



oice of the Meadowlark

Newsletter of the
Meadowlark Audubon Society
of the Big Horn Basin and Northwest Wyoming

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President's Letter

Dear Members,

We have had an active fall this year with many great evening programs. I have learned so much attending these presentations. I feel like it is always a chance for my continuing education to learn from experts in their fields the intricacies in the art and science of birding, ecotourism, and research. Please let me know if you are willing to present at one of our meetings. We love to hear from fellow members about your adventures.

Maybe you know of a teenager who shows some interest in science. What a great opportunity our presentations offer to bring along someone whom you think

will be affected by new perspectives of nature. They can broaden a base for a high school student who is interested in this type of information. It may give him or her a head start on the detailed focus and creativity necessary for scientific research. These presentations are also good introductions to how college is formatted, where a good amount of time is spent exploring subjects that are not black and white.

Our Board has discussed the need to engage youth more actively. Along with our evening programs, we offer a scholarship for high school seniors. We believe that we also need to spread the word and offer another avenue of access to our activities. We feel that a great way to do this is to set up a Facebook page to help you network and share with your friends, children, nieces and nephews. You can reach out to your friends and family by "liking" activity on Facebook and inviting them to "like" the page so they can get updates on activities. You can find us by searching for Meadowlark Audubon Society on Facebook or by typing in this link:

<https://www.facebook.com/MeadowlarkWyo>



The Facebook page represents an addition to, and not a replacement for, our current website (<http://www.meadowlarkwyo.org/>), which remains our official webpage and is still your primary source for the most up-to-date information on programs, field trips, and other resources.

Thank you for all that you do for the Meadowlark Audubon Society! Happy holidays, and please take part in, and stay safe on, those Christmas Bird Counts!

— Destin Harrell



2013 Christmas Bird Count

Christmas Bird Count (CBC) data are the foundation of scores of peer reviewed studies, of state and local conservation plans, and of

headline-making news. Data collected on CBCs inspired Congress to pass and fund vital legislation such as the Migratory Bird Treaty Act that benefits species across the Western hemisphere. Current counts are used to predict future impacts on both birds' ranges and habitat health. There is NO fee this year for CBC participants.

Kane Christmas Bird Count

The Kane Christmas Bird Count takes place Saturday, December 14. The Kane Count Circle is centered around the old town of Kane, located in the Bighorn Canyon National Recreation Area (BHCNRA). Once again, the National Park Service has kindly agreed to be the host again this year. Please meet at the BHCNRA Visitor Center in Lovell at 7:00 a.m. for hot drinks and muffins. Here the routes will be arranged and teams assembled. Each team will be given a packet that contains a bird list, map, and other pertinent information. The count runs from sunrise to sunset, but if you can only come for a half day, an appropriate route will be found. Drive a 4-wheel drive vehicle if possible, but please attend in whatever vehicle you have and the best possible arrangements will be made. Please bring your own binoculars and/or spotting scopes, lunches, and water.

At 4 p.m. a potluck supper and count tally will take place at the BHCNRA Visitor Center. Chili will be provided; we ask that you please bring along something to share at supper, as well as your own drink and utensils.

The Kane Count Circle is in great habitat, but it seems lately that we do not have enough birders to do it justice. Please join the team and enjoy a wonderful outing while helping out our feathered friends. If you know someone else who would like to do this CBC, please tell them about it.

We'd appreciate it if you would let us know if you can make it. Contact Neil and Jennifer Miller at njmillier@tctwest.net to let us know that you will be attending, or if you need more information.

Thanks!

— Neil and Jennifer Miller

Cody Christmas Bird Count

This year's Cody Christmas Bird Count will take place the Saturday before Christmas, December 21.

We will be contacting those who participated last year, but if you're new to doing a CBC, or you haven't done the count for a while, please contact Joyce Cicco at 307-527-5030 or via email at jcicco00@tritnet.net to sign up for a route assignment. All levels of birders are welcome and we'll try to pair experienced birders with those with less experience.

Participants will be mailed route maps, bird checklists, and other information about the count. It is up to those covering each route to meet up and cover their territory. At 6:00 p.m. we will gather in the hall of Christ Episcopal

Church, 825 Simpson Avenue in Cody, to tally the results of the count and then enjoy a potluck supper. Soup and beverages will be provided; please bring a dish of your choice to share.

Even though National Audubon no longer charges a fee to participate in the count, we would appreciate a small donation to help cover the expense of mailing, copying, food, and the meeting room.

Please mark your calendar and join us for the Cody count. Thank you!

— Joyce Cicco



Counting the number of birds in a large flock can be challenging yet rewarding. Willis Peterson photograph, courtesy Yellowstone Slide Library, NPS.

Editor's Notebook: *Tips for Counting Birds*

If you've ever participated in the Christmas Bird Count or some other effort to tally birds, you've probably

experienced the dilemma of how to make your count as accurate as possible. It may seem simple and straightforward, but it can also become quite challenging. There's more to it than, say, simply counting the number of wings and dividing by two! Even experienced observers have difficulty estimating birds. As Joseph Hickey commented in *A Guide to Bird Watching* [1943], "after several years of systematically checking many 'experts' with whom I am acquainted, I am convinced that the estimate is all too frequently subject to wide margins of error" (52).

Discussing his own experiences counting birds, Hickey testified to the challenges of estimating with accuracy:

When a big flock of birds is seen, the observer tends to underestimate the total number present if the species is small in size. Small sandpipers densely packed on the beach are commonly noted in this manner. On one occasion I can remember when '2000 or 3000' was the figure ventured. A few minutes' counting disclosed that 8000 was more nearly right. A quite opposite optical illusion takes place when individual birds of a flock are large in size. Five hundred Canada geese or cormorants can fill quite a sizable piece of landscape, and only the most wary observers can avoid estimating 'several thousand' present. I remember an estimated report of 25,000 Herring Gulls along a certain stretch of Long Island. Several friends and I had been intensively watching these birds for

weeks. Over a much greater area, perhaps 10,000 birds were actually present. Those making the estimate had undoubtedly seen only some fraction of this number. (A Guide to Bird Watching, 52)

As with all things, becoming a more accurate bird-counter takes some practice, but there are some simple techniques and exercises that can help you refine your ability.

First, here are a few basic precepts:

- ***The larger the flock, the greater the underestimate.*** Observers tend to be very conservative in estimating how many birds they see in large flocks. We typically "see" such groups in two dimensions, but they actually occupy three dimensions. A flock of starlings, for example, not only has "height" and "length," but also "depth" (front to back). A "cube" of starlings containing 100 in each dimension (100 x 100 x 100) would have a million birds!
- ***The larger the bird, the greater the overestimate.*** People tend to estimate on the high side when looking at, say, a flock of swans, but on the low side when looking at, say, a flock of larks or other small birds.
- ***The lighter the color, the greater the overestimate.*** When looking at mixed groups or flocks of birds, observers tend to overestimate the numbers of lighter-colored ones and underestimate the darker-colored ones.

So, what steps can we take to hone our counting and estimating skills? Experts offer a host of suggestions:

- ***A good-faith estimate is better than a “precise number.”*** Bearing in mind the precepts listed above, aim for reasonableness in your estimates and guesses, and confine your count to the lowest level of precision. Strive for accuracy over seeing the most birds. As noted field-guide author David Sibley comments, “If you’re getting within 50% [of the actual number] consistently, that’s pretty good!”

- ***Make your counts and estimates quickly.*** Birds, after all, are prone to flying. The worst thing to happen when you’re counting birds is for them suddenly to fly off!

- ***Whenever you have occasions to do so, study the social systems and flocking patterns of birds.*** Watch how individuals of a given species group together, and learn to recognize typical patterns. Pinyon Jays, for example, tend to aggregate in bands of 10-15 birds, whereas magpies form smaller groups of 2 or 3 birds. Grebes and loons tend to swim alone or in pair groups, but small diving ducks typically gather in ragged groups of a dozen or so birds.

- ***Experiment with counting birds, and test yourself with photographs.*** Visit a spot where birds tend to congregate in large numbers, such as a

pond or reservoir. If large numbers of birds are present, take a photograph or a series of photographs to record them. Then put your camera down and start counting or estimating! Write down your total and then, later on, count the birds in the photograph(s) you took. How close did you come? Some authorities suggest a variation of this process: Photograph a large gathering of birds, enlarge the photo, and count the individuals in a given section of it until you arrive at a predetermined “counting unit”—for example, 100 birds. Cut that portion of the photo out and paste it onto a card for ready reference: “This is how a group of 100 XX’s looks.”

- ***Practice online “counting exercises.”*** Several websites let you test your estimating and counting skills. For example, Bird Studies Canada offers “Training Resources for Citizen Scientists: Estimating Shorebird Flock Sizes” (<http://www.bsc-eoc.org/volunteer/bccws/Resources/EstimatingShorebirdFlockSize.pdf>), while eBird has a “Bird Counting 101” tutorial (<http://ebird.org/plone/ebird/news/bird-counting-101>). David Sibley’s website has a novel approach: quizzes using images of lentils photographed against a white background to mimic flocks of birds, to help people check their counting accuracy (<http://www.sibleyguides.com/2012/08/estimating-numbers/>).

- ***Count every individual bird in a small group, but train yourself to use “counting units” when looking at***

larger groups. If only a few dozen birds are present, try to count each one. But if you're confronted with a larger number of birds, start by counting a small grouping and then estimate or extrapolate the proportion of the counting unit to the whole. Calibrate your counting unit to the relative size of the birds and the approximate size of the overall group. Units of 10 or 25 birds are generally appropriate when counting a few hundred birds, but units of 100 or 1000 birds are more appropriate when counting huge flocks or gatherings of birds. When looking at large flocks of small birds, a higher counting unit (say, 100 or 200) may be more manageable than a lower one, while the converse may be true for large groups of large birds.

• **Visualize groups of birds as composites of geometric shapes.** Try picturing a group of birds as an aggregate of simple geometric shapes—circles, squares, triangles, or so on. For example, if you are looking at a large group of shorebirds on a sandbar, visualize the group as a rectangle made up of smaller rectangles. Likewise, envision a large flock or cluster of songbirds as an oval or circle composed of smaller “bubbles.” Focus your attention on one shape and count or estimate the number of birds you see occupying it, and multiply by the number of “shapes” that comprise the group to get an estimate of the whole.

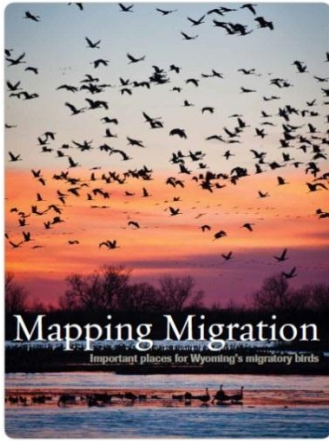
• **While counting species in mixed grouping or flocks, play the “percentage game.”** Few things are

more challenging than trying to count numbers of birds in a mixed assemblage of different species—say, tallying shorebirds on a lake or reservoir when several species of ducks and other waterfowl are present. Experts offer a couple of different approaches here. One way is to estimate the total number of birds present and then estimate the proportion of each species, starting with the most numerous and working down to the stragglers or outliers. Say, for example, you see a mixed group of waterbirds and estimate its quantity at 350 birds. Of the whole, you estimate that 60% are Canada Geese, 25% are Mallards, 7% are American Widgeon, 5% are Green-winged Teal, and 3% are Common Mergansers. Your count numbers would be 216, 90, 25, 18, and 11, respectively. Alternately, try visualizing several transect lines running from front to back of the scene, count the individuals of each species you see along each line, and extrapolate from there.

“With practice,” wrote Joseph Hickey, “the observer becomes able to estimate flocks . . . of birds with considerable accuracy and great rapidity” (*A Guide to Bird Watching*, 54). It takes time and patience, but the reward will be worth it. Keep working at it, and pretty soon counting and more accurately estimating numbers of birds will become second hat to you.

You can count on it!

— John C. Rumm



Wyoming Bird Migration Routes Mapped for the First Time

For the first time, developers, land managers and conservationists have access to bird migration maps in Wyoming. *Modeling the Distribution of Migratory Bird Stopovers to Inform Landscape-Scale Siting of Wind Development*, a groundbreaking study, was led by Amy Pocewicz of The Nature Conservancy, along with Wendy Anne Estes-Zumpf and Mark D. Andersen, both from the University of Wyoming's Wyoming Natural Diversity Database (WYNDD).

Maps show where several bird groups are expected to concentrate at stopover sites during their migration through Wyoming. "The maps developed through this study could be used to help target conservation efforts for migratory birds and also provide preliminary spatial data to companies, land management agencies and others planning for new wind energy development," said Amy Pocewicz. "Until now, we didn't have maps

showing important places for migrating birds. With wind development growing across the state, we wanted to find a way to identify critical areas to inform developers, while also identifying areas for conservation. This is a great example of how science can translate into on-the-ground *conservation*."

The scientific publication and a related report titled *Mapping Migration: Important Places for Wyoming's Migratory Birds* are based on four functional groups of migrating birds: wetlands birds, riparian birds, raptors and sparse grassland birds. Many of these birds are of conservation concern and their populations are tracked by WYNDD.

"Birds are particularly vulnerable during migration because large numbers often will concentrate in specific areas along migration routes, increasing the risk of population-level impacts from disturbances in and around these areas," said Wendy Estes-Zumpf. "We hope to provide a proactive planning tool to help resource managers and wind energy developers in Wyoming minimize impacts to migrating birds at these critical stopover sites."

Links to the reports and the GIS datasets created in the study are available online through The Nature Conservancy's website, www.nature.org.

— Tracey Stone, The Nature Conservancy, and Amy Pocewicz, The Nature Conservancy—Wyoming



Meadowlark Audubon Society of the
Big Horn Basin and Northwest Wyoming
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Calendar of Events

Unless otherwise noted, all events take place in the basement community room of Big Horn Federal Savings, 1701 Stampede Avenue, in Cody. Please make sure to check our website (<http://www.meadowlarkwyo.org>) for updates!

Saturday, December 14: Kane Christmas Bird Count (details and contact information inside the newsletter)

Saturday, December 21: Cody Christmas Bird Count (details and contact information inside the newsletter)

Thursday, January 9, 2014: Board meeting, 6:00-6:45; Program, 7:00-8:30. Presenter: Destin Harrell, Meadowlark President and BLM Field Biologist, "The 2014 Mid-Winter Eagle Survey."

Saturday, January 25, 2014: Meadowlark Audubon Strategic Board Retreat. All members are invited to participate. Please see the website calendar for the location and more details.

Thursday, February 13, 2014: Board meeting, 6:00-6:45; Program, 7:00-8:30. Presenter (tentative): Andrea Orabona, Nongame Bird Biologist, Wyoming Game and Fish Commission, "The Value of Counting Birds."

Thursday, March 13, 2014: Board meeting, 6:00-6:45; Program, 7:00-8:30. Program TBD. Please note that this meeting may take place in Powell. See the website for more details.