sites located across the region. These colonies, which are extensively managed on a volunteer basis, serve to

expose the general public to Purple Martins as well as help foster a healthy increase in the local martin population.

We also believe that it is often more productive to expand the size of an existing martin colony than attempting to attract them to a new location. One of the shining examples of this is in the city of Oshkosh where the Oshkosh Bird Club has worked at the city's water treatment plant to establish and increase a martin colony. In 1989, there was only one old martin house at the site that was in bad need of repair, had not been cleaned out in years, and was full of House Sparrows. However, one pair of martins attempted to nest in it. Tom Ziebell repaired and painted the house in 1990, and the Bird Club purchased six gourds. Three pairs nested there in 1990. Since then, more houses and gourds have been added, with 52 possible nest sites now available for martins. The last five years has seen 40-45 of the nest holes occupied by martins, and in 2010, it looks like about 45–50 are in use. More concerted efforts by individuals and groups like this are sorely needed.

Our survey of the Lake Winnebago shoreline discovered a few active colonies on public property. There are 15 gourds in Fond du Lac County's Columbia Park located west of the Village of Pipe. Although only 15 acres in size, Columbia Park has ideal habitat to allow expansion of this colony. Adjacent to Columbia Park is the 100-acre Shaginappi Park. High Cliff State Park, the largest stateowned recreational land on Lake Winnebago, has a very active colony with 54 martin holes available near the marina on this 1,187-acre property. Finally, the Stockbridge Harbor, which became fully operational in 1998, has a nice colony of martins and 22 holes available. We believe that each of these colonies can be expanded easily. It would only take the energy and devotion of a few individuals or the appropriate organization to make this happen.

Park land along the shore where no martin housing was observed includes the 3-acre Roosevelt Park located on the southeast shore in Fond du Lac, the 200-acre Calumet County Park located northwest of the Village of Stockbridge, and the City of Fond du Lac's Lakeside Park. Because of the number of active colonies along the Lake Winnebago shoreline, we feel confident that each of these parks could host a martin colony if suitable housing was erected in suitable locations.

Working to increase the population of Purple Martins also is a wonderful opportunity for those Wisconsin communities who are interested in being designated as a Bird City Wisconsin (BCW) community. BCW < http://www birdcitywisconsin.org/> is working on making our communities healthy for birds... and people. Its goal is to encourage all communities in Wisconsin to implement sound bird conservation practices by offering public recognition to those that succeed in (a) enhancing the environment for birds and (b) educating the public about the interactions between birds and people and about the contributions birds make to a healthy community. Working on a Purple Martin project would help a community to achieve BCW status.

As Tauber et al. (2009) states, more research on martin populations would

be helpful, particularly on population dynamics, causes of Wisconsin's decline, dispersal of martins from established colonies, recruitment to new colonies, wintering locations, and survival during migration and wintering. Additionally, new or improved management strategies may be needed to restore martin populations. Maybe the newly-formed Western Great Lakes Bird and Bat Observatory located in northern Ozaukee County, can play a role in this much needed work on the Purple Martin.

ACKNOWLEDGMENTS

The authors wish to thank Owen Boyle for his creation of the map of Lake Winnebago for Figure 1.

LITERATURE CITED

- Audubon, J. J. 1831. Ornithological biography. Vol. 1. J. J. Audubon, Edinburgh.
- Brown, C. R. 1981. Reproductive success of Purple Martins in aluminum versus wooden birdhouses. Journal of Field Ornithology 52: 148–149.
- Brown, C. R. 1997. Purple Martin (*Progne subis*), The Birds of North America Online (A. Poole, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America Online: http://bna.birds.cornell. edu.bnaproxy.birds.cornell.edu/bna/species /287
- Coulson, T. 1985. First Canadian recovery is identified in search for UV marked martins. Nature Society News 20(8):1–2.
- Cutright, N. J., B. R. Harriman, and R. W. Howe. 2006. Atlas of the breeding birds of Wisconsin. Wisconsin Society for Ornithology, Waukesha, WI.
- Morton, E. S. 1988. The truly long term tend in populations of the Purple Martin, with a repeat of the first description of its cause. Purple Martin Update 1(2): 20–22.
- Ridgely, R. S. and G. Tudor. 1989. The birds of South America. University of Texas Press, Austin, TX.
- Robbins, S. D., Jr. 1991. Wisconsin birds: popu-

lations & distribution, past & present. University of Wisconsin Press, Madison, WI.

- Sauer, J. R., J. E. Hines, and J. Fallon. 2008. The North American Breeding Bird Survey, Results and Analysis 1966–2007. Version 5.15.2008. USGS Patuxent Wildlife Research Center, Laurel, MD
- Sick, H. 1993. Birds in Brazil: a natural history. Princeton University Press, Princeton, NJ.
- Stutchbury, B. J. M., S. A. Tarof, T. Done, E. Gow, P. M. Kramer, J. Tautin, J. W. Fox, and V. Afanasyev. 2009. Tracking long-distance songbird migration by using geolocators. Science: 13 February 2009: 896.
- Tautin, J. 2007. The status of Purple Martin populations. Purple Martin Update 16(4): 2–5.
- Tautin, J., B. Cousens, K. Kostka, S. Kotska, and D. A. Airola. 2009. Addressing regional declines in Purple Martin populations, pp. 82–85. *In*: T. D. Rich, C. Arizmandi, D. Demerest, and C. Thompson [eds.]. Tundra to tropics: connecting birds, habitats and people. Proceedings of the 4th International Partners in Flight Conference, 13–16 February 2008, McAllen, TX. Partners in Flight.

Noel Cutright is Past-President of the WSO and currently serves on its Board as Historian. Noel has lived in Ozaukee County for 33 years and has birded actively around the state during this time. Noel is an Emeritus Scientist with We Energies, having retired in 2006. He is now working on starting a Western Great Lakes Bird and Bat Observatory at the newly acquired Forest Beach Migratory Preserve in northeastern Ozaukee County.

Seth Cutright, son of Noel, is an active birder and bird photographer. For the past four migratory seasons he has been the official raptor counter at the Cape May and Sandy Hook Bird Observatories in New Jersey, at Lake Erie Metro Park south of Detroit, and at Derby Hill Bird Observatory at the southeast corner of Lake Ontario in New York. Tom Schaefer is a bluebird enthusiast, active birder, gamebird hunter, and hiker. Tom lives near Pike Lake State Park near Hartford in Washington County where he helps operate a family-owned Christmas tree operation. He is currently growing an interesting and large variety of conifer species. Tom is active with the Riveredge Bird Club, as are all authors of the Purple Martin paper. Carl Schwartz has become more active in several organizations since his retirement from the Milwaukee Journal Sentinel. Carl is WSO's current Vice-President, is the Coordinator of Bird City Wisconsin (www.birdcitywisconsin.org), and is the Vice-President of the Friends of Cedarburg Bog. Carl resides in Fox Point in Milwaukee County.



Barn Owl by Alan Stankevitz

"From Field and Feeder"

Even the abundant American Robin can have interesting bird behavior.

ROBINS & SCUDS

On 4 January 2010, my husband and I observed ten American Robins standing along a small spring-fed creek at The Nature Conservancy's Crooked Creek Preserve in Walworth County. They appeared to be pecking into the shallow water at the edge of the creek. We noted that some seemed to close their beaks on something they got in the water. Others would, instead, pull out a bit of algae, examine it and then toss it aside onto the snow. I went over to the edge of the stream and pulled out a bit of algae, which I identified as muskgrass (Chara species), a common alga in the hard waters of the South Kettle Moraine area where the preserve is located. I shook the algae over the snow and found some little grubs, which I took home to examine more closely. They appeared to be scuds, sometimes called side-swimmers. Scuds are shrimp-like crustaceans with bodies that are flattened from side to side. The ones I collected were about a half-inch long—larger than ones I'd seen previously. My husband took photos which I sent to Phil Pellitteri, Distinguished Faculty Associate at the UW Madison Insect Diagnostic Lab, and he confirmed that they were scuds (*Gammarus* species).

On 9 January, we again observed dozens of American Robins feeding in a similar way along an open creek at Stute Springs in the South Kettle Moraine State Forest. We were unable to get close enough to the creek to get any specimens due to the marshy area surrounding the creek.

We believe that these observations suggest that American Robins feed on scuds to supplement the berries they commonly feed on in winter.—*Mariette Nowak, East Troy, Wisconsin.*



Bald Eagle soaring overhead by Alan Stankevitz.

50 Years Ago in The Passenger Pigeon

The Cattle Egret arrived in Wisconsin in 1960 with an 21–27 April sighting near Janesville and a 7–19 November sighting in Waukesha County. This bird was seen by hundreds of bird watchers, many of them spurred to visit by an article in the Milwaukee Journal entitled *Rare Bird from Africa* including a nice photo of the bird near the head of a crooked-horned cow. This bird roosted in a clump of red cedars and appeared to feed primarily on grasshoppers and crickets. Mary Nelson of Dousman who first sighted the bird and whose property it was on speculated that the egret might have been attracted to the property because of her four white Pekin ducks. The egret sometimes associated with the ducks.

Mary concludes her short article with the following paragraph. "Ever since the Cattle Egret was first seen in Florida in 1952, biologists have predicted the spread of this foreign bird over the entire country. Roger Tory Peterson in *Wild America*, published in 1955, agreed with this prediction, but he said 'Somehow I would not expect it to breed in the northeastern states, nor in the upper Midwest, even though there are plenty of cows.' All bird watchers should be on the alert for this bird next summer and for a possible nest, as Peterson might be wrong."

And of course, Peterson was wrong. The Birds of North America account for Cattle Egret states that as of 2006 there are no confirmed breeding records for only four of the contiguous U.S. states: Montana, New Hampshire, Washington, and West Virginia.

There are also breeding records for three Canadian provinces. Most Cattle Egrets breeding in North America winter south of the U.S. in Mexico, Central America, and the Greater Antilles, especially Cuba and coastal and inland Mexico.

Excerpt from Vol. 22(4), 1960 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.



Back view of a Blue Jay as it's flying away with food by Alan Stankevitz.

Lessons From the Seasons: Winter 2009–2010

Randy Hoffman

305 Fifth Street Waunakee, Wisconsin 53597 608. 849. 4502 ecurlew@hotmail.com

While looking over the winter's bird sightings, I tried to pick out significant sightings or large numbers to develop a theme. The relatively mild winter seemed to lack dramatic events. There were no large influxes of finches, which eliminated that item from consideration. Rare species reports are always present, such as our first overwintering Black-legged Kittiwake, but it's hard to make a theme out of a single bird that seemed to enjoy watching birders check a list.

The mild winter did have many species persist or overwinter that would normally be much farther south. This phenomenon is well known amongst birders. The question then popped into my brain, "How does this winter compare to past relatively mild winters?" Fortunately for me, I have a near complete set of the Passenger Pigeon. I simply went back several years and grabbed a winter season report. Through serendipity and happenstance, the copy I perused was the winter season from 1979-1980. which happened to be a relatively mild winter and a nice round number—30 years ago. I decided to go back another 30 years to the winter of 1949-1950, and again the winter was relatively mild.

Figuring this is too good to be true and why look anymore, I started compiling data from these three reports. The species comparisons are mostly at the county of occurrence level, but some have numbers or range limits. I present the data here simply as a thought process. No hard science can come from the data, and I caution against speculation. The reader can look at the information and see differences between now and then and maybe put some context into wintering populations.

Snow Goose: Seen at two locations in 2010 and one each from 1980 and 1950.

Canada Goose: Reported from at least 31 counties in 2010, 13 in 1980, and 8 in 1950.

Mute Swan: Reported from 8 counties in 2010, 5 counties in 1980, and zero in 1950.

American Black Duck: As a species that is considered to be in decline it was seen in 32 counties in 2010, eight counties in 1980, and five in 1950. Gray Partridge: Seen in six counties in 2010, five in 1980, and 11 in 1950 (with many fewer observers).

Wild Turkey: Seen nearly statewide with reports from Ashland and Florence Counties, and none seen in the other two time periods.

Red-throated Loon: Reported from five counties in 2010, and none seen in the other two time periods.

Great Blue Heron: Reported from 14 counties in 2010, and none seen in the other two time periods.

Black-crowned Night-Heron: One seen in 2010 and also one in 1980. The 1950 report had a bird until late November.

Turkey Vulture: Three birds seen in the winter of 2010 and none seen in the other two time periods.

Bald Eagle: Reported from at least 61 counties in 2010, 14 in 1980, and 11 in 1950.

Golden Eagle: Fourteen counties reporting birds with a systematic survey recoding 85 birds in the Driftless Area, two birds reported in 1980, and one in 1950.

Merlin: Ten counties reporting birds in 2010 compared to none the other two periods.

Peregrine Falcon: Ten counties reporting birds in 2010 compared to zero in 1980 and 1950.

Iceland Gull: Fifteen counties reporting birds in 2010 compared to zero in 1980 and 1950.

Lesser Black-backed Gull: Eight counties reporting birds in 2010 compared to zero in 1980 and 1950.

Glaucous Gull: Sixteen counties reported birds in 2010 compared to three in 1980, and one from 1950.

Great Black-backed Gull: Thirteen counties reported birds in 2010 com-

pared to one each for the other two periods.

Long-eared Owl: Seven counties reported birds in 2010, also seven counties in 1980, and six counties in 1950.

Short-eared Owl: Eight counties in 2010, three counties in 1980, and two counties in 1950.

Northern Saw-whet Owl: Reported from 12 counties in 2010, one county in 1980, and two counties in 1950.

Common Raven: Reported from as far south as Adams County in 2010, the most southerly sightings were Door and Eau Claire Counties in 1980, and the most southerly sightings from 1950 were Oconto and Oneida Counties.

Tufted Titmouse: Reported from 27 counties in 2010 with Barron County being the farthest north, five counties in 1980 north to Eau Claire, and the only report from 1950 came from Eau Claire.

Carolina Wren: Reported from seven counties in 2010, zero in 1980, and one county in 1950.

Winter Wren: Reported from eight counties in 2010, zero in 1980, and one county from 1950.

Golden-crowned Kinglet: I chose only January records and had 22 counties from 2010, 12 counties from 1980, and three counties from 1950.

Eastern Bluebird: Reported from 22 counties in 2010, zero in 1980, and two counties in 1950.

Hermit Thrush: Reported from eleven counties in 2010, one county in 1980, and zero in 1950.

Varied Thrush: Reported from eight counties in 2010, six counties in 1980, and zero from 1950.

Yellow-rumped Warbler: Reported from eight counties in 2010, two counties in 1980, and zero from 1950. Chipping Sparrow: Reported from four counties in 2010, and no reports during the other years.

Savannah Sparrow: Seven counties reported birds in 2010, and zero reports from the other two periods.

Fox Sparrow: Reported from more than twenty counties in 2010, two counties in 1980, and zero from 1950.

White-throated Sparrow: Reported from twenty counties as far north as

Polk County in 2010, two counties in 1980, and zero from 1950.

Of course, new arrivals (House Finch and Eurasian Collared-Dove) were not seen in the past time frames as well as the repatriated Trumpeter Swan. Regardless the species, the time series of birder-reported sightings from the *Passenger Pigeon* can help any birder to gain a fuller understanding of our avifauna.



Short-eared Owl by Alan Stankevitz.



Underside of a Blue Jay with food by Alan Stankevitz.

The Winter Season: 2009-2010

Kay Kavanagh

712 Lakeview Lane Niagara, Wisconsin 54151-9021 715. 589. 2299 kkav@uplogon.com

WEATHER

Relatively warm temperatures prevailed and little snow cover was on the ground as we entered the winter season this year. However, on 9 December 2009 most of the state received a significant snowfall, with 12" recorded in northeast Wisconsin, while parts of southern Wisconsin recorded up to 16". Overall weather conditions for this winter season could be summarized as generally mild temperatures with relatively low totals of snowfall throughout the state.

Although there was less snowfall in northeast Wisconsin than last year, approximately 12-15" of snow covered the ground throughout the 3-month winter season. Relatively warm temperatures were recorded throughout the entire period with the coldest temperature of -14°F recorded on 31 January. Temperatures cooled into the low twenties for highs by 4 December, then moved into the mid-twenties until 11 December. Temperature highs for the 11th and 12th were at 7°F with the first below zero readings of -9°F. Temperatures rebounded briefly into the twenties for highs, but on 17 December the temperature dipped to

-13°F, which was the lowest for the month of December. Again on 22 and 23 December low temperatures were -11°F and -12°F, respectively. After the original 12" of snow that fell on 9 December, there were several 1-2''snowfalls on 14, 15, 21, 24, and 26 December. January temperatures began with highs in the teens then rose into the low twenties from 6-16. Almost the entire last half of January was the January thaw. On 17 and 18 January highs reached 43°F and 44°F and remained in the high thirties and forties until 29 January. A high of only 4°F was recorded on the 29th with lows of -13°F and -14°F recorded for the next 3 days. January was relatively free of moisture with 1 to 2'' snowfalls on 11 and 24 January. February began with high temperatures in the teens then warmed into the high twenties and thirties by the 5th. Temperatures remained in the twenties and thirties throughout the month with a high of 39°F on 20 February. One to 2" snowfalls were recorded on the 3rd, 10th, and 15th. Overall during this winter season in northeast Wisconsin the weather was mild with less snowfall than the previous several winters.

Daryl Tessen described this year's

winter weather in the Appleton area as "... less extreme than the previous two winters. Snow fall was average about 35" in contrast to 80–85" the previous years. Temperatures were less extreme, with cold weather predominating except for a brief warm spell in January and a longer one in February. The wind was not bitter like the previous two winters."

From Jefferson County Karen Etter-Hale noted for December-"Suddenly, it was winter. Our first hard freeze was December 4, storm December 9 brought 15" of snow, conditions were frigid for the Waterloo CBC: high of 8°F with NW wind at 15+ mph, then freezing rain for Christmas Eve and Christmas. Total of 24" of snow fell plus 1.6" of rain. January-In contrast to December this month was boring, with only 4" of snow for the entire month and moderate temperatures. February-Except for 6" of snow on February 9, weather continued to be boring. Only 11" snow total, no really cold weather (highs all in 20s to 40s)."

From Kenosha County Ron Hoffmann noted "Winter again very mild here. I shoveled only twice; used my leaf blower for the 'dusting'."

NOTABLE RARITIES

Harlequin Duck reports came from 4 counties: Milwaukee, Outagamie, Pierce, and Sheboygan. A King Eider was reported on Sturgeon Bay CBC in Door County mid-December. Sightings of all three scoter species occurred all along the Lake Michigan shoreline from Door to Racine Counties with a White-winged Scoter reported in Brown County, the only inland county. Barrow's Goldeneye

were sighted in 5 counties including 3 inland counties: Brown, Dane (Fig. 1), and Fond du Lac. Gray Partridge were reported in 6 counties: Brown, Columbia, Grant, Kewaunee, Manitowoc, and Oconto. Spruce Grouse were reported in Florence and Vilas Counties. Late migrants of American White Pelican were noted in Grant County in December, plus a total of 7 individuals apparently over-wintered again along the Fox River in Green Bay in Brown County. The Ashland County Gyrfalcon continued from the Fall Season and was last reported 31 December. Four late-migrating Dunlin were reported in Dodge, Kewaunee, and Sheboygan Counties. A California Gull was documented in Milwaukee County in December.

Perhaps the most widely-viewed rare visitor of the winter season, a Blacklegged Kittiwake (Figures 2-6), appeared at Port Washington harbor 11 December and continued to the end of the period. There are two separate summer populations of this species in North America, one centered in Alaska and one near Baffin Island. The western form of this species has a highly developed hallux (backwardpointing big toe), while in the eastern form the hallux is greatly reduced. Because this individual was so cooperative, many very detailed photos enabled John Idzikowski to determine that this bird belonged to the Baffin Island population (Fig. 6) By studying the feet John was able to determine this bird's origin.

Northern Hawk Owls were reported in 3 counties: Burnett, Oneida (Fig. 7), and Sawyer. Carolina Wrens were reported in 8 southern counties. Townsend's Solitaires were reported in only 2 counties: Bayfield County



Figure 1. This male Barrow's Goldeneye was photographed by Mike McDowell in Madison on 13 December 2009.

(Fig. 8), and the traditional wintering spot at Devil's Lake in Sauk County. Varied Thrush (Fig. 9) appeared in 9 counties. A Northern Mockingbird was present in Ashland in late December and lingered until 27 January. Three warbler species were reported from 9 counties. On 4 December a Yellow Warbler was photographed in Chippewa County and a Cape May Warbler was photographed in Milwaukee County on 8 December (Fig. 10). Yellow-rumped Warblers were found in 9 counties. An apparently over-wintering Chipping Sparrow was reported from Ozaukee County in February. A Summer Tanager visited feeders in Sauk City for 2 days in early December. A Harris's Sparrow found in December lingered into January near Harrington Beach in Ozaukee County while another was photographed in Racine County in mid January (Fig. 11). A Rose-breasted Grosbeak was reported at a feeder in January in Vernon County.

DISCUSSION

A total of 170 species was reported this year. This compares to 168 species recorded last year. There was a report of 2 European Finches as an exotic species and 3 hybrid sightings of Hooded/Common Merganser, Red-breasted/Common Merganser, and Nelson's (Herring X Glaucous) Gull. The milder weather at the beginning of the 2009–2010 winter season certainly was a factor in some waterfowl and late migrants lingering into early December. This weather pattern probably influenced many species of waterfowl, plus American White Pelican and Dunlin. The unusually late appearance of Yellow and Cape May Warbler which lingered into the first week of December was also probably the result of the milder weather.

During the last 15 years, sightings of these 10 species have been regularly included in the winter season report; Surf, White-winged, and Black Scoter, Barrow's Goldeneye, Red-throated Loon, American White Pelican, Lesser Black-backed Gull, Eurasian Collared-Dove, Carolina Wren, and Northern Mockingbird. This year continued that trend with reports of all 10 species, with Barrow's Goldeneye observed in 4 counties. Previously these uncommon species were rarely reported in the winter season.

Perhaps the most notable occurrence in northern Wisconsin was the relative lack of winter finches. Pine Grosbeak, White-winged Crossbill, and especially Common and Hoary Redpoll were notably scarce in the north woods. Purple Finch was reported in 50 counties, the same as last year; however, they were relatively scarce in northern Wisconsin. Pine Siskin was reported in only two-thirds of the counties that reported them last year. Red Crossbill was reported in 7 counties as compared to 13 last year. Evening Grosbeak was reported in about the same low numbers as last season.

SPECIAL FEATURE: GULL SPECIES IN DOUGLAS COUNTY

Karl Bardon has written a report of gulls from the Duluth-Superior area. Below is an excerpt of his report. "I have been attempting to document the number of individuals of the more uncommon gulls in the Duluth-Superior harbor during the fall and winter of 2009-2010, similar to what I did last season. Most of this is done by analyzing photos. Most photos were taken at the Superior Entry at the Minnesota-Wisconsin border or Canal Park in Duluth, though a few were taken at the Superior Landfill in Wisconsin. Almost all individuals were seen both in Minnesota and Wisconsin, and many individuals were seen in multiple locations in the Duluth-Superior harbor. By photographing such details as the primary patterns of adult Thayer's and Iceland Gulls, and the tail patterns of immature Iceland and Great Blackbacked Gulls, I have been able to quantify the number of individuals of each age class for each species, and to track individual birds as they come into the area, move from site to site, and even linger for months in a row. For example, the same first cycle Iceland Gull found at the Superior Entry on 28 October still continues to be seen in the area in January, and it has been fun to see the subtle changes in its plumage (this bird now has extensive pink color at the base of the bill and is acquiring a little gray color in the mantle). I have put many of these photos on the same website as last year: www.pbase.com/karlbardon.

Here is a summary of the number of individuals of the more uncommon gull species wintering in the Duluth-Superior harbor (many of which are still present [as this is written]). It has been an amazing season here for gulls, with Thayer's, Iceland, and Great-Black-backed all being seen in record numbers for this location.

Thayer's Gull: At least 40 individuals (I took photos of 14 adults, 2 fourth-cycle birds, 3 third-cycle birds, and 10 second-cycle birds, plus I also took photos of at least 10 first-cycle birds based on tertial pattern, but I am sure the number of first-cycle birds was much higher, at least 12–15 probably many more). This compares to about 25 total Thayer's Gulls seen here last season. A maximum number of 17 Thayer's Gulls were seen on 6 December including 6 first-cycles, 5 second-cycles, 1 third-cycle, and 5 adults. Most first-cycle birds have apparently moved on, leaving mostly adults.

Iceland Gull: At least 11 individuals (I took photos of 4 adults, 2 second-cycles, and 5 first-cycle birds-the gallery shows each bird perched, in flight, and a detail of its tail or wing). This compares to 5 total individuals last season. Maximum daily counts have been 5 both on 18 December 2009, and 3 January 2010, and 6 on 1 January 2010.

Great-black-backed Gull: At least 16 individuals (7 first-cycle birds, 7 second-cycle birds, and 2 adults-all of these but one second-cycle bird was photographed). This compares to 5 individuals here last season. A maximum of 7 were seen on 1 January 2010.

Lesser-black-backed Gull: At least 3 individuals (2 first-cycles and 1 adult last seen on 2 December). This compares to 5 here last season.

Slaty-backed Gull: Third-cycle seen 28 October-13 December.

Nelson's Gull (hybrid Herring X Glaucous Gull: adult photographed at Superior Landfill on 1 and 3 January 2010.

Herring Gull: a partial albino photographed at the Superior Entry on 6 and 20 December.

There have also been a few unidentified gulls which I am still puzzling over."—Karl Bardon.

STATISTICS

Perhaps the best news regarding reports this season was the continued increase of observational reports. A total of 454 people contributed reports during the Winter Season of 2009-2010. This increase of observers was directly related to the introduction of ebird in 2006. Each year since, there has been increased ebird reports. This winter season there were over 53,000 approved ebird reports. In comparison, last year's approved ebird reports totaled just over 41,000.

Statewide coverage significantly improved this season. Almost every reported species was detected in at least 2 and up to 20 more counties in the state this year compared to previous years. Although reports included all 72 counties, 5 counties reported fewer than 20 species. These were Clark, Iron, Menominee, Price, and Sawyer Counties. Last year's report contained 16 counties with limited coverage. Sightings this year included significant reports from 13 of those counties. They were Barron, Buffalo, Clark, Dunn, Lincoln, Pepin, Pierce, Rusk, Shawano, Washburn, Waupaca, Waushara, and Wood Counties.

Species reports included CBC data, 53,352 ebird reports, single and multi-

ple county reports, photographs, selected Wisbirdn reports, and long and short form documentation reports. Some CBC data may be included in reports following CBC data. These abbreviations are included in this report: BOP = beginning of period, EOP = end of period, TTP = throughout the period, m.obs. = many observers, and CBC = Christmas Bird Count. Thanks to Bob Domagalski for providing timely CBC data.

REPORTS

(1 December 2009–28 February 2010)

Greater White-fronted Goose—Reported in 2 counties: 13 December-13 February Dane County (Paulios, Martin, Schwarz, Tessen, Yoerger, Schilke), 28 on 28 January (Uttech), 9 on 1 February (Gustafson), 2 on 28 February Ozaukee County (Lafkas).

Snow Goose—Total of 21 individuals on 2 CBCs: New Franken 20, Riveredge 1. Reported in 5 counties: 1 December Outagamie County (Tessen), 29 December, 2 on 28 January Ozaukee County (Prestby, Uttech), 9 January- 8 February Dane County (Paulios, Marquardt, Thiessen, Schilke), 26 January-1 February Manitowoc County (Sontag), 15 February Waukesha County (Gustafson).

Ross's Goose—Two individuals reported on 3, 5, and 6 December Brown County (Trick, Van Duyse, Tessen).

Cackling Goose—Total of 18 individuals on 5 CBCs: Madison 9, Monticello 4, Riveredge 1, Rosendale 1, Wautoma 3. Reported in 10 counties: Brown County (Tessen), Dane County (Marquardt, Martin, Paulios), Dodge County (Tessen), Fond du Lac County (Fissel), Juneau County (Yoerger), Manitowoc County (Sontag), Ozaukee County (Frank), Sauk County (V. Zimmerman), Waukesha County (Coulter), and Winnebago County (Ziebell). Maximum number of 40 reported on 11 December Milwaukee County (Prestby).

Canada Goose—Reported in 48 counties with maximum number of 5000 on 6 December Fond du Lac County (Mueller). *Mute Swan*—Total of 195 individuals on 14 CBCs with maximum number of 80 on Washington Island CBC. Reported in 10 counties: Dane, Door, Columbia, Kenosha, Milwaukee, Ozaukee, Portage, Racine, Shawano, and Waukesha. Maximum number of 68 reported on 29 December Door County (Siebel).

Trumpeter Swan—Total of 414 individuals on 13 CBCs with maximum number of 303 on Hudson CBC. Reported in 15 counties with maximum number of 218 St. Croix County (Persico).

Tundra Swan—Total of 1482 individuals on 8 CBCs with maximum number of 1433 on Madison CBC. Reported in 26 counties with maximum number of 10,000 Vernon County (Paulios). This total county number compares to just 12 county reports in 2008-2009 season.

Wood Duck—Total of 13 individuals on 10 CBCs. Reported in 8 counties: Brown County (Baumanns), Dane County (m. obs.), La Crosse County (Jackson), Milwaukee County, Portage County (Pendergast), Sauk County (McDonald), Walworth County (Howe, Szymczak), and Waukesha County (Syzmczak).

Gadwall—Total of 136 individuals found on 12 CBCs with maximum number of 61 on Madison CBC. Reported in 16 counties with maximum number of 1000 on 2 January Vernon County (Paulios).

American Wigeon—One individual found on Waukesha CBC. Reported in 5 counties: 1 and 3 December Dodge County (Tessen, Mooney), 5 and 11 December Milwaukee County (Huf, Hunter, Wilson, Prestby), 2 on 8 December Fond du Lac County (Reichhoff), 19 December Waukesha County (Gustafson), and 25 February Columbia County (Tessen).

American Black Duck—Reported in 35 counties with maximum number of 320 on 30 December Brown County (Rickaby).

Mallard—Reported in 50 counties with maximum number of 1500 on 2 December Vernon County (Paulios).

Northern Shoveler—Total of 173 individuals on 3 CBCs: Appleton 8, Green Bay 2, and Madison 163. Reported in 8 counties: Brown County (Baumanns), Columbia County (Heikkinen), Dane County (m. obs.), Dodge County (Tessen), Fond du Lac County (Mueller, Reichhoff), Rock County (Szymczak, Yoerger), Sauk County (McGowan, Prestby, Yoerger), and Winnebago County (Tessen, Uslabar) with maximum number of 260 on 5 December Dane County (Schwarz).

Northern Pintail—Total of 2 individuals on 2 CBCs: Beloit 1 and Bridgeport 1. Reported in 8 counties: Brown County (Baumanns, Tessen, Trick), Dane County (Schwarz, Stutz), Dodge County (Tessen), Manitowoc County (Domagalski, Sontag), Ozaukee County (m. obs.), Racine County (Dixon, Pugh, Wenzel), Vernon County (Paulios), and Waukesha County (Szymczak). Maximum number of 70 reported on 1 December Dodge County (Tessen).

Green-winged Teal—Total of 2 individuals on Madison CBC plus found during the count week on Kenosha CBC. Reported in 6 counties: BOP-7 December Manitowoc County (Sontag), 2, 6, and 11 December Waukesha County (Gustafson, Szymczak), 1 and 3 December Dodge County (Mooney, Tessen), 5 December Walworth County (Howe), 17 and 23 December Walworth County (Schilke, Tessen), and 17 January Dane County (Paulios). Maximum number of 30 reported on 1 December Dodge County (Tessen).

Canvasback—Total of 58 individuals found on 11 CBCs with maximum number of 23 on Madison CBC. Reported in 17 counties with maximum number of 800 on 2 December Vernon County (Paulios).

Redhead—Total of 52 individuals found on 11 CBCs with maximum number of 15 on Washington Island CBC. Reported in 17 counties with maximum number of 110 on 17 February Door County (Gustafson).

Ring-necked Duck—Total of 12 individuals on 8 CBCs: Appleton 1, Green Lake 1, La Crosse 1, Madison 3, Milwaukee 1, Oshkosh 3, Riveredge 1, and Waterloo 1. Reported in 16 counties with maximum number of 150 on 2 December Vernon County (Paulios).

Greater Scaup—Reported in 15 counties including these inland counties: Dane, Pierce, Rock, and Winnebago. Maximum number of 5000 reported on 9 January Milwaukee County (Kavanaghs).

Lesser Scaup—Reported in 20 counties with maximum number of 200 on 28 February Manitowoc County (Reimer).

King Eider—One individual reported on Sturgeon Bay CBC 19 December Door County (Lukes).

Harlequin Duck—One individual reported on Sheboygan CBC. This female remained TTP (m. obs). Reported in 4 other counties: 3 on 2 December Door County (Siebel), 11 December, 2, 10, 23, and 24 January, Pierce County (West, Daves, Forsgren, Kieser, Anderson), 26 January Winnebago County (Tessen), and 1-26 February Milwaukee County (Frank, Wilson, Huf, Herrmann, McDonald, T. Wood, Gustafson).

Surf Scoter—Total of 2 individuals on 2 CBCs: Cedar Grove 1 and Hales Corners 1. Other reports; 1, 6, and 19 December Milwaukee County (Gustafson, Petherick, T. Wood, Wilson), and 1 December and 18 January Ozaukee County (Tessen).

White-winged Scoter—Total of 10 individuals on 5 CBCs: Cedar Grove 1, Pensaukee 1, Racine 4, Riveredge 1, and Sturgeon Bay 3. Reported in 9 counties: Brown (Rickaby, Schilke), Door (Krouse, Lukes), Kewaunee (Motquin, Schilke, Sinkula, Tessen), Manitowoc (Sontag), Milwaukee (Barrientos, Prestby), Ozaukee (Christopulos, Frank, Uttech), Racine (Gustafson, Pugh, Wenzel), Sheboygan (Rickaby, Swelstad, Tessen, T. Wood), and Waukesha (Szymczak). Maximum number of 3 reported on 2 December Kewaunee County (Sinkula) and 19 January Ozaukee County (Murkowski).

Black Scoter—Total of 3 individuals from 2 CBCs: Cedar Grove 1 and Hales Corners 2. Reported in 3 counties: 4 December Racine County (Yoerger), 6 and 19 December Milwaukee County (T. Wood, Wilson), and 2 on 20 December, 2 and 18 January Sheboygan County (T. Wood, Tessen, Thiessen, Dixon).

Long-tailed Duck—Total of 53 individuals on 6 CBCs with maximum number of 25 on Sheboygan CBC. Reported in 11 counties with maximum number of 1500 on 20 February Manitowoc County (Tessen).

Bufflehead—Reported in 20 counties with maximum number of 120 on 5 December Dane County (Stutz).

Common Goldeneye—Reported in 40 counties with maximum number of 1200 on 23 December Brown County (Rickaby) and 9 January Sheboygan County (Gustafson).

Barrow's Goldeneye—Total of 3 individuals on 3 CBCs: Madison 1, Racine 1, Sheboygan 1. Reported in 4 counties: 11 December–17 February Sheboygan County (m. obs), 13 December–1 January, Dane County (m. obs.), 13 December and 2 January Milwaukee County (Fissel, Schwarz, T. Wood), 2 individuals reported 20 December and 7 February Sheboygan County (T. Wood), female on 4 February Kewaunee County (Tessen).

Hooded Merganser—Reported in 23 counties with maximum number of 12 on 13 December Dane County (Stutz).

Hooded/Common Merganser—4 and 20 February Ozaukee County (Tessen).

Common Merganser—Reported in 37 counties with maximum number of 400 on 2 January Pierce County (Sirvio), and 8 January Ozaukee County (Kavanaghs).

Red-breasted/Common Merganser Two on 20 December Douglas County (Svingen).

Red-breasted Merganser—Reported in 16 counties with maximum number of 600 on 31 December Ozaukee County (Paulios, Prestby, Yoerger).

Ruddy Duck—Total of 253 individuals found on 14 CBCs with maximum number of 103 on Madison CBC. Reported in 16 counties with maximum number of 125 on 6 December Fond du Lac County (Mueller).

Gray Partridge—Total of 44 individuals found on 3 CBCs: Bridgeport 21, Cassville 20, and Woodland Dunes NE 3. Other reports in 6 counties: 6 December Oconto County (Rickaby), 18 December, 3 and 23 January Grant County (Stark, Yoerger, A Holschbach, Mueller, Boyle, Squier, Vargo), 2 on 20 December Columbia County (Romano), 27 December–10 February Manitowoc County (A Holschbach, J Holschbach, Sontag), 30 December–19 February Kewaunee County (Sinkula, Schilke), 1 January–25 February Brown County (Baumanns, Kavanaghs, Mooney, Swelstad, T. Wood, Trick). Maximum number of 20 reported on 3 January Grant County (A Holschbach).

Ring-necked Pheasant—Reported in 36 counties with maximum number of 11 on 19 December Burnett County (Maercklein).

Ruffed Grouse—Reported in 25 counties with maximum number of 7 on 6 February Forest County (Swelstad).

Spruce Grouse—One individual found on Phelps CBC. Reported in 2 counties: 4 December Florence County (Kavanaghs) and 17 January Vilas County (Heikkinen).

Sharp-tailed Grouse—Total of 8 individuals found on 2 CBCs: Gilman 1 and Grantsburg 7. Reported in 2 counties: 26 December Taylor County (Risch) and 24 January Burnett County (Sando).

Greater Prairie-Chicken—Total of 14 individuals found on Wisconsin Rapids CBC with count week sighting on Arpin CBC. All other reports from Buena Vista Grasslands in Portage County, 8 December-EOP (m. obs.). Maximum number of 36 reported on 3 January (G David).

Wild Turkey—Reported in 60 counties with maximum number of 287 on 2 January Adams County (Grouch).

Northern Bobwhite—Total of 5 reported 12 December Eau Claire County (Lund).

Red-throated Loon—Reported in 5 counties: 13 and 17 January, 18 February, Sheboygan County (Mooney, Loy, Schwarz, Tessen, Dixon, Fissel), 14 January Milwaukee County (Frank), 15 January Racine County (Wenzel), 18 January Ozaukee County (Tessen), and 2 on 20 February Point Beach in Manitowoc County (Tessen).

Common Loon—Total of 10 individuals on 4 CBCs: Ephraim 5, Madison 3, Milwaukee 1, and Riveredge 1 with count week sighting on Racine CBC. Reported in 3 counties: 2 December Brown County (Tessen), 6 and 7 December Dane County (Evanson), and 2 on 21 February Dodge County (Schaefer).

Pied-billed Grebe—Total of 4 individuals found on 4 CBCs: Bridgeport 1, Burlington 1, Kenosha 1, and Madison 1. Reported in 2 counties: two individuals reported 1 December Fond du Lac County (Tessen) and 2 on 7 December, 13 January, 4, 22, and 25 February Dane County (Evanson, Paulios, Graham, Tessen, Schwarz).

Horned Grebe—Total of 3 individuals found on 2 CBCs: Brussels 2 and Milwaukee 1. Reported in 5 counties: BOP-8 December Manitowoc County (Sontag, Tessen), 1 and 6 December Milwaukee County (Bontly, T. Wood), 2 on 1 December Ozaukee County (Tessen), 3 and 6 December Dane County (Paulios, Prestby,



Figure 2. Black-legged Kittiwake flying over Port Washington harbor on 11 December 2009 was photographed by Seth Cutright.



Figure 3. Tom Prestby also found the Black-legged Kittiwake at Port Washington on 11 December 2009.



Figure 4. Jennifer Wenzel caught the Black-legged Kittiwake sitting in the Port Washington harbor on 12 December 2009.

Schilke, Thiessen, Coleman), and 20 December Door County (Lukes).

Red-necked Grebe—One individual found during the count week on Madison CBC. One individual 11 December Douglas County (Svingen).

American White Pelican—Total of 4 individuals found on Green Bay CBC. At least 4 individuals found TTP by 11 observers along the Fox River in Green Bay Brown County. Reported in 2 other counties along the Mississippi River; 120 on 2 December Vernon County (Paulios) and 100 on 5 December Crawford County (Stark).

Double-crested Cormorant—Total of 45 individuals found on 6 CBCs with maximum number of 17 on Green Bay CBC. Reported in 11 counties, up from reports in only 3 counties



Figure 5. The same Black-legged Kittiwake was still at Port Washington on 13 January 2010 when Pat Ready snapped this shot.

last season. Maximum number of 8 reported on 1 January Door County (Swelstad).

Great Blue Heron—Reported in 15 southern counties with maximum number of 3 on 29 December Rock County (Yoerger).

Black-crowned Night-Heron—One individual found on Madison CBC. One individual reported 14 December Racine County (Fare, Howe).

Turkey Vulture—Total of 3 individuals found on New Franken CBC. Early spring reports on 5 February Ozaukee County (Sommer), 25 February Dane County (Jakoubek)— *See* "By the Wayside." Two January and early February reports from Washington and Dane Counties were not included in this report as no documentation was provided.

Bald Eagle—Reported in 64 counties with maximum number of 71 on 3 January Grant County (Akers). Not reported in Barron, Chippewa, Iron, Kenosha, Price, Trempealeau, Walworth, and Waushara Counties.

Northern Harrier—Reported in 19 counties with maximum number of 15 on 3 December Dodge County (Mooney). Northernmost report 7 December Taylor County (Risch).

Sharp-shinned Hawk—Reported in 35 counties with northernmost reports from Ashland, Burnett, and Florence Counties (Anich, Sando, Kavanaghs).



Figure 6. On 21 February 2010, Scott Franke took a photograph of the Black-legged Kittiwake revealing a hallux that is greatly reduced, indicating this bird belongs to the Baffin Island population, according to John Idzikowski.

Cooper's Hawk—Reported in 39 counties with northernmost reports from Clark (Risch), Door (Gustafson), Lincoln (Schroeder, Uttech), Marinette (Campbell), and Taylor (Risch) Counties.

Northern Goshawk—Total of 16 individuals found on 10 CBCs with maximum number of 4 on New Franken CBC. Reported in 6 counties: BOP-12 January Florence County (Kavanaghs), 13 December Bayfield County (Oksiuta), 27 December Douglas County (Svingen), 4, 11 and 22 January, 8 February Monroe County (Epstein), 12 January Eau Claire County (Forsgren), and 11 February Forest County (Tessen).

Red-shouldered Hawk—Total of 14 individuals found on 9 CBCs with maximum number of 3 on Mt Horeb CBC with count week sightings on Oshkosh and Pardeeville CBCs. Reported in 12 counties with maximum number of 7 on 14 February Portage County (Pendergast). **Red-tailed Hawk**—Reported in 59 counties with maximum number of 35 on 16 January Buffalo County (Cameron).

Rough-legged Hawk—Reported in 54 counties with maximum number of 16 on 26 December Calumet County (Schroeder).

Golden Eagle—Total of 18 individuals found on 8 CBCs with maximum number of 6 on Nelson CBC. Total of 85 individuals were counted by 135 observers 16 January on the Golden Eagle Survey for the Bluffs and Coulee Region of the Upper Mississippi River Watershed. This survey included 16 routes in Wisconsin of the 26 routes covered. Reported in 21 counties with maximum number of 14 on 16 January Buffalo County (Cameron).

American Kestrel—Reported in 40 counties with maximum number of 5 on 24 January Ozaukee County (Preston), 6 February Grant County (Heikkinen, Fissel, Schwarz).



Figure 7. Northern Hawk Owl in Oneida County on 13 December 2009 by Mary Backus.

Merlin—Reported in 14 counties with most northern report on 19 December, 24 February Ashland County (Anich).

Gyrfalcon—One individual found on Ashland CBC. This individual reported BOP-31 December Ashland County (Brady, Anich, Oksiuta, Spaeth).

Peregrine Falcon—Total of 13 individuals found on 7 CBCs with maximum number of 4 on both Green Bay and Racine CBCs and count week sighting on Kenosha CBC. Reported in 12 counties with northernmost report in Douglas County (LaValleys).

Virginia Rail—Total of 5 individuals found on 2 CBCs: Palmyra 1 and Poynette 4. Reported in 2 counties: 20, 26 December and 7, 13, 20 February Walworth County (Howe), 10 January and 26, 28 February Columbia County (Senner, Prestby, Yoerger).



Figure 8. Nick Anich took this photo on 29 December 2009 of a Townsend's Solitaire that visited a feeder in Bayfield County.

American Coot—Reported in 22 counties with maximum number of 1000 on 1 December Fond du Lac County (Tessen) and 5 December Dane County (Schwarz).

Sandhill Crane—Total of 4 individuals on 4 CBCs: Fremont 1, Grantsburg 1, Montello 1, and Waterloo 1 with count week sightings on Baraboo and Milwaukee CBCs. Reported in 14 counties with maximum number of 1410 on 7 December Monroe County (Epstein).

Killdeer—Reported in 3 counties: 1 December Iowa County (A Holschbach), 15 December



Figure 9. This lovely male Varied Thrush was captured in a photo by Patrick Ready on 15 January 2010 as it fed under a feeder in Merrill, Wisconsin.



Figure 10. Paul Sparks recorded this late Cape May Warbler in Milwaukee on 8 December 2009.

and 1 January Ozaukee County (Schaufenbuel, Johnson), and 26 February Dane County (Brooks).

Dunlin—Reported in 3 counties: 2 on 2 December Kewaunee County (Tessen), 3 December Dodge County (Mooney), and 12, 15 December Sheboygan County (Dixon, Howe, Wenzel, Schaufenbuel).

Wilson's Snipe—Total of 14 individuals found on 11 CBCs with maximum number of 3 on Palmyra CBC and count week sightings on



Figure 11. A Harris's Sparrow visiting in Racine County was recorded by Jerry DeBoer on 16 January 2010.

La Farge and Wautoma CBCs. Reported in 7 counties: Columbia (Anderson, Doverspike, Fissel, Martin, Tessen, Yoerger), Green (Yoerger), Lafayette (Willard), Monroe (Epstein), Rock (Yoerger), Walworth (Howe), and Waukesha (Gustafson, Szymczak).

American Woodcock—One individual reported 5 December at Schlitz Audubon Center Milwaukee County.

Black-legged Kittiwake—One individual found on Riveredge CBC. This bird was first reported at Port Washington Harbor 11 December Ozaukee County (Prestby) and continued TTP to provide great close looks to many observers. *See* "By the Wayside."

Bonaparte's Gull—Reported in 6 counties: Adams (Yoerger), Crawford (Jackson), Dane (Thiessen, Stutz), Milwaukee (Petherick, Romano), Ozaukee (Petherick), and Waukesha (Kent, G. Zimmerman). Maximum number of 27 reported 5 December Dane County (Thiessen).

Ring-billed Gull—Reported in 35 counties with maximum number of 1100 on 7 December Dane County (Romano). Present in these northernmost inland counties, Florence and Vilas.

California Gull—One individual found on Milwaukee CBC. Reported 23 and 28 December Milwaukee County (Idzikowski, Gustafson). *See* "By the Wayside." *Herring Gull*—Reported in 30 counties with maximum number of 5000 on 18 December Milwaukee County (Frank).

Nelson's (Herring X Glaucous Gull)—1 and 3 January Douglas County (Bardon).

Thayer's Gull—Total of 13 individuals found on 7 CBCs with maximum number of 7 on Milwaukee CBC. Reported in 12 counties with maximum number of 17 on 6 December Douglas County (Bardon).

Iceland Gull—Total of 2 found on 2 CBCs: Milwaukee 1 and Woodland Dunes SE 1. Reported in 12 counties along Lakes Michigan and Superior shorelines (Figures 12, 13, and 14) and 1 inland county, Dane. Maximum number of 6 on 1 January Douglas County (Bardon).

Lesser Black-backed Gull—Total of 7 individuals found on 3 CBCs: Madison 2, Milwaukee 4, and Woodland Dunes SE 1. Reported in 8 counties: Dane (Evanson, Heikkinen, Romano, Thiessen), Kewaunee (Sinkula), Douglas (Bardon), Manitowoc (Sontag), Milwaukee (Huf, Hunter, Goodman, Mooney, Prestby, Wilson, T. Wood), Ozaukee (Fissel, Mooney, Schwarz, Tessen), Racine (Frank, Gustafson, Kennedy, Pugh, Wenzel), and Sheboygan (Cvetas, Rickaby).

Slaty-backed Gull—For the 4th consecutive year this species was reported in the state and documentation accepted by the records committee. An individual (Fig. 15) was reported 6–13 December Douglas Co (Bardon, Bruhnke).

Glaucous Gull—Total of 28 individuals found on 9 CBCs with maximum number of 9 on Cedar Grove CBC. Reported in 14 counties with maximum number of 17 on 29 December Sheboygan County (Prestby).

Great Black-backed Gull—Total of 26 individuals found on 8 CBCs with maximum number of 10 on Sheboygan CBC and count week sighting on Oshkosh CBC. Reported in 15 counties with remarkable maximum number of 26 on 29 December Sheboygan County (Prestby).

Rock Pigeon—Reported in 68 counties. Not reported in Iron, Jackson, Menominee, and Price Counties.

Eurasian Collared-Dove—Total of 17 individuals found on 2 CBCs: Bridgeport 10 and Hales Corners 7. Reported in 5 counties: 4 December Walworth (Yoerger), 18 December and 11 January Grant (Stark, Yoerger), 21 January Milwaukee (Frank), 21 February Crawford (Ottos), and 27 February Green (Yoerger).

Mourning Dove—Reported in 70 counties. Not reported in Barron and Iron Counties.

Eastern Screech-Owl—Reported in 22 counties with northernmost reports from Door and Dunn Counties. Maximum number of 14 reported on 29 January Kenosha County (Dixon). Of note, a dead red-phase individual was reported from Phillips in the more northerly Price County (Ballagh).

Great Horned Owl—Reported in 46 counties compared with 32 last year. Maximum number of 18 reported on 17 December Lafayette County (Gabanski, Willard).

Snowy Owl—Total of 2 individuals found on 2 CBCs: Ashland 1, Milwaukee 1, and count week sightings on 4 other CBCs: Brussels, Kenosha, Randolph, and Sturgeon Bay. Reported in 16 counties with Dodge and Green Lake the southernmost inland counties.

Northern Hawk Owl—Total of 3 individuals found on 3 CBCs: Grantsburg 1, Rhinelander 1, and Wautoma 1. Reported in 3 counties: 8 December Burnett (Peet), 12 and 13 December Oneida (Backus, Belter, Herrett, Richmond), and 26 February Sawyer (Ballagh, Peters, T. Wood). *See* "By the Wayside."

Barred Owl—Reported in 28 counties with maximum number of 6 on 21 February Iowa County (Laufenberg, Prestby, Schilke).

Long-eared Owl—Total of 6 individuals found on 6 CBCs, with count week sighting in Stevens Point. Reported in 6 counties: Crawford (Mueller), Dodge (Gustafson), Langlade (Francken), Milwaukee (Bontly, Kavanaghs), Portage (Pendergast), and Waukesha (Herrmann, T. Wood).

Short-eared Owl—Total of 7 individuals found on 4 CBCs: Appleton 3, Bridgeport 2, Horicon Marsh 1, Oconomowoc 1 with count week sighting on Burlington CBC. Reported in 8 counties: Brown (Rickaby), Calumet (Murkowski), Dane (Schiffman), Dodge (Mooney, Sparks), Jefferson (Kollath, Prestby, Yoerger), Kenosha (Gross, Witynski, T. Wood), Portage (DeRubeis, Keyel, Prestby, Schwarz, Yoerger), and Winnebago County (Ward). **Northern Saw-whet Owl**—Total of 19 individuals found on 9 CBCs with maximum number of 9 on Baraboo CBC. Reported in 12 counties with maximum number of 3 on 29 December Sauk County (Howe).

Belted Kingfisher—Reported in 25 counties with Chippewa County (Cameron) the most northern.

Red-headed Woodpecker—Reported in 28 counties with maximum number of 5 on 17 December Lafayette County (Weckstein). Reported in these northern counties: Clark, Chippewa, Burnett, Florence, and Sawyer.

Red-bellied Woodpecker—Reported in 61counties with maximum number of 25 on 2 January Adams County (Grouch). Reported in these northern counties: Bayfield, Burnett, Oneida, Sawyer, and Washburn.

Yellow-bellied Sapsucker—Total of 17 individuals found on 11 CBCs with maximum number of 5 on New Franken CBC. Reported in 7 counties: Brown (Baumanns, Seeger), Columbia (Dischler), Dane (Martin, Fenske, Upper, Stutz), Iowa (Rhiner), Portage (Fissel, Gorman, Heikkinen), Sauk (Clausen), and Walworth County (Fitzgerald).

Downy Woodpecker—Reported in 71 counties with maximum number of 73 on 2 January Adams County (Grouch). Not reported in Price County.

Hairy Woodpecker—Reported in 70 counties with maximum number of 24 on 3 January Grant County (Akers). Not reported in Barron and Price Counties.

Black-backed Woodpecker—Total of 2 individuals found on Caroline CBC. Reported 11 December, 20 January, 7, 12, and 27 February Forest County (Mooney, Tessen, Duchek, Kavanagh, Fisher).

Northern Flicker—Reported in 35 counties with maximum number of 8 on 26 December Columbia County (Yoerger). Reported in these northern counties: Brown and St Croix.

Pileated Woodpecker—Reported in 59 counties with maximum number of 7 on 31 January Portage County (Pendergast).

Northern Shrike—Reported in 52 counties with maximum number of 5 on 30 December Sauk County (V. Zimmerman). Tessen noted the relative lack of shrikes during this season.

Gray Jay—Total of 25 individuals found on 8 CBCs with maximum number of 5 found on Cable, Clam Lake, and Fifield CBCs. Reported in 6 counties: Douglas (Jackson), Florence (Kavanaghs), Forest (m. obs., Figures 16 and 17), Lincoln (Uttech), Oneida (Peczynski, Rickaby), Vilas (Baughman).

Blue Jay—Reported in 71 counties with maximum number of 117 found on 17 December Lafayette County (Weckstein). Not reported in Price County.

American Crow—Reported in 71 counties with maximum number of 500 on 26 December Jefferson County (Coulter, Kent, G Zimmerman). Not reported in Price County.

Common Raven—Reported in 40 counties with maximum number of 50 on 14 February Douglas County (Tollefson). Most southern report on 16 January at Arena Boat Landing in Iowa County (A. Holschbach).

Horned Lark—Reported in 52 counties with maximum number of 334 on 3 January Grant County (Akers).

Black-capped Chickadee—Reported in 71 counties with maximum number of 319 on 2 January Adams County (Grouch). Not reported in Price County.

Boreal Chickadee—Total of 7 individuals found on 3 CBCs: Armstrong Creek 1, Clam Lake 2, and Three Lakes 4. Reported from 2 counties: 12 December-EOP Forest County (Baughman, Bridges, Duchek, Fisher, Kavanaghs, Krouse, Prestby, Schwarz, Swelstad, Yoerger) and 27 February Oneida County (Rickaby).

Tufted Titmouse—Reported in 32 counties with maximum number of 37 on 3 January Grant County (Akers).

Red-breasted Nuthatch—Reported in 63 counties with maximum number of 16 on 19 December Ashland County (Anich, Spaeth). Last year this species was found in only 50 all more northern counties.

White-breasted Nuthatch—Reported in 71 counties with maximum number of 77 on 2 January Adams County (Grouch). Not reported in Price County.







Brown Creeper—Reported in 49 counties with maximum number of 40 on 3 January Grant County (Akers). Reported from these northern counties: Ashland (Anich, Jackson, Sharp), Bayfield (Anich, Schroeder), Forest (Baughman, Heikkinen, Rickaby, Saucier, Schilke), Iron (Brandt), Oneida (G. David, Gustafson, Karnosky, Rickaby), Vilas (G. David, Prestby, Schwarz, Yoerger).

Carolina Wren—Total of 16 individuals found on 7 CBCs with the maximum number of 7 found on Madison CBC. Reported in 8 southern counties: Columbia (Schwalbes), Dane (Carbon, Liss, Schilke, Stotz, Tessen), Green (Stotz), La Crosse (Jackson, Russell, Wiegel), Lafayette (Weckstein), Milwaukee (Frank, Goodman, Gustafson, Mooney, Prestby, Pugh, Skinner, Szymczak, Wenzel, T. Wood), Sauk (Bridges), and Vernon (Reynolds).

Winter Wren—Total of 3 individuals found on 2 CBCs: Madison 1, Platteville 2, with count week sighting on New Franken CBC. Reported in 8 counties: Dane (Coleman, Nichols, Paulios, Willard), Door (Gustafson), Grant (Sassman, Stark, West), Green (Yoerger), Milwaukee (Wil-

Figures 12, 13, and 14 are shots taken by Peder Svingen of an Iceland Gull in the Superior harbor entry on 10 January 2010.

son), Ozaukee (Wilson), Sauk (Witynski), and Waukesha (Szymczak).

Golden-crowned Kinglet—Reported in 21 counties. Most northern reports in Douglas (Jackson), Forest (Schilke), Menominee (Prestby), Shawano (Rickaby) Counties.

Ruby-crowned Kinglet—One individual found on Madison CBC.

Eastern Bluebird—Reported in 24 counties with maximum number of 30 on 18 January Sauk County (Prestby, Yoerger).

Townsend's Solitaire—Total number of 2 individuals found on 2 CBCs: Baraboo 1 and Bayfield 1. Reported in 2 counties: 28, 29, and 31 December Bayfield County (Bratley, Anich,



Figure 15. Slaty-backed Gull in Douglas County in early December 2009 by Karl Braden.





Figures 16. and 17. Gray Jay in a Forest County setting on 12 December 2009 by Tom Prestby.

Spaeth, Brady) and 29 December, 18 January Sauk County (A. Holschbach, Prestby, Yoerger).

Hermit Thrush—Total of 17 individuals found on 14 CBCs. This number compares with only 7 individuals found on 5 CBCs last year. Reported in 13 counties, with northernmost in Langlade County (Richmond).

American Robin—Reported in 54 counties up from last year's report in 45 counties. Maximum number of 300 reported on 28 February Columbia County (Prestby, Yoerger).

Varied Thrush—One individual reported on Herbster CBC with count week sighting on Richland Center CBC. Reported in 9 counties: Dane (Baldwin), Door (Gustafson), Lincoln (Heikkinen, Martin, Ready, Schroeder), Oneida (Bie, Gustafson, Smith), Outagamie (Tessen), Ozaukee (Bontly, Panetti), Price (Ballagh), Richland (Marshall), and Waushara (Dixon, Prestby, Schultz, Schwarz, Wenzel, Yoerger).

Gray Catbird—One individual (Fig. 18) reported 12 December–10 January coming to a suet feeder in the town of Alvin in Forest County (Baughman, Bridges, Designz, Duchak, Prestby, Schwarz, Tessen).

Northern Mockingbird—Reported in 3 counties: 24 December–24 January, 9 and 28 February Waushara County (Spees), 31 December–28 January Ashland County (Brady, Anich, Jackson, Oksiuta, Schroeder, Trick), and 18 January Dunn County (Kelly).

Brown Thrasher—Total of 3 individuals found on 3 CBCs: Madison 1, Norske 1, and Racine 1. Reported in 4 counties: 19 December Racine (Kennedy), 19 December, 15 and 24 January Dane (Stutz, Rewey), 9 January Sheboygan (Bontly, Gustafson, Howe, Prestby, Pugh, Szymczak, Tessen, T. Wood, Yoerger), and 22 January Milwaukee (Barrientos).

European Starling—Reported in 68 counties with maximum number of 3000 on 9 January Ozaukee County (Bruhnke, Prestby, Yoerger). Not reported in Dunn, Kenosha, Menominee, and Price Counties.

American Pipit—Total of 14 individuals found on 3 CBCs: Cedar Grove 1, Madison 1, and Racine 12 with count week sighting on Kenosha CBC. Reported in 6 counties along Lake Michigan; Kenosha (Witynski), Manitowoc (Sontag), Milwaukee (Kroeger), Ozaukee (Wilson), Racine (Fare, Howe), and Sheboygan (Dixon, Howe, Prestby, Swelstad, Wenzel).

Bohemian Waxwing—Total of 520 individuals found on 13 CBCs with maximum number of 134 on Minocqua CBC. Reported in 12 counties with the southernmost in Ozaukee County (N. Cutright, Schaefer). Maximum number of 255 reported on 1 January Vilas County (Baughman).



Figure 18. Gray Catbird trying to make it through a Wisconsin winter in Forest County was photographed by Tom Prestby on 13 December 2009.

Cedar Waxwing—Reported in 45 counties with maximum number of 130 on 15 February Dane County (Thiessen).

Yellow Warbler—One individual was photographed 4 December Chippewa County (Steger).

Cape May Warbler—One individual was photographed 8 December Milwaukee County (Sparks).

Yellow-rumped Warbler—Total of 10 individuals found on 7 CBCs with maximum number of 4 on Milwaukee CBC. Reported in 8 counties: Adams (Paulios), Brown (Schilke), Columbia (A. Holschbach), Dane (Cronk), Door (Lukes), Milwaukee (Frank), Ozaukee (Frank, Wilson, Usowski), and Waukesha (Coulter, Szymczak, V. Zimmerman).

Summer Tanager—An individual visited feeders in Sauk City 2–3 December Sauk County (Legler). *See* "By the Wayside."

Eastern Towhee—Total of 2 individuals found on 2 CBCs: Bridgeport 1 and Sauk City 1.

American Tree Sparrow—Reported in 61 counties with maximum number of 178 on 17 December Lafayette County (Weckstein).

Chipping Sparrow—One individual photographed 25 February Ozaukee County (S. Cutright).

Field Sparrow—Total of 4 individuals found on 3 CBCs: Bridgeport 2, Friendship 1, and Waupaca 1. Reported in only 1 county 2 January Adams County (Mooney, Wilson).

Vesper Sparrow—One individual reported 27 December Mt. Horeb CBC (Martin).

Savannah Sparrow—Total of 7 individuals found on 7 CBCs. Reported in 6 counties: Kenosha (Witynski), Lafayette (Gabanski, Willard), Langlade (Richmond), Milwaukee (Gustafson, Stark, West, T. Wood), Ozaukee (Frank, Schilke, Wilson), Racine (Howe).

Fox Sparrow—Reported in 23 counties with maximum number of 6 reported in Columbia County (Anderson, Doverspike). Last year only 7 counties recorded this species.

Song Sparrow—Reported in 21 counties with maximum number of 18 on 16 December

Rock County (Yoerger). Northernmost report in Door County (Lukes).

Lincoln's Sparrow—One individual found on Bridgeport CBC.

Swamp Sparrow—Reported in 11 counties with maximum number of 7 on 28 February Kenosha County (J. and R. Hoffmann).

White-throated Sparrow—Reported in 21 counties with maximum number of 12 on 19 December Dane County (McDowell). Reported in these northernmost counties: Brown, Chippewa, and Monroe.

Harris's Sparrow—Total of 3 individuals found on 2 CBCs: Cedar Grove 1 and New Franken 2. Reported in 2 counties: 14 December–11 January Ozaukee County (m. obs.), 16 and 17 January Racine County (DeBoer, Wenzel).

White-crowned Sparrow—Total of 22 individuals found on 11 CBCs with maximum number of 8 found on Waterloo CBC. Reported in 6 counties: Columbia (Martin), Dane (Joliffe, McDowell), Fond du Lac (Rickaby), Green (Yoerger), Milwaukee (Gustafson, Heikkinen, Petherick, Schwarz, T. Wood), Ozaukee (Bontly, Petherick, Schilke, Strelka).

Dark-eyed Junco—Reported in 65 counties with maximum number of 767 on 17 December Lafayette County (Weckstein). Not reported in these northern counties: Bayfield, Door, Florence, Iron, Price, Sawyer, and Vilas.

Lapland Longspur—Reported in 31 counties with maximum number of 350 on 2 February Jefferson County (Prestby).

Snow Bunting—Reported in 53 counties with maximum number of 850 on 1 January Ozaukee County (Frank).

Northern Cardinal—Reported in 66 counties with maximum number of 78 on 17 December Green County (Stotz). Not reported in Bayfield, Douglas, Jackson, Juneau, Price, and Sawyer Counties.

Rose-breasted Grosbeak—One individual found during the count week on Kenosha CBC. An individual was photographed 6 January in Vernon County (Vidas). Another possible sighting from Trempealeau County in January was not documented. **Red-winged Blackbird**—Reported in 20 counties with maximum number of 165 on 19 December Dodge County (Mueller).

Eastern Meadowlark—Total of 4 individuals found on 3 CBCs; Bayfield 1, Cedar Grove 2, and Spencer 1. Reported in 4 counties: 14 December, 13 and 17 February Ozaukee (Bontly, Strelka, Fissel, Schwarz, Tessen), 19 December Marathon (Hoeft), 2 January Grant (Evanson), 13 February Rock (Yoerger).

Meadowlark species—Total of 6 individuals found on 4 CBCs; Beloit 2, Bridgeport 2, Plymouth 1, and Waterloo 1 with a count week sighting on Lake Geneva CBC. Reported in 3 counties: 15 December Jefferson (Fissel, Schwarz), 28 December Bayfield, 6 February Rock (Yoerger).

Yellow-headed Blackbird—One individual found during the count week on Sauk City CBC. Reported in 2 counties: 1 December Dodge County and 20 December Dane County (Clausen).

Rusty Blackbird—Total of 3 individuals on 3 CBCs; Cooksville 1, Holcombe 1, and Shiocton 1. Reported in 3 counties: 11 December, 15 February Waukesha County (Szymczak, Gustafson), 18 December Waupaca County (Tessen), 17, 19, and 20 February Sheboygan County (Reitter, Schroeder, Tessen).

Brewer's Blackbird—Total of 3 individuals found on Horicon Marsh CBC.

Common Grackle—Total of 14 individuals found on 9 CBCs with maximum number of 3 on Pensaukee and Sauk City CBCs. Reported in 6 counties: Columbia (Martin), Dane (Brooks, Stutz), Grant (Evanson), Lafayette (Stotz), Portage (Pendergast), Waukesha (Coulter). Maximum number of 15 reported on 9 February Waukesha County (Coulter) and 21 February Portage County (Pendergast).

Brown-headed Cowbird—Reported in 14 counties with maximum number of 87 on 14 December Racine County (Fare, Howe).

Pine Grosbeak—Total of 58 individuals found on 6 CBCs with maximum number of 19 on Grantsburg CBC. Reported in only 6 counties: Bayfield (Anich, Brady), Door (Lukes), Douglas (Duchek), Forest (Baumanns, Heikkinen, Mooney, Schilke, Swelstad, Tessen), Oneida (Peczynski), and Ozaukee (Uttech). This compares to 8 county reports last year and 25 in the 2007–2008 winter season. **Purple Finch**—Reported in 50 counties with maximum number of 17 on 2 January Adams County (Grouch). Reported in these northern counties: Ashland, Bayfield, Burnett, Douglas, Florence, Forest, Langlade, Marinette, Oneida, and Polk.

House Finch—Reported in 55 counties with maximum number of 46 on 15 January Jefferson County (Etter-Hale).

Red Crossbill—Total of 12 individuals found on 3 CBCs; Florence 2, Stevens Point 1, and Summit Lake 9. Reported in 7 counties: Burnett (Romano, Sando), Florence (Kavanaghs), Forest (Heikkinen, Rickaby), Langlade (Kavanaghs), Marinette (Strelka), Oneida (Rickaby, Tessen), and Vilas (Heikkinen).

White-winged Crossbill—Total of 210 individuals found on 12 CBCs with maximum number of 41 on Armstrong Creek and Three Lakes CBCs. Reported in just 15 counties this year compared to sightings in 57 counties last year. Maximum number of 75 reported on 26 January Bayfield County (Anich). Reported in these southern counties: Milwaukee (T. Wood), Ozaukee (T. Wood), and Waukesha (Gustafson, Szymczak).

Common Redpoll—Reported in only 14 counties compared to 65 counties last year. Maximum number of 60 reported on 18 December Douglas County (Svingen).

Pine Siskin—Reported in 40 counties compared to 66 counties last year. Maximum number of 216 reported on 22 January Oconto County (Rickaby).

American Goldfinch—Reported in 71 counties with maximum number of 280 on 16 January Rock County (Szymczak). Not reported in Price County.

Evening Grosbeak—Total of 213 individuals found on 10 CBCs with maximum number of 72 on Clam Lake CBC. Reported in 8 counties: Ashland (Sharp), Florence (Bontly, Kavanaghs, Strelka), Forest (m. obs), Lincoln (Uttech), Marinette (Kavanaghs), Oneida (Rickaby), Taylor (Reish), and Vilas (Baughman, Schumacher).

House Sparrow—Reported in 64 counties with maximum number of 330 on 31 January Shawano County (Rickaby). Not reported in Buffalo, Dunn, Iron, Juneau, Menominee, Price, Sawyer, and Vilas Counties.

EXOTICS

Two *European Finch* reported on 28 February Racine County (Larson).

CONTRIBUTORS

Billy Abbott, Taylor Abbott, Betsy Abert, Bruce Abraham, Devon Agaba, Danny Akers, Becky Anderson, Lisa Anderson, Marge Anderson, Renner Anderson. Nick Anich. Amanda Archer, Ryan Atwater, Jan Axelson, Mary Backus, Jeff Bahls, Paul Ballagh, Dave and Sheri Baldwin, Nicole Barden, Karl Bardon, Evan Barrientos, James Baughman, Wayne Baumgartner, Ty and Ida Baumann, Judy Bautch, Rebecca Bellmore, Dan Belter, Tracy Bernhardt, Steve Betchkal, John Bie, Samantha Bignell, Andrew Birch, Jim Black, Marilyn Bontly, Owen Boyle, Craig Brabant, Ryan Brady, Mark Brandt, David and Margaret Brasser, David Bratley, Cynthia and Peter Bridge, Gail Brooks, Paul Bruce, Eric Bruhnke, Bob Bucci, Karen Buchs, Anna Buckardt, Cassandra Buckmaster, Kaley Bushman, Mary Gwyneth Calvetti, Butcher, Joan Campbell, Pamela Campbell, Rory Cameron, Cheri Carbon, Beth Carlock. Rosemary Carlson, Dennis Casper, David Cederstrom, Seth Chamberlain, Helen Chevrier, Daryl Christensen, James Christopulos, Laurie Cieszynski, David Clark, Jill Clark, Gerald Clausen, Andrew Coleman, Lizzie Condon, Tyler Corbecky, Jack Coulter, Bill Cowart, Karen Cramer, Kevin Cronk, John Crosby, Nancy Crosby, Shirley Crowley, Mary Cullen, Meredith Cullen, John Curnutt, Noel Cutright, Seth Cutright, Jake Cvetas, Matthew Cvetas, Luke Dahlberg, Patricia Darby, Rob Daves, Guy David, Karl

David, Jerry DeBoer, Bruce DeLong, Travis Derby, Alyssia DeRubeis, M Designz, Glenn DesJardin, Scott Diehl, Derek Digre, Raymond Dischler, John Dixon, Bob Domagalski, Vicki Dotson, Brian Doverspike, Jerry Dryer, Mike Duchek, Barbara Duerksen, Diane Echelbarger, Cody Egan, Mary Ehlert, Jesse Ellis, Thomas Ellis, David Ely, Eric Epstein, Bryan Erickson, Lorry Erickson, Brian Evanoff, Martin Evanson, Amy Evenstad, Dave Farber, Rick Fare, Tim Fenske, Peter Fissel, Babette Fisher, Steve Fisher, Sean Fitzgerald, Erin Fleming, Glenn Forchione, Hilary Ford, Raymond Forsgren, Jim Francken, Jim Frank, Scott Franke, Dave Freriks, Glenn Gabanski, Rick Gabriel, Ryan Gallagher, Luis Garcia, Matthew Gasner, Elizbeth Gauger, Claudia Giamati, Erin Gnass, Malcolm Gold, Mike Goodman, Peter Gorman, Gene Gosewehr, Dan Graham, Ernie Graham, Shari Griffis, Maureen Gross, Oscar Grouch, Serena Grover, Carla Hafermann, Dennis Gustafson, Karen Etter Hale, H Lowell Hall, Diann Hallam, Caitlyn Halling, Ann Hamon, Brian Hansen, Bettie Harriman, Jessica Harrington, Judy Haseleu, Russell Hefty, Jay Heggerness, Chuck Heikkinen, Ginny Helland, Mike Hendrickson, Tim Henkelman, Kent Heppe, Rebecca Herb, Jeff Herrett, Kelly Herrmann, Curt Heuer, Leslie Hilsenhoff, Mark Hodgeson, Joyce Hoeft, Jesse and Ron Hoffmann, Aaron Holschbach, Jim Holschbach, Samantha Holschbach, William Holton, Eric Howe, Michael Huber, Bob Huebner, Jeff Huebschman, Judith Huf, Heidi Hughes, Robert Hughes, Ian Hunter, Paul Hunter, Stan Hunter, Brad Hutnik, John Izdzikowski, Daniel Jackson, Ralph James, Gerry Janz, Paul Jakoubek, Rebecca Jarvis, Karen Johnson,

Jann Johnston, Kirk Jolliffe, Lila Jones, Brian Karnosky, Bob and Kay Kavanagh, Amy Kearns, Kevin Kearns, Noah Kearns, Jeanette Kelly, Adam Kent, Sharon Kennedy, Ted Keyel, Marguerite Keys, Doug Kieser, Dennis Kirshbaum, Mark Klein, Michael Kloepping, Tom Klubertanz, Rockne Knuth, Gene Kohli, Nolan Kollath, Mark Korducki, Brenda Korinek, Kim Kreitinger, Tom Kroeger, Carol Kroscher, Bill Krouse, Corey Krueger, Dennis Kuecherer, Sue Kulinsky, Demetri Lafkas, Ellen Larsen, David Laufenberg, Laura and Steve LaValley, Kelly James Leary, Karl Legler, Adrian Lesak, Fred Lesher, Lennie Lichter, Jana Lind, Josh Liss, John Longhenry, Ilona Loser, Meaghan Loy, Steve Lubahn, Roy and Charlotte Lukes, Dave Lund, Mary Maertz, Robin Maercklein, Dan Marquardt, Daniel Marschalek, Barb and Dick Marshall, Chester Martin, Richard and Stephanie Martin, Gary Masemore, Dale Matheson, Marge McCormick, Carol McDaniel, M McDonald, Mike McDowell, Bob McFall, Patrick Mc-Gowan, Bob McInroy, Matt Mendenhall, Lisa Mettel, Kathie Metzger, Lucas Meyer, Melissa Mischel, Tony Mitchell, Jym Mooney, Tom Mooren, Marsha Mose, Jon Motquin, Bill Muellr, Kristen Mueller, Ranger Ste Mueller, Steve Murkowski, Greg Neise, Tom Nicholls, Peter Nichols, Aaron Nolan, Mariette Nowak, Tim Oksiuta, Chris Olson, Cathy Olyphant, Robyn O'Rourke, James and Suzanne Otto, Richard Ouren, Robert Pamenter, Dan Panetti, Kevin Patterson, Andy Paulios, Mike Peczynski, Richard Peet, Rob Pendergast, Larry Persico, Rick Pertile, Ed Peters, Kurt Petersen, Charles and Sue Peterson, Chris Petherick, Marty Pfeiffer, Mary Powell,

Tom Prestby, Eric Preston, Gwen Prom, Helen Pugh, Mark Rasmussen, Patrick Ready, Joey Reichhoff, Andrew Reimer, James Reitter, Norma Renner, Mike Rewey, Jay Reynolds, Kitt Rhiner, Nancy Richmond, J M Rickaby, Ryan Rickaby, Kendra Ridgeway, Paul Risch, Dan Roath, Charles Roberts, Mary Roen, Mary Roenneburg, Ronald Rohde, John Romano, Andrew Rothman, Nancy Russell, Mike Salfai, Derek Sando, Mike Sandstrom, Peter Sassman, Jacob Saucier, Tom Schaefer, Joe Schaufenbuel, Dan Scheiman, Thomas Scheuzger, Darrell Schiffman, Paul Schilke, Patricia Schmid, Joan Schnabel, Daniel Schneider, Lynne Schoenborn, Joan Schrinner, Andrew Schroeder, Carl Schroeder, Thomas Schultz, Matt Schumacher, Paul and Glenna Schwalbe, James Schwarz, Michael Sears, Nick Seeger, Greg Seegert, Paul Senner, Janice Sharp, Hiram Shaw, Becca Sheedy, John Shenot, Alan Sherkow, Kirk Shillinglaw, Barbara Siebel, Adam Sinkula, Larry Sirvio, Aaron Skinner, Jeff Skrentny, Deb Skup, Brian Smith, Cherie Smith, Dale Snider, Jeremy Solin, Joan Sommer, Charles Sontag, Bill Sonzogni, Paula Spaeth, Paul Sparks, Mark Spees, Robin Squier, Abbey Stark, Alex Stark, Mike Starrett, Bruce Steger, Paula Stich, Matt Stieve, Douglas Stotz, Jean Strelka, Robin Stubbs, Aaron Stutz, Peder Svingen, Gwen Sweeney, Jack Swelstad, Andrea Szymczak, Daryl Tessen, Steve Thiessen, Dar Tiede, Bill Tollefson, Jesse Totty, Joel Trick, Kim Upper, Ken Uslabar, Anton Usowski, Tom Uttech, Don Van Duyse, Tim Vargo, Joe Veverka, Jason Vidas, Jeff Virant, Teri Wall, Todd Ward, Brad and Royan Webb, Jasonn Weber, Jason Weckstein, Teri Welisek, Jennifer Wenzel, Don

Werner, Chris West, Rob Whitmire, Karl Whitrock, Ann Wick, Gary Wiegel, David Willard, Ben Wilson, Todd Wilson, Mary L Winters, Janice Wisner, Sarah Witter, Kyle Wittig, Max Witynski, Eric Wood, Thomas Wood, Quentin Yoerger, Peter Young, Denis Zalucha, Norma Zehner, Libby Zeman, Tom Ziebell, Katie Zienter, Elizabeth Zimmerman, Chris and Jeff Zimmerman, Gina Zimmerman, Vince Zimmerman, Jeff Zuhlke.



Northern Cardinal by Alan Stankevitz.

Some of the species documented with reports this season as rare or uncommon include Turkey Vulture, Gyrfalcon, Black-legged Kittiwake, California Gull, Northern Hawk Owl, and Summer Tanager.

TURKEY VULTURE (Cathartes aura)

5 February 2010, Grafton exit, I-43 and Hwy 32, Ozaukee County-I had a sustained look at the bird as I drove down I-43. For once, I was glad for slowdown on the freeway as it gave me some additional time to observe the bird. I first noticed a large dark bird on the west side of the freeway working its way NE. I assumed it was going to turn out to be a Red-tailed Hawk once I got closer to see more detail. I then noted the bird was giving me a dihedral silhouette. Turkey Vulture did not cross my mind at that time. I thought then it might be a Roughlegged Hawk. The bird was doing the typical Turkey Vulture teetering that they often do but I still didn't think "TV" at this point. As I got closer, I realized it was very dark and had the pin head look of a Turkey Vulture. When the bird and I were intersecting at the freeway I realized that it WAS a Turkey Vulture. I watched it come across the highway in front of me. The bird had uniform black along the leading edge of the wings. The trailing edge and the primaries were a consistent silver coloration. The silver went all the way

to the tips. There was no black edging. There was no white on the bird.—*Joan Sommer, Fredonia, Wisconsin.*

GRYFALCON (Falco rusticolus)

BOP-31 December 2009, Oredock, Ashland shoreland, and Chequamagon Bay in both Ashland and Bayfield Counties-I've documented this individual many times over the years so here's a short version. The bird's rarity, behavior, age/sex/morph (adult male gray), and plumage features indicate it's the same bird. This was a large falcon with pale blue-gray back, white below, broad-based wings, and reduced mustachial stripes. Big-chested with wing tips falling well short of tail tip while perched. Wing beat stiff and powered unlike the rolling wing beats of Peregrine.—Ryan Brady, Ashland, Wisconsin.

BLACK-LEGGED KITTIWAKE (Rissa tridactyla)

11 December 2009, Port Washington Harbor, Ozaukee County—I stopped at the Port Washington Harbor with Peter and Cynthia Bridge for what was supposed to be a quick check. A few seconds after putting my scope on a string of about 20 Ring-billed Gulls in the open water just north of the harbor, I noticed that one gull had a black mark on its neck and an all black bill. When the gull turned for a side-profile view, I could see the black carpal bar and immediately knew it was a juvenile Black-legged Kittiwake. We watched the bird at a distance (about 100 yds) for a while and to our amazement, the bird then lifted off the water and flew towards us to land with the Canada Geese and Mallards about 50 feet from us. As it flew, we admired the gorgeous black "M" pattern on the leading edge of the upper wing contrasting heavily with the white trailing edge on the upper wing. The tail was white with a black band at the end and the gray on the mantle was similar to that of a Ring-billed Gull. The under wings were a clean white and light gray with black only at the tips. It flew much more like a tern than a Ring-billed or Herring Gull. While the bird was at rest, the black bill, black neck collar, and faded black ear spot were easy to see. The bird remained at the location for the rest of the winter season and I observed it 4 more times over the course of January and February.—Tom Prestby, Wauwatosa, Wisconsin.

12 December 2009–7 February 2010, Port Washington Harbor, Ozaukee County—This is a very co-operative bird which sometimes lands in the water near the Holiday Inn as close as 30 feet away, flies over my head so close that binoculars are unnecessary, and turns in flight to show off its wing and tail pattern. It is a first winter bird with a gray back, thick black carpal bar visible on the folded wing, and

bright white tertial tips. The under parts are clean white, but the face is extensively marked. There is a small indistinct black smudge above the eyes, a patch of black on the auriculars, and a fainter band of black which rises from the auriculars on both sides but does not guite meet at the crown, thus forming a broken band. The collar is very thick, black, and distinct. In flight, the upper wing pattern is reminiscent of a Little Gull, with the black primaries carpal bar, and scapulars forming a striking "M" pattern which contrasts with the white secondaries. The tail is white with a distinct black terminal band. The center tail feather is missing, which gives an initial first impression of a broken tail band. The bill is black and down curved at the tip. When the bird is nearby in the water, the black legs can be seen.— Thomas C Wood, Menomonee Falls, Wisconsin.

15 December 2009–1 February 2010, Washington Harbor, **Ozaukee** Port County-This immature gull was distinctly smaller than Herring Gulls (but larger than a Bonaparte's Gull). Mantle color was a shade darker gray than adult Herring Gulls. There was a black spot behind the eye, a black collar on the nape, an all black bill, and a black terminal band on a white, almost squared off, tail. Black wing edges with black carpal bars formed an "M" pattern on the upper wings. The under wings were white, with only black on the tips. Legs were black, like the bill.—Dennis Gustafson, Muskego, Wisconsin.

1 January–6 February 2010, Port Washington Harbor, Ozaukee County— What a delight to watch the immature Black-legged Kittiwake at the Port Washington Harbor. It was most often seen flying near the motel in the harbor, but also was found feeding with other gulls just north at the north break wall. This was a small gull with a grayish mantle that had a black "W" across the wings. The bill was black, and a partial black collar and black spot behind the dark eyes. There was a dark (blackish) tail band. The legs were dark. Unmistakable.—Daryl Tessen, Appleton, Wisconsin.

CALIFORNIA GULL (Larus californicus)

28 December 2009, McKinley Marina, Milwaukee County-On this, my third try, I finally located a smaller dark gull with the noticeably larger Herring Gulls. The smaller size (not quite as small as a Ring-billed Gull), more rounded head, and thinner bill were all noted. The bill was mostly dark/black with a 1/3 pinkish at the base (in bright light, more pink seemed to be visible further out from the base). Although the bill was thin, it still was proportionately long. Eyes were dark. Overall color of feathers was brown, but with darker gray showing in patches on the mantle and wing coverts. Heavy brown streaking was evident on the neck, breast, and flanks. The brown was much paler towards the face and throat. The tail, seen briefly, was black almost entire terminal end, contrasting strongly with a white rump. The wings were briefly flapped, showing long, narrow, black primaries. A paler patch was detected on the coverts. Under wings were not seen, nor were the legs. While the bill is unusual (normally more pink and bicolor), its shape and length are correct for California Gull. Also unusual are the mix of first and second winter

traits (black tail with white rump, yet more brown than gray). Despite this, the gull "jizz" was right for a California Gull. That is the size between Herring and Ring-billed Gulls, more rounded head, thinner yet long bill, long looking primaries, etc.—*Dennis Gustafson, Muskego, Wisconsin.*

NORTHERN HAWK OWL (Surnia ulula)

12 December 2009, intersection of Hwy 17 and CTH W north of Rhinelander, Oneida County-Long tailed, medium sized owl. Large head, slim body for an owl. Tapered wings in flight-falcon like shape. Back and tail brown. Wings brown with some white spotting observed when folded. Top of long tail evenly banded brown and black. Face pattern distinctive. Yellow eyes and light bill. Black eyebrow V down to bill. Black with white spots between V (forehead). Facial discs gray, outlined in black then white. Black line across below chin. Wider lighter gray-white across uppermost breast. Under parts light with frequent, narrow horizontal bars of reddish brown. From back, head looked like it had a black crown with white stripes, then black stripes coming together at the nape like a U, then white along sides down to neck. Head stripes all approximate same width as crown. Did not observe: legs, underside of tail, underside of wing.-Nancy Richmond, Jeff Herrett, Antigo, Wisconsin.

26 February 2010, CTH M, Sawyer County—This owl was perched at the top of a tall dead conifer about 20 yards from the road. I set up my 20–60× 80mm spotting scope on a window mount and observed it from my vehicle. The back was brown with large white spots. It had a very long brown tail with white barring. Although it was facing away from me, it turned its head to look in my direction many times during my twenty minute observation. It lacked "ear" tufts and had a brown forehead with small white speckles. The face was gray and bordered on the sides by thick black bands. There was also a black band on the back of the head. These black banded areas were separated by white. The eyes were bright yellow, as was the beak. There was a white patch above the beak and a horizontal black band below the beak. Very little of the under parts were visible from this angle, but I could see they were white with thick brown barring.—Thomas C Wood, Menomonee Falls, Wisconsin.

SUMMER TANAGER (Piranga rubra)

2-3 December 2009, Sauk City, Sauk County-Lacks conspicuous wing bars, has large, long, pale bill, bright yellow body with pale green-olive back. There is some dull reddish in wings (easily noted in binoculars). The bird showed extensive red in tail and bright red under tail coverts, reddish on top of head. It had a small pale eye ring, yellow and slight reddish rump. Using measurements of the feeders I estimated the length of the bird based on the photos (tail tip to tip of bill) as approximately 6.7". The bird ate at a feeder but visited infrequently, only seen twice in two days .- Karl Legler, Sauk City, Wisconsin.



Side view of an Eastern Bluebird as it drops in to land by Alan Stankevitz.

WSO Records Committee Report: Winter 2009-2010

Jim Frank

10347 W. Darnel Avenue Milwaukee, Wisconsin 53224 414. 354. 2594 jcfbirddr@yahoo.com

The WSO Records Committee reviewed 22 records of 14 species for the winter 2009–2010 season. Nineteen of the records were accepted. Two additional old records were evaluated with both of those being accepted.

ACCEPTED RECORDS

King Eider—

#2009-106 Door Co., 19 December 2009, Swagel.

This diving duck was similar in size to the associated Red-breasted Mergansers, but described as overall appearing like a "stocky" female Mallard. It had a more sloped forehead, with a white patch in the feathers at the base of the dark bill. There was a light periocular area that extended as a line curving back and downward from the back of the eye. The sides had a heavily scaled pattern of ochre crescents on the flanks.

The light periocular ring, light line defining the cheek, light patch at the gapeline, and the rich brown flank crescents help distinguish the King Eider from a Common Eider.

Turkey Vulture—

#2010-002 Ozaukee Co., 5 February 2010, Sommer.

This large raptor-shaped bird was expected to be a Red-tailed Hawk at first, but as it got closer the all dark coloration and slight dihedral wing position along with the "teetering" flight of a Turkey Vulture became apparent. The "pinhead" size of the head was also evident. The coverts of the wing were black, but the flight feathers were silver-black.

There are 5 records of overwintering records for Turkey Vultures in the state as well as another handful of single date January sightings.

Gyrfalcon-

#2009-072 Ashland Co., 1-31 December 2009, Brady (photo).

This large gray falcon was white below with a limited pale gray moustache stripe. When perched, the wingtips were well short of the tail tip. When in flight, the wings were broad based and only somewhat pointed.

Black-legged Kittiwake—

#2009-099 Ozaukee Co., 11 December 2009, Prestby; 12 December 2009–7 February 2010, T. Wood; 15 December 2009–1 February 2010, Gustafson; 1 January–6 February 2010, Tessen.

This slightly smaller than Ringbilled Gull-sized gull was seen in flight and resting on the piers at less than 50 ft. The black upperwing markings were eye-catching. Black extended along the leading edge of the primaries from carpus to wing tip. The black then extended from the carpus across the middle of the inner half of the wing to the middle of the wing's attachment to the body, though in a more broken pattern than the relatively solid black primary edge. The inner wing portion of the black was surrounded by gray, the same color as the mantle. The inner primaries and ends of the secondaries were white, as was the body, head, and tail. The tail was squared off and had a black terminal bar. The bill and feet were black. The nape had a black line across it and there was a small black mark at the ear.

Next to the Northern Hawk Owl seen several winters ago in Ozaukee County, this kittiwake may be the most photographed bird ever in the state of Wisconsin.

California Gull-

#2009-100 Milwaukee Co., 28 December 2009, Gustafson.

This second year gull was noticeably smaller than associated Herring Gulls, but larger than the Ring-billed Gulls. The mantle was partially exhibiting gray feathering among the brown feathers, with a noticeably darker shade of gray noted relative to the Herrings and Ring-bills. The head was more rounded in contour and the bill thinner, but proportionally long. The proximal third of the bill was pink, the distal portion dark. A dark eye was noted, but the legs were not visible. The tail had a broad distal dark band contrasting strikingly with a white rump.

Slaty-backed Gull-

#2009-080 Douglas Co., 6-13 December 2009, Bardon (photo).

The photo of this gull showed this standing bird to be similar in size to a Herring Gull The mantle was dark gray in color; noticeably darker than a Herring's, but not as black as the primary wingtips were; and even felt to be slightly less dark than a Lesser Black-backed Gull.

The overall shape of the bird was Herring Gull-like in it was fullbreasted, not the flat-backed shape of a Lesser Black-backed Gull.

The head was white, but with a few brownish smudges on the nape and face. The white tertial bar and trailing edge of the secondaries was broader than usual for a Herring Gull. The pink legs were darker pink than the Herring Gull's and the yellow bill was again a deeper shade than the yellow of a Herring Gull, but was blackish on the distal third. The bill was parallel-sided, not demonstrating anything of the gonydeal thickening nor overall width of a Great Black-backed Gull. The relative length of the bill was just slightly longer than the Herring's.

Northern Hawk Owl-

#2009-101 Burnett Co., 8 December 2009, Peet.

- #2009-102 Oneida Co., 12 December 2009, Redmond (photo); 13 December 2009, Belter, Backus (photo).
- #2010-003 Sawyer Co., 16 February, Peters (photo); 26 February 2010, T. Wood.

Evident in the photo is a mediumsized, round-headed owl, with a relatively long tail. The dark stripes laterally framing the facial discs were apparent as was the finely white spotted forehead and yellow eyes. Fine barring across the breast and larger white spots on the wings were also noted.

Yellow Warbler—

#2009-103 Chippewa Co., 4 December 2009, Steger (photo).

This fairly uniformly greenish-yellow warbler lacked any breast streaking. In addition, the tail of the bird was relatively short compared to other warblers. The breast, throat, and periocular area were more yellowish, while the back, wings, and crown were more greenish.

This ties the latest fall/winter record of a Yellow Warbler for Wisconsin.

Cape May Warbler—

#2009-104 Milwaukee Co., 8 December 2009, Sparks (photo).

Photos of this warbler in the snow reveal the yellow breast, throat, lores, and neck patch along with a faintly chestnut auricular patch. The breast is overlaid with heavy black streaks. The crown, back, and wings are greenish brown; the wings having white wingbars.

This is Wisconsin's third December record for a Cape May Warbler.

Summer Tanager-

#2009-107 Sauk Co., 2,3 December 2009, Legler.

Photographic evidence revealed a dirty yellow overall plumage with more olive-brown tones on the wings, but not the dark coloration of a Scarlet Tanager. The bill was flesh-colored and longer and thicker than the bill of a Scarlet Tanager. A hint of red feathers was evident on the rump and undertail coverts.

This is the fifth record for Wisconsin from December, all in the past 11 years. Two of those records were of birds lingering into January.

Chipping Sparrow—

#2010-004 Ozaukee Co., 24 February 2010, S. Cutright (photo).

The small sparrow had an unstreaked gray breast, brown and black striped back, white wingbars, a dark eyeline, faint moustache streak, and faint whisker streak. The crown was rusty tinged and faintly streaked.

Rose-breasted Grosbeak—

#2010-005 Vernon Co., 6 January 2010, Vidas (photo).

The photo revealed a black head, back, and wings, white breast and wingbars, and a pink patch on the upper breast. The pale, heavy, conical bill was also apparent.

RECORDS NOT ACCEPTED

Barrow's Goldeneye-

#2010-001 Dane Co., 1 January 2010.

This female goldeneye was presumed to be a Barrow's Goldeneye based on the entirely yellow bill. The observer also felt the head was "flatter" than the other goldeneyes. Although Common Goldeneyes usually have partially dark bills, this isn't a universal trait. A small percentage have all yellow bills. Separation of the Barrow's would be accomplished by noting the shorter, stubbier shape to its bill. The head shape and color is also useful supportive criteria. The forehead on a Barrow's rises more sharply, and the back of the head is more rounded. Overall color is a darker shade of brown on a Barrow's when seen in direct comparison to a female Common Goldeneye.

California Gull—

#2009-100 Milwaukee Co., 23 December 2009.

This bird was tightly positioned within a large flock of other gulls. This report was of a gull smaller then the Herring Gulls in size with a darker gray mantle. The light bill had a dark tip, but its shape and length were not reported.

Hoary Redpoll-

Analysis of Hoary Redpolls reports are based on the indications about the overall lightness of the plumage, coupled with the white, unstreaked rump, thinly streaked flanks, minimally streaked undertail coverts, and the smallness of the beak. #2009-105 Shawano Co., 19 December 2009.

Identification of these 3 birds was based solely on their frosty color relative to the Common Redpolls present. Without more information, the identification isn't complete.

OLD RECORDS—ACCEPTED

Cave Swallow—

#2008-101 Sheboygan Co., 9 November 2008, Cowart.

This belated report is of a dark, square-tailed, orange-rumped swallow flying south along Lake Michigan. The pale tawny throat and forehead were evident.

(Earlier that day, in Ozaukee County, the observer witnessed two other swallows of similar color pattern, but was not able to clearly see the throat and forehead, thus leaving the identity only as probable Cave Swallows.)

Indigo Bunting-

#2008-102 Portage Co., 17 December 2008, Van Lanen (photo).

Photos of this bird a small sparrowsized bird, medium brown in overall color, with a pale brown, conical beak. The lower back, shoulders, primaries, and tail feathers were blue.

WSO Awards—2010

The Board of Directors of the Wisconsin Society for Ornithology presented four awards for 2010, two Green Passenger Pigeons and two Bronze Passenger Pigeons.

BRONZE PASSENGER PIGEON AWARDS

The Bronze Passenger Pigeon is given to individuals who have made exceptional contributions to the study and appreciation of birds outside of service to WSO, particularly at the state and local levels. The 2010 Bronze Passenger Pigeon was awarded at the banquet on 22 May 2010 at the WSO annual convention to Roy and Charlotte Lukes (Fig. 1) for their many years of teaching, writing, and research about birds, mostly in Door County.

Roy received his bachelor's degree from UW-Oshkosh and his masters of education from UW-Madison, then taught public school sciences for 20 years. He has been a licensed bird bander for 25 years and has been doing Christmas Bird Counts in northeast Wisconsin since 1958. He became the first manager and naturalist for The Ridges Sanctuary in Baileys Harbor in 1964 and served there until September 1990. He is a past-president of the Inland Bird Banding Association and of WSO. He has written weekly newspaper stories since 1968 and continues writing a regular natural history column in The Peninsula Pulse and a regular feature in the



Figure 1. Roy and Charlotte Lukes

quarterly Door County Living magazine. Roy also has written five books: Once Around the Sun, A Door County Journal; Out on a Limb, A Journal of Wisconsin Birding; The Ridges Sanctuary; Toft Point, A Legacy of People and Pines; and Tales of the Wild, A Year with Nature. He also wrote five species accounts for the Atlas of the Breeding Birds of Wisconsin.

Roy has received many awards including from the Milwaukee Audubon Society, Northeast Wisconsin Audubon Society, an honorary Doctor of Science degree from Lawrence University in Appleton, and several awards from UW-Oshkosh.

Charlotte graduated in the Dental Hygiene program at Marquette University and worked as a dental Hygienist for 34 years, retiring in 1998. She and Roy were married in 1972. She began her study of wild mushrooms in 1972, taught workshops at The Ridges Sanctuary starting in 1976, and began teaching week-long seminars at The Clearing in 1987. She has lectured, led field trips, and taught classes at numerous nature centers in northeast Wisconsin. Her Door County mushroom list stands at 542 species identified. She helped organize Christmas Bird Counts from 1972–1990 through The Ridges Sanctuary and began two new ones in 1996 for Sturgeon Bay and southern Door County. She submits regular seasonal reports to WSO and assisted in writing the Door County Checklist of Birds with Bill Hartman, Sue Peterson, and Barbara Stover.

Roy and Charlotte served as the Door County coordinators of the Breeding Bird Atlas work from 1995-2000. In 2007, they began volunteering as Door County coordinators for the Bluebird Restoration Association of Wisconsin (BRAW) and maintain and monitor a 48-box bluebird trail.

Roy and Charlotte were honored by WSO with the Silver Passenger Pigeon for service to the Society in 1984 and a previous Bronze Passenger Pigeon. They were given environmental awards by the John Muir Chapter of the Sierra Club and the Wisconsin Chapter of The Nature Conservancy.

They both continue presenting educational natural history programs and teaching seminars at The Clearing in Ellison Bay and at Bjorklunden in Baileys Harbor. For their continuing service on behalf of birds, the Wisconsin Society for Ornithology is pleased to present Roy and Charlotte Lukes with their second Bronze Passenger Pigeon Awards.

GREEN PASSENGER PIGEON AWARDS

The Green Passenger Pigeon Award is given for outstanding contributions to and excellent work in conservation on behalf of birds in Wisconsin. For 2010, the WSO Board of Directors awarded two Green Passenger Pigeons for exceptional care of the environment.

Eric Howe (Fig. 2) was introduced to bird watching in his youth by a neighbor and this sparked his curiosity in the natural world. In high school, he learned the correlation between hard work and preserving the environment, when his National Honor Society chapter cleared brush at Chiwaukee Prairie near Kenosha, and this has led to a life long involvement in preserving and saving what Erie called the "few precious places we



Figure 2. Eric Howe

have left." Since 1955, Eric has given freely of his time, working at Nature Conservancy preserves in the Mukwonago River Watershed area, including Lulu Lake Preserve.

With his degree in biology from UW-Parkside, Eric brings his cultivated interests and knowledge, as well as his willingness to do physically challenging labor, to the task of "preserving the biodiveristy and seeing the interactions within plant communities."

Besides his work for The Nature Conservancy, Eric volunteers for, and serves on the Board of, the Chiwaukee Prairie Preservation Fund and the Hoy Audubon Society of Racine/Kenosha. He has held Earth Day events, started and continues to coordinate the Palmyra Christmas Bird Counts since 1999, served as Treasurer and President for 3 years each and five years as the newsletter editor for Hoy. He continues to maintain the Hoy website.

Despite working full-time, Eric is one of the most dedicated volunteers at both Lulu Lake and the Chiwaukee Prairie, putting in many hours each week in restoration work. For his devotion to preserving these areas, the Wisconsin Society for Ornithology is pleased to present a 2010 Green Passenger Pigeon to Eric Howe.

Harold Kruse, husband, father, farmer, naturalist, author, and conservationist (Fig. 3) who devoted his life to preservation (conserve, restore, and sustain) was presented with a Green Passenger Pigeon Award on 16 May 2010 at Honey Creek during the annual Birdathon/Bandathon. Harold, born in 1925, has lived most of those years actively caring for the earth he loves, especially the Baraboo Hills of Sauk County. He was born and raised on Hickory Hill Farm, graduated from Reedsburg High School in 1943 and later attended the University of Wisconsin in agriculture for one year. In 1951 he married Carla Ochsner and they raised five children. Harold and Carla became organic farmers all before that became popular and sold their produce first from a roadside stand and then as part of the Dane county Farmers' Market in Madison.



Figure 3. Harold Kruse

As he grew up on the farm it wasn't long before he began exploring nature around him and learned to love the animals and plants of his area. His "true interest in birds had its birth in country school, where I spent eight of the most enjoyable years of my life." During World War II, Harold received a deferment to work the farm for "Food for Victory," considered an essential part of the war effort. It was during these years through his readings that Harold became convinced that organic farming was the best (only?) future for him and his farm. "I could maintain the family farm, provide a good home for my own future family, enjoy nature, and set an example of good land management which others would hopefully follow." In 1948, The Passenger Pigeon published Harold's paper, "The Birds of Hickory Hills" and over fifty years later his "Birding from a Greenhouse" also was published in the Pigeon. Harold birds wherever he is (during the ceremony to receive his Green Pigeon that took place in the yard of the Cox Nature Center at Honey Creek, he quickly called out "cuckoo" as one sounded off).

For several years in the 1950s, Harold was the editor of the "Narrows Creek Ripple"—the newsletter for the Narrows Creek Watershed Association. Just as he used his farm as an example of good stewardship, he used the newsletter to educate and promote good conservation practices. Harold and Carla were long active in the Citizens Natural Resources Association of Wisconsin, helping to ban the use of DDT and promote recycling among other activities.

In the early 1940s, while hiking with his dog one Sunday, he found himself in the Honey Creek Valley and was so taken with the beauty, birdsong, and wildlife that "right than and there" he decided to do whatever he could to preserve this valley. It was some 15 years later in 1956 when he led the first of what would become annual hikes in Honey Creek Valley for WSO. This hike, and Harold's persuasion, led directly to the decision by the WSO Board to establish a nature preserve at Honey Creek in 1957. At its 2010 April meeting the WSO Board officially named the area the WSO Harold and Carla Kruse Honey Creek Nature Preserve.

The Wisconsin Chapter of The Nature Conservancy (TNC) began its Baraboo Hills work in 1962 and quickly invited Harold to join the effort. Harold has been the keystone to this project: negotiating with landowners, arranging land purchases, leading field trips, posting property lines and repairing fences, writing a history of the project, serving as a TNC trustee from 1968-1984, and always being an advocate for TNC and the Baraboo Hills. Over the years he and Carla have received several awards from TNC to say thanks for all their work.

Now Harold lives at a nursing home in Sauk City where he teaches other residents about his beloved Baraboo Hills. In his book "A Naturalist's Journey," Ken Lange titled the chapter about Harold *Guardian of the Hills* —a more appropriate title cannot be imagined. It is with deep gratitude for his life and great pleasure that the Board of WSO presents a 2010 Green Passenger Pigeon to Harold Kruse, Guardian of the Hills.

[Editors' Note: most of the information about Harold Kruse was obtained from "A Naturalist's Journey" by Kenneth Lange (2004).]

Report of the Annual Meeting 22 May 2010

MINUTES OF THE 2010 ANNUAL BUSINESS MEETING OF THE WISCONSIN SOCIETY FOR ORNITHOLOGY

At 12:00 pm on 22 May 2010, Scott Baughman, Chair of WSO Convention Committee, welcomed convened participants to the 71th Annual Convention of the Wisconsin Society for Ornithology, "Birding Door County," held at CrossRoads of Big Creek, in Sturgeon Bay, Wisconsin, 20–23 May 2010. Baughman recognized other Convention Committee members Christine Reel, Christine Zimmerman, Jim Zimmerman, Charlie Geiger, Penny Fish, and Jeff Baughman. The committee has put together the annual convention for the past four years, he said. It's been a labor of love.

Baughman introduced the current president of WSO, Jesse Peterson, who opened the 71st Annual Business Meeting of the Wisconsin Society for Ornithology. Peterson thanked assembled participants for attending, saying that he appreciates their interest and involvement in WSO.

Peterson began the review of the WSO Annual Report, May 2010. He introduced WSO Treasurer Christine Reel, who said that the first pages of the annual report "are from me." The summary of financials (p. 1) starts with WSO's Policies (adopted in 2005), which state that annual

dues payments are to pay for the expenses of the Society. The breakdown of costs for 2009 shows that WSO services were covered quite well by membership income. Reel thanked members for signing up to receive The Badger Birder electronically, which saves the Society \$6.70 per member per year and enables no increase in membership costs. Thanks also, she said, for continuing with your donations and support. The WSO's Harold and Carla Kruse Honey Creek Nature Preserve raised more than \$6,000 last year. Although receiving fewer memorials in 2009, Reel said, WSO is honored by these gifts in the names of individuals who loved birds and nature. The WSO balance sheet, as of 31 December 2009, shows that the Society has about \$84,000 that can be used for activities.

How can we sign up for *eBirder*, it was asked. Reel said to email Membership Chair Jesse Peterson (peterson. jesse@tds.net) or tell her and send your email address. Signing up for *eBirder* is also available online at the WSO website (http://www.wsobirds.org/), under Administration.

Pages 2–3 of the WSO Annual Report, Reel said, review Unrestricted Revenue and Expenses, which come out of the \$84,000 mentioned above. Income from sales of the book donated by Charlie Kemper is now under Unrestricted Revenue, because WSO has paid for improvements to his land as a natural area. If you have more questions regarding Unrestricted Revenue and Expenses, Reel said, "you can email me at" christinereel2@gmail.com.

WSO Restricted Revenue and Expenses (pp. 3–4) record finances received only for and used only by the listed accounts. Grant administration by WSO (pp. 4–5), Reel said, has been quite busy, enabling the Society to give a lot of support for other organizations and other nonprofits. The WSO Balance Sheet (p. 5) show totals about equal since 2007; the Society has been pretty stable.

The WSO Treasurer's annual financial report was accepted as presented.

Reports of Officers:

President Jesse Peterson said that he continues to be very appreciative of everyone's support.

Vice President Tom Schultz said that the next WSO annual convention is planned for LaCrosse, Wisconsin, based at the Myrick Hixson EcoPark. The theme would be "Birding the Mississippi River." With a WSO member contributing, "So moved," the proposed LaCrosse location was validated upon the motion's confirmation.

Secretary Jane Dennis repeated (see WSO Annual Report, p. 6) her excitement about ongoing action items discussed at WSO Board meetings. Stay tuned, she said; see what develops. She was asked about the apparent absence of minutes of the last annual business meeting. It was explained that said minutes, approved by volunteer reviewers, had been published in the Winter 2009 issue of *The Passenger Pigeon* (71: 449–51). President Peterson took the opportunity to ask for volunteer readers of the minutes of the 2010 annual business meeting. Sandy-Ursula Petersen, Margaret Jones, and Marilyn Bontly responded.

Co-editor Bettie Harriman said that her only additional comment to the written report (WSO Annual Report, pp. 6–7) is that we need material to go into YOUR *Passenger Pigeon*. If you have bird observations to share or research to be published (in a nonrefereed journal), please consider *The Passenger Pigeon*. We do need more material.

Reports of Committee Chairs:

Awards Committee Chair Daryl Tessen said that 2009–2010 has been his tenth year—and his most interesting year—as chair of the committee. "You will see tonight, when the awards are presented at the banquet."

Throughout the year *Badger Birder* editor Mary Uttech has compiled 11 issues of the WSO newsletter. Please send material to: muttech@asq.org, President Jesse Peterson said. *The Badger Birder* goes to everybody. Share news about birds in Wisconsin.

To supplement the written report (WSO Annual Report, p. 7) of Bird Reports Coordinator Randy Hoffman, President Peterson commented that this would be Hoffman's last year as coordinator. WSO will now be in search of a new volunteer for this position.

WSO Bookstore Manager Margaret Jones had nothing to add to her written report (WSO Annual Report, p. 7).

Conservation Committee Chair Bill Mueller said that there's lots there in his written report (WSO Annual Report, pp. 8–9). If you want to know more, email (iltlawas@earthlink.net) or call (414-643-7279) him at any time. If you want to keep abreast of ongoing conservation issues, keep up with the new Wisconsin Bird Conservation Initiative (WBCI) website (www.wisconsinbirds.org).

Education Committee Chair Mariette Nowak had nothing to add to her written report (WSO Annual Report, p. 9).

WSO Field Trips Co-chair Jeff Baughman had nothing to add (see WSO Annual Report, p. 9). The next scheduled field trip, he said, is June 5th, to the northern unit of the Kettle Moraine.

WSO Historian Noel Cutright said that the Society is now in its 7th decade. He has been enjoying the compilation of "50 Years Ago in *The Passenger Pigeon.*" Cutright acquired some 20 boxes of materials when the first recipient of the Sam Robbins Lifetime Achievement Award, Mary Donald, died. He continues, he said, to sort and winnow. Documents, records, and so forth will eventually end up in storage among the WSO files at the Cofrin Center for Biodiversity, University of Wisconsin-Green Bay.

If you have old information from WSO, Cutright said, photos, files, and the like, about Wisconsin ornithology or WSO, he will accept your contributions for the historical record.

Honey Creek Committee Chair Levi Wood (WSO Annual Report, pp. 9–10) said that the WSO's Harold and Carla Kruse Honey Creek Nature Preserve needs management for trails, fences, and invasives. There is plenty that can be done. Learn while doing. Anyone who would like to help maintain the preserve, he said, please contact me (608-277-7959 or woodlevi@aol.com). He thanked Carl Schwartz for fundraising at the Honey Creek Birdathon/Bandathon. We are hoping to increase quality of habitat, plants, and birds at the Kruse Honey Creek Nature Preserve, he said. Please volunteer to help.

WSO Membership Committee Chair Jesse Peterson, referring to his written report (WSO Annual Report, pp. 10–11), said that the total number of WSO members has been generally flat for the past 5–7 years. The annual renewal rate has been some 92–93%. WSO members had best sign up for the *eBadger Birder*, Peterson said. It's a handy way to save paper and mailing expenses for the Society.

It was asked whether WSO had undertaken any concrete action to increase membership. Peterson replied that we have placed notification on *Wisbirdn* and distributed informational pamphlets to nature centers throughout the state. There is no formal effort, he said, primarily due to the expense of acquiring other mailing lists. It was recommended that WSO consider partnering with other conservation organizations, a membership gambit that has been proved effective by other organizations.

Publicity Committee Chair Sandy-Ursula Petersen expressed her thanks to WSO members for volunteering to take the WSO display board to sundry meetings. "Thank you all for your outreach efforts."

The Records Committee had nothing to add to the written report (WSO Annual Report, p. 11).

WSO Scholarships and Grants Chair Michael John Jaeger introduced himself as one of the new Board members, saying that he is honored to assume this position and that it's good to work with this group. Actually, Jaeger said, he received a WSO scholarship when he was in high school, and his positive impression of the Society has kept with him over the long term. Referring to the 2010 WSO grants (WSO Annual Report, p. 11), Jaeger said that all award recipients will submit research reports to *The Passenger Pigeon.*

In the absence of WSO Website Manager, Lennie Lichter, President Jesse Peterson added to the written report (WSO Annual Report, pp. 11-12), saying that the Society is in the process of updating its website (www.wsobirds.org).

Youth Education Chair Barbara Duerksen had no addition to her written report (WSO Annual Report, p. 11). She was in fact attending her son's graduation from college this very weekend.

There was no new business to discuss. The last order of business, said President Jesse Peterson, is moving forward to next year. Peterson introduced Bill Mueller, Board spokesperson for the 2010Nominating Committee. Mueller said that, upon committee inquiry, all present officeholders indicated their willingness to remain in position: Tom Schultz, as President (after contributing 2 years of service as Vice President); Christine Reel as Treasurer; Bettie and Neil Harriman as Passenger Pigeon Editors; and Jane Dennis as Secretary. The Nominating Committee proposes Carl Schwartz to be elected as the new WSO Vice Pesident.

It was "so moved" to approve the

nominated selection of WSO officers. The motion was confirmed. Congratulations, Peterson said. I am proud to turn the gavel over to Tom Schultz.

A comment from the WSO audience: A lot of organizations have past presidents stay on the board of directors to help maintain continuity and to assist with new directions—basically, a practice to provide experience. The WSO Board will keep this suggestion under advisement, it was said.

WSO President Tom Schultz took the gavel. The first order of business of his term as WSO President was to thank Jesse Peterson for the fine service he has rendered for the past 4 years as the Society's Vice President and President. "Let's give him a hand." Applause followed. Yes, Schultz said, in this case we are able to keep Jesse Peterson on the WSO Board of Directors as Membership Chair. His accumulated wisdom can be applied.

Schultz said that he was pleased to serve as WSO President because of the network of support. This is a great support organization, he said, for folks interested in birds in Wisconsin. He encouraged anyone interested in the success of the Society to feel welcome as participant volunteers. There are many ways to support WSO, Schultz said. There are a couple of openings on the WSO Convention Committee. We'd welcome assistance to the committee, which has proved a good addition to planning the annual convention because of experience gained-though we need local help, too, every year.

Schultz entertained a motion to adjourn. It was so moved and approved.

The 2010 WSO annual business meeting was adjourned as 12:45 p.m.

Jane Dennis, Secretary

FINANCIAL REPORT

WSO's Policies (adopted April 2005) state that annual dues payments shall cover the cost of membership services—that is, all costs in providing *The Badger Birder, The Passenger Pigeon,* and other direct membership benefits, and the costs associated with maintaining membership and soliciting renewals and new members. The breakdown of those costs during 2009 is as follows:

Pigeon-

Expenses for 2009 (4 issues),
(not including color printing)	\$20,950
Birder-	
Expenses for 2009	
(11 issues)	\$6,487
Total publication costs	\$27,437
Membership expenses	\$985
Total cost of	
membership services	\$28,422
Membership dues received	\$28,145
Library subscriptions/	
back issues	\$863
Total membership-related	
income	\$29,008

The costs of membership services and membership income were roughly equal during 2009. Once again, this achievement is in large part thanks to Membership Chair Jesse Peterson and Birder Editor Mary Uttech for making electronic delivery of *The* *Badger Birder* possible, and the more than 400 members who save the organization printing and mailing costs by receiving it.

Your generous support of WSO continues, and donations during 2009 amounted to \$14,745, including \$6,273 in support of WSO's Harold and Carla Kruse Honey Creek Nature Preserve, in the Baraboo Hills. It is owing to your generosity that WSO continues in a solid financial position. **Thank You!**

WSO was honored to receive memorials during 2009 in remembrance of Tom Ashman, Rose Dischler, Mary Donald, and Carla Kruse. We are grateful for the love of birds and nature shown by the honorees while they lived and for the gifts received in their names following their passing.

Because of the increasing use of digital images, WSO's Slide Department has had few to no requests for slide rentals and sales in recent years. Therefore, the Board of Directors, following the suggestion of long-time Slide Department Manager Steve Lang, decided to discontinue offering slides for rent or sale. We deeply appreciate Steve's years of generous support, both in managing the rental and sale of slides and in freely providing his own photographs for use. Thank you, Steve!

Of the total assets as of 31 December 2009 (\$489,593—see III. WSO Balance Sheet as of 31 December), the amount available to cover general operating expenses is \$84,204; the remainder is restricted. All of the amounts listed as received in **Re**stricted Revenue in Part I, as well as in II. Grants Administered by WSO and Other Non-budget Projects must be reserved for their intended use.

Unrestricted Revenue*	2009	2008	2007
Birder Adv/Back Issues	445	687	325
Convention	1,171	2,636	1,149
Donations-Unrestricted	3,976	2,148	5,488
Other	3	3	1,243
Interest/Dividends	918	$5,\!115$	9,045
Membership Dues	28,145	26,255	27,530
Pigeon-Subscr/Back Issues	863	911	1,101
Color Fund	1,165	80	1,180
WSO Pubs/Bookstore	1,288	1,388	2,562
Miscellaneous**	140	540	67
Total Unrestricted Revenue	38,114	39,763	49,690

FINANCIAL SUMMARY

* Unrestricted Revenue includes some amounts that are actually restricted as to use (e.g., donations for hotline and color printing in the Pigeon). They are included here because, if donations do not

completely cover the costs, your Board of Directors is committed to covering costs incurred by these programs from general operating funds.

** Miscellaneous Unrestricted Revenue: sales of book by Charles Kemper donated by Charlie to WSO, with proceeds covering WSO's 2008 donation to help with improvement of his property as a natural area.

Expenses (Unrestr Rev)	2009	2008	2007
Birder Adv/Back Issues	445	687	325
Administration	2,035	1,798	2,146
Awards	150	177	239
Bird Reports Coord			91
Birder	6,487	6,055	6,703
Field Trips	24		31
Hotline	450	444	419
Membership	985	1,647	1,118
Pigeon	20,950	19,941	25,749
Color Printing	3,273	2,922	2,439
Publicity		69	30
Records	115	136	170
Schol/Grants	1,000	3,900	3,500
Treasurer	659	450	500
Website	499	232	69
WSO Pubs/Bookstore	248	403	534
Printing	728	237	
Miscellaneous*	875	147	1,733
Total Expenses (Unrestr Rev)	38,478	38,558	45,471

* Miscellaneous Unrestricted Expenses during 2009:

• American Bird Conservancy, \$100

• Washington Island Festival, \$25

• Leigh Yawkey Woodson Museum—support of Birds in Art, \$150

• Cedar Grove Ornithological Station, \$600

Restricted Revenue	2009	2008	2007
Duck Stamps	1,060	1,150	1,953
Endowment-Donations*	5,396	362	819
Interest/Div/Cap Gains	1,590	4,312	5,085
Life/Patron Memberships	1,850	1,825	3,875
Honey Creek-Donations	521	1,541	934
Bandathon	5,752	4,747	5,320

Schol/Grants-Donations	396	241	506
Interest/Dividends	291	1,497	2,651
Youth Schol/Grants Dons	926	195	546
WSO Pubs-Atlas Sales	3,528	2,698	12,483
Haunts (5th ed.)	8,388	3,331	
Miscellaneous**	3,284	1,210	549
Total Restricted Revenue	32,982	23,109	34,721

* Endowment increase includes transfer of surplus funds of \$4,840 from Bookstore account. ** Miscellaneous Restricted Revenue:

• Slide funds transferred upon dissolution of Slide Department (\$1,454)

- Donation for Haunts update (\$10)
- Memorials for Tom Ashman (\$160)

• Superior field trip collection to cover Porta-Potty (\$100)

• Payments for Kirtland's Warbler field trip (\$1,560)

Expenses (Restr Rev)	2009	2008	2007
Duck Stamps	1,077	1,107	2,105
Honey Creek	2,419	2,564	2,401
WSO Pubs-Atlas/Haunts Sales	1,164	674	1,554
Haunts (5th ed.)	25,806	15,158	
Youth Schol/Grants	350	300	1,098
Miscellaneous*	1,671	1,095	308
Total Expenses (Restr Rev)	32,487	20,898	7,466

Miscellaneous Restricted Expenses:

• Superior field trip Porta-Potty (\$111)

• Kirtland's Warbler field trip (\$1,560).

II. Grants Administered by WSO and Other Non-budget Projects, 2007-2009

Grants	2009	2008	2007
Atlas Mgment Income	157	894	1,433
Atlas Mgment Expenses			-918
Bird Mentor Kits Inc	900	1,576	751
Bird Mentor Kits Exp	-635	-1,423	-2,254
Convention Inc	6,910	9,481	8,797
Convention Exp	-6,910	-10,981	-7,297
Costa Rica Trip Inc	16,480	23,000	
Costa Rica Trip Exp	-29,405	-10,075	
Fly WILD/1 Bird 2 Habs Inc	540	1,349	925
Fly WILD/1 Bird 2 Habs Exp	-6,242	-708	-1,610
Grant-Bald Eagle Inc	397	921	802
Grant-Bald Eagle Exp	-397	-892	-831
Grant-Osprey Inc			
Grant-Osprey Exp		-1,968	-100
Grant-WNV Tracking Inc		1,071	1,044
Grant-WNV Tracking Exp		-954	-1,160
IBA Quad 30 Campaign Inc			620
IBA Quad 30 Camp Exp	-1,000	-620	-13,281
Pur Martin Partners Inc	350		
Pur Martin Partners Exp	-250		
SRSEF Inc	347	943	1,837
SRSEF Exp			
WBCI IBA Migr Surv Inc			
WBCI IBA Migr Surv Exp		-2,100	
WBCI Outreach Inc	3,725	7,500	
WBCI Outreach Exp	-3,725	-7,500	
Workshop-GWWA 2005 Inc			
Workshop-GWWA 2005 Exp			-703

WSO/WBCI Symp Inc		7,628
WSO/WBCI Symp Exp		-7,902
Misc Inc	3,510	
Misc Exp	-3,510	-615

III. WSO Balance Sheet as of 31 December 2009

	2009	2008	2007
General Funds	195,858	218,290	213,053
Bookstore	620	5,190	4,602
Slides		1,447	1,440
Endowment	94,327	74,862	88,684
Atlas Mgment	29,668	29,511	28,616
Schol/Grants	54,805	54,825	55,629
SRSEF	29,890	29,543	28,600
Inventory-WSO Pubs	52,530	30,355	34,635
Slides		1,665	1,665
Fixed Assets (Equip/Land)	31,895	31,895	31,895
Total	489,593	477,583	488,819

ANNUAL REPORTS OF OFFICERS

President—Jesse Peterson—No written report.

Vice President—Tom Schultz—No written report.

Treasurer—Christine Reel—See Financial Report.

Secretary—Jane Dennis—Secretary Jane Dennis has been taking quarterly Board meeting minutes, to be sure. Her concentration has shifted somewhat, however, to keeping a historical record of decision-making developments. Let's see where we now are going from where we once were.

There have been several such notable developments at WSO this year. One is the increased administration of long-term grants. The idea was put forward, the (mostly financial) difficulties cited, and the advantage recognized in that more money could be devoted to actual research costs with WSO's being the fund's administrator, making the

research work more effective and the flow of funds more efficient. Our first effort, by way of Bill Mueller's grantproposing skills, relates to survey work over Lake Michigan for waterfowl and water-bird movement in fall of 2010 and 2011. We know that wind power will develop in the Great Lakes environs, and we must do basic research to find out how birds/bats use these large bodies of water. WSO has a long tradition of being involved in ornithological research, and research-grant support is a good direction for WSO and good for natural resources in Wisconsin.

There are other ongoing developments. WSO has applied to establish a grasslands reserve in perpetuity, including both the 40-acre and the 20acre landholding at Buena Vista marsh, under the US Department of Agriculture's Grasslands Reserve Program. The applications are being evaluated; there are more now applications received than federal monies to pay out. WSO has also terminated its Slide Sale and Loan pro-

gram and, upon suggestion of Stephen J. Lang, is the process of thinking of digital alternatives; that is, of making a digitized (CD) educational program from the slides along with songs and narrative. In addition, the WSO website (http://www.wsobirds. org/) is being refashioned. A simplified, updated version of the Taxonomic Checklist of Wisconsin Birds (http://www.wsobirds.org/Research/) has been posted, as have Bob Domagalski's lists of rare Wisconsin birds, rare Midcontinental birds, and WSO Record arrival/departure dates (http:// wsobirds.org/birding news/), which have been prepared for continual updating. More significant revision of the WSO website is yet to come.

These are the kinds of things that have been happening.

Editors, The Passenger Pigeon—Bettie and Neil Harriman-All four issues of Volume 71 of The Passenger Pigeon appeared in 2009. The Editors wish to thank all of the persons who contributed the content to make these issues happen, and especially the people who contribute to every issue: Randy Hoffman as the Bird Reports Coordinator, author of Lessons From the Seasons, and the Summer Field Notes compiler; David Kuecherer as Art Editor; Jim Frank as Chair of the WSO Records Committee; Noel Cutright as Historian for providing each 50 Years Ago; Jesse Peterson for each President's Statement; and the other three Field Note compilers: Marilyn Bontly and Andrea Symczak for Spring, Ted Gostomski and Randy Hoffman for Fall, and Kay Kavanagh for Winter.

We continue to remind our members that art work is always needed (send bird photographs or digital copies of original art to David Kuecherer), as are articles of scientific work or feeder and field observations about birds.

We continue to get more and more requests for use of color in the Pigeon, thus a huge thank you to all who contributed to the Color Fund in 2009 and so far in 2010. Please continue with your support for this Fund.

And finally, let us hear from you with your likes and dislikes about the journal—it is YOUR publication. We do know that you love the color and getting it as each season begins, but what else are we doing right or wrong? Send us ideas for new things to try.

ANNUAL REPORTS OF COMMITTEE CHAIRS

Awards—Daryl Tessen—Awards to be announced at convention banquet.

The Badger Birder Editor—Mary Uttech—Completed 11 issues of the newsletter.

Bird Reports Coordinator—Randy Hoffman—The coordinator submitted four Wisconsin seasonal reports to Great Lakes Regional editor for North American Birds on time.

A new document was approved by the WSO board to better guide the Seasonal Editors as to content expected for the season reports in *The Passenger Pigeon.*

The latest version of Microsoft Excel was purchased at a cost of approximately \$110 to assist the seasonal editors in the analysis of eBird data. The Bird Reports Coordinator did not submit any expenses for the past year; instead he absorbed the \$74.32 in expenses as a donation to the organization.

Bookstore—Margaret Jones—The Bookstore continues to supply WSOpublished materials to the public and to resale outlets including nature centers, bird stores, and the ABA as well as to educational settings, such as universities and libraries. The Bookstore also sells several donated items; all proceeds from these sales revert to WSO.

Don Reel, long-time Bookstore Manager, stepped down from this position 30 June 2009. WSO extends sincere gratitude to Don for his many years of excellent service. Margaret Jones took over the position of Bookstore Manager as of 1 July 2009. Don and his wife, Christine, have been invaluable in assisting with this transition.

Total sales for 2009 were approximately \$13,000, with 5,259 items sold via 302 orders. Two items were the marketing focus of this year's sales: the newly revised *Wisconsin's Favorite Bird Haunts* (299 sold) and the "Paired for Spring" 50th-anniversary kestrel print (9 sold). Sales of the Atlas of the Breeding Birds of Wisconsin totaled 127 units in 2009. The Bookstore appeared at the annual WSO Convention in Siren, and sales totaled \$1,600.

The Bookstore continues its relationship with the online Nature Mall. Total sales were \$623, resulting in earnings to WSO of \$53. As before, WSO earns a portion of Nature Mall sales only when Nature Mall is accessed via the Bookstore webpage link.

The focus for the second half of 2009 was to foster increased sales to

resale outlets, including Buteo Books, the online bookseller for ABA. Total sales to resale outlets were \$3,150 with 23 orders filled. Additional Bookstore Manager duties included:

- working closely with USPS to maximize shipping/handling efficiency while minimizing costs;
- updating the Bookstore page of the WSO website as needed;
- attending quarterly Board meetings;
- facilitating sales via advertising in both *The Passenger Pigeon* and *The Badger Birder* and timely postings to Wisbirdn

Conservation—Bill Mueller—Conservation Chair Bill Mueller reports the following:

1) During the past several months, the Wisconsin Bird Conservation Initiative (WBCI) has worked to re-organize their materials online. As a member of the Issues Committee of WBCI, I've initiated the renewal of WBCI's "Issues Papers," which are currently being updated.

2) Weekly updates on conservation information are provided to the Wisconsin Birdnet listserv.

3) The new effort, Wisconsin's "Purple Martin Partners," is moving ahead, with collection and refurbishing of used martin houses and construction of new houses, with houses erected in Milwaukee, Fond du Lac, Ozaukee, and Sheboygan Counties.

4) Noel Cutright and I are serving on an Advisory Team for the new Forest Beach Migratory Preserve in Ozaukee County, a property of the Ozaukee-Washington Land Trust. Land management plans are being made by this team for the future of

this preserve, which is being set up specifically as migratory stopover habitat. A grant from the US Fish & Wildlife Service is providing funding for management and restoration. There is continued good news on this topic: the Forest Beach Migratory Preserve is moving forward with restoration and management and the first International Migratory Bird Day activities were held there this May 8 th, with presentations and displays. The Restoration and Management plan has been submitted to the Ozaukee-Washington Land Trust and is being evaluated.

5) I've signed on as WSO representative to the following Bird Conservation Alliance action: 'Sign On Alert: Senate Committee About to Consider Legislation to Authorize Joint Ventures: In July, the U.S. House of Representatives passed H.R. 2188, the Joint Ventures for Bird Habitat Conservation Act of 2009, which was introduced by Rep. Frank Kratovil (D-MD). The bill formally authorizes the FWS Joint Ventures Program, which has been effectively carrying out bird conservation planning and projects since 1987. There are currently 21 JVs in the United States, which have directed \$4.5 billion in conservation spending and have protected, restored, or enhanced more than 13 million acres of important habitat for migratory bird species. Now, Sen. Ben Cardin (D-MD) is preparing to move this bill through his Senate Committee and needs our support in the form of an endorsement letter. WSO has joined the American Bird Conservancy and National Audubon Society in supporting the Joint Venture program by endorsing this letter.

6) For the Board's interest, I shared

information from the report of the Bluebird Restoration Association of Wisconsin (BRAW) annual convention, which was held at the Kickapoo Valley Reserve Visitor's Center in September 2009: "Dr. Kent Hall, BRAW data collection and analysis chair, reported . . . that the area we are in, the Kickapoo Valley, is the heart of bluebird heaven. This is a very high production area for bluebirds. Dr. Hall indicated that last year 323 monitor reports were turned in from BRAW members and so far this year he has received 318 reports. Of those turning in reports last season two-thirds are improved over last year. Generally speaking, it has been a good year. We should end up with between 26,000 and 27,000 bluebirds fledged this year. Our goal for next year is 30,000 bluebirds fledged. Bluebird populations are the highest they have been in the last 43 years."

7) News on lead issues in Wisconsin, calling attention to email an (01/04/2010) sent by Stacy Craig, of the Sigurd Olson Environmental Institute to Northland College: "The Air, Waste, and Water Study Committee passed the amended citizen resolution to promote phasing out lead tackle in the state of WI. The resolution will go to the [Wisconsin Conservation Congress] WCC's Executive Committee on Friday, January 8th." This was considered at the spring Natural Resources Hearings. I submitted WSO's support. This is still a controversial issue because some angler groups are opposed. For anyone who is interested see the USGS Fact Sheet 2009-3051, "Lead Poisoning in Wild Birds," prepared by the USGS National Wildlife Health Center, in September 2009 (www.nwhc.usgs.gov).

8) The Wisconsin Bird Conservation Initiative Annual Meeting was held in Milwaukee on March 26th. Each of the WBCI Committees held separate afternoon sessions. I represented the WBCI Issues Committee, and I hosted a table session, which went very well. This year, Carl Schwartz hosted a table session on Bird City Wisconsin, and there was a great deal of interest in this emerging initiative.

9) Three members of the Issues Committee submitted a new Issues Paper for the WBCI website (www. wisconsinbirds.org/issuespapers) on window collisions and birds. (The new paper is not yet posted).

10) On additional action by the American Bird Conservancy, I signed on to letters on new conservation issues. The American Bird Conservancy is promoting several new initiatives: (a) the Quigley Bill, and (b) the Conservation Birding website, which allows birders to find lodges that contribute to bird conservation in the Americas ("when you visit, you know that the fees you pay contribute directly to the management of vital bird habitat").

Education—Mariette Nowak—As Education Chair, I have promoted landscaping with native plants for birds. In the year since our last annual meeting, I have given 20 presentations on the subject. Restoring native plants in our human-dominated landscapes is essential to maintaining the biodiversity of our country. There are simply too few natural areas left to sustain our birds and other wildlife species.

I have also begun working on a WSO video on Wisconsin birds to be distributed to educators, libraries, etc.

We plan to have two versions, one for high school students and young adults and one for children, both aimed at a general audience. If any WSO members are educators or other potential users of such a video, I would appreciate your suggestions and encourage you to contact me.

Field Trips—Jeff Baughman and Tom Schultz—There is little to report from the Field Trips Cmmittee this year, as the annual schedule of outings has gone well. In May of 2009 we held our second Kirtland's Warbler field trip to Adams County, as guests of the US Fish and Wildlife Service and the Wisconsin DNR. Two busloads of birders visited the site (as we did during our first trip in 2008), and after the first male didn't pan out (he had recently attracted a mate) we moved to a different location that was much better-with a very cooperative singing male, who provided great scope views. In 2010 we discontinued this event, as it was felt that we had satisfied most of the demand from our members (and only two persons expressed interest in a new trip to the site). We thank Joel Trick and Kim Grveles for their kind offer to make these exciting birds available to us.

Historian—Noel Cutright—No written report.

Honey Creek—Levi Wood—WSO's Harold and Carla Kruse Honey Creek Nature Preserve needs management of trails, fences, invasive plants, and other things if it is to return to a more natural state. For example, without the removal of garlic mustard, we risk losing more of the forest understory as these non-native invasive plants

have expanded at Honey Creek since the flooding in 2008 spread them through the valley. Spring is the best time to deal with garlic mustard, before it sets seeds that will be carried by water, wind, and wildlife. To date we have been pulling garlic mustard and removing trash bags full. Recently we hired a professional contractor to apply herbicide. Once established in larger patches for a few years, garlic mustard can alter the soil chemistry so native wildflowers will not grow, as well as shading out the native plants. Some other invasive species are prickly ash, multi-flora rose, honeysuckle, and buckthorn.

I would like to organize some work parties, perhaps during the week or during the late afternoon on these long-daylight days, as well as on weekends. Some of the work—fence repair, dead tree removal, and other tasks will require volunteers with tools and experience, but even inexperienced volunteers can help and may learn some skills working with others on these land management tasks.

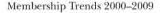
My goal is long-term improvement of the habitats at Honey Creek to maintain the plant and bird diversity. Some of the work may best be done in winter when the ground is frozen. Other work needs to be done in spring. No previous experience is required. You learn what needs to be done by doing it, as most of us have.

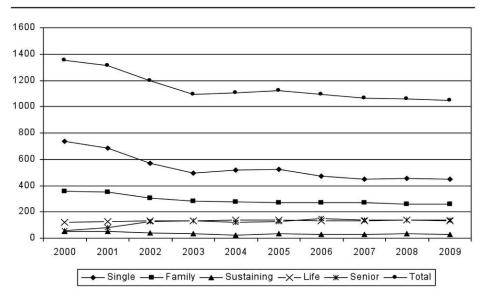
If you want to help preserve Honey Creek in whatever way you can contribute, please contact Levi Wood, Honey Creek Chair, at 608-277-7959 or by email at woodlevi@aol.com. Thank you.

Membership—Jesse Peterson—In 2009, membership remained more or less steady relative to the previous five years. The renewal rate has remained steady in recent years and we experienced a large increase in the number of new members in 2009.

Category	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Single	738	685	572	494	520	521	473	450	454	449
Family	358	351	304	282	275	268	268	272	261	261
Sustaining	50	49	40	34	25	32	30	28	33	31
Life $(1 \text{ of } 4)$	10	3	2	0	2	3	2	1	2	0
Life (2 of 4)			2	2	0	1	3	2	1	1
Life (3 of 4)			1	2	1	0	1	3	2	1
Life-Couple (1 of 4)	0	0	0	2	1	0	1	0	0	0
Life-Couple (2 of 4)			0	0	2	1	0	1	0	0
Life-Couple (3 of 4)			0	0	0	2	1	0	1	0
Life	120	126	130	129	133	134	135	134	136	135
Life-Couple	0	0	0	1	3	3	10	10	10	13
Patron	6	6	$\overline{7}$	7	8	8	7	7	7	6
Senior	60	79	126	131	120	129	147	141	137	137
Student		6	6	7	11	15	12	11	11	11
Honorary Life	3	4	2	2	2	2	2	2	2	2
Board	5	4	3	3	3	3	3	3	3	3
Total	1350	1313	1195	1096	1106	1122	1095	1065	1160	1050
New Members				48	95	74	43	34	46	72

Total Membership at 2009 Calendar Year End





Membership activities and accomplishments throughout the past year include:

- Continued overseeing printing and mailing of *The Badger Birder*;
- Continued overseeing distribution of the *e-Badger Birder*, the electronic version of the WSO newsletter, to approximately 440 subscribers;
- Monitored and managed the publication exchange program;
- Managed the annual membership renewal activity;
- Managed the new member "onboarding" activity including sending out "Welcome" packets to each new member.

Publicity—Sandy (Ursula) Petersen— No written report.

Records—Jim Frank—The WSO Records Committee evaluated the following records by season:

	Reviewed	Accepted	Rejected
Winter	34	14	20
Spring	56	38	18
Summer	23	16	7
Fall	40	24	16
Total	153	92	61

The state list remains at 431 species. Committee members during 2009 were Mark Korducki, Bill Cowart, Ryan Brady, Jerry Deboer, Steve Lubahn, and Jim Frank (chair).

Research—Sheldon Cooper—No written report. (Sheldon has asked to be replaced as Research Chair.)

Scholarships and Grants—Michael John Jaeger—Three research proposals were funded under the Small Grants Program:

• A Steenbock Award of \$435 was granted to Brian Standing. Brian's work is on "Near-Ultraviolet Spectrum Videography of Black Capped Chickadee Plumage."

- A \$500 WSO Grant was awarded to David Slager for research correlating overall nocturnal migration activity and departure of radio-tagged warblers.
- Another \$500 WSO Grant went to William Stout for his continued work on "An Urban Cooper's Hawk Population and Nesting Study in the Metropolitan Milwaukee Area."

Website—Lennie Lichter—During the past year I have been maintaining and updating the WSO website as required and suggested.

Many more photos have been added to both the Rare Bird Photos page and the Bird Photos page on the Birding News page. The Hotline Reports on that page have been updated as soon as I receive the information for both the Statewide and Madison Hotline Reports (actually the same report). Convention dates are also linked to the Birding News page, with photos from last year's convention.

Festival and convention links are also available on the Important Dates page, as well as the latest list of WSO field trips.

On the Research page, the Christmas Bird Count dates and contact information were kept current to give our members and others the opportunity to find and help out on those counts.

The Education page hasn't changed a lot since last year, except for the addition of some information on a Bird Mentor Kit Program.

Youth Education—Barbara Duerksen— Youth Grants Program—grants are awarded in spring and fall to students for bird research or education:

- The WSO Youth Grant Committee awarded three grants to student groups in St. Peter Lutheran School in Schofield in fall of 2009:
 - The preschool and kindergarten students received \$150 for bird education at their Math and Science Family Night.
 - Trenten Eberhardy and the first and second grade class received \$100 for their bird education project, "Rockin' Raptors," to study eagles and other raptors as part of a project studying lifestyles of Native Americans.
 - Kolton Craft and the third grade students received \$100 for their education project, "Crack, Gobble, Gobble." They studied turkey egg hatching, nutrition, natural habitat, and predators.
 - In April 2010, the committee awarded a grant of \$100 to Trenten Eberhardy and the second grade class at St. Peter Lutheran School in Schofield, for a project to evaluate bird-related educational activities for rainy days.

Youth Education Coordinator activities of the past year:

- Held outdoor bird conservation workshops as a part of the Richland County Conservation Field Days for sixth graders, with 207 students attending.
- Continued development of the Bird Conservation Mentor Program, a joint project of WSO and WBCI (Wisconsin Bird Conservation Initiative) to introduce students to the common birds of Wisconsin and

their habitats, with the use of a kit containing a binoculars, a scope and tripod, field guides, and educational materials. Information about the bird kits is on the WSO and the WBCI websites. New kits have been purchased for the Platteville Community Arboretum in Iowa County and the Wisconsin Center for Environmental Education at UW Stevens Point.

- Attended WSO board meetings and education committee meetings of WBCI, the Wisconsin Bird Conservation Initiative.
- Presented a workshop to Middleton area educators on use of the bird kits. This was the third in a series of bird education workshops given by the WBCI education committee.



Alan Stankevitz captured this Eastern Bluebird as it was making a turn in flight.

About the Artist

Alan Stankevitz, Minnesota nature photographer, has been photographing and cataloging birds found in the Upper Midwest for the past 12 years. Alan's professional background for over 20 years was in the field of computer science but with support from his wife Jo, Alan took an early retirement in 2000 to build their ecofriendly, solar-powered dream home in Southeast Minnesota.

During the construction of their home, Alan began to photograph and catalog all the birds found on their land. He eventually expanded his territory to the Upper Midwest region. During this time, Alan has worked with numerous digital SLRs, starting with Canon's first all the way up to the current line.

Alan's photographs have been featured in many publications including the front page of the New York Times. He also has won many awards for his photography including first place in the 19th Annual Wildbird Magazine Photo Contest.

Alan regularly speaks about his passion for birds, photography, and renewable energy at various events throughout the region. He currently has two websites that he maintains: Daycreek.com is devoted to Alan and Jo's house-building adventures and cordwood house construction; while *Iwishicouldfly.com* features Alan's avian photography.



Great Egret by Alan Stankevitz.

Index to Volume 72

A

- Acadian Flycatcher, 20, 22, 58, 82, 98, 101, 164, 175, 285, 315
- Alder Flycatcher, 22, 59, 76, 85, 175, 212, 285
- American Avocet, 41, 55, 81, 82, 164, 172, 281
- American Bittern, 22, 27, 53, 72, 83, 161, 208, 278
- American Black Duck, 50, 82, 166, 186, 187, 237, 238, 240, 242, 244, 246, 248, 250, 275, 365, 374
- American Black Duck × Mallard, 50
- American Coot, 22, 54, 164, 172, 238, 240, 242, 244, 246, 248, 250, 256, 280, 380
- American Crow, 22, 27, 35, 49, 239, 241, 243, 245, 247, 249, 251, 257, 286, 383
- American Golden-Plover, 55, 82, 152, 172, 280
- American Goldfinch, 23, 27, 28, 29, 35, 49, 124, 127, 128, 159, 211, 239, 241, 243, 245, 247, 249, 251, 260, 269, 294, 387
- American Kestrel, 54, 198–199, 200–201, 205, 206, 207, 238, 240, 242, 244, 246, 248, 250, 256, 268, 280, 379
- American Pipit, 62, 82, 232, 254, 259, 289, 385
- American Redstart, 23, 27, 29, 35, 64, 118, 120, 121, 122, 123, 210, 269, 290
- American Robin, 23, 27, 28, 35, 38, 43, 49, 120, 125, 126, 159, 209, 239, 241, 243, 245, 247, 249, 251, 258, 270, 288, 320, 361, 385
- American Tree Sparrow, 65, 82, 210, 239, 241, 243, 245, 247, 249, 251, 259, 291, 386
- American White Pelican, 46, 52, 169, 253, 256, 278, 370, 372, 378
- American Wigeon, 50, 82, 166, 237, 252, 275, 374
- American Woodcock, 22, 27, 29, 56, 153, 173, 208, 269, 282, 381
- Anhalt, Christine M. and Memuna Z. Khan, Effects of Supplemental Food on the First Brood Period in the Eastern Bluebird, 331–340
- Anich, Nicholas M., Monitoring the Kirtland's Warbler Population in Adams County, Wisconsin, 143–150; "By the Wayside"—Fall 2009, 304–305
- Arctic Loon, 313
- Ayyash, Amar, "By the Wayside"—Spring 2009, 74

B

Baird's Sandpiper, 56, 173, 282, 317–318

Bald Eagle, 20, 22, 27, 53, 198-199, 200-201,

206, 216, 223, 238, 240, 242, 244, 246, 248, 250, 256, 267, 268, 279, 350, 362, 366, 378

- Baltimore Oriole, 23, 27, 28, 29, 35, 36, 43, 67, 89, 100, 103, 152, 211, 294
- Band-tailed Pigeon, 167, 174, 181, 183, 185, 186
- Bank Swallow, 23, 27, 60, 287
- Barn Owl, 15, 203, 204–205, 360
- Barn Swallow, 23, 27, 47, 60, 209, 287, 315
- Barred Owl, 22, 27, 29, 49, 196, 204–205, 238, 240, 242, 244, 246, 248, 250, 257, 268, 284, 382
- Barrientos, Evan, Fall Birds and Their Food Sources at the Schlitz Audubon Nature Center, 117–134
- Barrow's Goldeneye, 51, 71, 72, 232, 237, 252, 370, 371, 372, 376, 397–398
- Bay-breasted Warbler, 35, 63, 69, 118, 210, 290
- Bell's Vireo, 59, 152, 175, 209, 212
- Belted Kingfisher, 58, 94, 208, 238, 240, 242, 244, 246, 248, 250, 257, 285, 383
- Belter, Dan, "By the Wayside"-Spring 2009, 71
- Berger, Daniel D. *See* Mueller, Helmut C. and Daniel D. Berger
- Berger, Daniel D., *See* Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Bielefeldt, John, Unpublished Bird Reecords from Waukesha County, Wisconsin, by S. Paul Jones and Others, 1890–1953, 13–18; John Bielefeldt and Terri Beth Peters, 2009 Breeding Bird Blitz at Prince's Point State Wildlife Area, Jefferson County, Wisconsin, 19–23
- Black Scoter, 51, 164, 168, 252, 276, 372, 375
- Black Tern, 22, 57, 153, 174, 283
- Black Vulture, 198–199
- Black-and-white Warbler, 23, 35, 64, 118, 120, 121, 122, 177, 210, 290
- Black-backed Woodpecker, 16, 58, 164, 170, 174, 254, 257, 285, 383
- Black-bellied Plover, 54, 172, 280
- Black-bellied Whistling-Duck, 86, 89
- Black-billed Cuckoo, 57, 82, 208, 284
- Black-billed Magpie, 164, 171, 175, 186
- Black-capped Chickadee, 23, 27, 28, 34, 35, 49, 118, 119, 120, 121, 122, 123, 124, 127, 128, 152, 159, 209, 239, 241, 243, 245, 247, 249, 251, 258, 287, 383, 416–417
- Black-crowned Night-Heron, 22, 53, 169, 187, 232, 256, 279, 298, 313, 366, 378
- Black-headed Gull, 46, 49, 57, 71, 73–74, 85, 319

- Black-legged Kittiwake, 232, 253, 257, 319, 365, 370, 377, 378, 379, 381, 391–393, 396
- Black-necked Stilt, 22, 41, 46, 55, 71, 73, 84, 153, 164, 172, 185, 186
- Black-throated Blue Warbler, 35, 63, 124, 176, 210, 290, 332
- Black-throated Green Warbler, 35, 63, 118, 122, 124, 164, 176, 210, 290
- Black-throated Sparrow, 79
- Blackburnian Warbler, 35, 63, 118, 164, 176, 210, 290
- Blackpoll Warbler, 35, 63, 118, 119, 121, 122, 123, 124, 177, 210, 290
- Blue Grosbeak, 88–89, 152, 178, 187–188, 320–321
- Blue Jay, 22, 27, 28, 33, 34, 35, 49, 159, 209, 239, 241, 243, 245, 247, 249, 251, 258, 269, 270, 286, 364, 368, 383
- Blue-gray Gnatcatcher, 23, 27, 29, 61, 164, 175, 209, 288
- Blue-headed Vireo, 34, 35, 46, 59, 120, 122, 123, 164, 175, 209, 286
- Blue-winged Teal, 22, 50, 71, 83, 101, 212, 276
- Blue-winged Warbler, 27, 35, 62, 164, 176, 209, 289
- Bobolink, 23, 67, 152, 293
- Bohemian Waxwing, 62, 209, 254, 259, 289, 385
- Bonaparte's Gull, 56, 73, 85, 173, 282, 319, 381, 392
- Bontly, Marilyn, The Spring Season: 2009, 39-69
- Boreal Chickadee, 60, 79, 175, 209, 212, 254, 287, 383
- Boreal Owl, 203
- Bowers, John, See Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Brady, Ryan, "From Field and Feeder," 113, 115–116; "By the Wayside"—Fall 2009, 297, 299; "By the Wayside"—Winter 2009–2010, 391
- Brant, 46, 50, 71, 83
- Brewer's Blackbird, 13, 16, 67, 178, 212, 255, 260, 293, 387
- "Brewster's" Warbler, 62, 176
- Broad-winged Hawk, 54, 87, 153, 198–199, 200–201, 206, 207, 268, 279
- Brown Creeper, 27, 35, 60, 118, 119, 121, 122, 123, 124, 153, 161, 209, 239, 241, 243, 245, 247, 249, 251, 258, 269, 287, 384
- Brown Pelican, 187
- Brown Thrasher, 23, 35, 62, 144, 209, 254, 259, 288, 385
- Brown-headed Cowbird, 23, 27, 28, 29, 35, 67, 147, 148, 159, 211, 239, 241, 243, 245, 247, 249, 251, 260, 294, 387
- Bub, Brain R., See Kapfer, Joshua M., William P. Mueller, Brian R. Bub, and James W. Engelhardt
- Buff-breasted Sandpiper, 46, 49, 56, 84, 173, 282

Bufflehead, 31, 51, 82, 115, 153, 168, 237, 238, 240, 242, 244, 246, 248, 250, 277, 375

С

- Cackling Goose, 50, 233, 252, 275, 374
- California Gull, 46, 49, 57, 71, 74, 85, 166, 173, 181, 182–183, 186, 231, 232, 253, 257, 370, 381, 391, 393, 396, 398
- Canada Goose, 20, 22, 27, 49, 71, 83, 233, 238, 240, 242, 244, 246, 248, 250, 270, 275, 365, 374, 392
- Canada Warbler, 64–65, 88, 98, 101, 177, 210, 291
- Canvasback, 51, 82, 152, 168, 252, 276, 375
- Cape May Warbler, 35, 43, 47, 62, 88, 176, 210, 289, 371, 372, 381, 386, 397
- Carolina Wren, 60, 82, 175, 254, 258, 287, 366, 370, 372, 384
- Caspian Tern, 57, 75, 153, 174, 283
- Cattle Egret, 53, 82, 153, 162, 169, 278, 363
- Cave Swallow, 275, 287, 297, 304–305, 313, 315, 398
- Cedar Waxwing, 23, 35, 49, 119, 120, 130, 209, 239, 241, 243, 245, 247, 249, 251, 259, 270, 289, 386
- Cerulean Warbler, 13, 29, 35, 63–64, 82, 98, 103, 152, 164, 177, 290
- Chestnut-sided Warbler, 18, 23, 35, 62, 118, 164, 176, 210, 289, 316
- Chimney Swift, 22, 58, 159, 212, 270, 284
- Chipping Sparrow, 27, 35, 65, 144, 159, 211, 231, 291, 367, 371, 386, 397
- Chuck-will's-widow, 46, 58, 71, 75, 85, 88, 161, 174
- Cinnamon Teal, 43, 46, 50, 71–72, 83
- Clay-colored Sparrow, 26, 27, 65, 144, 211, 212, 291
- Cliff Swallow, 23, 26, 60, 175, 212, 287, 305, 315
- Common Chaffinch, 47, 89, 188
- Common Eider, 395
- Common Goldeneye, 51, 72, 82, 111, 168, 237, 238, 240, 242, 244, 246, 248, 250, 277, 375, 398
- Common Grackle, 23, 35, 67, 159, 211, 255, 260, 293, 387
- Common Loon, 31, 52, 86, 116, 153, 164, 169, 253, 256, 277, 297, 313, 316–317, 376
- Common Merganser, 27, 52, 72, 111, 112, 114–115, 161, 237, 238, 240, 242, 244, 246, 248, 250, 277, 376
- Common Moorhen, 22, 54, 81, 152, 172, 181, 182, 280
- Common Nighthawk, 58, 82, 159, 174, 208, 270, 284
- Common Raven, 60, 239, 241, 243, 245, 247, 249, 251, 286, 366, 383
- Common Redpoll, 35, 47, 68, 77, 89, 211, 239, 241, 243, 245, 247, 249, 251, 260, 294, 372, 387, 398
- Common Tern, 57, 75, 153, 174, 283, 332

- Common Yellowthroat, 23, 27, 28, 29, 64, 210, 291
- Connecticut Warbler, 64, 80, 82, 101, 177, 210, 291
- Cooper's Hawk, 22, 35, 49, 96, 159, 198–199, 200–201, 203, 205, 206, 207, 216, 218, 230, 238, 240, 242, 244, 246, 248, 250, 256, 268, 279, 378, 417
- Cutright, Noel J., Honey Creek Birdathon/Bandathon—25 Years and Counting, 25–30; 50 Years Ago in The Passenger Pigeon, 79; 50 Years Ago in The Passenger Pigeon, 155; 50 Years Ago in The Passenger Pigeon, 229; "By the Wayside"—Fall 2009, 298–299; 50 Years Ago in The Passenger Pigeon, 363
- Cutright, Noel J., Seth Cutright, Tom Schaefer, and Carl Schwartz, Trolling for Martins, 351–360
- Cutright, Seth, *See* Cutright, Noel J., Seth Cutright, Tom Schaefer, and Carl Schwartz

D

- Dark-eyed Junco, 26, 27, 35, 66, 77, 82, 127, 153, 178, 211, 239, 241, 243, 245, 247, 249, 251, 259, 269, 292–293, 386
- Davis, Gregory J. and Jennifer Hoff Davis, The Distribution of the Cliff Swallow (Petrochelidon pyrrhonota) in Wisconsin: A Comparison between 1959 and 1999, 341–349
- Davis, Jennifer Hoff, *See* Davis, Gregory J. and Jennifer Hoff Davis
- Dickcissel, 23, 67, 77, 152, 178, 293
- Diehl, Scott, "By the Wayside"-Fall 2009, 299
- Domagalski, Robert C., The 2009 Wisconsin Christmas Bird Counts, 231–266; The Fall Season: 2009, 273–296
- Double-crested Cormorant, 20, 22, 52–53, 169, 253, 270, 278, 378
- Downy Woodpecker, 22, 27, 29, 35, 49, 118, 119, 121, 122, 123, 125, 208, 239, 241, 243, 245, 247, 249, 251, 257, 285, 383
- Doyle, Lester, "By the Wayside"—Fall 2009, 298 Dunlin, 56, 88, 173, 282, 318, 370, 372, 381

Е

- Eared Grebe, 52, 81, 82
- Eastern Bluebird, 23, 27, 33, 34, 35, 43, 61, 111, 125, 175, 209, 239, 241, 243, 245, 247, 249, 251, 258, 288, 320, 331–340, 366, 384, 394, 418
- Eastern Kingbird, 22, 59, 100, 110, 208, 271–272, 286
- Eastern Meadowlark, 23, 67, 152, 178, 211, 212, 255, 260, 293, 387
- Eastern Phoebe, 22, 27, 29, 35, 59, 208, 269, 286
- Eastern Screech-Owl, 57, 152, 158, 159, 174, 203, 204–205, 207, 238, 240, 242, 244, 246, 248, 250, 257, 266, 268, 284, 306, 382
- Eastern Towhee, 23, 35, 65, 125, 144, 210, 232, 254, 259, 291, 386

- Eastern Wood-Pewee, 22, 58, 164, 208, 269, 285, 315
- Engelhardt, James W., *See* Kapfer, Joshua M., William P. Mueller, Brian R. Bub, and James W. Engelhardt
- Eurasian Collared-Dove, 57, 82, 153, 174, 253, 257, 284, 367, 372, 382

Eurasian Wigeon, 50

- European Goldfinch, 47
- European Starling, 23, 49, 159, 197, 209, 239, 241, 243, 245, 247, 249, 251, 289, 353, 356, 385
- Evening Grosbeak, 35, 68, 79, 82, 178, 211, 255, 260, 294, 372, 387

F

- Ferruginous Hawk, 198-199, 268
- Field Sparrow, 35, 65, 144, 164, 177, 210, 254, 259, 291, 386
- Fissel, Peter, "By the Wayside"—Spring 2009, 72–73
- Fitzgerald, Sean, "By the Wayside"—Summer 2009, 181
- Florida Scrub Jay, 332
- Forster's Tern, 57, 153, 174, 283
- Fox Sparrow, 35, 65, 81, 153, 211, 239, 241, 243, 245, 247, 249, 251, 259, 269, 292, 367, 386
- Frank, Jim, "From Field and Feeder," 31, 34; Wisconsin May Counts—2009, 81–82; WSO Records Committee Report: Spring 2009, 83–89; WSO Records Committee Report: Summer 2009, 185–188; WSO Records Committee Report: Fall 2009, 313–321; WSO Records Committee Report: Winter 2009–2010, 395–398
- Franklin's Gull, 57, 81, 82, 152, 164, 173, 283

G

- Gadwall, 50, 166, 186–187, 252, 275, 374
- Gibson, Julie, "By the Wayside"-Fall 2009, 299
- Glaucous Gull, 57, 74, 153, 164, 174, 253, 283, 315, 366, 382
- Glaucous-winged Gull, 275, 283, 297, 300, 313, 315
- Glossy Ibis, 72, 298
- Golden Eagle, 15, 54, 135–141, 187, 198–199, 200–201, 206, 253, 256, 268, 280, 296, 322, 366, 379
- Golden-crowned Kinglet, 35, 61, 81, 118, 119, 120, 121, 123, 124, 126, 127, 175, 209, 239, 241, 243, 245, 247, 249, 251, 258, 269, 288, 366, 394
- Golden-winged Warbler, 35, 62, 98, 101, 176, 209, 289
- Grace's Warbler, 305
- Grasshopper Sparrow, 23, 65, 82, 152, 177, 292
- Gray Catbird, 23, 27, 28, 29, 34, 35, 46, 61, 125,
- 126, 159, 209, 232, 259, 288, 385
- "Gray-headed" Slate-colored Junco, 313, 316
- Gray Jay, 60, 175, 254, 258, 286, 383, 385
- Gray Partridge, 49, 168, 253, 256, 366, 376

- Gray-cheeked Thrush, 35, 43, 61, 126, 209, 269, 288
- Great Black-backed Gull, 57, 82, 174, 253, 283, 319, 366, 372–373, 382, 396
- Great Blue Heron, 20, 22, 27, 53, 72, 212, 238, 240, 242, 244, 246, 248, 250, 270, 278, 366, 378
- Great Crested Flycatcher, 22, 27, 59, 111, 208, 271–272, 286
- Great Egret, 20, 22, 47, 53, 278, 420
- Great Horned Owl, 22, 49, 134, 153, 159, 204–205, 224, 238, 240, 242, 244, 246, 248, 250, 257, 268, 284, 382
- Great Tit, 47
- Greater Prairie-Chicken, 14, 52, 168, 253, 256, 277, 376
- Greater Scaup, 51, 168, 237, 238, 240, 242, 244, 246, 248, 250, 276, 375
- Greater White-fronted Goose, 49, 231, 275, 374 Greater Yellowlegs, 55, 73, 172, 185, 281
- Green Heron, 22, 29, 53, 72, 150, 159, 208, 279
- Green-winged Teal, 22, 51, 161, 232, 237, 252, 276, 375
- Gustafson, Dennis, "By the Wayside"—Spring 2009, 72, 73, 76; "By the Wayside"—Winter 2009–2010, 392, 393
- Gyrfalcon, 198–199, 200–201, 203, 232, 253, 256, 275, 280, 297, 299, 314, 370, 380, 391, 395

Η

- Hairy Woodpecker, 22, 27, 35, 49, 123, 208, 239, 241, 243, 245, 247, 249, 251, 257, 285, 383
- Harlequin Duck, 51, 232, 237, 252, 276, 370, 375
- Harpy Eagle, 102
- Harriman, Bettie and Neil, From the Editors' Desk: With Our Thanks, 95; From the Editors' Desk, Saluting Dedication, 195
- Harris's Hawk, 198-199, 200-201, 203, 217
- Harris's Sparrow, 66, 161, 171, 178, 185, 186, 211, 232, 254, 259, 292, 371, 381, 386
- Henslow's Sparrow, 65, 82, 152, 177, 292
- Hermit Thrush, 35, 43, 61, 124, 125, 126, 130, 209, 254, 258, 269, 288, 366, 385
- Herrett, Jeff, "By the Wayside," 393
- Herring Gull, 49, 74, 75, 84, 85, 88, 182, 183, 186, 238, 240, 242, 244, 246, 248, 250, 256, 257, 283, 300, 315, 319–320, 373, 382, 392, 393, 396, 398
- Hoary Redpoll, 46, 68, 71, 76–77, 86, 89, 231, 372, 398
- Hoffman, Randy, Lessons From the Seasons: Spring 2009, 37–38; Lessons From the Seasons: Summer 2009, 157–159; The Summer Season: 2009, 161–179; Lessons From the Seasons: Fall 2009, 271–272; Lessons From the Seasons: Winter 2009–2010, 365–367
- Hooded/Common Merganser, 371, 376

- Hooded Merganser, 27, 51, 111, 115, 237, 238, 240, 242, 244, 246, 248, 250, 277, 376
- Hooded Warbler, 35, 36, 64, 82, 101, 164, 177, 210, 212, 291
- Horned Grebe, 52, 82, 164, 169, 253, 256, 277–278, 376
- Horned Lark, 15, 22, 27, 60, 239, 241, 243, 245, 247, 249, 251, 258, 287, 383
- House Finch, 35, 49, 154, 159, 212, 239, 241, 243, 245, 247, 249, 251, 260, 294, 367, 387
- House Sparrow, 49, 159, 197, 211, 239, 241, 243, 245, 247, 249, 251, 260, 294, 333, 353, 354, 356, 358, 387
- House Wren, 23, 27, 29, 35, 60, 111, 159, 209, 287, 338
- Hudsonian Godwit, 55, 82, 152, 164, 172, 281

I

- Iceland Gull, 57, 74, 81, 82, 152, 164, 174, 253, 283, 315, 366, 372–373, 382, 384
- Indigo Bunting, 23, 27, 28, 34, 35, 46, 66, 71, 76, 86, 89, 164, 210, 293, 320–321, 398

K

- Kapfer, Joshua M., William P. Mueller, Brian R. Bub, and James W. Engelhardt, The Response of Nesting Opreys (*Pandion haliaetus*) to Maintenance Activities along Transmission Lines in Central Wisconsin, 3–11
- Kaspar, Cathy B., See Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Kaspar, John L., See Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Kavanagh, Kay, The Winter Season: 2009–2010, 369–390
- Kentucky Warbler, 64, 82, 98, 101, 152, 164, 177, 210, 212
- Khan, Memuna Z., *See* Anhalt, Christine M. and Memuna Z. Khan

Killdeer, 22, 55, 231, 281, 380

- King Eider, 232, 237, 252, 370, 375, 395
- King Rail, 15, 54, 82, 169, 275, 280
- Kirtland's Warbler, 47, 63, 88, 143–150, 161, 177, 414
- Kreitinger, Kim, Wisconsin Big day Counts: 2009, 151–154
- Kumlien's Gull, 300

L

- Lally, Thomas, "By the Wayside"—Spring 2009, 74
- Lapland Longspur, 66, 82, 153, 239, 241, 243, 245, 247, 249, 251, 259, 293, 386
- Lark Sparrow, 65, 152, 177, 292
- Laughing Gull, 44, 57, 164, 173
- Lawrence's Warbler, 212
- Le Conte's Sparrow, 65, 79, 82, 177, 292

- Least Bittern, 22, 27, 53, 82, 152, 169, 208, 212, 278
- Least Flycatcher, 21, 22, 46, 59, 76, 85, 101, 208, 286
- Least Sandpiper, 56, 173, 281-282, 318
- Legler, Karl, "By the Wayside"—Winter 2009–2010, 394
- Lesser Black-backed Gull, 57, 74, 85, 88, 152, 164, 174, 186, 253, 283, 320, 366, 372, 373, 382, 396
- Lesser Scaup, 51, 168, 238, 240, 242, 244, 246, 248, 250, 276, 375
- Lesser Yellowlegs, 55, 164, 172, 281
- Lincoln's Sparrow, 66, 152, 178, 211, 232, 254, 259, 292, 386
- Little Blue Heron, 275, 278
- Little Gull, 57, 152, 164, 173, 181, 275, 283, 319, 392
- Loggerhead Shrike, 13, 59, 164, 175, 208, 286
- Long-billed Dowitcher, 56, 152, 173, 282
- Long-eared Owl, 45, 58, 174, 203, 204–205, 207, 254, 257, 268, 269, 284, 324, 366, 382
- Long-tailed Duck, 31, 51, 252, 276, 375
- Long-tailed Jaeger, 275, 284, 297, 300–304, 314–315, 318–319
- Louisiana Waterthrush, 23, 29, 64, 101, 153, 177, 210, 290–291
- Lukes, Roy, "From Field and Feeder," 111, 112, 114–115

Μ

- Magnolia Warbler, 11, 35, 62, 88, 118, 121, 124, 125, 176, 210, 289
- Mallard, 20, 22, 27, 49, 86, 152, 186, 187, 237, 238, 240, 242, 244, 246, 248, 250, 275, 374, 392, 395
- Marbled Godwit, 55, 82, 164, 172, 281
- Marsh Wren, 23, 27, 61, 175, 209, 288
- Martell, Mark, See Mehus, Scott, and Mark Martell
- McFall, Robert and David, "By the Wayside"— Summer 2009, 182
- meadowlark species, 387
- Mehus, Scott, and Mark Martell, A Wintering Population of Golden Eagles in Southwestern Wisconsin and Southeastern Minnesota, 135–141
- Merlin, 54, 82, 169, 198–199, 200–201, 203, 205, 206, 207, 216, 217, 238, 240, 242, 244, 246, 248, 250, 256, 268, 280, 326, 366, 380
- Meyer, Thomas, *See* Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Mississippi Kite, 87, 198-199, 268
- Moretti, Anne, "From Field and Feeder," 32-36
- Mottled Duck, 185, 186-187, 276, 316
- Mourning Dove, 22, 27, 29, 35, 49, 144, 152, 159, 180, 208, 238, 240, 242, 244, 246, 248, 250, 257, 284, 320, 382
- Mourning Warbler, 29, 35, 64, 210, 291

- Mueller, Helmut C. and Daniel D. Berger, Our 60 Years at Cedar Grove, 197–214
- Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer, The Autumn of 2009 at Cedar Grove, 267–270
- Mueller, Nancy S., *See* Mueller, Helmut C., Nancy S. Mueller, Daniel D. Berger, John L. Kaspar, John Bowers, Cathy B. Kaspar, and Thomas Meyer
- Mueller, William P., *See* Kapfer, Joshua M., William P. Mueller, Brian R. Bub, and James W. Engelhardt
- Mute Swan, 49, 233, 237, 252, 275, 365, 374

Ν

- Nashville Warbler, 35, 43, 62, 118, 127, 144, 176, 209, 289
- Nelson's Gull, 371, 373, 382
- Nelson's Sparrow, 65, 178, 292, 316
- Niese, Greg, "By the Wayside"—Fall 2009, 300
- Northern Bobwhite, 52, 82, 168, 231, 232, 253, 256, 277, 376
- Northern Cardinal, 23, 27, 34, 35, 66, 118, 121, 125, 159, 210, 239, 241, 243, 245, 247, 249, 251, 260, 293, 320, 386, 390
- Northern Flicker, 22, 27, 29, 35, 58, 126, 208, 239, 241, 243, 245, 247, 249, 251, 257, 269, 270, 285, 383
- Northern Goshawk, 53, 169, 198–199, 200–201, 203, 206, 207, 217, 222, 253, 256, 268, 279, 312, 379
- Northern Harrier, 53, 101, 152, 198–199, 200–201, 205, 206, 207, 221, 238, 240, 242, 244, 246, 248, 250, 256, 268, 279, 378
- Northern Hawk Owl, 16, 232, 254, 257, 370, 380, 382, 391, 393–394, 396, 396–397
- Northern Mockingbird, 43, 46, 47, 61–62, 152, 153, 164, 176, 232, 258, 288, 371, 372, 385
- Northern Parula Warbler, 2, 35, 62, 119, 176, 209, 289
- Northern Pintail, 50, 168, 237, 252, 276, 375
- Northern Rough-winged Swallow, 27, 60, 209, 287
- Northern Saw-whet Owl, 26, 27, 29, 58, 82, 174, 203, 204–205, 207, 217, 254, 268, 269, 284, 366, 383
- Northern Shoveler, 50, 71, 83, 168, 252, 276, 374
- Northern Shrike, 59, 208, 257, 286, 383
- Northern Waterthrush, 27, 28, 64, 177, 210, 290
- Nowak, Mariette, "From Field and Feeder," 361

0

- Olive-sided Flycatcher, 58, 82, 98, 101, 152, 174, 208, 271–272, 285
- Orange-crowned Warbler, 35, 62, 82, 118, 126, 127, 210, 289
- Orchard Oriole, 67, 178, 294
- Osprey, 3–11, 53, 152, 169, 198–199, 206, 216, 268, 279

Ovenbird, 27, 35, 43, 64, 78, 119, 184, 210, 290

Р

- Pacific Loon, 86–87, 275, 277, 297–298, 313, 316–317
- Painted Bunting, 46, 48, 66-67, 86
- Palestine Sunbird, 332
- Palm Warbler, 35, 63, 127, 177, 210, 269, 290
- Parasitic Jaeger, 283–284, 300, 301, 304, 307–311, 314–315
- Pectoral Sandpiper, 27, 56, 152, 173, 282
- Peregrine Falcon, 54, 101, 153, 169, 198–199, 200–201, 205, 206, 207, 216, 219, 223, 253, 267, 268, 269, 280, 366, 380, 391
- Peters, Terri Beth, See John Bielefeldt and Terri Beth Peters
- Peterson, Jesse, President's Statement: A Big "Thank You to the Convention Committee, 1–2; President's Statement: It's Been a Pleasure and an Honor, 93
- Philadelphia Vireo, 27, 59, 82, 118, 124, 125, 208, 286
- Pied-billed Grebe, 22, 52, 253, 256, 277, 376
- Pileated Woodpecker, 29, 35, 49, 153, 160, 174, 212, 257, 285, 383
- Pine Grosbeak ,67, 255, 260, 294, 372, 387
- Pine Siskin, 27, 35, 47, 68, 76, 77, 178, 211, 239, 241, 243, 245, 247, 249, 251, 260, 269, 294, 372, 387
- Pine Warbler, 27, 35, 63, 127, 152, 177, 290
- Piping Plover, 55, 40, 152, 172
- Plegadis (sp.) Ibis, 314
- Pomarine Jaeger, 46, 49, 57, 71, 74–75, 84–85, 314, 318
- Popelka, Bernice, "By the Wayside"—Spring 2009, 76
- Prairie Falcon, 87, 198–199
- Prairie Warbler, 46, 63, 85, 177
- Prestby, Tom, "By the Wayside"—Spring 2009, 71–72; "By the Wayside"—Summer 2009, 182–183; "By the Wayside"—Winter 2009–2010, 391–392
- Prothonotary Warbler, 20, 23, 26, 27, 64, 82, 99, 101, 152, 177
- Purple Finch, 35, 67, 77, 120, 153, 178, 211, 239, 241, 243, 245, 247, 249, 251, 260, 294, 372, 387
- Purple Gallinule, 161, 163, 172, 181–182, 185, 275, 280, 297, 299, 314
- Purple Martin, 23, 27, 60, 212, 270, 287, 351–360
- Purple Sandpiper, 275, 282

R

- Red Crossbill, 67, 178, 255, 260, 294, 372, 387
- Red Knot, 44, 47, 56, 153, 164, 173
- Red-bellied Woodpecker, 16, 22, 27, 35, 49, 118, 119, 126, 208, 239, 241, 242, 245, 247, 248, 251, 257, 285, 383
- Red-breasted/Common Merganser, 371, 376
- Red-breasted Merganser, 31, 52, 111, 168, 237,

238, 240, 242, 244, 246, 248, 250, 277, 297, 313, 317, 376, 395

- Red-breasted Nuthatch, 35, 60, 119, 209, 239, 241, 243, 245, 247, 249, 251, 258, 287, 383
- Red-cockaded Woodpecker, 340
- Red-eyed Vireo, 22, 29, 34, 35, 59, 118, 120, 122, 123, 125, 208, 269, 286
- Red-footed Booby, 100
- Red-headed Woodpecker, 27, 29, 58, 153, 190, 208, 238, 240, 242, 244, 246, 248, 250, 257, 270, 285, 383
- Red-necked Grebe, 52, 82, 169, 232, 253, 278, 378
- Red-necked Phalarope, 56, 164, 173, 282
- Red-shouldered Hawk, 53, 82, 87, 153, 169, 198–199, 200–201, 206, 207, 253, 256, 267, 268, 279, 379
- Red-tailed Hawk, 22, 27, 49, 84, 198–199, 200–201, 205, 206, 207, 238, 240, 242, 244, 246, 248, 250, 268, 279, 325, 379, 391, 395
- Red-throated Loon, 31, 34, 52, 86, 87, 164, 169, 277, 297, 313, 316–317, 366, 372, 376
- Red-winged Blackbird, 20, 23, 27, 28, 67, 142, 211, 239, 241, 243, 245, 247, 249, 251, 260, 293, 320–321, 332, 387
- Redhead, 22, 51, 168, 181, 185, 252, 276, 375
- Richmond, Nancy, "By the Wayside"—Spring 2009, 77; "By the Wayside"—Winter 2009–2010, 393
- Ring-billed Gull, 22, 49, 73, 74, 75, 85, 87, 182, 183, 186, 238, 240, 242, 244, 246, 248, 250, 256, 283, 299, 300, 315, 381, 392, 393, 396
- Ring-necked Duck, 51, 153, 168, 252, 276, 375
- Ring-necked Pheasant, 22, 27, 49, 153, 238, 240, 242, 244, 246, 248, 250, 256, 277, 376
- Ringed Turtle-doves, 197
- Robichaud, William, Notes on a Remarkable History: Cedar Grove Ornithological Station, 215–217
- Rock Pigeon, 26, 49, 183, 197, 238, 240, 242, 244, 246, 248, 250, 257, 284, 320, 382
- Rohrer, Thomas, "By the Wayside"—Summer 2009, 183
- Rose-breasted Grosbeak, 23, 27, 28, 29, 35, 43, 47, 66, 100, 210, 232, 255, 293, 320, 371, 386, 397
- Ross's Goose, 50, 374
- Ross's Gull, 319
- Rough-legged Hawk, 54, 82, 198–199, 200–201, 206, 207, 238, 240, 242, 244, 246, 248, 250, 268, 279–280, 379, 391
- Ruby-crowned Kinglet, 35, 61, 122, 123, 125, 126, 127, 175, 209, 232, 254, 258, 269, 288, 384
- Ruby-throated Hummingbird, 22, 27, 35, 58, 183, 186, 208, 284–285, 304
- Ruddy Duck, 52, 168, 237, 252, 277, 376
- Ruddy Turnstone, 56, 82, 152, 173, 281
- Rueckheim, Kelly, "By the Wayside"—Summer 2009, 182

- Ruffed Grouse, 14, 27, 52, 168, 238, 240, 242, 244, 246, 248, 250, 256, 277, 376
- Rufous Hummingbird, 161, 168, 170, 174, 181, 183, 186, 285, 315, 297, 303, 304
- Rusty Blackbird, 67, 82, 211, 255, 260, 293, 387

S

- Sabine's Gull, 319
- Sanderling, 56, 173, 281
- Sandhill Crane, 15, 22, 54, 253, 256, 270, 280, 380
- Savannah Sparrow, 23, 65, 211, 232, 254, 259, 292, 367, 386
- Say's Phoebe, 320
- Scarlet Tanager, 23, 32, 34, 35, 36, 37, 38, 43, 66, 125, 210, 291, 397
- Scaup sp. 51
- Schaefer, Tom, "By the Wayside"—Summer 2009, 181
- Schaefer, Tom, *See* Cutright, Noel J., Seth Cutright, Tom Schaefer, and Carl Schwartz
- Schaufenbuel, Joseph P., "By the Wayside"—Fall 2009, 300–301
- Schultz, Thomas R., President's Statement: Incoming—April 2010, 193–194; "By the Wayside"—Fall 2009, 301–304; President's Statement—Looking to the Future, 329–330
- Schwartz, Carl, *See* Cutright, Noel J., Seth Cutright, Tom Schaefer, and Carl Schwartz
- Scissor-tailed Flycatcher, 46, 59, 85
- Scott's Oriole, 89
- Sedge Wren, 23, 61, 288
- Semipalmated Plover, 55, 172, 280–281
- Semipalmated Sandpiper, 56, 88, 173, 281, 317–318
- Sharp-shinned Hawk, 53, 169, 198–199, 200–201, 203, 205, 206, 207, 217, 221, 238, 240, 242, 244, 246, 248, 250, 268, 269, 279, 378
- Sharp-tailed Grouse, 14, 52, 168, 253, 256, 277, 376
- Shillinglaw, John, "By the Wayside"—Spring 2009, 73–74
- Short-billed Dowitcher, 56, 173, 282
- Short-eared Owl, 58, 174, 198–199, 204–205, 206, 254, 257, 268, 284, 366, 367, 382
- Slaty-backed Gull, 88, 275, 283, 315, 319–320, 373, 382, 384, 396
- Snow Bunting, 66, 212, 239, 241, 243, 245, 247, 249, 251, 259, 260, 293, 386
- Snow Goose, 50, 153, 166, 233, 252, 275, 365, 374
- Snow x Ross's Goose, 50
- Snowy Egret, 53, 162, 164, 169, 278
- Snowy Owl, 57, 198–199, 229, 254, 257, 284, 382
- Solitary Sandpiper, 55, 161, 208, 212, 281
- Sommer, Joan, "By the Wayside"—Winter 2009–2010, 391
- Song Sparrow, 20, 23, 27, 28, 29, 35, 66, 211, 239, 241, 243, 245, 247, 249, 251, 292, 316, 386

- Sora, 22, 54, 182, 208, 280
- Spotted Sandpiper, 22, 29, 55, 208, 281
- Spruce Grouse, 52, 111, 113, 115–116, 168, 253, 256, 370, 376
- Steffen, Jim, Prairie Grouse (Ghost Dance) 12
- Stilt Sandpiper, 56, 81, 82, 173, 282
- Summer Tanager, 37, 38, 44, 47, 66, 81, 82, 152, 164, 177, 291, 371, 386, 391 394, 397
- Surf Scoter, 51, 164, 168, 181, 185, 252, 276, 372, 375
- Svingen, Peder H., "By the Wayside"—Spring 2009, 72, 74–75
- Swainson's Hawk, 40, 54, 71, 72–73, 84, 198–199, 200–201, 206, 207, 268
- Swainson's Thrush, 35, 43, 61, 119, 124, 125, 126, 176, 209, 212, 269, 288
- Swainson's Warbler, 143
- Swallow-tailed Kite, 198–199, 268, 269, 275, 279, 297, 299, 313, 314
- Swamp Sparrow, 23, 27, 29, 66, 125, 127, 211, 239, 241, 243, 245, 247, 249, 251, 259, 292, 386
- Szymczak, Andrea, "By the Wayside"—Fall 2009, 305

Т

- Tennessee Warbler, 35, 62, 127, 176, 209, 289
- Tessen, Daryl, "By the Wayside"—Fall 2009, 304; "By the Wayside"—Winter 2009–2010, 392–393
- Thayer's Gull, 57, 74, 82, 164, 174, 253, 257, 283, 372–373, 382
- Thompson, Craig, Orioles and Ocelots: Wisconsin's Costa Rica Connection, 97–104
- Townsend's Solitaire, 49, 212, 254, 258, 288, 370, 380, 384
- "Traill's" Flycatcher, 208
- Tree Swallow, 20, 23, 60, 111, 175, 287, 315
- Tri-colored Heron, 40, 46, 47, 49, 53, 84
- Trick, Joel, "By the Wayside"—Spring 2009, 76–77
- Trumpeter Swan, 166, 367
- Trumpter Swan, 50, 82, 237, 252, 275, 374
- Tufted Titmouse, 16, 27, 34, 35, 60, 81, 161, 209, 239, 241, 243, 245, 247, 249, 251, 258, 287, 366, 383
- Tundra Swan, 50, 82, 237, 252, 270, 275, 374
- Turkey Vulture, 22, 27, 53, 187, 198–199, 200–201, 206, 253, 256, 267, 268, 279, 366, 378, 391, 395

U

Upland Sandpiper, 55, 152, 172, 281

V

- Varied Thrush, 61, 232, 254, 258, 366, 371, 380, 385
- Veery, 23, 28, 29, 43, 61, 70, 209, 288
- Verch, Dick, "By the Wayside"—Summer 2009, 183
- Vermilion Flycatcher, 320

- Vesper Sparrow, 65, 144, 211, 232, 254, 259, 292, 386
- Virginia Rail, 29, 47, 54, 161, 253, 256, 280, 380
- Volkert, Bill, Sapsucker Nesting Attempt in Fond du Lac County, 105–109

W

- Warbling Vireo, 20, 22, 29, 59, 209, 286
- Western Bluebird, 320, 334
- Western Grebe, 52, 278
- Western Meadowlark, 67, 82, 152, 178, 260, 293
- Western Sandpiper, 88, 317–318
- Western Tanager, 45, 46, 49, 66, 85–86, 88, 275, 291, 316
- Whimbrel, 55, 152, 164, 172, 282
- Whip-poor-will, 27, 29, 58, 75, 82, 101, 161, 208, 284
- White-breasted Nuthatch, 23, 27, 29, 35, 49, 118, 119, 159, 193, 209, 239, 241, 243, 245, 247, 249, 251, 258, 287, 383
- White-crowned Sparrow, 43, 46, 66, 125, 127, 153, 178, 186, 211, 255, 292, 386
- White-eyed Vireo, 59, 164, 175, 209, 275, 286
- White-faced Ibis, 43, 46, 49, 53, 71, 72, 83, 152, 153, 275, 279, 297, 298–299, 313
- White-rumped Sandpiper, 65, 82, 88, 173, 282, 318
- White-throated Sparrow, 35, 66, 119, 124, 125, 126, 127, 211, 239, 241, 243, 245, 247, 249, 251, 259, 269, 292, 367, 386
- White-winged Crossbill, 47, 48, 49, 67–68, 178, 211, 212, 255, 260, 294, 372, 387
- White-winged Dove, 320
- White-winged Scoter, 51, 252, 276, 370, 372, 375
- Whooping Crane, 47, 152, 172, 280
- Wild Turkey, 22, 27, 35, 49, 144, 168, 212, 238, 240, 242, 244, 246, 248, 250, 256, 277, 366, 376
- Willet, 55, 81, 164, 172, 281
- Willow Flycatcher, 21, 22, 46, 59, 71, 76, 85, 101, 175, 212, 285–286

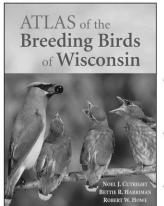
- Wilson's Phalarope, 22, 56, 82, 173, 282
- Wilson's Snipe, 22, 56, 152, 208, 253, 256, 282, 381
- Wilson's Warbler, 64, 177, 210, 291
- Winter Wren, 61, 119, 153, 175, 209, 232, 254, 258, 287, 366, 384
- Wood Duck, 20, 22, 27, 50, 111, 115, 156, 212, 252, 275, 374
- Wood, Thomas C., "By the Wayside"—Spring 2009, 73, 75; "By the Wayside"—Fall 2009, 298; "By the Wayside"—Winter 2009–2010, 392, 393–394
- Wood Thrush, 27, 35, 43, 61, 98, 101, 176, 209, 288
- Worm-eating Warbler, 35, 64, 153, 177, 210

Y

- Yellow Rail, 15, 54, 169
- Yellow Warbler, 20, 23, 27, 29, 62, 85, 210, 289, 305, 371, 372, 386, 397
- Yellow-bellied Flycatcher, 58, 82, 119, 152, 175, 208, 271–272, 285
- Yellow-bellied Sapsucker, 16, 35, 58, 105–109, 118, 122, 126, 153, 208, 254, 269, 285, 383
- Yellow-billed Cotinga, 99
- Yellow-billed Cuckoo, 57, 75, 82, 101, 164, 208, 284
- Yellow-breasted Chat, 47, 65, 152, 164, 177, 210, 291
- Yellow-crowned Night-Heron, 164, 169, 275, 279, 297, 298
- Yellow-headed Blackbird, 23, 27, 67, 161, 232, 255, 293, 387
- Yellow-rumped Warbler, 35, 43, 63, 118, 125, 127, 176, 210, 254, 259, 269, 290, 366, 371, 386
- Yellow-throated Vireo, 22, 27, 47, 59, 175, 209, 286
- Yellow-throated Warbler, 35, 45, 63, 152, 164, 176, 290, 297, 305, 316



Osprey winning at "go fish" by Alan Stankevitz.



Atlas of the Breeding Birds of Wisconsin

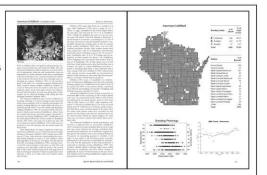
- Features almost 1,400 photographs, distribution maps, and figures **all in color**!
- Based on studies done by more than 1,600 field observers between 1995 and 2000.
- Edited by Noel J. Cutright, Bettie R. Harriman, and Robert W. Howe.

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.

Visit the WSO website, www.wsobirds.org, for an order form that includes price and ordering information, or contact WSO Bookstore at 262-594-2021 or wsobookstore@hotmail.com.



Wisconsin's Favorite Bird Haunts, Fifth Edition (2009)

This edition marks the fourth time this comprehensive bird-finding guide to Wisconsin has been compiled and edited by Daryl Tessen.

- New in this edition: An annotated checklist of 443 species and a birding highlights quick reference.
- Nearly 40 bird illustrations (many in color) by Wisconsin artists Thomas Schultz, David Kuecherer, Jeannie Perry, Tom Uttech, and Robbye Johnson.
- Contributions from birders throughout the state.



145 articles cover some 1,100 areas and include detailed maps.

Designed for durability and functionality, this book is printed on heavy coated paper and has a spiral binding so it lies flat when open. 6" by 9", 556 pages. ISBN: 978-0-9774986-3-5.

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

Visit the WSO website, www.wsobirds.org, for an order form that includes price and ordering information, or contact

a) The fination (Met prifer) (Since of b, Number of taxes hubiling 6, 10 month b) Number of taxes hubility (Since of p, courty, state, and ZP+49) c) Duruty), WI 55188-5142 c) Duruty), WI 55188-5142 c) Duruty), WI 55188-5142 c) Output r) for the state of the s	The prostation The provide and the periodical set of the provided and the	blications Except Reque		13. Publication Title The Passenger	senger Pigeon	14. Issue Date for Circulation Data Below Vol. 72 No 3 - Fall	Below Pall 2010
and RPAND control RPANDD control RPA	The Fassenger Figeon 4. Issue Fequency Quarterly	<u>. </u>		Extent and Na	ture of Circulation	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
Instant Tender of the control in the control in the control in the control in the control intervention of the control interventintervention of the control int	7. Complete Mailing Address of Known Office of Publication (Not printer) (Street	et, city, county, state, and ZIP+4®)		fotal Number of	Copies (Net press run)	-981	76
New banks) Definition Definition <thdefinition< th=""> Definition Definiti</thdefinition<>	2022 Sherryi lane Waukesha (Waukesha County), WI 5318 8.Complete Maliny Address of Headquarters of General Business Office of Pu	8–3142 ublisher (Not printer)	262-844-8187			627	921
International Internand International Internationa		alas Ciliss (D. e. ed laves Month)		- L		0	0
1-0753 c. total Plat Ottethulor by Other Classes of Mail Through B 0-0753 c. total Plat Ottethulor by Other Classes of Mail Through B 0-0753 c. total Plat Ottethulor Dy Other Classes of Mail Through B 0-0753 c. total Plat Ottethulor Dy Other Classes of Mail Through B 0-0754 c. total Plat Ottethulor Dy Other Classes of Mail Through B 0-0755 c. total Plat Ottethulor Dy Other Classes of Mail Through B 0-0755 c. total Plat Ottethulor Dy Other Classes of Mail Through D 0-0755 c. total Plat Ottethulor Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. total Plat Dy Other Classes of Mail Through D 0-0755 c. Total Dy Other Classes of Mail Through	Publisher (Marine and Computer mailing address) The Wilsoconscin Society for Ornitholog 2022 Sherryl Iane 1 and Waukeeha, wI 53188-5142	By, Inc.				0	0
III = 0753 C. Toal Pad Detribution (Sum of 16) (Ti, (2), and (4)) 935 III = 0753 C. Toal Pad Detribution (Sum of 16) (Ti, (2), (3), and (4)) 935 IIII = 0.0000000000000000000000000000000	riman ne			4		ω	2
with a name and defines of the concordion immediative forward in the contract frame of defines of the concordion immediative forward in the contract detices of the concordion immediative forward in the contract detices of the concordion immediative forward in the contract detices of the concordion immediative forward in the contract detices of the concordion immediative forward in the contract detects of the concordion immediative forward in the contract detects of the concordion immediative forward in the contract detects of the contract detect detect detects of the contract detect of the contract	1	1-9753		fotal Paid Distrib	ution (Sum of 15b (1), (2), (3), and (4))	935	928
And its and its of the increased by a section interestient, the increased by a section interestient, the interest of the increased by a section interestient, if it is of the increased by a section interestient, if it is of the increased by a section interestient, if it is of the increased by a section interestient, if it is of the increased by a section interestient in the increased by a section interestient interestien	None		ł	6		г	ı
Compare Multing Address Compare Multing Address CP/ Multing Address Compare Address Compare Address C	10. Owner (Do not leave blank. If the publication is owned by a corporation, give names and addressess of all stochoolders owning or hadding 1 percent or no names and addresses of the individual owners. If owned by a partnership or each individual owner, if the publication is published by a nonprofit organiza- each individual owner. If the publication is published by a nonprofit organiza- tion.	we the name and address of the corporation in one of the total amount of stock. If not owned or other unincorporated firm, give its name an ation, give its name and address.)	ъ I	5		0	0
Image: Section of Characterized Section Character	Full Name The Wisconsin Society for Ornithology, inc.	Complete Mailing Address 2022 Sherryl Lane Waukesha, WI 53188-	11			0	0
Total Free or Moniting Rate Distribution (Sam of 169, mol 160, mol	•			(4)		15	5T
Total Destruction (Sum of 15 and 15) 951 • Structure • Structure 951 • Structure 951 • Structure 951 • Structure 951 • Complete Mailing) Address 951 • Complete Mailing) Address 952 • Complete Mailing) Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of Statement of complete Mailing Address 96.3% • The Out of State Mailing Address 96.3%			a 1	Total Free or No	ominal Rate Distribution (Sum of 15d (1), (2), (3) and (4))	16	16
• Complete Mailing Address • Copies not Obstrukturd (See Instructions to Publishers at (page #3)) 70 • Extreme • Total (Sum of 15 and g) • 98.38.1 • Complete Mailing Address • 98.38.1 • 98.38.1 • Complete Mailing Address • 98.38.1 • 98.38.1 • Complete Mailing Address • 98.38.1 • 98.38.1 • Complete Mailing Address • 100 • 98.38.1 • Complete Mailing Address • 1114 Ed.7 • 98.38.1 • Total Charles Complete Mailing (Charles Com) • 98.38.1 • 0411 • Total Charles Com • 1114 Ed.7 • 2010 Issue of this publication. • 0411 • Commit of attals for Address • 1114 Ed.7 • 1010 Eg.7 • 0411 • 0411 • Complete Mailing Address • 100 • 100 • 010 • 0411 • 0411 • Complete Mailing Address • 100 • 100 • 010 • 010 • 0411 • Complete Mailing Address • 100 • 010 <t< td=""><td></td><td></td><td></td><th>Total Distributio</th><td>in (Sum of 15c and 15e)</td><td>951</td><td>944</td></t<>				Total Distributio	in (Sum of 15c and 15e)	951	944
Without In Total (Sum of 15 and 9) 91 92 Complete Mailing Actives Complete Mailing Actives 93.3% 91 Complete Mailing Actives Complete Mailing Actives 95.3% 91 Interaction of Raineent of Ownersho Complete Mailing Actives 95.3% 91 Interaction of Raineent of Ownersho Statuter and Tele Complete Mailing Actives 93.3% 91 Interaction of Raineent of Ownersho Complete Mailing Actives 95.3% 96 96 Interaction of Raineent of Ownersho Mail It En ZOLO Issue of the publication 96.3% 96 96 Interaction of Raineent of Ownersho The Eldine Publication of the statement is required. Will be printed 96.3% 96 96 Interaction of Complete Mailing Actives The Eldine Publication of the statement is required. Will be printed 96 96 96 <td>11 Known Bondholders Mortinanaes and Other Sacritiv Holders Owninn or</td> <td></td> <td></td> <th>Copies not Dist</th> <td></td> <td>30</td> <td>30</td>	11 Known Bondholders Mortinanaes and Other Sacritiv Holders Owninn or			Copies not Dist		30	30
I. Parcent Paid 98.3% I. (fcc.obsect by 158 times 100) 98.3% R. (fcc.obsect by 158 times 100) 10.00000000000000000000000000000000000	Holding 1 Percent on More of Data Amount of Bonds, Mortgages, or Duber Securities. If none, check box		Ë	Total (Sum of 1		981	674
16 Publication of Statement of Connecting. The publication of Statement of Connecting. The publication of Statement and publication, publication of this statement is required. Will be printed publication of the public	Full Name	Complete Mailing Address		Percent Paid (15c divided by		98•3%	98•3%
17. Signature and Tite of Editor, Publishes, Manager, or Owner Date Christiane Reel, Treesurer, The Wisconsin Society for Cruithology, Inc. Date Icently that all information functioned on the form is the and complete. I understand that anyone who tamished there and complete. I understand that anyone who tamished there are and transition function. Date			9	Publication of S KK If the public in the	tatement of Ownership cation , publication of this statement is recation is a general publication, publication of this publication. $\%1\pi ter~2010$ [ssue of this publication.		Publication not required.
1 1			17.	Signature and T Christir Ornit	Title of Editor, Publisher, Business Manager, or Owner ale Reel, Treasurer, The Wiscon: Enclosed Tro	Society	
I	12. Tax Status (For completion by nonprofit organizations authorized to mail at r. The purpose, function, and nonprofit status of this organization and the exert XdD Has Net Channen Durino Presenting 12 Months.	L r nonprofit rates) (Check one) empt status for federal income tax purposes:	-*	certify that all in	formation furnished on this form is the and complete. I understa	6. Xul Ind that anyone who turnishes false or m	isleading information on this
	Has Changed During Preceding 12 Months (Publisher must submit expl.	olanation of change with this statement)		anctions (includi	s material of information requesses on the round to some of the first of the source of		

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.

OFFICERS (2010–2011)

- President* Thomas R. Schultz, N6104 Honeysuckle Lane, Green Lake, WI 54941-9609; 920. 294. 3021; trschultz@centurytel.net
- Vice President* Carl Schwartz, 7239 N. Barnett Lane, Fox Point, WI 53217-3610; 414. 416. 3272; cschwartz3@wi.rr.com
- Secretary* Jane A. Dennis, 138 S. Franklin Avenue, Madison, WI 53705-5248; 608. 231. 1741; jadennis@facstaff.wisc.edu
- Treasurer* Christine Reel, 2022 Sherryl Lane, Waukesha, WI 53188-3142; 262. 844. 8187; christinereel2@gmail.com
- Editors* Bettie and Neil Harriman, 5188 Bittersweet Lane, Oshkosh, WI 54901-9753; 920. 233. 1973; bettie@new.rr.com; harriman@uwosh.edu

COMMITTEE CHAIRS (2010–2011)

- Annual Conventions Scott Baughman, 3043 Rolling Meadows Drive, Sheboygan, WI 53083-8107; 920. 457. 5574; baughman@charter.net
- Awards* Daryl D. Tessen, 3118 N. Oneida Street, Appleton, WI 54911; 920. 735. 9903; bhaunts@sbcglobal.net
- Bird Reports Coordinator* Randy Hoffman, 305 Fifth Street, Waunakee, WI 53597; 608. 849. 4502; ecurlew@hotmail.com
- Badger Birder* Mary Uttech, 4305 Hwy. O, Saukville, WI 53080; 262. 675. 6482; muttech@asq.org
- Bookstore* Margaret Jones, N9162 Woodridge Court, East Troy, WI 53120-1620; 262. 594. 2021 wsobookstore@hotmail.com
- Conservation* William P. Mueller, 1242 S. 45th Street, Milwaukee, WI 53214; 414. 643. 7279; iltlawas@earthlink.net
- Education* Mariette Nowak, N9053 Swift Lake Road, East Troy, WI 53120; 262. 642. 2352; mmnowak@wi.rr.com
- Field Trips* Thomas R. Schultz, N6104 Honeysuckle Lane, Green Lake, WI 54941-9609; 920. 294. 3021; trschultz@centurytel.net; and Jeffrey L. Baughman, W2640 Middle Road, Campbellsport, WI 53010; 920. 477. 2442; jbaughman@csd.k12.wi.us
- File Keeper Thomas C. Erdman, Richter Museum of Natural History, MAC 212, University of Wisconsin-Green Bay, 2420 Nicolet Drive, Green Bay, WI 54911-7001
- Historian* Noel J. Cutright, 3352 Knollwood Road, West Bend, WI 53095-9414; h. 262. 675. 2443, w. 262. 268. 3617; Noel.Cutright@we-energies.com
- Honey Creek* Levi Wood, 4222 Mohawk Drive, Madison, WI 53711-3723; 608. 277. 7959; woodlevi@aol.com
- Hotline (262. 784. 4032) Mark Korducki, 16290 W. Crescent Drive, New Berlin, WI 53151; 262. 784. 2712; korducki@earthlink.net
- Legal Counsel David L. Kinnamon, 9507 N. Wakefield Court, Bayside, WI 53217-1245; 414. 277. 5000
- Membership* Jesse Peterson, 7680 Payvery Trail, Middleton, WI 53562; 608. 203. 8049; peterson.jesse@tds.net
- Publicity* Ursula C. (Sandy) Petersen, P.O. Box 607, Stoughton, WI 53589; buboarcto@aol.com
- Records* Jim Frank, 10347 W. Darnel Avenue, Milwaukee, WI 53224; 414. 354. 2594; jcfbirddr@yahoo.com
- Records Committee Archivists John Idzikowski, 2558 S. Delaware Avenue, Milwaukee, WI 53207-1908; 414. 744. 4818; idzikoj@uwm.edu; and Brian Boldt, 1126 E. Pleasant Street #201, Milwaukee, WI 53202; 414. 225. 2543; bboldt@excelcomm.com
- Research* Maureen Leonard, Sciences Department, Mount Mary College, 2900 North Menomonee River Parkway, Milwaukee, WI 53222; 414. 258. 4810 x 342; leonardm@mtmary.edu
- Scholarships and Grants* Michael John Jaeger, 1052 E. Gorham Street, Madison, WI 53703; 608. 335. 2546; jaegermj@charter.net
- Webmaster* Lennie Lichter, 24703 Lake Road, Cashton, WI 54619; 608. 269. 5847; lennieandmarie@yahoo.com
- Youth Education Coordinator* Barbara Duerksen, 17494 Merry Hill Road, Richland Center, WI 53581; 608. 538. 3820; bduerksen@mwt.net
- *Members of the Board of Directors

CONTENTS WINTER 2010

Volume 72, Number 4

President's Statement Thomas R. Schultz	329
Effects of Supplemental Food on the First Brood Period in the Eastern Bluebird <i>Christine M. Anhalt and Memuna Z. Khan</i>	331
The Distribution of the Cliff Swallow (<i>Petrochelidon pyrrhonota</i>) in Wisconsin: A Comparison between 1959 and 1999 <i>Gregory J. Davis and Jennifer Hoff Davis</i>	341
Trolling for Martins Noel J. Cutright, Seth Cutright, Tom Schaefer, and Carl Schwartz	351
"From Field and Feeder"	361
50 Years Ago in The Passenger Pigeon Noel J. Cutright	363
Lessons From the Seasons: Winter 2009–2010 Randy Hoffman	365
The Winter Season: 2009–2010 Kay Kavanagh	369
"By the Wayside"—Winter 2009–2010	391
WSO Records Committee Report: Winter 2009–2010 Jim Frank	395
WSO Awards—2010	399
Report of the Annual Meeting, 22 May 2010 Minutes and Annual Reports	403
About the Artist	419
Index to Volume 72	421
Notices and Advertisements	430