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# South Dakota Bird Notes

South Dakota Ornithologists' Union

Snowy Owl, November 2017.

SOUTH DAKOTA BIRD NOTES, the official publication of the South Dakota Ornithologists' Union, is sent to all members whose dues are paid for the current year. Life membership: \$400; Family Life membership (one subscription to SD Bird Notes): \$500; Sustaining membership: \$40; Regular membership: \$20; Family membership (one household; one subscription to SD Bird Notes): \$25; Junior/Student membership: \$10; Library Subscription: \$30. Single and back copies: Members, \$5; non-members, \$6. All dues, contributions, and orders for back copies should be sent to the SDOU Treasurer, Rosemary Draeger, 2520 E. Whisper Trail, Sioux Falls, SD, 57108.

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Scholarships and Awards: Nelda Holden, Ricky D. Olson (chair), Galen Steffen.



I would like to put a plug in for the South Dakota Ornithologists' Union Website (www.sdoubirds.org) – if you have not visited the site and registered as a member, please do so. There is a wealth of information available to all on the site.

One of the nice features of the SDOUBIRDS.ORG website is the calendar. If you are registered on the site as a member, you can add activities to the calendar (local club meetings, Christmas Bird Counts, local outings). If you are an organizer or contact person for your local CBC or Bird Club – please take a few minutes and add your CBC or other club activities to the calendar. Editor's Note: everyone is able to see the calendar's activities – just click on an activity to see the details.

The new page has been a great resource in many ways! Check it out!

#### ANNOUNCEMENTS – UPCOMING MEETINGS

The 69th annual Fall Meeting of the South Dakota Ornithologists' Union will be held November 2nd - 4th, 2018 at the C. Ruth Habeger Science Center on the campus of Dakota State University in Madison. Our Fall Meeting features a day of presentations on current ornithology in South Dakota, field trips on Saturday and Sunday morning, SDOU General Membership meeting, and an evening banquet (\$20 per person) and program. Field trips are planned to Lake Herman State Park and to the Lake Thompson area. Registration is \$12 per person. You do not need to be an SDOU member to attend. See the inside of this issue's mailing cover or the SDOU web site (http://sdou.org/SDOU/Meetings.aspx) for more information and registration.

The Spring 2019 SDOU meeting will be held in the Sioux Falls area. Details will be posted on the web site and in future issues of South Dakota Bird Notes as they become available.

# Fall 2017 SDOU Meeting in Spearfish Linda Johnson

The fall SDOU meeting held October 20-22, 2017 at Black Hills State University in Spearfish, featured keynote speakers, research presentations by professors and their students, and excellent birding. The meeting was coordinated by Nancy Drilling and Raeann Mettler. Over 50 attendees enjoyed the events with new members and faces very welcome.

Nancy Drilling and Todd Jensen led Saturday and Sunday morning field trips to Orman Dam, Crow Peak, and Hanna/Ward Draw. The Sat. a.m. group up Spearfish Canyon was led by MaryBeth and Greg Albrechtsen. A total of 83 species were reported during the meeting. Species highlights included Pacific Loon, Long-tailed Duck, Eared and Horned grebes, and Surf Scoter at Orman Dam and American Dipper, Canyon Wren, Black-backed and Three-toed woodpeckers, Gray Jay and White-winged Junco during the Black Hills trips.

Friday evening's speaker, Terry Liddick, US Fish and Wildlife biologist and pilot based at the DC Booth Fish Hatchery in Spearfish, described the Service's waterfowl counts from surveys via helicopter and airplane. Every spring a survey to estimate the size of breeding waterfowl populations is conducted across North America by the U.S. Fish & Wildlife Service. The survey also evaluates habitat conditions on waterfowl breeding grounds and contributes to conservation efforts. Liddick invited members to purchase Duck Stamps to support bird conservation.

The keynote speaker following Saturday's banquet was Brian Dickerson, US Forest Service wildlife biologist based in Rapid City. He presented a review of Rocky Mountain Research Station's research of Black-backed Woodpecker in the Black Hills. The Black-backed Woodpecker prefers highly disturbed forest caused by pine beetle infestations or forest fires. Dickerson's discussion focused on new information on woodpecker biology in the Black Hills and new woodpecker research techniques that his lab developed. He emphasized the importance of habitat management through controlled burns as well as the effects of forest fires in creating habitat for the continued presence of this species in South Dakota.



Meeting attendees listen to keynote speaker Brian Dickerson talk about Blackbacked Woodpecker research in the Black Hills. PHOTO CREDIT: Raeann Mettler

The primary focus of the fall meeting is research presentations. This year, students of professors Dave Swanson, USD; KC Jensen, SDSU; and Kristel Bakker, DSU, and the professors themselves presented

results of their research projects. As an additional note, The SDOU Board voted to offer one year SDOU student memberships to students who present at the fall meeting. SDOU wants to encourage students to present as well as participate in SDOU activities. Abstracts of the research presentations can be found elsewhere in this issue.

During the Annual General Membership Meeting, members elected and welcomed Cheryl Vallenga from Sisseton to the Board of Directors. Also re-elected for three-year terms were Ron Mabie, Duane Weber, Mick Zerr, and Gary Olson. The Board meeting followed. Officers remain the same: K.C. Jensen, President; Scott Stolz, Vice President; Dave Swanson, Secretary; Rosemary Draeger, Treasurer; Mick Zerr, Librarian. Nancy Drilling accepted the position of Editor of SD Bird Notes.

The bi-annual meetings are a great way for birders across the state to meet, listen to and provide input into SDOU activities, and participate in some excellent birding. The location moves around the state so that birders can experience birding in all the habitats the state offers.



Birders watch an American Dipper in Spearfish Falls during an early morning field trip. PHOTO CREDIT: Mick Zerr

#### Summary of Research Presentations at the Fall 2017 SDOU meeting Compiled by Nancy Drilling

The following are the abstracts of presentations given at the Fall 2017 SDOU meeting in Spearfish. Presenters are indicated with an asterisk.

#### Impacts of Invasive Trees on Nesting Success of Breeding Birds in Missouri River Riparian Forests

## Amanda Hegg\*, MARK DIXON and DAVID SWANSON. Department of Biology, University of South Dakota, Vermillion

Floodplain forests support among the highest levels of bird diversity of any habitat type in the Great Plains region. On the Missouri River, decades of river management by upstream dams have greatly impacted native floodplain forests and the processes that sustain them. These changes have also contributed to invasion of floodplain forests by native upland tree species (eastern red cedar, Juniperus virginiana) and by non-native species (e.g., Russian olive, Elaeagnus angustifolia). Shrub-nesting bird species (e.g., Bell's Vireo, Yellow Warbler) may occur in similar densities in native- and invasive-dominated forest stands, but bird density alone is a poor indicator of habitat quality, with studies of nesting success needed to determine the effects of different habitat types on reproductive fitness. In this study we examined the quality of native vs. invasive tree species as nesting habitat for floodplain forest birds. We found and monitored more than 300 nests of 22 riparian forest bird species at five sites along the Missouri River varying in invasive tree species abundance during the 2017 breeding season. Preliminary data suggest wide variation in nest success among bird species and among different nest trees, with some bird species showing fairly high nest success in invasive tree species, but others with poor nest success. A consistent bird community-wide effect of invasive tree species on bird nesting success was not evident. Future studies will include analyses of the effect of vegetation structure and composition surrounding nest sites on nest success and additional years of data collection.

#### Environmental Heterogeneity and Metabolic Flexibility in Horned Larks and House Sparrows

#### Paige Oboikovitz\* and David Swanson. Department of Biology, University of South Dakota, Vermillion

Bird species vary in their physiological and behavioral capacities to cope with changing environmental temperatures. Summit metabolism (Msum = maximum cold-induced metabolic rate) may vary geographically and temporally within and among bird species, with species living in colder environments generally having greater metabolic capacities. Seasonal adjustments of metabolic capacities also occur in birds, with elevated capacities in winter than in summer for species wintering in cold climates. Behavioral selection of favorable microclimates can moderate seasonal exposure to temperature variation, but opportunities for such microclimate selection may vary among birds, depending on their habitat. In this study, we compared seasonal minimum (basal metabolic rate, BMR) and maximum (Msum) metabolic rates of Horned Larks (Eremophila alpestris) and House Sparrows (Passer domesticus). Horned Larks occupy open areas, with little protection from weather conditions, whereas House Sparrows occupy more sheltered habitats. We hypothesized that greater seasonal variation in operative temperatures (Te = field climatic conditions) would occur in open field sites occupied by Horned Larks than for the more sheltered sites occupied by House Sparrows and that Horned Larks, consequently, would show greater seasonal flexibility in metabolic rates than House Sparrows. Preliminary data are consistent with these predictions, with open areas showing greater seasonal differences in Te than more sheltered areas and larks showing

greater seasonal variation in metabolic capacities than sparrows (Winter Msum/Summer Msum: 53% for Horned Larks, 28% for House Sparrows). These data are congruent with the idea that temperature serves as a primary driver for metabolic variation in birds.

#### **Grassland Bird Use of High and Low Diversity Native Plantings**

#### Jackie Krakow\* and Kristel Bakker. Dakota State University, Madison

The United States Fish and Wildlife Service Wetland Management District has historically planted low diversity grasslands comprised of 5-8 species of warm- and cool-season native grasses. Within the last 10 years they have been planting high diversity grasslands with a mix of 45-50 species of native forbs and grasses. We compared vegetation structure, grassland bird richness and individual species' density between paired (n=13), low and high diversity native plantings on waterfowl production areas (WPAs) in the tallgrass prairie region of eastern South Dakota, 2017. We used analysis of covariance to determine if vegetation measurements, grassland bird species richness and individual species' density and occurrence differed between high and low diversity plantings. Since patch area is known to influence occurrence and density of grassland birds, we used the size of the planting as a covariate. Paired sites were located on the same WPA so landscape, which also influences grassland bird habitat use, was held constant. The range of Robel readings per site, mean leaf height, and percent coverage of forbs and native vegetation were all significantly greater in high diversity plantings. Percent cover of grass and introduced grass were higher in low diversity plantings. Mean Robel reading, tall grass, tall shrub and tall forb, litter depth and percent coverage of shrubs, litter and introduced forbs did not differ between planting types. Grassland bird species richness (p=0.005), Clay-colored Sparrow (Spizella pallida) (p=0.016) and Dickcissel (Spiza americana) occurrence (p=0.032) and density (p=0.018) were significantly greater in high versus low diversity grassland plantings. Clay-colored Sparrow density and Bobolink (Dolichonyx oryzivorus), Western Meadowlark (Sturnella neglecta), Savannah Sparrow (Passerculus sandwichensis), Grasshopper Sparrow (Ammodramus savannarum), Sedge Wren (Cistothorus platensis) and Upland Sandpiper (Bartramia longicauda) occurrence and densities did not differ significantly between high and low diversity grasslands. We recommend incorporating a high diversity of native grasses and forbs into grassland restorations to simultaneously provide habitat for multiple grassland bird species.

#### **Reproductive Ecology of Greater Sage-Grouse in Northwest South Dakota**

Lindsey A. Bischoff<sup>1\*</sup>, Travis Runia<sup>2</sup>, Jonathan A. Jenks<sup>1</sup>, and Andrew Gregory<sup>3</sup>

<sup>1</sup>South Dakota State University, Brookings; <sup>2</sup>South Dakota Game, Fish and Parks, Huron; <sup>3</sup>Bowling Green State University, Bowling Green, OH

Greater Sage-Grouse (Centrocercus urophasianus) are a species of conservation concern throughout the Intermountain West. Estimating reproductive rates of sage-grouse can enhance management of the species. Numerous studies have documented demographic performance at the core distribution; however, few studies have examined sage-grouse inhabiting the eastern extent of their range. In spring 2016, we monitored 27 radio-collared female sage-grouse; overall nest initiation was 89% and nest success was  $35 \pm 11\%$  (n=20). In spring 2017, we monitored 44 female sage-grouse; nest initiation was 100%, and nest success was  $37 \pm 7\%$  (n=51). Most nests (2016 = 95%, 2017 = 90%) were located within core areas delineated by South Dakota Game, Fish and Parks. Infrared cameras were deployed at nests to determine cause-specific nest failure, and >150,000 photos were collected in 2016. Predators detected at nests included: Coyote (Canis latrans) Bobcat (Lynx rufus), Badger (Taxidea taxus), Raccoon (Procyon lotor), and Golden Eagle (Aquila chrysaetos). However, not all predators identified on camera depredated nests. Broods were considered successful if at least one chick survived to seven weeks post hatch. In 2016 and 2017,  $29 \pm 17\%$  (n=7) and  $37 \pm 11\%$  (n=19), respectively, of broods were successful. Nest success and brood survival estimates from 2016 and 2017 are lower than found in previous research conducted

in South Dakota. Unlike many game bird species, sage-grouse are relatively long lived. Sage-grouse population growth rates are highly dependent on adult female survival and secondarily dependent on chick survival and nest success.

#### Evaluation of Methods Used to Improve Grasslands as Gallinaceous Brood Habitat

MANDY ORTH<sup>1\*</sup>, KENT JENSEN<sup>1</sup> and TRAVIS RUNIA. <sup>1</sup>South Dakota State University, Brookings; <sup>2</sup>South Dakota Game, Fish and Parks, Huron

Management practices designed for upland game species in the past have focused on nest survival and hen winter survival due to the importance of these life history stages on population vital rates. However, chick survival is an important component of gallinaceous bird population dynamics and is poorly understood and often tends to be overlooked. Recent population modeling studies have found that gallinaceous bird populations are more sensitive to chick survival than nesting success. Our research investigated the efficacy of various methods of Conservation Reserve Program (CRP) mid-contract management to improve brood rearing habitat for upland game birds. The objectives of this study were to (1) determine and compare relative arthropod abundance among CRP grasslands subject to several management techniques for three consecutive years post-management by using sweep nets, vacuum sampling and pitfall traps, (2) determine and compare relative arthropod availability among grasslands subject to several management techniques for three consecutive years post-management using human-imprinted chicks as models, and (3) determine and compare vegetation composition and structure characteristics among grasslands subject to several management techniques for three consecutive years post-management. Treatments that promoted vegetative diversity, such as interseeding of forbs and native wildflowers, led to increased abundance and diversity of the arthropod community and mass gain during chick foraging trials.

#### **SDBBA2** Interactive Web Site

#### EILEEN DOWD-STUKEL, South Dakota Game, Fish, and Parks, Pierre

The second South Dakota Breeding Bird Atlas was conducted 2008 – 2012. South Dakota Game, Fish, and Parks has developed an interactive website (http://gfp.sd.gov/wildlife/management/diversity/breeding-bird-atlasII.aspx) where the results of the SDBBA2 can be explored, summarized, and downloaded. This presentation goes through the web site to highlight the various features of each section.

#### Praire Grouse Occurrence Model for South Dakota

#### TRAVIS RUNIA, South Dakota Game, Fish and Parks, Huron

Loss and fragmentation of required grassland habitat has reduced the distribution and abundance of prairie grouse throughout their range. The primary cause of this decline in the Great Plains is conversion of grassland to other uses, mostly cropland. Spatial models are a useful tool for understanding the spatially-explicit habitat relationships that influence species occurrence or abundance. We developed statewide spatially-explicit habitat-based breeding season occurrence models for sharp-tailed grouse, greater prairie-chickens, and for prairie grouse in general. We determined presence or absence of prairie grouse leks on 421, 1.6 by 1.6 km survey units from 2014-2016. We found 43 sharp-tailed grouse leks, 23 greater-prairie chicken leks, and 4 mixed leks. Habitat variables based primarily on National Land Cover Database and from manually digitized land covers were used as covariates to develop occurrence models. Because our presence/absence data was drawn from random samples, we used logistic regression to model the conditional probability of occurrence. Percent grass was a positive predictor for all 3 models. Percent of landscape in woody and developed areas were strong negative predictors for occurrence of prairie-

chickens, but less influential for sharp-tailed grouse. The models based on digitized habitat variables had better performance, especially for the prairie-chicken model. Predictive occurrence GIS layers have been developed for sharp-tailed grouse, greater prairie-chicken, and prairie grouse which should serve as a tool to prioritize conservation efforts.

#### Winter Hermit Thrushes and Yellow-Rumped Warblers in South Dakota: Are Recent Records in Response to Warming Winters?

#### DAVID SWANSON, Department of Biology, University of South Dakota, Vermillion

Average winter temperatures in the Northern Prairie region of North America have been increasing substantially since the 1970s at rates up to approximately 1°C per decade. This winter warming could potentially influence the winter distributions of birds, particularly those species wintering in temperatezone climates. Two examples of species potentially influenced by such winter warming include Hermit Thrush (Catharus guttatus), the most northerly wintering Catharus thrush, and Yellow-rumped Warbler (Setophaga coronata), the most northerly wintering Parulid. Both of these species are short-distance migrants, with the northern boundary of the winter range approximately following the -4°C minimum January temperature isotherm. Hermit Thrush was formerly considered accidental (0-2 records in the last 10 years) and Yellow-rumped Warbler casual (3-10 records in the last 10 years) in South Dakota. Thus, both species are potential candidates to respond to warming winter climates, so I examined winter (December-February) records for these species from the South Dakota Ornithologists' Union database to determine if winter records for these species in South Dakota were increasing along with warmer winters. Both species showed recent increases in the number of winter records in South Dakota. For Hermit Thrush, only two winter records existed prior to 2000, but 18 have occurred since then, with 10 records in December and 8 in January-February. Similarly, for Yellow-rumped Warblers, prior to 2000 there were a few December records, but only one January record. In the 2000s the number of records jumped to 19 (1-3 birds per record), with 7 in December and 12 in January-February, and in the 2010s (2010-2016) that number jumped to 34 (1-6 birds per record), with 16 in December and 18 in January-February. These data suggest that both species are responding to warming winters in the central U.S. by expanding their ranges northward such that the winter status of both species in South Dakota is now rare but regular.

#### Northern Saw-Whet Owl Banding in Brookings

#### KENT JENSEN, South Dakota State University, Brookings

This presentation describes the Brookings Saw-whet Owl monitoring project, part of a nationwide monitoring effort called Project Owlnet to track fall migration of Saw-whet Owls. The owls migrate from mid-September through November with the peak around mid-October. They are lured into mist nets by an audiolure broadcasting their territorial call. Since 2016, nets catch an average of one owl per night. Of the banded owls, 70 percent are hatch year females. The banding occurs either in Volga or at the Dakota Nature Park near Brookings. The public is invited to watch at the Dakota Nature Park as a way to engage community members to learn about owls.

#### American Dippers in the Black Hills

#### NANCY DRILLING, Bird Conservancy of the Rockies, Rapid City

The American dipper (Cinclus mexicanus) is an aquatic songbird that lives along fast-moving clear cold streams throughout western North America. South Dakota's Black Hills has a small (<100 adults), isolated (>200 km from nearest site) population. In South Dakota, the dipper is listed as a Threatened Species

because of its small isolated population and concerns over the species' long-term viability in the midst of multiple human activities throughout the Hills. The most recent comprehensive surveys of potential habitat occurred in the early 2000's and the latest project monitoring breeding success ended in 2009. The aim of this study is to determine the current distribution and breeding success of American Dippers in the Black Hills. Specific objectives are to 1) conduct surveys of potential breeding habitat, and 2) monitor nest site occupancy and reproductive success during the 2017 and 2018 breeding seasons. In 2017, four watersheds were surveyed for dippers – Spearfish (including East Spearfish, Squaw, and Iron creeks), Whitewood, lower Rapid, and French creeks. Most nests were along the Spearfish creek system (45 active nests at 26 sites) and Whitewood Creek (8 active nests at 5 sites). No active or old nests were found on French Creek and only one, unsuccessful, nest was located on Rapid Creek. Dippers nested behind waterfalls (13% of nests), on cliff faces and boulders (31%), on bridge girders (9%), and in nest boxes (47%), highlighting the importance of nest boxes to this population. Overall, 56% of nesting attempts resulted in fledging at least one young and ten pairs successfully raised two broods. There was a tendency for lower nest success in smaller side creeks and later in the season, possibly because of low water levels.

### The 2017 Summer Seasonal Report 01 June 2017 to 31 July 2017

Compiled By: Chris Anderson

The primary goal of the Summer Season compilation is to report Confirmed Breeding records observed during the season. There were 108 species reported as Confirmed Breeding this year. The secondary objective of the Summer Season summary is to include sightings of rare (or at least infrequently reported) species, late spring and early fall migration dates, and species that are reported from unusual locations. Records in bold are either new county breeding records or new latest spring/earliest fall observations of non-breeding species. Peregrine Falcon records are also bolded, as they are the first breeding records in the state since 1945. There were 256 species, including 5 rarities, reported during the season. The ten-year (2007-2016) average is 261. A full listing of all reported sightings can be obtained from the SDOU's online Seasonal Reporting Database (http://research.dsu.edu/sdousbor/).

- Snow Goose All Reports: 01 Jun Charles Mix RM; 03 Jun Charles Mix KP; 06 Jun Charles Mix KP; 22 Jul Hutchinson KP; 28 Jul Edmunds KM; 31 Jul KP
- Canada Goose Confirmed Breeding: Bon Homme, Custer, Lake, Meade, and Pennington counties
- Wood Duck Confirmed Breeding: Douglas, Hughes, Kingsbury, Lake, Meade, and Pennington counties
- Mallard Confirmed Breeding: Charles Mix, Douglas, Hutchinson, Kingsbury, Lake, Lincoln, Marshall, Meade, Miner, Pennington counties
- Blue-winged Teal Confirmed Breeding: 24 Jun Miner (PY) JSP
- Cinnamon Teal Only Report: 03 Jun Pennington ND
- Northern Shoveler Confirmed Breeding: 01 Jul Lake (PY) JSP; 12 Jul Hutchinson (FL) KP
- Green-winged Teal Only Reports: 03 Jun Kingsbury JSP; 01 Jul Lake JSP; 01 Jul Oglala Lakota ND
- Canvasback Confirmed Breeding: 01 Jul Oglala Lakota (PY) ND
- Ring-necked Duck Only Report: 17 Jun Lake JSP
- Bufflehead All Reports: 03 Jun Charles Mix KP; 15 Jun Day LH
- Hooded Merganser Confirmed Breeding: 03 Jun Kingsbury (PY) JSP; 17 Jun Lake (PY) JSP
- **Common Merganser** Confirmed Breeding: 03 Jul Pennington (FL) CLG; 10 Jul Pennington (FL) CLG; 17 Jul Pennington (FL) CLG
- Red-breasted Merganser All reports: 19 Jun Yankton RND; 01 Jul Yankton RND
- Northern Bobwhite All Reports 11 Jun Tripp RDO; 04 Jul Charles Mix CA
- Gray Partridge All Reports: 09 Jun Pennington MMM; 16 Jun Perkins ND; 17 Jul Custer MMM
- **Ring-necked Pheasant** Confirmed Breeding: 19 Jun Hughes (PY) KM; 22 Jul Douglas (PY) KP
- Ruffed Grouse Only Report: 01 Jun Pennington JLB

Sharp-tailed Grouse Confirmed Breeding: 22 Jun Pennington (FL) MMM; 30 Jul Fall River (PY) ND

Greater Prairie-Chicken Only Report: 08 Jun Stanley RDO

- Wild Turkey Confirmed Breeding: 24 Jun Pennington (PY) ND; 26 Jun Custer (PY) ND; 05 Jul Lincoln and Davison (PY) ND; 09 Jul Union (PY) KM; 11 Jul Minnehaha (PY) CA
- **Common Loon** All Reports: 06 Jun Stanley RDO; 15 Jul Stanley RDO; 26 Jul Stanley RDO, KM; 27 Jul Lake RM
- Pied-billed Grebe Confirmed Breeding: 11 Jul Kingsbury (PY) JSP

Red-necked Grebe Confirmed Breeding: 19 Jun Day (ON) LH

- Eared Grebe Confirmed Breeding: 11 Jul Kingsbury (PY) JSP
- Western Grebe Confirmed Breeding: 09 Jun Charles Mix (PY) KP; 11 Jul Kingsbury (PY) JSP; 29 Jul Clark (PY) JSP
- Clark's Grebe Only Report: 01 Jun Charles Mix RM
- **Double-crested Cormorant** Confirmed Breeding: 10 Jun Hutchinson (ON) KP; 24 Jun Miner (ON) JSP; 14 Jul Hutchinson (ON) KP; 22 Jul Hutchinson (NY) KP; 29 Jul Marshall (ON) CV
- American Bittern All Reports: 01 Jun Charles Mix KP; 05 Jun Marshall & Brown GO; 06 Jun Charles Mix RM; 05 Jul Charles Mix RM; 14 Jul Turner KP
- Least Bittern All Reports: 06 Jun Charles Mix RM; 16 Jun Charles Mix RM; 24 Jun Charles Mix RM; 05 Jul Charles Mix RM
- **Great Blue Heron** Confirmed Breeding: 09 Jun Charles Mix (ON) KP; 11 Jun Meade (NY) ND; 02 Jul Butte (NY) ND
- Great Egret Confirmed Breeding: 10 Hutchinson (ON) KP; 24 Jun Miner (ON) JSP
- **Snowy Egret** All Reports: 05 Jun Marshall GO; 09 Jun Day GO; 14 Jul Hutchinson KP; 15 Jul Clark KM; 26 Jul Hutchinson KP; 29 Jul Clark JSP
- Cattle Egret Confirmed Breeding: 14 Jul Hutchinson (ON) KP; 22 Jul Hutchinson (ON) KP Black-crowned Night-Heron Confirmed Breeding: 10 Jun Hutchinson (ON) KP
- Glossy Ibis Only Report: 30 Jul Marshall CV
- Turkey Vulture Confirmed Breeding: 06 Jun Custer (FL) RND
- **Osprey** Confirmed Breeding: 04 Jun Pennington (ON) JLB; 25 Jun Lawrence (NY) ND; 01 Jul Pennington (NY) JLB; 11 Jul Lawrence (NY) ND; 26 Jul Lawrence (NY) ND
- **Bald Eagle** Confirmed Breeding: 03 Jun Charles Mix (NY) KP; 09 Jun Charles Mix (NY) KP; 11 Jun Meade (NY) ND
- Sharp-shinned Hawk All Reports: 01 Jun Custer MMM; 28 Jun Pennington CLG; 24 Jul Pennington CLG
- **Cooper's Hawk** Confirmed Breeding: 01 Jun Douglas (ON) KP; 02 Jun Douglas (ON) KP; 05 Jun Douglas (ON) KP; 16 Jul Charles Mix (CF) KP
- Northern Goshawk Only Report: 21 Jun Pennington ND
- Broad-winged Hawk All Reports: 01 Jun Hughes KM; 01 Jun Charles Mix RM; 04 Jun Lawrence RSL, CA
- Swainson's Hawk Confirmed Breeding: 04 Jun Perkins (ON) ND
- Red-tailed Hawk Confirmed Breeding: 01 Jun Douglas (ON) KP; 15 Jun Roberts (ON) CV

**Ferruginous Hawk** All Reports: 04 Jun Harding DB; 05 Jun Marshall GO; 11 Jun Meade ND; 01 Jul Oglala Lakota ND; 22 Jul Butte ND

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- **Golden Eagle** All Reports: 04 Jun Perkins ND; 12 Jun Fall River ND; 01 Jul Oglala Lakota ND; 19 Jul Custer DB; 27 Jul Custer MMM
- American Coot Confirmed Breeding: 01 Jul Oglala Lakota (PY) ND; 11 Jul Kingsbury (PY) JSP
- American Golden-Plover All Reports: 01 Jun Charles Mix RM; 04 Jul Lincoln MRZ; 16 Jul Spink KM
- Semipalmated Plover Early: 04 Jul Lincoln MRZ; 11 Jul Kingsbury JSP; 16 Jul Charles Mix KP
- Killdeer Confirmed Breeding: Butte, Custer, Kingsbury, Lake, Oglala Lakota, Pennington, Roberts counties
- **Black-necked Stilt** All Reports: 03 Jun Kingsbury JSP; 01 Jul Lake JSP; 01 Jul Oglala Lakota ND; 07 Jul Lake JSP; 27 Jul Yankton RND
- Solitary Sandpiper Late: 06 Jun Charles Mix RM ... Early: 03 Jul Pennington RSL; 04 Jul Lincoln MRZ; 10 Jul Clay DS
- Greater Yellowlegs Early: 07 Jul Lake JSP; 11 Jul Yankton RND; 15 Jul Spink KM
- Lesser Yellowlegs Late: 30 Jun Roberts MO; 24 Jun Miner JSP ... Early: 01 Jul Lake JSP; 01 Jul Oglala Lakota ND; 04 Jul Lincoln MRZ; 16 Jul Charles Mix KP
- **Upland Sandpiper** Confirmed Breeding: 06 Jun Custer (PY) RND; 17 Jun Pennington (DD) CA; 03 Jul Minnehaha (DD) MRZ;
- Long-billed Curlew Confirmed Breeding: 07 Jun Custer (PY) MMM; 10 Jun Pennington (PY) MMM; 13 Jun Custer (PY) MMM; 20 Jun Custer (ON) MMM
- Ruddy Turnstone All Reports: 03 Jun Kingsbury JSP; 22 Jul Hutchinson KP
- Stilt Sandpiper Late: 05 Jun Brown GO; 03 Jun Butte ND ... Early: 07 Jul Lake JSP; 11 Jul Kingsbury JSP; 15 Jul Spink KM; 16 Jul Charles Mix KP
- Sanderling All Reports: 03 Jun Kingsbury JSP; 17 Jul Charles Mix RM; 20 Jul Roberts CV Dunlin Only Report: 30 Jul Marshall CV
- **Baird's Sandpiper** Late: 03 Jun Kingsbury JSP; 01 Jun Charles Mix RM; 01 Jun Douglas KP ... Early: 04 Jul Lincoln MRZ; 08 Jul Charles Mix KP; 10 Jul Clay DS; 11 Jul Yankton RND; 11 Jul Kingsbury JSP; 16 Jul Butte ND; 16 Jul Charles Mix KP
- Least Sandpiper Late: 06 Jun Charles Mix RM; 01 Jun Charles Mix RM; 01 Jun Douglas KP ... Early: 24 Jun Miner JSP; 01 Jul Lake JSP; 07 Jul Lake JSP; 10 Jul Clay DS
- White-rumped Sandpiper All Reports Late: 10 Jun Hutchinson KP; 10 Jun Lake JSP; 05 Jun Brown GO; 03 Jun Kingsbury JSP ... Early: 30 Jul Marshall CV
- Buff-breasted Sandpiper Only Report: 29 Jul Edmunds RDO
- **Pectoral Sandpiper** Late: 05 Jun Brown GO; 01 Jun Douglas KP; 01 Charles Mix RM ... Early: 10 Jul Clay DS; 11 Jul Yankton RND; 11 Jul Kingsbury JSP; 16 Jul Butte ND
- Semipalmated Sandpiper Late: 03 Jun Kingsbury JSP; 01 Jun Charles Mix RM ... Early: 01 Jul Oglala Lakota ND; 06 Jul Bennett ND; 07 Jul Lake JSP; 11 Jul Yankton RND
- Short-billed Dowitcher All Reports: 29 Jul Edmunds RDO; 30 Jul Marshall CV
- **Long-billed Dowitcher** All Reports: 04 Jul Lincoln MRZ; 15 Jul Spink KM; 16 Jul Stanley RDO; 27 Jul Yankton RND; 30 Jul Marshall CV
- Wilson's Snipe All Reports: 03 Jun Marshall CV; 05 Jun Marshall & Brown GO; 30 Jun Marshall CV
- Red-necked Phalarope Only Report: 03 Jun Kingsbury JSP

- Ring-billed Gull Confirmed Breeding: 16 Jul Butte (FY) ND
- California Gull Confirmed Breeding: 16 Jul Butte (FY) ND
- Herring Gull All Reports: 03 Jun Kingsbury JSP; 26 Jul Stanley & Sully KM
- Lesser Black-backed Gull All Reports: 26 Jul Sully KM; 26 Jul Stanley RDO

Common Tern Only Report: 16 Jul Butte ND

- Eurasian Collared-Dove Confirmed Breeding: 09 Jul Douglas (CN) KP
- **Mourning Dove** Confirmed Breeding: 09 Jun Perkins (NE) ND; 19 Jun Hughes (NE) KM; 10 Jul Douglas (ON) KP; 20 Jul Sully (NE) KM
- **Black-billed Cuckoo** All Reports: 05 Jun Roberts GO; 05 Jun Marshall GO; 08 Jun Gregory RM; 16 Jul Charles Mix KP
- Barn Owl Confirmed Breeding: 18 Jun Sully (NY) KM
- Eastern Screech-Owl Only Report: 02 Jun Roberts CV
- Burrowing Owl Confirmed Breeding: 07 Jul Custer (FL) MMM
- Barred Owl All Reports: 05 Jul Lincoln ND; 08 Jul Lincoln KM
- Northern Saw-whet Owl Confirmed Breeding: 02 Jul Harding (NY) ND; 22 Jul Harding (NY) ND
- **Common Poorwill** All Reports: 02 Jun Pennington RSL; 04 Jun Hughes RDO; 06 Jun Harding DB; 09 Jun Pennington MMM; 17 Jun Custer CA
- Rufous Hummingbird Early: 10 Jul Pennington JF; 23 Jul Pennington RSL
- **Belted Kingfisher** Confirmed Breeding: 09 Jun Roberts (CF) CV; 19 Jun Lawrence (CF) ND **Lewis's Woodpecker** Confirmed Breeding: 19 Jul Custer (NY) DB
- Red-naped Sapsucker Confirmed Breeding: 27 Jun Pennington (CF) ND; 29 Jun Lawrence (NY) KM
- **Downy Woodpecker** Confirmed Breeding: 16 Jun Roberts (FY) CV; 17 Jun Roberts (FY) CV; 29 Jun Roberts (FY) CV; 01 Jul Oglala Lakota (NY) ND
- **Hairy Woodpecker** Confirmed Breeding: 16 Jun Roberts (FY) CV; 16 Jun Brown (NY) GO; 17 Jun Roberts (FY) CV;
- American Three-toed Woodpecker Confirmed Breeding: 20 Jun Lawrence (CF) ND; 25 Jun Lawrence (NY) ND
- Black-backed Woodpecker Only Report: 01 Jul Lawrence RDO
- Merlin Only Report: 04 Jun Lawrence RSL
- Peregrine Falcon Confirmed Breeding: 28 Jun Lawrence (FY) ND; 13 Jun Pennington (FY) ND
- Prairie Falcon Confirmed Breeding: 06 Jun Harding (CF) DB
- Olive-sided Flycatcher Only Report: 01 Jun Gregory RM
- Western Wood-Pewee Confirmed Breeding: 04 Jun Custer (ON) KM; 14 Jul Custer (NY) DB; 19 Jul Custer (NY) DB
- **Yellow-bellied Flycatcher** All Reports: 01 Jun Charles Mix RM; **24 Jun Charles Mix RM**; 19 Jul Roberts CV
- Alder Flycatcher All Reports: 01 Jun Hughes KM; 06 Jun Charles Mix RM
- **Cordilleran Flycatcher** Confirmed Breeding: 20 Jun Lawrence (ON) ND; 26 Jun Meade (ON) RDO; 08 Jul Lawrence (CF) ND
- Cassin's Kingbird Only Report: 01 Jul Oglala Lakota ND

- Western Kingbird Confirmed Breeding: 20 Jun Pennington (CF) MMM; 16 Jul Pennington (FY) JLB; 25 Jul Charles Mix (FY) RM; 31 Jul Charles Mix (FY) KP
- Eastern Kingbird Confirmed Breeding: 25 Jul Roberts (FY) CV
- Loggerhead Shrike Confirmed Breeding: 05 Jul Roberts (FL) CV
- Warbling Vireo Confirmed Breeding: 01 Jul Lawrence (CN) RDO
- Red-eyed Vireo Confirmed Breeding: 30 Jun Lawrence (NB) KM
- **Blue Jay** Confirmed Breeding: 05 Jun Pennington (NY) CLG; 12 Jun Pennington (FL) CLG; 20 Jun Lawrence (FL) ND

Clark's Nutcracker All Reports: 18 Jun Custer CA, ND; 14 Jul Custer DB; 19 Jul Custer DB

- Black-billed Magpie Confirmed Breeding: 06 Jun Custer (FY) RND
- American Crow Confirmed Breeding: 06 Jun Custer (FL) RND
- Horned Lark Confirmed Breeding: 25 Jun Bon Homme (FL) CA
- **Purple Martin** Confirmed Breeding: 02 Jun Douglas (ON) KP; 28 Jun Minnehaha (ON) CA; 29 Jun Lincoln (ON) CA
- Tree Swallow Confirmed Breeding: Custer, Douglas, Marshall, Pennington, and Roberts counties
- Violet-green Swallow Confirmed Breeding: 26 Jun Meade (ON) RDO; 10 Jul Pennington (NY) JF; 26 Jul Lawrence (FY) ND
- Northern Rough-winged Swallow Confirmed Breeding: 15 Jul Minnehaha (ON) MRZ, CA
- **Bank Swallow** Confirmed Breeding: 25 Jun Marshall (ON) CV; 05 Jul Moody (ON) ND; 19 Jul Charles Mix (CN) RM
- **Cliff Swallow** Confirmed Breeding: 03 Jul Minnehaha (ON) MRZ; 03 Jul Pennington (NB) CLG; 25 Jul Pennington (NY) ND;
- **Barn Swallow** Confirmed Breeding: Brule, Charles Mix, Hughes, Jerauld, Pennington, Perkins, and Roberts counties
- Black-capped Chickadee Confirmed Breeding: Fall River, Hughes, Lawrence, Marshall, Pennington, and Roberts counties
- **Red-breasted Nuthatch** Confirmed Breeding: 04 Jun Pennington (ON) KM; 16 Jun Meade (NY) MMM; 18 Jun Roberts (CF) CV; 23 Jul Roberts (FY) CV
- White-breasted Nuthatch Confirmed Breeding: 17 Jun Roberts (CF) CV; 12 Jul Roberts (FY) CV; 13 Jul Roberts (FY) CV; 14 Jul Roberts (FY) CV
- **Pygmy Nuthatch** All Reports: 15 Jun Pennington ND; 22 Jul Pennington RSL; 22 Jul Custer RDO
- Brown Creeper Confirmed Breeding: 01 Jun Lawrence (CF) ND
- House Wren Confirmed Breeding: Charles Mix, Custer, Day, Lake, Lincoln, Meade, and Roberts counties
- American Dipper Confirmed Breeding: 25 Jun Lawrence (NY) EK
- Golden-crowned Kinglet Confirmed Breeding: 24 Jun Pennington (FY) ND
- Eastern Bluebird Confirmed Breeding: 25 Jun Bon Homme (FL) CA; 25 Charles Mix (CF) RM
- Mountain Bluebird Confirmed Breeding: 03 Jun Lawrence (ON) CA; 25 Jul Lawrence (CF) ND
- Townsend's Solitaire All Reports: 17 Jun Custer CA; 19 Jun Pennington CLG; 08 Jul Lawrence RSL; 14 Jul Custer DB; 19 Jul Custer DB; 22 Jul Custer RDO

- Swainson's Thrush Late: 02 Jun Hughes KM ... Confirmed Breeding: 29 Jun Lawrence (CF) KM; 07 Jul Lawrence (FY) ND
- Wood Thrush All Reports: 05 Jul Lincoln ND; 08 Jul Lincoln KM; 13 Jul Lincoln JSP; 16 Jul Minnehaha MS
- American Robin Confirmed Breeding: Charles Mix, Custer, Day, Douglas, Fall River, Lake, Lawrence, Lincoln, Oglala Lakota, and Perkins counties
- Gray Catbird Confirmed Breeding: 08 Jun Minnehaha (CF) MRZ; 27 Jul Lake (CF) JSP
- Brown Thrasher Confirmed Breeding: 15 Jun Charles Mix (CF) RM

Northern Mockingbird Only Report: 08 Jun Lawrence ND

- European Starling Confirmed Breeding: 04 Jun Roberts (FY) CV; 05 Jun Roberts (FY) CV; 05 Jun Pennington (NY) CLG; 06 Jun Roberts (FY) CV; 08 Jun Roberts (FY) CV; 13 Jul Lincoln (ON) CA
- Cedar Waxwing Confirmed Breeding: 11 Jun Day (NB) CV; 18 Jun Custer (CN) CA, ND; 01 Jul Lawrence (ON) KM

Blue-winged Warbler Only Reports: 10 Jun Lincoln MRZ; 13 Jul Lincoln JSP

- **Black-and-white Warbler** All Reports: 06 Jun Roberts CV; 08 Jun Roberts CV; 02 Jul Marshall CV; 04 Jul Marshall CV
- Tennessee Warbler All Reports: 01 Jun Hughes KM; 04 Jun Brown GO
- Virginia's Warbler Only Report: 04 Jun Custer KM
- Common Yellowthroat Confirmed Breeding: 24 Jul Hughes (CF) KM
- American Redstart Confirmed Breeding: 25 Jun Lawrence (NY) ND
- Blackpoll Warbler Only Report 15 Jun Charles Mix RM
- **Yellow-rumped Warbler** Confirmed Breeding: 25 Jun Lawrence (CF) ND; 27 Jun Pennington (CF) ND
- Spotted Towhee Confirmed Breeding: 26 Jun Meade (CF) RDO
- Chipping Sparrow Confirmed Breeding: Douglas, Hughes, and Roberts counties
- Brewer's Sparrow All Reports: 11 Jun Harding ND; 12 Jun Fall River RDO
- Field Sparrow Confirmed Breeding: 03 Jun Lincoln (CF) MRZ; 15 Jun Lincoln (CF) CA
- Vesper Sparrow Confirmed Breeding: 26 Jun Custer (CF) ND
- Lark Sparrow Confirmed Breeding: 08 Jun Sully (NE) KM; 15 Jun Charles Mix (CF) RM; 15

Jun Lincoln (CN) CA; 19 Jun Hughes (CF) KM; 26 Jun Custer (CF) ND

Lark Bunting Confirmed Breeding: 31 Jul Charles Mix (CF) KP

Savannah Sparrow Confirmed Breeding: 20 Jul Roberts (FY) CV

Grasshopper Sparrow Confirmed Breeding: 16 Jun Perkins (CF) ND

- Baird's Sparrow Only Report: 16 Jun Perkins ND
- LeConte's Sparrow All Reports: 30 Jun Roberts CV; 02 Jul Marshall CV; 05 Jul Marshall CV; 22 Jul Roberts CV
- **Song Sparrow** Confirmed Breeding: 07 Jun Douglas (CF) KP; 18 Jun Roberts (CF) CV; 16 Jul Charles Mix (CF) KP
- Chestnut-collared Longspur Confirmed Breeding: 16 Jun Perkins (CF) ND; 02 Jul Hyde (FL) MMM
- Northern Cardinal Confirmed Breeding: 06 Jun Hughes (ON) KM; 12 Jul Charles Mix (FY) RM; 29 Jul Charles Mix (FY) RM)

**Rose-breasted Grosbeak** Confirmed Breeding: 12 Jul Charles Mix (FY) RM; 13 Jul Charles Mix (FY) RM; 22 Jul Charles Mix (FY) RM; 27 Jul Douglas (CF) KP

Black-headed Grosbeak Confirmed Breeding: 24 Jun Pennington (NY) ND

Blue Grosbeak Confirmed Breeding: 26 Jul Custer (FL) MMM

- Lazuli Bunting All Reports: 01 Jun Custer MMM; 11 Jun Harding ND; 12 Jun Fall River ND
- Dickcissel Confirmed Breeding: 01 Jul Oglala Lakota (CF) ND; 23 Jul Stanley (FL) KM
- **Red-winged Blackbird** Confirmed Breeding: Douglas, Fall River, Hughes, Meade, Oglala Lakota, Pennington, and Perkins counties

Eastern Meadowlark Only Report: 06 Jul Bennett ND

- Western Meadowlark Confirmed Breeding: 01 Jun Custer (NE) MMM; 03 Jun Custer (FL) MMM; 09 Jun Roberts (CF) CV; 14 Jun Custer (NE) MMM; 24 Jun Miner (CN) JSP; 20 Jul Roberts (FL) CV
- Brewer's Blackbird Confirmed Breeding: 11 Jun Meade (CF) ND; 16 Jun Perkins (CF) ND
- **Common Grackle** Confirmed Breeding: 18 Jun Lincoln (ON) MRZ; 21 Jun Lincoln (FY) MRZ; 01 Jul Oglala Lakota (CF) ND; 04 Jul Douglas (CF) KP

Great-tailed Grackle Confirmed Breeding: 01 Jul Oglala Lakota (CF) ND

Brown-headed Cowbird Confirmed Breeding: 14 Jun Custer (NE) MMM; 05 Jul Charles Mix (FL) RM

**Orchard Oriole** Confirmed Breeding: Bon Homme, Charles Mix, Custer, Fall River, Oglala Lakota, Perkins

Bullock's Oriole Confirmed Breeding: 12 Jun Fall River (ON) ND

Baltimore Oriole Confirmed Breeding: Charles Mix, Lincoln, and Roberts counties

- House Finch Confirmed Breeding: 16 Jun Roberts (FY) CV; 20 Jun Lake (FY) JSP; 20 Jul Roberts (FY) CV; 28 Jul Charles Mix (FY) RM
- Cassin's Finch Only Report 04 Jun Custer KM
- Red Crossbill reported West River ... arly East River 30 Jul Lincoln CA
- Pine Siskin Late Missouri River 11 Jun Charles Mix RM ... Early East River 10 Jul Roberts CV
- Lesser Goldfinch All Reports: 03 Jun Fall River KM; 12 Jun Fall River ND, RDO
- American Goldfinch Confirmed Breeding: 18 Jun Custer (CN) ND

House Sparrow Confirmed Breeding: 07 Jul Pennington (FY) ND; 17 Jul Pennington (CN) CLG; 21 Jul Douglas (CN) KP

**Species Expected But Not Reported** – number of years reported in last 5 years in parentheses Greater Sage-Grouse (3), American Woodcock (3), Long-eared Owl (2), Short-eared Owl (4), Sprague's Pipit (3), Evening Grosbeak (3)

**Reports Requiring Acceptance By The Rare Bird Records Committee Ferruginous Hawk:** 07 Jul Hutchinson RM

Snowy Plover: 22 Jul Charles Mix RM

Eastern Wood-Pewee: 04 Jul Pennington JF

Cassin's Vireo: 30 Jun Lawrence KM

Pacific Wren: 28 Jun Lawrence KM; 29 Jun Lawrence ND; 08 Jul Lawrence RSL

# Contributing Observers

CA	Chris Anderson	GO	Gary Olson
DB	Doug Backlund	RDO	Ricky D. Olson
JLB	Jocelyn L. Baker	MO	Mark Otnes
RND	Roger N. Dietrich	JSP	Jeffrey S. Palmer
ND	Nancy Drilling	KP	Kelly M. Preheim
JF	Jennifer Fowler	MS	Mark Schmidtbauer
LH	Laura Hubers	GJS	Gary & Jan Small
EK	Elizabeth Krueger	CLG	Canyon Lake Group Survey
RSL	Richard S. Latuchie	DS	David Swanson
RM	Ron Mabie	CV	Cheryl Vellenga
MMM	Michael M. Melius	MRZ	Mick Zerr
KM	Kenny Miller		

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**Photo credit: Mick Zerr** Juvenile Rough Legged Hawk