

SPECIES: Scientific [common]	<i>B. bison bison</i> [Plains Bison]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	Randall Griebel, James Wilder
Date of Review:	08/03/2018; updated 4/18/2025
Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)	NO

FOREST REVIEW RESULTS:

1. The Forest concurs or recommends the species for inclusion on the list of potential SCC:
Yes___ No_X___
2. Rationale for not concurring is based on (check all that apply):
Species is not native to the plan area ___
Species is not known to occur in the plan area ___
Species persistence in the plan area is not of substantial concern ___X___

FOREST REVIEW INFORMATION:

1. Is the Species Native to the Plan Area? Yes_X___ No___

If no, provide explanation and stop assessment.
2. Is the Species Known to Occur within the Planning Area? Yes_X___ No___

If no, stop assessment.

Table 1. All Known Occurrences, Years, and Frequency within the Planning Area

Year Observed	Number of Individuals	Location of Observations	Source of Information
1939	1 Specimen Collected	Pinedale Ranger District Green River Lake	Wyoming Natural Diversity Database (July 2018)
1989-1993	*342	Jackson Ranger District Just outside National Elk Refuge/Kelly	
1991	22	Jackson/Big Piney Ranger District Steamboat Peak	
1994	3	Jackson Ranger District Spread Creek	
1991-1996	7	Jackson ranger District Granite Creek	

*Database records does not include current Plains bison occupancy. To date, Plains bison continue to occupy the BTNF, near the National Elk Refuge and Forest boundary, just outside the town of Kelly, Wyoming. As depicted in Table 1 and Map 2.

- a. Are all Species Occurrences Only Accidental or Transient?

Yes___ No__X_

If yes, document source for determination and stop assessment.

- b. For species with known occurrences on the Forest since 1990, based on the number of observations and/or year of last observation, can the species be presumed to be established or becoming established in the plan area?

Yes__X_ No___

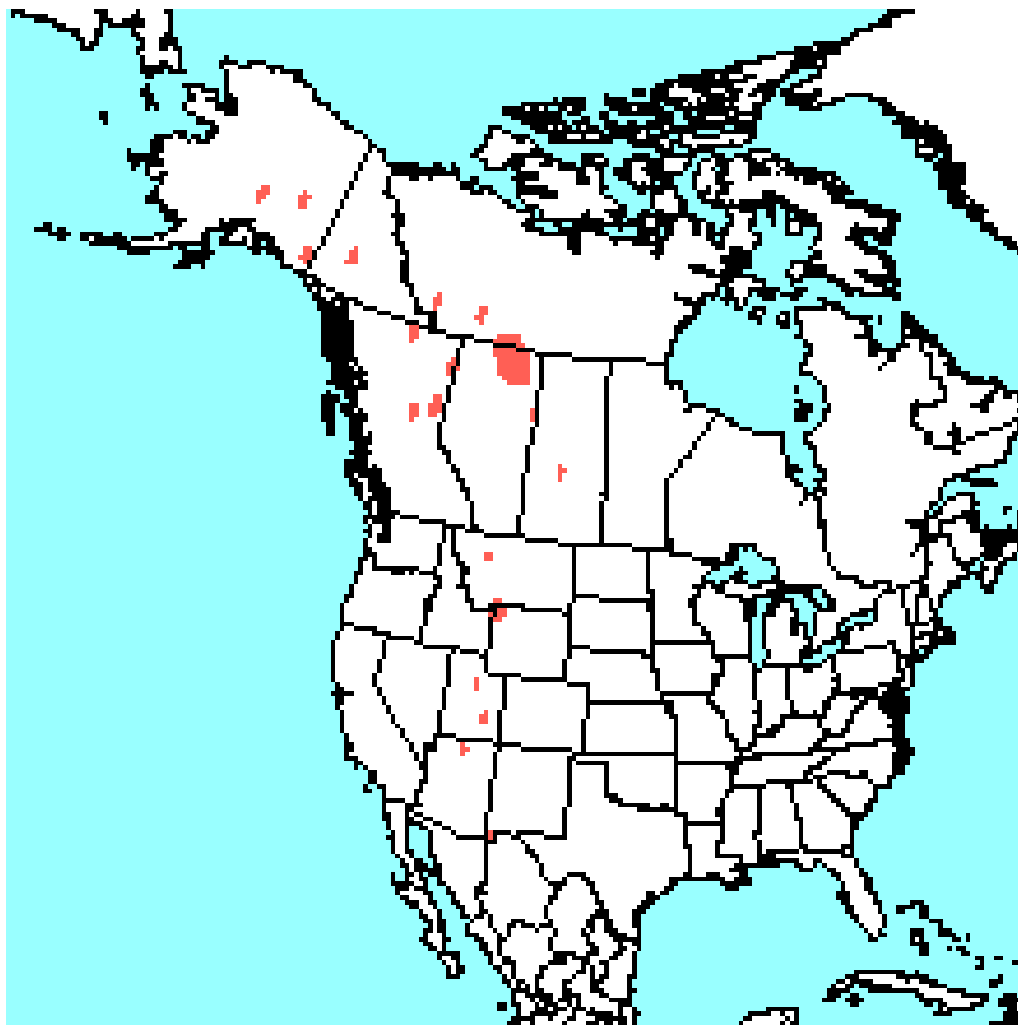
If no, provide explanation and stop assessment.

- c. For species with known occurrences on the Forest predating 1990, does the weight of evidence suggest the species still occurs in the plan area?

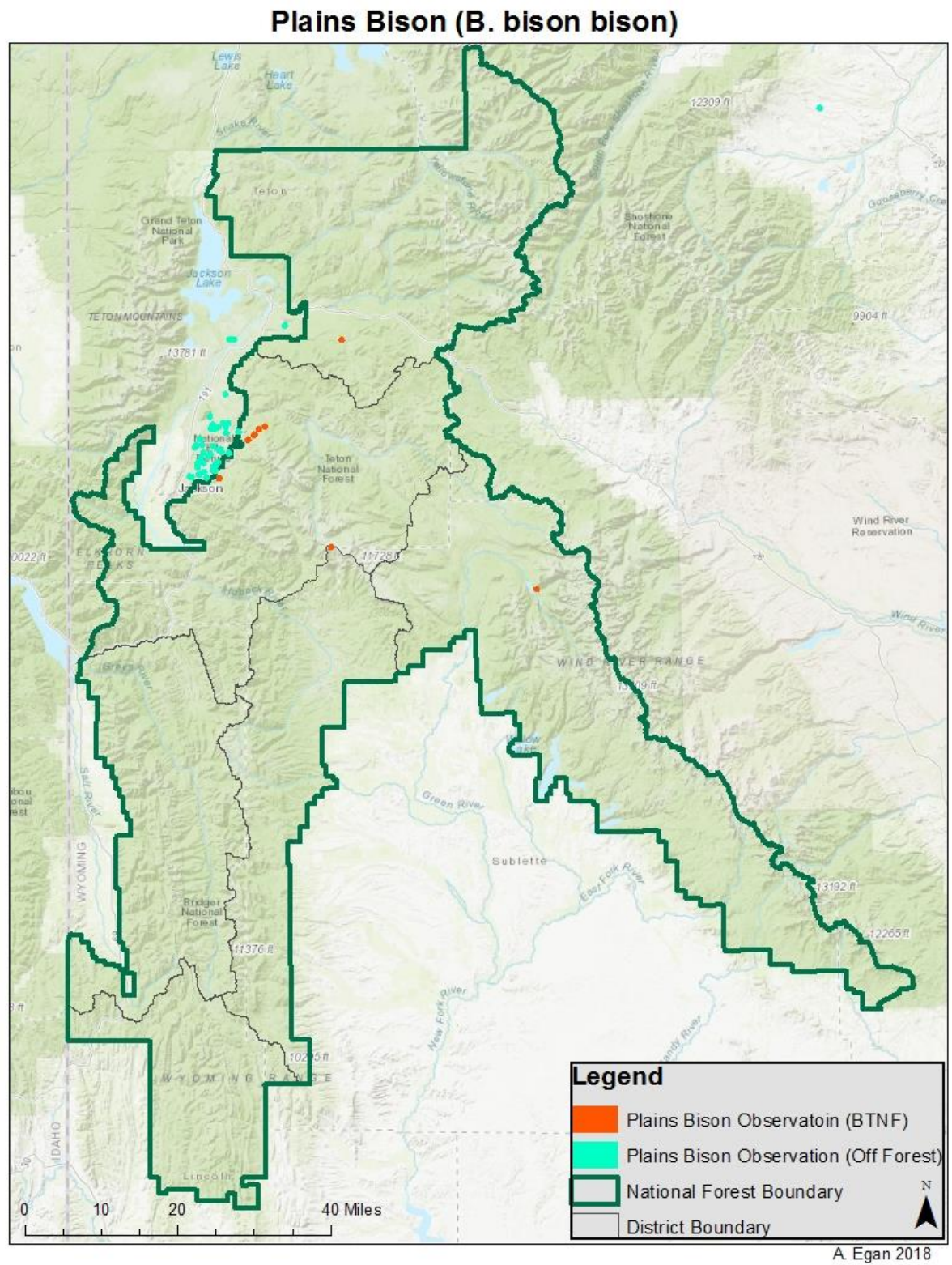
Yes__X_ No___

If no, provide explanation and stop assessment.

d. **Map 1**, Plains bison range map of North America.



- e. **Map 2**, Map of Plains bison occurrences on the Bridger-Teton National Forest (Wyoming Natural Diversity Database [July 2018]).



3. Is There Substantial Concern for the Species' Capability to persist Over the Long-term in the Plan Area Based on Best Available Scientific Information?

Table 2. Status summary based on existing conservation assessments

Entity	Status/Rank (include definition if Other)
NatureServe Global Status	G4— Apparently Secure <i>Uncommon but not rare; some cause for long-term concern due to declines or other factors.</i>
NatureServe State Status	S1— Critically Imperiled <i>At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.</i>
WGFD	No Special Status
WYNDD	Species of Concern <i>Species vulnerable to extirpation at the global or state level due to:</i> <ul style="list-style-type: none"> <i>a. their rarity (e.g., restricted distribution, small population size, low population density)</i> <i>b. inherent vulnerability (e.g., specialized habitat requirements, restrictive life history)</i> <i>c. threats (e.g., significant loss of habitat, sensitivity to disturbances)</i> (Wyoming Natural Diversity Database - Species of Concern)
USDA Forest Service	No Special Status
USDI FWS	No Special Status; Petition Under Review (UR) <i>In June 2022 the FWS released its 90-day Finding on Petitions to List the Yellowstone Bison DPS under the ESA. The FWS found that the petitioners presented credible and substantial information that range curtailment may impact the Yellowstone bison due to loss of migration routes, lack of tolerance for bison outside Yellowstone National Park, and habitat loss. Petitioners also provided information suggesting that regulatory mechanisms (in the form of management actions intended to address disease provided in the Interagency Bison Management Plan), overutilization, disease, and loss of genetic diversity may pose further threats. The FWS will fully evaluate potential threats as part of the 12-month assessment.</i>
WY BLM	No Special Status
IUCN	*NE – Near Extinct (*American Bison-encompasses the two subspecies, Plains and Woods bison)

	<i>A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.</i> (IUCN – Red List Categories and Criteria)
--	---

Table 3. Status summary based on best available scientific information.

Species (Scientific and Common Name): <i>B. bison bison</i> [Plains bison]	
Criteria	Rationale
Distribution on Bridger-Teton National Forest	<p>Bison historically ranged throughout most of North America, including the Greater Yellowstone area surrounding Jackson hole (Boyd 2003; USFWS et al. 2007). The Plains bison were most abundant across the grasslands of the Great Plains extending east toward the Great lakes regions, south to Florida, and westward toward Nevada and the Rocky Mountain region. Present day Bison distribution across North America consists of remnant and re-introduced herds, occupying less than 1.2% of their original range (Sanderson et al. 2008 <i>in</i> Aune et al 2017).</p> <p>Currently, bison occupy a small isolated area of northwest Wyoming, located within the Greater Yellowstone Ecosystem (Map 1). This includes the Yellowstone and Jackson herds. The Jackson bison herd comprises one of the largest concentrations of bison in North America. The Jackson bison herd migrates across several jurisdictions including Grand Teton National Park and the National Elk Refuge, with some crossing into the Bridger-Teton National Forest and onto state and private lands in Jackson Hole. Plains bison have very low distribution across the Forest and are more commonly known to occupy lands near the Forest boundary (Map 2, Table 2).</p>
Abundance on the Bridger-Teton National Forest	The Jackson bison herd is not as abundant on the BTNF as they are on the adjacent Grand Teton National Park and National Elk Refuge. The Jackson herd averaged 773 individuals from 2011 to 2015, 546 individuals in 2016, and the proposed estimated population for 2017 was 504 individuals (WGFD 2016). The state of Wyoming has implemented bison hunting to regulate the Jackson population and reach the desired population objective. According to Wyoming Game and Fish, the bison herd objective for the Jackson population is 500 individuals.
Population Trend on the Bridger-Teton National Forest	<p>There are 50 Plains bison herds in north America (only 13 of which are free-range), with only 22% of the populations currently increasing (Boyd 2003). However, according to the IUCSN red list of threatened species, bison populations across North America are currently stable (Aune et al. 2017).</p> <p>Since discovering the supplemental food source on the National Elk Refuge adjacent to the BTNF, and prior to an increase in harvest levels, the Jackson bison herd had grown to approximately 1,000 animals, increasing by 10%–14% each year</p>

Species (Scientific and Common Name): <i>B. bison bison</i> [Plains bison]	
Criteria	Rationale
	(USFWS et al. 2007). More recently, the Jackson bison herd three year trend average shows a decrease in population trend from 2009 to current. Yet the most recent three year trend from 2014 to 2016 recorded 634 individuals, 20% above the herd objective of 500 (WGFD 2016). The decreasing trend is largely associated with increased harvest tags and harvest success. Annual harvest rates have successfully reduced the population to meet the herd objective (WGFD 2016).
Habitat Trend on the Bridger-Teton National Forest	<p>Bison are primarily grazers and forage in grassland and meadow communities. They can persist in arid regions and in colder climates that experience deep snow cover. Grasses and sedges form the mainstay of the annual diet in all regions (Aune et al. 2017). However, diets in the summer and fall may vary, including flowering plants, woody plant leaves, and lichens, in addition to grasses and sedges.</p> <p>For the species' North American range, natural bison habitat has been reduced to a fraction of their historical range (Mace et al. 2001 <i>in</i> Boyd 2003). While the Jackson herd is within original Plains bison range, recovery of the species is greatly associated with maintaining sufficient suitable habitat (Boyd 2003). Much of the BTNF is dominated by forested vegetation that provides less than suitable habitat for the Plains bison and lacks the expansive grasslands necessary for such a large species. The steep mountainous forest landscape of the BTNF also acts as a large land barrier, inhibiting the species from expanding into other parts of its range. The most optimal habitat for the Plains bison on the BTNF is near the National Elk Refuge boundary where the grasslands of the refuge continue onto Forest lands.</p>
Threats to the Species and its Habitat on the Bridger-Teton National Forest	<p><u>Summary</u></p> <p>In the 19th Century, market, subsistence and recreational hunting nearly eliminated the bison throughout its range in North America (Aune et al. 2017). Existing threats to Plains bison includes habitat loss, disease, reduction in genetic diversity, hybridization, and the threat of depopulation as a management response to infection (Aune et al. 2017; Boyd 2003). In June 2022 the FWS released its 90-day Finding on Petitions to List the Yellowstone Bison DPS under the ESA. The FWS found that the petitioners presented credible and substantial information that range curtailment may impact the Yellowstone bison due to loss of migration routes, lack of tolerance for bison outside Yellowstone National Park, and habitat loss. Petitioners also provided information suggesting that regulatory mechanisms (in the form of management actions intended to address disease provided in the Interagency Bison Management Plan), overutilization, disease, and loss of genetic diversity may pose further threats. The FWS will fully evaluate potential threats as part of the 12-month assessment (https://www.fws.gov/sites/default/files/documents/QA_Yellowstone%20bison%2090d_Final.pdf).</p> <p><u>Disease</u></p> <p>Bison are susceptible to many pathogens and parasites (Boyd 2003). Three contagious diseases of considerable concern are anthrax, bovine tuberculosis, and bovine brucellosis (Boyd 2003). The Yellowstone and Jackson herds are the only</p>

Species (Scientific and Common Name): <i>B. bison bison</i> [Plains bison]	
Criteria	Rationale
	<p>two of the 13 free-roaming herds that have chronic disease issues. While these herds in the Greater Yellowstone Area account for 24% of the Plains bison, studies have determined that the disease is not a threat to the long-term survival of the two herds. An additional threat to populations of Plains bison is culling to prevent the spread of bovine tuberculosis and brucellosis (Aune et al. 2007).</p> <p><u>Habitat Loss</u></p> <p>Human population growth, resource extraction activities, ranching, and urban and rural settlement has depleted extensive bison habitat (Boyd 2003). Fragmented populations are susceptible to inbreeding pressure, loss of genetic diversity, and extinction (Mace et al. 2001 in Boyd 2003). Due to socio-political, political, ecological, logistical, and financial barriers, 50% of the Plains bison herds do not have the ability to expand in their range.</p> <p><u>Harvest Species</u></p> <p>The Plains bison that make up the Jackson herd is a harvest species regulated by the Wyoming Game and Fish Department. Large populations of bison have the ability to deplete resources and deteriorate landscapes, therefore, herd objectives have been implemented in order to maintain suitable bison populations that are compatible with other resources and minimize disease transmission.</p>
<p>Summary and recommendations:</p> <p>While there are few remnant Plains bison herds remaining across North America, the Jackson herd is one of the largest populations of bison in the Greater Yellowstone Ecosystem. The majority of the Plains bison that make up the Jackson herd are located on the public and private lands adjacent to the Bridger-Teton National Forest. Bison distribution across the Forest is extremely low and is generally confined to the grassland habitat bordering the National Elk Refuge boundary. The Bridger-Teton National Forest does not provide the expansive grassland and meadow habitat required to sustain bison populations. Bison populations have undergone a significant increase until more recent management actions began to regulate bison populations. The Jackson herd falls under the wildlife management jurisdictions of Grand Teton National Park, the National Elk Refuge, and the Wyoming Game and Fish Department (USFWS et al. 2007). Due to the small area utilized by this species on the Forest, compared to the expansive habitat present adjacent to the Forest, and the low abundance and distribution of bison on the BTNF, the Forest contribution to the loss of Bison habitat and disease dispersal is negligible. For these reasons, there is not a substantial concern for the species' capability to persist over the long-term within the planning unit at this time. Therefore, it is recommended that the Plains bison is not a Species of Conservation Concern for the Bridger-Teton National Forest.</p>	
<p>Evaluator(s): Ashley Egan, Randall Griebel</p> <p>Date: July 25, 2018</p>	

Species (Scientific and Common Name): <i>B. bison bison</i> [Plains bison]	
Criteria	Rationale
<p>Literature Citations</p> <p>Aune, K., Jørgensen, D. & Gates, C. 2017. <i>Bison</i> (errata version published in 2018). The IUCN Red List of Threatened Species 2017: e.T2815A123789863. . Downloaded on 25 July 2018.</p> <p>Boyd, D. 2003. Conservation of North American bison: Status and Recommendations. University of Calgary.</p> <p>U.S. Fish and Wildlife and National Park Service. 2007. Final Bison and Elk Management Plan and Environmental Impact Statement for the National Elk Refuge/Grand Teton National Park/John D. Rockefeller, Jr., Memorial Parkway. https://www.fws.gov/bisonandelkplan/.</p> <p>Wyoming Game and Fish Department. 2016. Job Completion Report-Bison. https://wgfd.wyo.gov/WGFD/media/content/PDF/Hunting/JCRS/JCR_BGJACKSON_BISON_2016.pdf.</p>	