

# Birds of Thunder Basin: Sagebrush Specialists

## Thunder Basin Ecology Factsheet #2



### GREATER SAGE-GROUSE

**Length:** 22-30 inches  
**Weight:** 3-6.4 pounds

**Status**<sup>1</sup>: WY-SGCN Tier 1 Species.

**Breeding Strategy:** Lek mating system, polygynous.

**Territory:** Males may maintain “lek territories” of 15-300+ feet.

**Food:** Sagebrush (*Artemisia* species), forbs, insects.

**Migration:** Non-migratory to migrating short distances.

**Nest, eggs and chicks:** Ground nesting, usually in large sagebrush. Nests are usually a distance of .6-4 miles from leks and average 6 to 10 olive-green eggs with dark markings in a clutch. Chicks are precocial.

**WARNING:** Unlike many other bird species, female sage-grouse may abandon nests if disturbed. If you accidentally flush a female sage-grouse off a nest, retreat quickly in the direction opposite that in which the female flew.

**Fun Fact:** At certain times of year Greater sage-grouse rely almost entirely on sagebrush for food. Sage-grouse (both the Greater and Gunnison’s) evolved to depend on the soft leaves of sagebrush; unlike other closely related birds, such as the greater prairie chicken, they lack a muscular crop to digest seeds. Although other species eat sagebrush, no other relies on it so heavily. Sage-grouse chicks cannot digest sagebrush, so they start out on a diet of forbs and insects until they grow large enough to digest sagebrush. Without forb and insect food sources, chick mortality is high.

**Quick ID tip:** The Greater sage-grouse is the only sagebrush grouse species in Thunder Basin. Gunnison sage-grouse in Colorado have more white on their tail feathers and a feathery head plume. Sharp-tailed grouse, which are more common in grasslands, are paler and smaller and lack the black belly of a sage-grouse.



### SAGE THRASHER

**Length:** 8-9 inches  
**Weight:** 1.4-1.8 ounces

**Status**<sup>1</sup>: WY-SGCN Tier 2 Species.

**Breeding Strategy:** Socially monogamous.

**Territory:** Males maintain average territory of about 2.5 acres.

**Food:** Small insects caught while running on the ground and sometimes berries.

**Migration:** Short-distance migration, with winters in southern U.S. and Mexico.

**Nest, eggs and chicks:** Nests are located on or near the ground, usually in large sagebrush shrubs. Nests average 4 to 5 blue-green eggs with brown speckles in a clutch. Chicks are altricial.

**Fun fact:** Sage thrashers are superb singers. Thrashers are classified as mimids, a bird group that also includes mockingbirds. All the species in this group incorporate snippets of surrounding noises into their songs, possibly to show potential mates they are familiar with the area and will therefore make good partners. Even among the mimids, sage thrashers are extraordinary—they incorporate dozens of unique sound fragments into their songs, and one male was recorded singing for 22 minutes non-stop!

**Quick ID tip:** Look for a long tail, long curved bill, and long, narrow body. Brown, with white chest streaked with brown. Small white markings on outer tail feathers. Longer-bodied than most other birds in Thunder Basin.

<sup>1</sup>WY-SGCN: *Wyoming Species of Greatest Conservation Need are identified by the Wyoming Game and Fish Department as species whose conservation status warrants increased management attention.*



## BREWER'S SPARROW

**Length:** 5-6 inches

**Weight:** 0.4-0.5 ounces

**Status<sup>1</sup>:** WY-SGCN Tier 2 Species.

**Breeding Strategy:** Socially monogamous.

**Territory:** Males maintain average territory sizes of 1.2 acres.

**Food:** Mostly small insects (caterpillars, grasshoppers, ants) during the summer, possibly more seeds during winter.

**Migration:** Short-distance migration, with winters in southern U.S. and Mexico.

**Nest, eggs, and chicks:** Nests are located within large shrubs, generally more than 8 inches above the ground. Nests average 2 to 5 bluish eggs with dark speckling toward the bottom. Chicks are altricial.

**Fun fact:** People who birdwatch regularly might call the Brewer's sparrow, which is pretty drab, an "LBB"—a "Little Brown Bird." We use this term because many of these small, brownish birds can be difficult to identify. A great way to tell LBBs apart is by listening to their songs. Like the songs of many grassland and shrubland birds, the Brewer's sparrow song is high-pitched and might be described as "buzzy" or "insect-like." Their high-pitched songs actually carry better in open habitat. The purpose of bird song is communication—for example, attracting a mate or warning another Brewer's sparrow to stay out of his territory—so being able to communicate over long distances is important.

**Quick ID tip:** If you see an LBB sitting on a sagebrush plant during the summer in the Thunder Basin, it is probably a Brewer's sparrow. In Thunder Basin, the only similar birds during breeding season are grasshopper sparrows or vesper sparrows. Both of these species avoid dense sagebrush, and the Brewer's sparrow's chest is much paler. A similar related species, the clay-colored sparrow, migrates through Thunder Basin but does not breed there.



*Direct financial support provided by USDA-Agricultural Research Service and the Wyoming Agricultural Experiment Station through funds received from USDA-Research, Education, and Economics non-assistance cooperative agreement 58-5409-4-011 and USDA National Institute of Food and Agriculture, McIntire Stennis project 1006367.*

*Issued in furtherance of extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture. Glen Whipple, director, University of Wyoming Extension, University of Wyoming, Laramie, Wyoming 82071.*

*Persons seeking admission, employment, or access to programs of the University of Wyoming shall be considered without regard to race, color, religion, sex, national origin, disability, age, political belief, veteran status, sexual orientation, and marital or familial status. Persons with disabilities who require alternative means for communication or program information (Braille, large print, audiotape, etc.) should contact their local UW Extension office. To file a complaint, write to the UW Employment Practices/Affirmative Action Office, University of Wyoming, Department 3434, 1000 E. University Avenue, Laramie, WY 82071.*

## TERMS (NOT JUST) FOR THE BIRDS

**ALTRICIAL:** Young are hatched in a less advanced state of development and require parental care and feeding.

**CLUTCH:** Eggs laid in one breeding attempt. Some birds may nest multiple times (have multiple clutches) within a breeding season.

**FLUSH:** To cause a bird to fly away, especially off a nest.

**FORB:** A herbaceous flowering plant.

**LEK:** An area where multiple male birds display to attract females.

**MONOGAMOUS** (socially monogamous): Mating system in which one male and one female pair for a breeding season. Social monogamy refers to systems in which most individuals are paired, but a female's eggs may have a different (or multiple) male's genes.

**POLYGAMOUS:** Mating system in which one female has many mates.

**POLYGYNOUS:** Mating system in which one male has many mates.

**PRECOCIAL:** Young are hatched in an advanced state of development and are able to feed themselves almost immediately.

**TERRITORIAL:** System by which males defend resources (food, nesting habitat) from other males.

For more information about identification and behavior of birds, visit [www.allaboutbirds.org](http://www.allaboutbirds.org)

**This is the second in a series of factsheets on the wildlife, ecology, and landscape of the Thunder Basin National Grassland in northeastern Wyoming.**

Authors: Courtney Duchardt, Graduate Student, Ecology, Ecosystem Science and Management • John Derek Scasta, University of Wyoming Assistant Professor & Extension Rangeland Specialist. Photos courtesy Courtney Duchardt, Jacob Hennig and John Derek Scasta.