

**U.S. FISH AND WILDLIFE SERVICE
5-YEAR STATUS REVIEW
GUNNISON SAGE-GROUSE (*Centrocercus minimus*)**

GENERAL INFORMATION

Species: Gunnison Sage-grouse (*Centrocercus minimus*)

Date listed: November 20, 2014

Federal Register Notice of Listing Determination and Designation of Critical Habitat: Endangered and Threatened Wildlife and Plants; Threatened Status for Gunnison Sage-Grouse (79 FR 69191). Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for Gunnison Sage-Grouse (79 FR 69311).

Classification: Threatened

Most recent status review: August 26, 2019. Gunnison Sage-grouse (*Centrocercus minimus*) 5-Year Review

Federal Register Notice citation announcing initiation of this 5-year status review: March 13, 2023. Endangered and Threatened Wildlife and Plants; Initiation of 5-Year Status Reviews of 27 Listed Species in the Mountain-Prairie Region (88 FR 15448).

Lead Region: Region 6, Mountain-Prairie Region, Colorado Ecological Services Field Office, Nathan Darnall, Western Colorado Supervisor, nathan_darnall@fws.gov, 970-819-0541.

Current Recovery Priority Number (RPN): 8C, moderate degree of threats with a high recovery potential, and is or may be in conflict with construction, development, or other forms of economic activity.

Methodology used to complete this review: In accordance with section 4(c)(2) of the Endangered Species Act of 1973, as amended (Act) (16 U.S.C Section 1531 *et seq.*), the purpose of a 5-year status review is to assess each threatened and endangered species to determine whether its status has changed and it should be classified differently or removed from the Lists of Threatened and Endangered Wildlife and Plants. Status reviews are to be completed in accordance with Sections 4(a) and 4(b) of the Act (16 U.S.C. Section 1533(c)).

This 5-year status review was conducted by the U.S. Fish and Wildlife Service's (Service) Western Colorado Ecological Services Field Office incorporating the best available scientific information. Data for this review were solicited from interested parties through a Federal Register notice announcing this review on March 13, 2023: Bureau of Land Management (BLM), U.S. Forest Service (USFS), U. S. Geologic Survey (USGS), Colorado Parks and Wildlife (CPW), other species experts, and members from the Recovery Implementation Strategies (RIS) Working Groups for each population and subsequent community.

The information we received from this data call are summarized in the Conservation Efforts Database, lek count summaries provided by CPW, from the Working Groups and RIS Workshop feedback for each population. Additionally, we conducted a literature search and a review of information in our files.

We evaluated the biology and status of the Gunnison Sage-grouse (GUSG) from the Species Status Assessment (SSA) (Service 2019a) and the first 5-year status review (Service 2019b), the Recovery Plan (Service 2020a), the most recent lek surveys, and other data spanning the past 5 years. Additionally, we evaluated an updated USFS GUSG Forest Plan for the Grand Mesa, Uncompahgre and Gunnison (GMUG) National Forests and the upcoming BLM Resource Management Plan Amendment (RMPA) addressing GUSG nearing completion in 2024.

ASSESSMENT

Information acquired since the last status review:

A brief summary of updates include:

- Lek survey data collection and analysis from 2019 through 2023 (data from spring of 2024 have not yet been finalized),
- A Recovery Plan completed in 2020 (Service 2020a),
- Recovery Implementation Strategy (RIS) Workshops (Service 2020b) and Working Groups are actively implementing parts of the 2020 Recovery Plan,
- Ongoing, productive communication and regular, annual Working Group meetings are occurring for each population,
- A Conservation Efforts Database (CED) was developed in 2022 to track rangewide projects improving and restoring grouse habitat,
- Invasive species removal (i.e., cheatgrass) and wet meadow restoration projects are occurring, and
- Further natural resource planning efforts to conserve GUSG include:
 - USFS GMUG revised its Forest Plan in 2024, which provides a framework for GUSG conservation, and
 - BLM is amending eleven Resource Management Plans, which will provide a framework for GUSG conservation, with expected completion in 2024.

CURRENT DISTRIBUTION

As the second largest grouse species in North America, the Gunnison Sage-grouse (GUSG) occurs in eight small, localized populations in central and western Colorado and eastern Utah (Service 2019a, p. 9). GUSG were formerly native to southwestern Colorado, northern New Mexico, southeastern Utah, and northeastern Arizona (Young et al. 2000, p. 446), but are now found exclusively in Colorado and Utah. Seven populations occur in Colorado and one population in Utah. The Gunnison Basin population is the largest and is referred to as the core population, while the remaining seven populations are described as satellite populations. Two satellite populations include further subdivided subpopulations in San Miguel Basin and Cerro Summit-Cimarron-Sims Mesa (CS/C/SM). The remaining satellite populations in Colorado are

Piñon Mesa, Crawford, Poncha Pass, and Dove Creek. Across the Utah border is the Monticello satellite population. Changed since the previous review is the full separation of the Dove Creek (CO) and Monticello (UT) satellite populations. They were previously considered together, combining data as the Dove Creek-Monticello population; however, due to very low populations measured by high male counts (HMCs), the lack of movement between the two units, and the differing land management actions between the states of Utah and Colorado, they are no longer combined. The location of the eight GUSG populations are shown in Figure 1.

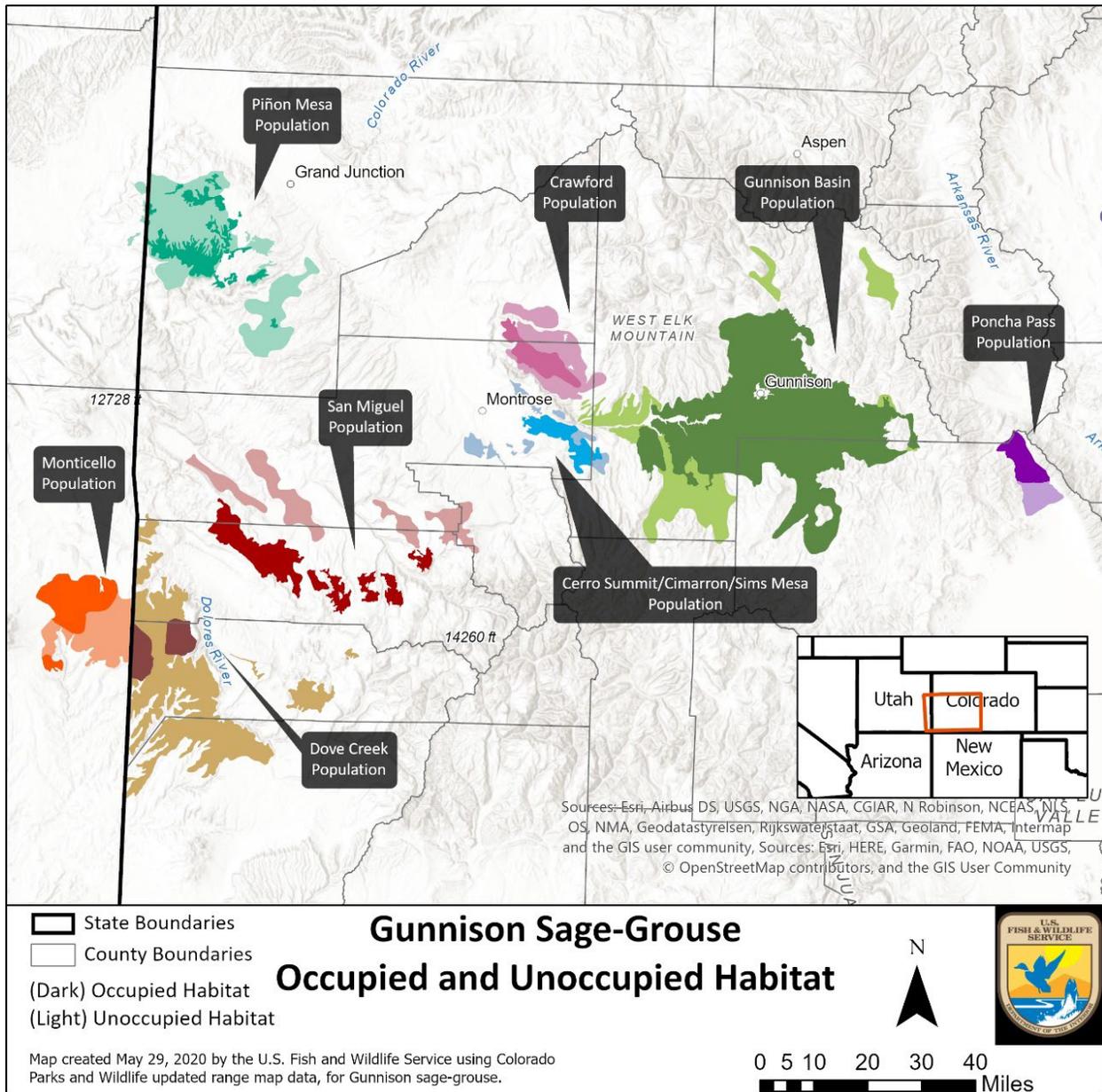


Figure 1. Current distribution of the eight GUSG populations in Colorado and Utah. Colors distinguish the populations. Light shading indicates likely, formerly occupied areas that still contain some of the appropriate biological and physical features for GUSG. The darker colors indicate occupied habitat where breeding takes place or is known to have taken place. The eight populations occupy six different ecoregions, areas with distinct soils, vegetation, temperature, and precipitation patterns (Service 2020a).

POPULATION STATUS

Based on input from species experts, high male counts (HMCs) are the best available data to evaluate demographic conditions of GUSG populations (GSRSC 2005). Because there is annual variation in HMCs, we used the running 3-year average of HMC trends to estimate population sizes (Service 2019a, p.31).

Recovery criteria include High Male Count (HMC) demographic targets in the Gunnison Basin, San Miguel Basin, Piñon Mesa, and Crawford populations as measured by the running 3-year average for at least 7 out of 9 consecutive years. As a lek breeding species, GUSG populations highly fluctuate over time naturally. Therefore, data from the past 9 years with the running 3-year running averages are shown in Table 1 and Table 2 below. Estimated population size is provided as an approximation of the corresponding adult population size associated with the target HMC.

Table 1: High Male Count (HMC) (3-year running average for the past 9 years, 2015 to 2023). Data provided by Colorado Parks and Wildlife.

Population	2015	2016	2017	2018	2019	2020	2021	2022	2023
Gunnison Basin	878	905	886	772	583	481	480	620	738
San Miguel Basin	46	50	53	47	42	37	39	49	52
Pinon Mesa	34	34	30	23	19	16	19	22	29
Crawford	28	31	28	23	16	11	6	8	7
Poncha Pass	4	7	6	6	5	6	7	7	6
CS/C/SM	12	12	8	6	3	1	0	0	0
Dove Creek	5	2	0	0	0	0	0	0	0
Monticello - UT	14	12	10	8	7	4	3	1	1
HMC Rangewide Total	1,021	1,052	1,021	886	674	557	555	707	833

Table 2: Population Estimate (3-year running average for the past 9 years, 2015 to 2023). The target numbers for four of the populations from the Recovery Plan are Gunnison Basin (3,687), San Miguel Basin (302), Pinyon Mesa (142), and Crawford (201) (Service 2020a). Data provided by Colorado Parks and Wildlife.

Population	2015	2016	2017	2018	2019	2020	2021	2022	2023
Gunnison Basin	4,306	4,440	4,348	3,789	2,862	2,361	2,356	3,040	3,622
San Miguel Basin	227	247	258	232	204	183	193	240	253
Pinon Mesa	167	165	146	113	92	78	95	106	141
Crawford	139	152	136	114	77	54	29	39	36
Poncha Pass	8	12	8	12	17	29	34	36	29
CS/C/SM	57	57	41	29	15	7	0	2	2
Dove Creek	26	10	2	0	0	0	0	0	0
Monticello - UT	69	59	49	41	33	21	13	7	3
Population Estimate Total	4,999	5,141	4,988	4,330	3,299	2,734	2,721	3,470	4,086

Updates per population:

GUNNISON BASIN:

Since official lek counts began, this population has fluctuated over time, as expected. Since 2019, it experienced an initial decline, but has more recently returned to near its long-term median. This is the largest and core population with high genetic diversity and resiliency, and it continues to have the best overall quality habitat. It has a formal Gunnison County Committee working on a variety of projects involving three committees: Gunnison Basin Sage-grouse Strategic Committee, Cheatgrass Subcommittee, and the Raven Subsidy Subcommittee. In 2022 and 2023, two grants totaling almost \$800K were awarded in the Gunnison Basin for cheatgrass treatments and wet meadow restoration, and the habitat work is ongoing. The GMUG recently updated its Forest Plan to provide additional conservation efforts for the GUSG.

In August of 2022, the Service issued an ESA section 10(a)(1)(B) Incidental Take Permit (Permit) in response to a Habitat Conservation Plan (HCP) for the Gunnison Rising Development on private lands (Service 2022). The 20-year permit authorized the take (via harm) of up to four GUSG through the loss of 597 acres of GUSG habitat due to commercial and residential development. The HCP included numerous minimization, conservation, and mitigation measures to offset the effects and permitted take, including the sale of 465 acres that are now managed by CPW (as a state wildlife area), donation of 420 acres for open space, and habitat management on another 26,956 acres of BLM lands.

SAN MIGUEL BASIN:

This population has fluctuated over time, with a low point in 2011 (based on the 3-year running average). Since 2019, it has increased to nearly the levels seen when official lek counts began. The San Miguel Basin continues to be the second largest population overall and largest satellite of Gunnison Basin. It occurs on the most diverse landscape supporting six subpopulations, which occur in three different ecoregions. The subpopulations are Dry Creek, Hamilton Mesa, Miramonte Reservoir, Gurley Reservoir, Beaver Mesa, and Iron Springs, which occur on mostly private land with some state and BLM land ownership. The Working Group continues to build relationships with landowners, and one landowner is considering a conservation easement, which would provide a substantial benefit for this population. In FY24, a grant of about \$261K was awarded for wet meadow restoration and included funding to support the Working Group Coordinator position. The wet meadow restoration projects are creating important summer habitat needed by young GUSG.

PIÑON MESA:

Based on the 3-year running average, this population fluctuated from a low point in 2012 and since 2019 has increased to the levels seen when official lek counts began. The Colorado West Land Trust is conducting and facilitating habitat restoration work, particularly wet meadow restoration to address the lack of GUSG brood rearing habitat. Effort is also being made towards building Local Working Group momentum and landowner relationships.

CRAWFORD:

This population experienced a decline since GUSG were reintroduced and has remained at low numbers since 2021. Of note, the area experienced severe drought conditions from 2019 to 2022.

Sheep grazing did not occur during these years, and cattle grazing was substantially reduced. Because domestic sheep were not present, any recent impacts to sagebrush suggests use by big game (deer and elk) may be reason. The BLM is intensively monitoring habitat conditions. Recreations is a new threat that has emerged in this population. To address this issue the BLM enacted gate closures during important winter and lekking seasons and is currently using traffic counters to gather additional information. This population continues to persist at low numbers and is a high priority population in which we are working with partners to implement recovery actions from the Recovery Plan and RIS. The current Crawford Working Group Coordinator is stepping down, and a search for a replacement has begun. Future effort could include securing more funding for habitat restoration work and a stipend for the Working Group Coordinator.

PONCHA PASS:

This small population has fluctuated since reintroduction and continues to persist despite low numbers. The 3-year running average is currently higher since the last 5-year review. The smallest satellite population was assumed to have been extirpated then reestablished by CPW (GSRPC, pg. 93). There is heavy disturbance on the west side of the main transecting highway (Hwy 285), including transmission lines, which affect the quality and connectivity of the habitat. Wet meadow restoration work continues to occur with additional projects scheduled for 2024. This summer, the BLM plans additional projects of cheatgrass monitoring and removal, travel management plan, and road assessment to inventory and plan closures. BLM is also working on a virtual fencing project to address grazing management concerns. Much of the GUSG activity occurs on private land, so there is interest in purchasing land in the area or establishing conservation easements to better protect and manage this satellite population. An informal Working Group Coordinator helps organize communication efforts.

CERRO SUMMIT/ CIMARRON/ SIMS MESA (CS/C/SM):

This small population has fluctuated since discovery and continues to persist despite low numbers. The 3-year running average is currently higher since the last 5-year review. Two subpopulations, Cerro Summit and Cimarron, together now make up this satellite population. The second subpopulation, Sims Mesa, is considered extirpated since no birds have been observed since 2004. The Sims Mesa subpopulation habitat has not been considered occupied since 2004.

DOVE CREEK:

No birds have been reported since 2017. The National Fish and Wildlife Foundation (NFWF) and Great Outdoors Colorado (GOCO) funded a RESTORE Colorado grant (\$100,000) to support the Dove Creek satellite population. This grant funds a Working Group Coordinator, and project goals include developing projects for wet meadow restoration and controlling invasive weeds, as well as developing community outreach and engagement. Since 2022, this grant was used to complete 123 wet meadow restoration structures, remove 3 acres of invasive tamarisk and Russian olive trees, and publish nine issues of a community outreach newsletter, the Sage Bloom. We anticipate submitting a BIL grant proposal for this satellite population later in 2024.

MONTICELLO:

A small satellite population on Utah's southeastern border has steadily decreased since 2009 and continues to persist today with as few as three individuals in the latest count despite ongoing

efforts to develop and maintain suitable habitat. In recent years, male grouse have been observed in only one of four known leks within Utah. The Monticello population struggles not only with the pressure of solar development, but primarily with threat of development by way of sagebrush conversion to agricultural croplands or grazing pastures. Furthermore, new science points to increases in raven populations such that raven depredation may be a substantial factor of declines (Dinkins et al. 2021).

SUMMARY OF RANGEWIDE CONDITIONS AND CONSERVATION EFFORTS

Overall, the habitat continues to experience below average moisture conditions. However, habitat improvement projects (i.e., wet meadow restoration) have and are occurring throughout the species' range with the community efforts of the Working Groups. Additionally, invasive cheatgrass removal treatments are occurring throughout the range as well. Other efforts include removal of encroaching trees within targeted areas, testing of virtual fencing technology for grazing (using collars instead of fences), and the removal and reclamation of unused roads.

Habitat restoration actions are being implemented in each satellite population benefiting GUSG and include wet meadow and mesic restoration work, which retain water on the landscape longer throughout the year, increasing forbs and grass cover later into the summer. Having wet meadow habitat increases the number of invertebrates, which is especially needed for brood-rearing (GSRSC 2005). Removal of invasive plant species such as cheatgrass are actively taking place, with a sub-committee established in the Gunnison Basin.

Additional new efforts include a project funded with Science Acquisition BIL funding with the United States Geological Survey (USGS) called PReSET (Prioritizing Restoration of Sagebrush Ecosystems Tool). We anticipate presenting this project at the next RIS workshops in the spring of 2025. The Conservation Efforts Database (CED) hosts all recovery actions submitted annually and presented at the RIS Workshops each year. Both the PReSET and CED are rangewide for all populations.

Another very important piece in helping this species recover is through the annual Recovery Implementation Strategy (RIS) Workshops held in-person at each population's location in the spring each year. At these meetings, the following are discussed, revised, updated, or reviewed: RIS objectives, the Conservation Efforts Database (CED), updates and inputs are sought for model development in the USGS PReSET project, Partner updates, funding updates, and 5-year reviews requesting input on projects are sought.

Furthermore, many important and beneficial actions for GUSG recovery that were initiated *prior* to listing are *still* ongoing and continue to be implemented, such as seasonal road closures, pursuing further conservation easements in occupied GUSG habitat, proper grazing practices, and habitat improvements. Refer to the Species Status Assessment (Service; 2019a) and the previous 5-year status review (Service 2019b).

CONCLUSION

The Endangered Species Act defines an endangered species as any species that is “in danger of extinction throughout all or a significant portion of its range” and a threatened species as any species that is “likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.”

After reviewing the best available scientific information, we conclude that the Gunnison Sage-grouse (*Centrocercus minimus*) remains a threatened species. The evaluation of the threats affecting this species under the factors in 4(a)(1) of the Act and analysis of the status of the species in our most recent 5-year status review (2019b) remains an accurate reflection of the species' current status. Since the last status review, the updated 3-year running averages of both the High Male Counts (HMC) and Population Estimates are not sufficient to warrant a change in status. Importantly, the numerous collaborative efforts of partnerships, regular working group meetings, and annual recovery implementation workshops for each population in their relative communities, shows good progress toward the recovery of the Gunnison Sage-grouse species. Substantial effort has and is being put towards habitat restoration and enhancement.

U.S. FISH AND WILDLIFE SERVICE
5-YEAR STATUS REVIEW
GUNNISON SAGE-GROUSE (*Centrocercus minimus*)

CURRENT CLASSIFICATION: Threatened

RECOMMENDATION RESULTING FROM THE 5-YEAR STATUS REVIEW:

- Downlist to Threatened
- Uplist to Endangered
- Delist (Indicate reasons for delisting per 50 CFR 424.11):
 - Extinction
 - Recovery
 - Original data for classification in error
- No change is needed**

APPROPRIATE LISTING/RECLASSIFICATION PRIORITY NUMBER, IF APPLICABLE:

No change from 8C.

RECOMMENDATIONS FOR FUTURE ACTIONS:

- Continue annual lek counts and surveys.
- Continue with Recovery Implementation Strategy (RIS) Workshops annually for each GUSG population Working Group.
- Continue to implement wet meadow restoration projects and cheatgrass invasive species removal projects (sub-committees) for habitat improvement.
- Research the human subsidies provided to common ravens in GUSG populations. If warranted, develop and implement a predator control management plan with partners.
- Continue fostering community relationships and outreach.
- Continue to secure grant funding for habitat restoration projects and provide funding for Working Group Coordinators.

Lead Field Office Approval:

Signature: _____ Date: 07/26/2024

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REFERENCES CITED

- Bureau of Land Management (BLM). 2024 *draft, unpublished*. Gunnison Sage-grouse Resource Management Plan Amendment (RMPA). <https://eplanning.blm.gov/eplanning-ui/project/2019031/570>
- Dinkins, J. B., L. R. Perry, J. L. Beck, and J. D. Taylor. 2021. Increased abundance of the Common Raven within the ranges of Greater and Gunnison Sage-grouse: Influence of anthropogenic subsidies and fire. *Human–Wildlife Interactions*, 15(3). <https://www.jstor.org/stable/27316282>
- Gunnison Sage-grouse Rangewide Steering Committee (GSRSC). 2005. Gunnison Sage-grouse Rangewide Conservation Plan. Colorado Division of Wildlife. Denver, Colorado. https://www.landcan.org/pdfs/gunnison_management_plan_2005.pdf
- Maxwell, L. M., E. C. Teige, S. E. Jordan, T. K. Rutherford, E. M. Samuel, L. B. Selby, A. C. Foster, N. J. Kleist, and S. K. Carter. 2023. Annotated Bibliography of Scientific Research on Gunnison Sage-Grouse Published from January 2005 to September 2022. U.S. Geological Survey. Open-File Report 2023-1079. 52 pages. <https://doi.org/10.3133/ofr20231079>
- USDA Forest Service (USFS). 2024. Grand Mesa, Uncompahgre, and Gunnison National Forests: Revised Land Management Plan. Delta, Colorado. pgs. 53-59. <https://usfs-public.app.box.com/s/q1ynrmqbv90hrzp9rpxanxgwtk2rxq70/file/1560808550069>
- U.S. Fish and Wildlife Service (Service). 2014. Endangered and Threatened Wildlife and Plants: Threatened Status for Gunnison Sage-Grouse [final rule]: Federal Register 79:69191-69310. <https://www.federalregister.gov/documents/2014/11/20/2014-27109/endangered-and-threatened-wildlife-and-plants-threatened-status-for-gunnison-sage-grouse>
- U.S. Fish and Wildlife Service (Service). 2019a. Species Status Assessment Report for the Gunnison Sage- Grouse (*Centrocercus minimus*) Version: April 20, 2019. Lakewood, Colorado. <https://ecos.fws.gov/ServCat/DownloadFile/168321>
- U.S. Fish and Wildlife Service (Service). 2019b. Gunnison Sage-grouse (*Centrocercus minimus*) 5-Year Review. Grand Junction, Colorado. https://ecosphere-documents-production-public.s3.amazonaws.com/sams/public_docs/species_nonpublish/2765.pdf
- U.S. Fish and Wildlife Service (Service). 2020a. Final Recovery Plan for Gunnison Sage-grouse (*Centrocercus minimus*). October 23, 2020. U.S. Fish and Wildlife Service, Upper Colorado River Region, Lakewood, Colorado. 32 pages. https://ecos.fws.gov/docs/recovery_plan/2020-10-23_GUSG_FinalRP_v8.pdf
- U.S. Fish and Wildlife Service (Service). 2020b. Recovery Implementation Strategy for Gunnison Sage-grouse (*Centrocercus minimus*). Version 1.0. U.S. Fish and Wildlife Service, Upper Colorado River Region, Lakewood, Colorado. 75 pages. https://ecos.fws.gov/docs/recovery_plan/20200930_FWS_AHearne_RIS_GUSG_V1FIN_AL_CLEAN.pdf

U.S. Fish and Wildlife Service (Service). 2022. Gunnison Rising HCP and Section 10(a)(1)(B) Permit. U.S. Fish and Wildlife Service, Colorado Field Office, Grand Junction, Colorado. https://ecos.fws.gov/ecp/report/conservation-plan?plan_id=4857.

Young, J.R., C. E. Braun, S. J. Oyler-McCance, J. W. Hupp, and T. W. Quinn. 2000. A new species of sage-grouse (Phasianidae: *Centrocercus*) from southwestern Colorado. *Wilson Bulletin* 112(4):445–453. [https://doi.org/10.1676/0043-5643\(2000\)112\[0445:ANSOSG\]2.0.CO;2](https://doi.org/10.1676/0043-5643(2000)112[0445:ANSOSG]2.0.CO;2)