Ashley National Forest Assessment

Species at Risk Report

Public Draft

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for:
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Introduction

Wildlife, both terrestrial and aquatic species, are highly valued by the public for both consumptive and non-consumptive use. Healthy populations of wildlife species are enjoyed by many on the Ashley National Forest and are good indicators of the health and diversity of current habitat conditions. With an ever-increasing human population leading to more national forest users, the demand for wildlife opportunities continues to grow. This growth comes with the potential for habitat disturbance, as well as potential impacts to wildlife. It will be important as we move into the future that we are aware of these potential disturbances and do what it takes to minimize negative impacts to this popular resource on the Ashley National Forest.

Social, Environmental, and Economic Benefits of Wildlife and Fish

Wildlife and fish habitat on the Ashley National Forest have many social, economic, recreational, spiritual and scientific benefits to people. Wildlife hunting, and to a lesser degree trapping, have a strong tradition in western culture and are a major economic driver in western states. Viewing and photography of wildlife also contribute greatly to local economies. Thousands of people travel to this region every year to visit the area. They often come to Dinosaur National Monument or to fish and white water raft on the Green River, and extend their visit to the Ashley National Forest. These visitors come for a variety of reasons, but the chance to see wildlife is generally on the list. Because of the Ashley National Forest's incredible wildlife diversity, Ashley wildlife resources are nationally recognized and cherished. These resources attract the attention of wildlife observers, professionals, and advocates nationwide.

Directives and Management Challenges

The Forest Service's 2012 Planning Rule lists wildlife conservation as a priority. The Planning Rule states, "wildlife habitat shall be managed to maintain viable populations of existing native and desired nonnative vertebrate species." This directive is becoming more challenging because of changing factors, including rising recreational use, demand for services and amenities, local land development and a warming climate.

The Ashley National Forest plan contains goals, objectives, and standards for wildlife and habitat, including some that are directed at individual species, groups of species, and habitat conditions. The Ashely National Forest plan emphasizes forage and cover needs on big game winter ranges, managing vegetation to maintain or improve habitat, providing for plant diversity and protecting special habitats. The Ashley National Forest plan's focus is to actively manage habitat while minimizing harm from other resource activities and to give special consideration to threatened, endangered, and high-interest species. The plan also contains monitoring requirements.

Following are a few of the management concerns related to wildlife habitat on the Ashley.

- **Adjacent Private and Tribal Lands**: Nearby human land development can reduce management options and result in conflicts related to wildlife.
- **Climate Change**: A warming climate can cause increased frequency or severity of droughts, fires, wind, floods, insects, and diseases. These changes can alter habitat characteristics and force species to seek more suitable areas.

- **Habitat Fragmentation and Wildlife Corridors**: For various reasons, including human-caused land development, certain species are often stranded in isolated islands of suitable habitat. This can restrict genetic diversity, seasonal movement, and the ability of a species to move to a more suitable habitat area.
- **Landscape Changes**: Wildfire, insect infestations, invasive plant species, historic fire suppression, and a warming climate are among the many factors that can make habitats unsuitable for the species that live there.
- **Management Coordination**: Wildlife ignore and frequently cross national forest boundaries. As a result, habitat and wildlife management efforts must often be coordinated with other land management agencies, State fish and wildlife agencies, and private landowners.
- **Multiple Use**: Under the Federal Land Policy and Management Act of 1976, "multiple use" allows various recreational activities, commercial resource extraction, and other land uses. Because of this, multiple use can change habitat or disturb wildlife.
- **Protected Area Locations**: Although approximately one-third of the Ashley National Forest is designated as having some level of protected status (such as wilderness or national recreation areas), many of these areas are at elevations that are not suitable for all species on the Ashley.
- **Species Interactions and Environmental Impact**: Changes in species populations and locations can affect other species and overall habitats. Examples include mountain pine beetles, predatory species such as wolves, and "engineer" species such as beavers.
- **Wildfire**: In recent decades, wildfires in certain areas on the Ashley National Forest have been more severe, more frequent, or both. Following these large fires, vegetation that had become decadent (dormant, stagnant) was replaced by new vegetation with much more variety—a condition that improves habitat for certain kinds of wildlife while others may be impacted.

Habitat Conditions

Flaming Gorge – Vernal Ranger District: Habitat conditions on the Flaming Gorge –Vernal Ranger District can be characterized as generally in good to excellent condition. Unique to this geographical area, which is located on the north slope of Uinta Mountains, is the largest ponderosa pine forested area on the Ashley National Forest. This area has been extensively managed over the years and supports a wide array of wildlife species. Similar to other areas on the Ashley National Forest, lodgepole pine is a very common forest vegetation type on both the north and south slopes of the Uinta Mountains. Like the ponderosa pine forest area, lodgepole pine also supports a wide array of wildlife species. Mountain brush communities, such as mountain mahogany, are also found in this area. These communities provide an excellent habitat for many large and small terrestrial wildlife species.

Roosevelt-Duchesne Ranger District: Habitat conditions on the Roosevelt-Duchesne Ranger District are similar to the rest of the Ashley National Forest. Ponderosa and lodgepole pine are common, as well as mixed conifer (Douglass fir/spruce). These conifer areas provide excellent habitat for various life stages of many wildlife species on the district. The south unit of the Ashley National Forest - an area south of U.S. 40 - supports a large pinyon and juniper area, mixed with sagebrush, and supports some of the higher number of sage grouse on the Ashley National Forest. Overall, habitat conditions are in good to excellent condition on this district.

Species at Risk

Introduction

Part of revising the National Forest management plan is to identify federally protected, threatened, endangered, proposed, and candidate species that reside in or have suitable habitats on the Ashley National Forest. The Forest Service responsibility for threatened and endangered species is to work with the U.S. Fish and Wildlife Service and other partners such as state wildlife agencies, to help in the recovery of these species. Similarly, the primary goal for proposed species is to conserve them and their habitat so that Forest Service management actions do not threaten these species in the recovery process. The list of species are determined and maintained by regional Fish and Wildlife Service offices. For the Ashley National Forest, these lists are managed by the Ecological Services office in Salt Lake City, Utah.

In addition to the federally protected species, the Forest Service identifies species of conservation concern. These are typically species that may have smaller numbers or have been trending downward. Therefore, the agency ensures management actions do not impact these species or their habitat, and that viable populations are maintained.

The 2012 Planning Rule defines species of conservation concern as: a species, other than federally recognized as threatened, endangered, proposed, or candidate species, that is known to occur in the plan area and for which the regional forester has determined that the best available scientific information indicates substantial concern about the species' capability to persist over the long-term in the plan area. Substantial concern being defined as some combination of threats either directly to the species or indirectly to the species habitat, their pollinators, or other relevant risk factors." 'Persistence over the long term of planning area' must be thought of as 'continued existence' and needs to be thought of in ecological time. That being the time for the species to disperse, compete, and reproduce on to the longer end of forest succession. So persistence is longer than the 15-year forest planning cycle."

The original list of species of conservation concern considered were generated by the Forest Service's Intermountain Regional Office. This consisted of 96 animal and 81 plant species as potential species of conservation concern for the Ashley National Forest. The following key criteria or questions were considered in the evaluation of species of conservation concern.

- Is the species native to the Ashley or not?
- What is the Global and State status of each species?
- In the past 20 years, how many occurrences and what year was the last occurrence for each species on the Forest?
- Are the species occurrences accidental or transient on the Ashley?
- Is the species established or becoming established on the Ashley?
- What is the distribution, abundance, and trend of the species on the Ashley?
- What threats and risks does the species face on the Ashley?
- What habitat requirement does the species have?
- Is there substantial concern for this species to persist on the Ashley?

Information Sources and Gaps

The Ashley National Forest uses a number of sources to determine National Forest distribution and occurrences. These include Forest Service corporate database, Natural Resource Manager (NRM), NatureServe, Utah Natural Heritage Database, Wyoming Natural Heritage Database, Rocky Mountain Herbarium, Brigham Young University Herbarium, University of Colorado Herbarium, Utah State University – Uintah Basin Herbarium, and Natural Resource Conservation Service (NRCS) Plants Database. Other sources of information were also used such as state level species reports/ Wildlife Action Plans, Birds of North America, A Utah Flora, Uinta Flora, Flora of Wyoming, Intermountain Flora, Flora of North America, and other available information.

Many of the animal species the Forest considered were NatureServe ranks of S1 (critically imperiled) or S2 (imperiled) in Wyoming, or in other words, relatively rare species. That part of the Ashley National Forest, which is located in Wyoming, is limited to the Flaming Gorge National Recreation Area. This popular recreation area is relatively limited in terms of its habitat diversity. Therefore, most of the S1/2 animal species in Wyoming were not recommended for potential species of conservation concern because the Flaming Gorge National Recreation Area does not support the specific species habitat requirements. For more details about any of the species considered as potential species of conservation concern, visit the NatureServe website at http://explorer.natureserve.org/.

Threats, risks, and habitat requirements for each species were identified using many of the sources listed above. Species distribution maps in NatureServe, NRCS Plants Database, corporate knowledge and data, plant identification manuals, and plant specimens in herbariums were used to determine if the species was native, as well as if the species is established or becoming established on the Forest.

Abundance and trend for many animal species were difficult to assess because of a lack of information. Animal species were not carried forward if the planning area had few (less than 10) to no occurrences and the species was secure in adjacent states within the species core distribution or primary home range. For species occurrence information, we considered data from both Wyoming and Utah wildlife databases and Forest Service corporate databases. For plant species, abundance and trend data were sufficient to assess all species. Additional criteria were also considered for the plant species assessment. These included:

- margin of range (wide-ranging plant species with limited distribution on the forest)
- contrasting taxonomic treatments (disagreement in distinguishing different types of plants)
- species reaction to disturbance
- existing laws and designations that provide protection
- level of taxonomic (taxonomic?) status

Scale of Analysis

With the primary purpose of this assessment being to assist in revising our Ashley National Forest management plan, we focused our analysis area primarily on the Ashley National Forest. The Ashley National Forest lies within the Duchesne and Upper Green River 4th order hydrologic units. We did consider species distributions in areas adjacent to the Ashley National Forest, as well as regional and global distributions of species. Moreover, we also related species distribution

to Ashley National Forest land type associations to better understand and define the relationship between species and their habitat needs.

Tables 1 and 2 present the list of potential species of concern for the Ashley National Forest. Table 1 consists of animals and table 2 consists of plants.

Table 3 is a summary of the endangered, threatened, proposed, or candidate species that occur or have suitable habitat on the Ashley National Forest. These species are covered by the Endangered Species Act of 1973 and the Ashley National Forest is mandated to consider potential effects from management to these species. While the Ashley does not have discretion or control of this list, these species are still part of the species at risk assessment for forest plan revision.

Table 4 lists current habitat conditions, trends, and risk factors for potential animal species of conservation concern.

Table 5 lists current habitat conditions, trends, and risk factors for potential plant species of conservation concern (information regarding current habitat conditions, ecological and human-related stressors, and habitat sustainability for plants was derived from plant assessments found in Huber 2016).

Table 6 lists current habitat conditions, trends, and risk factors for threatened, endangered, proposed, and candidate animal and plant species.

Table 1. Potential wildlife and fish species of conservation concern located on the Ashley National Forest

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Centrocercus urophasianus Greater Sage-Grouse	Declining populations and habitat range-wide. Ecological disturbances (climate change, drought, and in some instances predation) and anthropogenic disturbances continue to be a threat to sage-grouse and their habitat on the Ashley	Sensitive	Species of Concern	G3 Utah – S3 Wyoming – S4	Sagebrush/grassland habitat. Habitat is found within the Anthro Plateau, Antelope Flat, Parks Plateau, South Face, Glacial Canyon, Stream Pediment, Avintaquin Canyon, Strawberry Highlands, and Structural Grain LTAs.	Composition and Distribution of Vegetation Sage-grouse habitat is defined in large part by the type of vegetation (sage-brush, grassland) and its distribution on the landscape. Structure Stages of Vegetation Breeding, nesting, brood rearing, and wintering habitats are defined by the structure stages of vegetation. Patch Size The size and quantity of habitat patches likely define the quality and quantity of habitat across the landscape. Connectivity of habitats may also be important to sage-grouse. Disturbances Habitat disturbance such as catastrophic fire and noxious weed infestations can affect the habitat patch size and quality of sag-grouse habitat on the landscape.	Numerous observations on the Ashley

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Falco peregrinus Peregrine Falcon	Range-wide, the species is either imperiled or vulnerable. Thus, threats (riparian degradation/noise disturbance to nesting) on the Ashley, may have the potential to affect the species.	Sensitive	No Special Status	G4 Utah – S3 Wyoming – S2	Riparian habitats that are associated with cliffs. Habitat is found within the Stream Canyon, Glacial Canyon, Red Canyon, and North Flank LTAs.	Composition and Distribution of Vegetation Peregrine falcon habitat is defined in large part by the type of vegetation (riparian) and its association with nesting habitat (cliffs) on the landscape. Structure Stages of Vegetation Prey species habitats are defined by the structure stages of vegetation. Patch Size The size and quantity of foraging habitat patches in relation to cliffs likely define the quality and quantity of habitat across the landscape. Disturbances Habitat disturbance such as catastrophic fire and beetle epidemics can affect the habitat patch size and quality of peregrine falcon habitat on the landscape.	Numerous observations from the few known eyries on the Ashley

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Leucosticte atrata Black Rosy-Finch	This species is critically imperiled in Utah and Wyoming, and imperiled or vulnerable in surrounding states where its core distribution occurs.	No FS Status	No Special Status On the Utah PIF priority species list.	G4 Utah – S1 Wyoming – S1	Barren, rocky or grassy areas and cliffs among glaciers and receding snow banks, or beyond timberline. Habitat is found within the Uinta Bollie and Alpine Moraine LTAs.	Composition and Distribution of Vegetation Black-rosy finch habitat is defined in large part by the type of vegetation (grassy areas in alpine) and its distribution in relation to snowfields and rock. Structure Stages of Vegetation Prey species (insects) could be defined by the structure stages of vegetation (grass and forbs). Patch Size The size and quantity of habitat patches likely define the quality and quantity of habitat across the landscape. Connectivity between habitat patches may also be important for this species.	There are 85 known occurrences on the Forest within the last 20 years. Occurrences are at the high elevations in associated LTAs

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Sylvilagus idahoensis Pygmy Rabbit	The only known locations of this species on the Ashley is in the Wyoming portion of the Flaming Gorge NRA. This species is critically imperiled in Wyoming and either imperiled or vulnerable in the surrounding States where is core distribution occurs.	Sensitive	Species of Concern	G4 Utah – S3 Wyoming – S1	Dense stands of big sagebrush growing in deep loose soils. Habitat and occurrence is within the Green River LTA.	Composition and Distribution of Vegetation Pygmy rabbit habitat is defined in large part by the type of vegetation (sage-brush, grassland) and its distribution on the landscape. Structure Stages of Vegetation Quality of habitat is defined by the density and structure stage of big sagebrush. Patch Size The size and quantity of habitat patches likely define the quality and quantity of habitat across the landscape. Connectivity of these habitat patches may be important to population expansion. Disturbances Habitat disturbance, including catastrophic fire can affect the habitat patch size and quality of pygmy rabbit habitat on the landscape.	There are 9 known occurrences on the Ashley within the last twenty years. These occurrences have been on the Flaming Gorge NRA.

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Myotis thysanodes Fringed Myotis (bat)	This species is imperiled in Utah and Wyoming, and imperiled or vulnerable in surrounding states where its core distribution occurs.	No FS Status	Species of Concern	G4 Utah – S2 Wyoming – S2	Middle elevations in desert, riparian, grassland, and woodland habitats. Habitat is found within the Anthro Plateau, Avintaquin Canyon, Strawberry Highlands, Green River, Antelope Flat, North Flank, South Face, Stream Canyon, Glacial Bottom, Glacial Canyon, Stream Pediment, Structural Grain, Wolf Plateau, Parks Plateau, Moenkopi Hills, Limestone Hills, Dry Moraine, Greendale Plateau, and Red Canyon LTAs.	Composition and Distribution of Vegetation - in part, fringed myotis habitat is defined by the type of vegetation (riparian, grassland, woodland) and its distribution on the landscape. Structure Stages of Vegetation Roosting can be defined by the availability larger trees that would provide crevices or cavities for roosting. Patch Size The size and quantity of habitat patches likely define the quality and quantity of habitat across the landscape. Disturbances This species is likely sensitive to disturbances to their hibernacula and maternity habitat (caves). Other Key Elements The availability of caves (for hibernacula and maternity colonies) on the landscape is key for the sustainability of this species on the landscape.	There are 8 known occurrences on the Ashley within the last twenty years.

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Ovis canadensis Bighorn Sheep	Recent declines in both populations on the planning unit, primarily due to disease. Ecological disturbances such as conifer encroachment. Predation from mountain lion is a secondary concern.	Sensitive	Species of Greatest Concern Need	G4 Utah – S3 Wyoming – S3	Steep open habitat types with adjacent rocky areas. This species uses habitat found within the Anthro Plateau, Avintaquin Canyon, Uinta Bollie, Alpine Moraine, North Flank, Greendale Plateau, Red Canyon, Structural Grain LTAs.	Composition and Distribution of Vegetation Bighorn sheep prefer open habitat types (high alpine to lower grasslands) with adjacent steep rocky areas for escape and safety. Habitat is characterized by rugged terrain including canyons, gulches, talus cliffs, steep slopes, mountaintops, and river benches. Structure Stages of Vegetation Habitat is associated with early vegetation seral stages and steep slopes Patch Size The size and quantity of habitat patches likely define the quality and quantity of habitat across the landscape. Connectivity of habitats may also be important to bighorn sheep. Disturbances Habitat disturbance such as wildfire typically improves bighorn sheep habitat. Other disturbances include conifer encroachment and potential cheat grass invasion.	Numerous observations on the Ashley

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/ Key Ecosystem Characteristics	Observation Information
Oncorynchus clarki plueriticus Colorado River cutthroat trout	Without past, current, and ongoing conservation efforts, this species persistence on the Forest is at risk primarily due the presence of non-native trout.	Sensitive	Conservation Agreement Species	G4 Utah – S3 Wyoming – S1	Requires cool, clear water and well-vegetated streambanks for cover and bank stability. Habitat is found in various LTAs including Stream Canyon, Glacial Bottom, Strawberry Highlands, Avintaquin Canyon, Greendale Plateau, Round Park,	Composition Instream cover in the form of deep pools and boulders and logs is important; Need fine sediment- free spawning gravels to complete life cycle. Adapted to relatively cold water, thrives at high elevations. Disturbances primarily any sediment causing activities, such as; overgrazing, severe fire, logging, and ATV use. The presence of non-native species often results in hybridization with CRCT and also competition for resources.	Populations exist across the Ashley

Table 2. Potential plant species of conservation concern located on the Ashley National Forest

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Antennaria pulcherrima Handsome Pussytoes	Habitat geographically restricted and rare within plan area 2 occurrences documented within plan area (Huber 2016)	None	Peripheral	G5 Utah - S1 Wyoming - S2	Intermediate to rich fens and wet meadows Alpine Moraine LTA	Rich or calcareous fens meet the definition of a rare and specialized habitat in the Forest Plan Assessment. Geologically, these are restricted to wetlands underlain by limestone and/or fed by calcium-rich water. Such fens are rare within the plan area and provide habitat for rare plant species (Chadde et al. 1998) Rich fen habitat is identified in part by vegetation composition, which includes a number of calcicolous wetland plants. Hummocks, peatlands, and other fen features provide unique niches for plants and create a patchwork of plant communities.	12 collections documented from the Uinta Mountains with 5 collections located within the plan area. Last documented observation in 2016 (Huber 2016). Localized and relatively common within its known habitat. Monitoring of fens and meadows indicate satisfactory conditions of the plants habitat, indicating stable population trends and persistence (Studies 35-15A-T, 3-40A-H, 2-2B5,7,)
Aquilegia grahamii Graham's Columbine	Narrow endemic 3 occurrences documented within plan area (Huber 2016)	Sensitive	Rare	G1 Utah – S1	Deep stream-cut canyons; in cliff cracks, on ledges, in seeps or hanging gardens of the Pennsylvanian-Permian Weber Sandstone (Goodrich 2013) Stream Canyon LTA	The plant is restricted to a narrow habitat, which limits its distribution within and without the plan area. Habitat within the plan area is well protected and undisturbed due to its vertical topography and relative inaccessibility.	The latest available estimates of over-all population size are 5,000 to 10,000 plants from 11 specific sites. Population trend appears stable and persisting within plan area (Studies 31-98F, 32-74B).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Cirsium ownbeyi Ownbey's Thistle	Regional endemic 2 occurrences documented within plan area (Huber 2016)	None	Watch, Species of Concern	G3 Utah - S1 Wyoming - S2 Colorado – S2	Sagebrush, desert shrub communities Green River LTA	The plant communities in which this plant grows are common and widespread within the plan area, but its distribution is limited therein. Core populations occur in northwestern Colorado The plant is known to colonize both natural and man-made ground disturbances, such as landslides and road cuts. Habitat may be susceptible to annual invasive plants, such as cheat grass. The presence of annual invasive plants could alter natural fire intervals.	2 collections occur within the plan area in Flaming Gorge National Recreation Area, last documented in 1995. Based upon 11 collections documented for Wyoming, the state population was estimated between 56,000 to 75,000 plants (Huber 2016).
Cymopterus evertii Evert's Wafer Parsnip	Regional endemic 1 occurrence documented within plan area (Huber 2016)	None	Rare, Species of Concern	G2 Utah – S1 Wyoming - S2	Grows in limestone gravels along the rim of Ashley Gorge, associated with Douglas fir and limber pine (Goodrich 2013b) Stream Canyon LTA	The plant community in which this plant grows is common and widespread, but required habitat appears restricted and distribution is limited to one population. If conifer increases in density and canopy cover, it would reduce the quality of habitat and diminish plant populations. Potential of fire may increase from this trend (Studies 31-88A1-A4).	One occurrence is documented in Uintah County, Utah and is a disjunct population. Only found along the rim of Ashley Gorge within the plan area. 2 collections made, last documented in 2006 (Studies 31-88A1-A4).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Cypripedium fasciculatum Clustered Lady's Slipper	Known populations consist of few plants Timber harvest, bark beetle infestations, and fire are stressors (Huber 2016) Listed as sensitive in Utah	Sensitive	Rare, Species of Potential Concern	G4 Utah – S1 Wyoming – S3 Colorado – S3	Shade of coniferous forests between 8,000 to 9,000 feet. In duff of moderately dense to dense lodgepole pine forests where understory species are sparse (Goodrich 20913c) Parks Plateau LTA Trout Slope LTA	Lodgepole pine is a common vegetation community in the eastern Uinta Mountains. Quality habitat is widespread and the range of the plant and its habitat extends over 25 miles. Fire, bark beetle epidemics, and timber harvest have temporarily reduced habitat and diminished populations but have these disturbances have not eradicated the plant. Current timber management practices implement strategies to conserve of existing habitat and populations Huber 2016).	About 30 known occurrences in the plan area. Most populations consists of a few plants (1-100) (Franklin 1990, Studies 17-22B, 17-33A-G, 18-28A-C, 18-41D, 18-42A-N, 19-1F, 19-5M3-5, 19-24C, 19-32, 19-38A-H, 19-41CF6, 19-42, 30-42C, 31-79D-E, 31-85D, 42-34, 42-41E-F).
Draba brachystylis Wasatch Draba	Regional endemic 1 occurrence documented within plan area (Huber 2016)	None	Rare	G1/G2 Utah – S2	Found in limestone rocks, talus, or scree within plan area. Outside the plan area, also found in coniferous or aspen forests. Glacial Canyon LTA	The plant is restricted to a narrow habitat, which limits its distribution within the plant area. The population is considered disconnected with the core population occurring westward in the Wasatch Mountains. Habitat within the plan area is well protected and undisturbed due to its rocky topography and relative inaccessibility.	1 collection from plan area. Last observed in 1983 (Huber 2016).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Draba globosa Rockcress Draba	Listed as sensitive in Utah	Sensitive	Rare, Species of Concern	G3 Utah – S2 Wyoming – S2 Colorado – S1	Alpine tundra, most often associated with or adjacent to persisting snow beds Uinta Bollie LTA	Quality alpine habitat is abundant and widespread for this plant. Collections demonstrate a distribution across the entire alpine range of the Uinta Mountains for a distance of about 60 miles. Most populations appear to be small, but widespread. Large populations are apparently infrequent (Huber 2016, Goodrich 2013d)). The plant is commonly found in disturbed, open ground caused by melting snow beds.	Widely distributed across the alpine crest of the Uinta Mountains, but often in small populations. 10 new occurrences in plan area over last 20 years on forest, last documented in 2016. 37 collections from Uinta Mountains. Population trend appears stable, persisting, and habitat is relatively resilient (Huber 2016, Study 12-19E).
Draba ventosa Tundra Draba	Rare and often disconnected throughout its distribution 4 collections from the Uinta Mountains with 1 from the plan area (Huber 2016)	None	Watch	G3 Utah – S1 Wyoming – S3 Colorado – S1	Alpine. Occurs in talus, scree slopes, slides, fell-fields; on cliffs and at the base of cliffs; on ridges; and on summits. Often, but not always found on limestone parent material. Uinta Bollie LTA	Habitat for the plant is relatively abundant, widespread, and undisturbed, but populations appear rare and scattered. Most occurrences in the Uinta Mountains are found outside the plan area (Huber 2016) Plant habitat is relatively remote, rugged, and inaccessible to humans and their impacts.	1 occurrence documented within the plan area. Utah is edge of the plant's distribution, but it is rare throughout its entire distribution (Huber 2016).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Erigeron untermannii Untermann's Daisy	State endemic Listed as sensitive Habitat is found within and adjacent to energy rich areas, which pose a potential threat (Huber 2016).	Sensitive	Rare	G2 Utah – S2	Semi-barrens of sandstone, shale, and siltstone of the Uinta and Green River Formations. Windswept, sparsely vegetated ridge tops within pinyon-juniper, Douglas-fir, and limber pine-bristle cone pine belts. Anthro Plateau LTA	Patch sizes of this plant's habitat are typically small (<10 acres), but are relatively common and well distributed across the Tavaputs Plateau of the plan area, where core populations occur (Franklin 1989, Huber 2016, Goodrich 2013e) Habitat features minimize most human-related stressors such as grazing and mineral extraction	11 occurrence documented over the last 20 years with the last occurrence in 2011. 31 collections documented from the Uinta Basin. Monitoring indicates that populations are stable and persisting (Huber 2016, studies 65-32, 66-10Q, 66-10R, 66-10T, 67-111A-B).
Kobresia simpliciuscula Compound Kobresia	Rare habitat in plan area with 4 occurrences documented (Huber 2016)	Sensitive in Colorado	Peripheral Species of concern	G5 Utah – S1 Wyoming – S1 Colorado – S2	Rare calcareous or rich fens Alpine Moraine LTA Greendale Plateau LTA	Rich or calcareous fens meet the definition of a rare and specialized habitat in the Forest Plan Assessment. Geologically, these are restricted to wetlands underlain by limestone and/or fed by calcium-rich water. Such fens are rare within the plan area and provide habitat for rare plant species (Chadde et. al. 1998). Rich fen habitat is identified in part by vegetation composition, which includes a number of calcicolous wetland plants. Hummocks, peatlands, and other fen features provide unique niches for plants and create a patchwork of plant communities.	Utah at the southern edge of its range. 8 collections documented from the Uinta Mountains. Last observed in 2016. Monitoring indicates that the fen is in satisfactory condition with stable trends (Studies 35-15, 3-40, Huber 2016.

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Lepidium huberi Huber's Pepperplant	Local endemic. 4 occurrences documented within the plan area (Huber 2016)	None	Rare	G1/G2 Utah – S1/S2	Eroding slopes and narrow, steep canyons of Moenkopi Formation. With mountain brush and ponderosa pine. Canyon breaks. Moenkopi Hills LTA Stream Canyon LTA	Although the plant communities in which the plant grows are abundant and widespread, quality habitat is uncommon with a restricted distribution within the plan area. Habitat is more common outside the plan area with core populations found on the East Tavaputs Plateau (Huber 2016, Goodrich 2013f). Habitat features minimize stressors such as grazing, fire, recreation, and mineral extraction	10 collections documented for Utah. Locally abundant and relatively widespread. Populations of the plant in the plan area are stable and persistent Huber 2016, Studies 45-14E-E2).
Mentzelia goodrichii Goodrich's Blazingstar	Narrow endemic 2 occurrences documented within the plan area (Huber 2016) Listed as sensitive	Sensitive	Rare	G1 Utah – S1	Grows on escarpments, eroding slopes, and semi-barrens of Green River Formation. Occasionally in association with pinyon, juniper, and Douglas fir. Anthro Plateau LTA	The plant communities in which the plant grows are abundant and widespread, but eroding slopes and semi-barrens of the Green River and Uinta Formations provides the best habitat. Although these features are relatively common and widespread across the West Tavaputs Plateau, populations are uncommon and scattered Goodrich 2008, Huber 2016) Habitat features minimize stressors such as grazing, fire, recreation, and mineral extraction	9 collections documented for Utah. Plants are scattered in small populations. Most are found outside the plan area. Populations appear to be stable and persisting (Huber 2016, Study 67-21).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Oxytropis besseyi var. *obnapiformis* Maybell Locoweed	Regional endemic 1 occurrence documented in the plan area (Huber 2016)	None	Watch, Species of Concern	G5/T2 Utah – S2 Wyoming – S1 Colorado – S2	Pinyon-juniper and sagebrush communities, often on semi-barrens in either fine-textured or sandy substrates North Flank LTA	The plant communities in which this plant grows are common and widespread within the plan area, but its distribution is limited therein (Huber 2016). Habitat may be susceptible to annual invasive plants, such as cheat grass, the presence of annual invasive plants could alter natural fire intervals	Core population located in Colorado, 9 collections documented for Utah and 5 for Wyoming. Only 1 collection from plan area. Trend is unknown but at least Wyoming populations appeared stable (Huber 2016).
Papaver radicatum var. *kluanense* Alpine Poppy	Listed as sensitive Small populations restricted to a narrow habitat (Huber 2016)	Sensitive	Species of Concern	G5/T4 Utah – S1 Wyoming – S2 Colorado – S3	Restricted to a narrow habitat, which consists of Red Pine Shale talus slopes and ridge tops Uinta Bollie LTA	Although uncommon, habitat for this plant is widespread with populations scattered across the crest of the Uinta Mountains range. Its range extends approximately 50 miles Franklin 1990b, Huber 2016, Goodrich 2013g). Plant habitat is almost entirely undisturbed by humans and their impacts due to its remote, rugged, and inaccessible terrain	Populations generally cover small areas and are comprised of few to a few hundred plants. 14 documented occurrences within the plan area. Populations appear stable and persistence is expected (Studies (11-6B, 12-16A, Franklin 1990b, Huber 2016).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Penstemon acaulis Stemless beardtongue	Local endemic Listed as sensitive	Sensitive	Peripheral Species of Concern	G2 Utah – S1 Wyoming – S1	Mixed desert shrub, black sagebrush, Wyoming big sagebrush, and pinyon-juniper communities North Flank LTA Antelope Flat LTA	The plant communities in which this plant grows are abundant and widespread within and without the plan area, but its range and distribution is quite narrow and limited. Core populations occur are outside the plan area in southwestern Wyoming. Plants appear to benefit from both natural and human-related surface disturbances. Habitat may be susceptible to annual invasive plants, such as cheat grass. The presence of annual invasive plants could alter natural fire intervals (Huber 2016, Jouseau 2012, Goodrich 2013h).	Over 10 occurrences documented over the last 20 years. Larger populations outside the plan area than within. Monitoring found that the species colonizes on disturbance such as road sides, burrow areas, two-track roads, and bladings. Density and size of plants on this disturbance is equal to or greater than that of plants in undisturbed habitat (Goodrich 2013h, Huber 2016, Studies 3-26, 4-3P, 4-24D, 4-41C, 5-21F, 71-15B).
Phacelia glandulosa var. *deserta* Desert Phacelia	Local endemic Limited populations 2 occurrences within the plan area (Huber 2016)	None	Species of Concern	G4/T2 Wyoming – S2	Desert shrub and Wyoming big sagebrush Green River LTA	The plant communities in which this plant grows are abundant and widespread within the plan area, but its distribution is limited therein. Core populations occur are outside the plan area in Wyoming. Habitat may be susceptible to annual invasive plants, such as cheat grass. The presence of annual invasive plants could alter natural fire intervals (Huber 2016).	Populations vary from small (<10 plants) to locally abundant (4,000 - 6,000 individuals), with total numbers estimated between 20,000 - 25,000 plants. It is not found in Utah. 6 to 20 occurrence outside the plan area (Huber 2016).

Scientific Name/ Common Name	Rationale	Forest Service Status	State Status	Global/ State Rank	Habitat/ Landtype Association (LTA)	Habitat Factors/Key Ecosystem Characteristics	Observation Information
Primula incana Silvery Primrose	Rare habitat in plan area with 1 occurrence documented (Huber 2016)	None	Peripheral	G4 Utah – S1 Wyoming – S2	Rare calcareous or rich fens Greendale Plateau LTA	Rich or calcareous fens meet the definition of a rare and specialized habitat in the Forest Plan Assessment. Geologically, these are restricted to wetlands underlain by limestone and/or fed by calcium-rich water. Such fens are rare within the plan area and provide habitat for rare plant species (Chadde et. al. 1998). Rich fen habitat is identified in part by vegetation composition, which includes a number of calcicolous wetland plants. Hummocks, peatlands, and other fen features provide unique niches for plants and create a patchwork of plant communities (Huber 2016).	Utah at the southern edge of its range. 2 collections documented from the Uinta Mountains. Last observed in 2016. Monitoring indicates that the fen is in satisfactory condition with stable trends (Huber 2016, Study 3-40).

Table 3. Federally listed threatened, endangered, proposed, or candidate animal and plant species located on the Ashley National Forest

Scientific Name/ Common Name	Federal Listing Status	Habitat/ Landtype Association (LTA)	Observation Information
Lynx canadensis Canada Lynx	Threatened	Forested areas including Engelmann spruce, subalpine fir, lodgepole pine, Douglas fir, and aspen. Areas of dense understory cover and/or thickets of young trees and mature forests with large amounts of coarse woody debris. Habitat occurs in the following LTAs: Greendale Plateau, Parks Plateau, Trout Slope, Alpine Moraine, Dry Moraine, Glacial Bottom, North Flank, Round Park, Stream Canyon, Stream Pediment, Wolf Plateau, Avintaquin Canyon, Strawberry Highlands, Glacial Canyon, Limestone Plateau, and South Face.	There are 10 specimens of lynx that have been reliably traced to the Uinta Mountains, with collection dates ranging from 1916 to 1972. Between February of 1999 and March of 2007, 22 lynx from the experimental release in Colorado have been located at least once in Utah. Use-density of these locations indicates the primary area of use was in the Uinta Mountains. The majority of use was on the Wasatch-Cache National Forest and to a somewhat lesser degree on the Ashley National Forest. All these individual lynx were transient and did not take up residency in the Uinta Mountains.
Gulo gulo luscus North American Wolverine	Proposed	Wolverines do not specialize on specific vegetation or geological habitat aspects. Habitat can be described as high elevation areas that are cold and receive winter precipitation to reliably maintain deep persistent snow late into the warm season. Habitat occurs in the following LTAs: Greendale Plateau, Parks Plateau, Trout Slope, Uinta Bollie, Alpine Moraine, Dry Moraine, Glacial Bottom, North Flank, Round Park, Stream Canyon, Stream Pediment, Wolf Plateau, Avintaquin Canyon, Strawberry Highlands, Glacial Canyon, Limestone Plateau, and South Face.	No credible historical records of occurrence on the Forest. In spring of 2014 a wolverine was documented (photograph and location) on the North Slope of the Uintas on the Uinta/Wasatch Cache NF. However, there have been no confirmed sightings on the Ashley NF. In November of 2014, the State UDWR documented wolverine tracks on the Forest near Dutch John. Annual winter track surveys as well as bait camera stations have not documented any evidence of wolverine occurrence on the Forest.
Strix occidentalis lucida Mexican Spotted Owl	Threatened	Steep to vertical walled canyons that are greater than 2 kilometers long and less than 2 kilometers wide, which contain pockets of coniferous overstory trees mixed with smaller Gambel oak and box elder trees. Habitat occurs in the Stream Canyon, and Glacial Canyon LTAs.	Surveys have been conducted in suitable habitat on the Forest. However, there are no records of occurrence on the Forest.

Scientific Name/ Common Name	Federal Listing Status	Habitat/ Landtype Association (LTA)	Observation Information
Coccyzus americanus Yellow-billed Cuckoo	Threatened	Nests in lowland riparian habitats {typically in large habitat patches (>200 acres) of cottonwood/willow habitats} with dense understory vegetation of willow and high foliage volume of cottonwood. Usually within 100m of water. Marginal occurs in the Stream Canyon, Glacial Canyon, and Glacial Bottom LTAs.	Surveys have been conducted in suitable habitat on the Forest. However, there are no records of occurrence on the Forest.
Gila cypha Humpback chub *	Endangered	Variety of habitats, desert riverine systems usually associated with swift and turbid water. No suitable habitat on Ashley	Species does not exist on the Forest
Gila elegan Bonytail chub *	Endangered	Typically associated with mainstem desert riverine systems, found in backwaters on these rivers.	Species does not exist on the Ashley
Ptychochelius lucius Colorado pikeminnow *	Endangered	Wide variety of habitats (pools, riffles, runs) associated with larger desert riverine systems.	Species does not exist on the Ashley
Xyrauchen texanus Razorback sucker *	Endangered	Typically associated with mainstem desert riverine systems, typically found in slow water habitats (backwaters and pools) on these rivers.	Species does not exist on the Ashley
Spiranthes diluvialis Ute Ladies' Tresses (plant)	Threatened	Flood plains, stream and other riparian habitat Red Canyon LTA	4 occurrences within the plan area; along the Green River between Little Hole and the Forest Boundary. Known from below the National Forest Boundary along the Green, Yellowstone, Uinta, Lake Fork, and Rock Creek Rivers. Most occurrences are small, having less than 1000 plants and occupying less than 50 acres (Franklin 1992, Goodrich 2005).

*These species are analyzed for downstream effects

Table 4. Current habitat conditions, trends, and risk factors for potential animal species of conservation concern

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human Related Stressors	Habitat Sustainability
Centrocercus urophasianus Greater Sage-Grouse	Sagebrush communities across the Ashley are generally in satisfactory condition. Some communities within the lower elevational/drier LTAs (South Face, Green River, Anthro Plateau) have invasion of cheat grass and/or halogeton, or are at risk of invasion. Sagebrush communities within all LTAs associated with sage-grouse habitat are being threatened by conifer encroachment.	Climate change could exacerbate the invasion of noxious weeds, such as halogeton and cheat grass. It may also increase fire frequency.	Habitat fragmentation/ degradation from oil & gas development and other anthropogenic disturbances.	In 2015 conservation measures to conserve this species habitats were amended into the 1986 LMP. It is likely that this species habitats are likely to be maintained over time if similar conservation measures are carried into the Revised LMP. Cheat grass invasion, if not deterred, may reduce the quality of habitat over time. Conifer encroachment will eventually result in the loss of sagebrush communities if encroachment is not deterred.
Falco peregrinus Peregrine Falcon	Cliffs are rarely threatened, if at all, and are not a concern. Riparian habitats in LTAs associated with this species habitat are generally in satisfactory condition. A few isolated areas may not be in satisfactory condition, but are trending that direction.	Climate change could reduce the amount of riparian.	Noise Disturbance to nesting birds and riparian habitat degradation.	Nesting habitat (cliffs) are likely to remain sustainable over time, since there are few if any threats to this habitat on the Ashley. Riparian habitat will remain sustainable if it continues in satisfactory condition or trends toward satisfactory conditions over time.
Leucosticte atrata Black Rosy-Finch	High elevational rocky areas are generally not threatened and are not a concern. Alpine areas within LTAs associated with this species are generally in satisfactory conditions.	Climate Change could reduce the amount and snow banks that persist into the early summer.	Habitat loss and degradation from mining or improper grazing.	Currently there are few human related activities that occur or threaten this species habitat. Thus this species habitats are likely to remain sustainable over time. This is especially true, if habitat continues to remain or trend toward satisfactory conditions.
Sylvilagus idahoensis Pygmy Rabbit	Sagebrush communities within Green River LTA have been invaded or are at risk of invasion of cheat grass and/or halogeton.	Climate change could exacerbate the invasion of noxious weeds, such as halogeton and cheat grass. Cheat may reduce habitat quality and may also increase the fire return interval, which would reduce habitat for this species.	Habitat degradation from grazing and energy development.	This species habitat is likely to remain sustainable over time if cheat grass expansion is deterred or slowed.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human Related Stressors	Habitat Sustainability
Myotis thysanodes Fringed Myotis (bat)	Hibernacula and maternity cites (caves) are critical habitat components for this species. Caves on the Ashley are generally protected and are in satisfactory condition. Conifers in all LTAs (associated with this species habitats) have been impacted by beetles. Pinon/juniper habitats are advancing in all LTAs. With a few exceptions, riparian habitats in associated LTAs are generally in satisfactory condition. These few exceptions are trending toward satisfactory condition.	Spread of White-nosed Syndrome (WNS). Spruce/Pine beetle outbreaks in associated LTAs may continue to impact this habitat.	Human disturbance to hibernacula and maternity sites in caves. Degradation of riparian habitats. Fungal spread (WNS) via recreational caving.	This species habitats are likely to remain sustainable over time if satisfactory conditions are maintained. The primary threat to this species is WNS and it is uncertain, if or when, it will spread to bat populations on the Ashley. This is likely to be the primary factor affecting this species persistence over time on the Ashley. Conifers will regenerate from the beetle outbreak over time.
Ovis Canadensis Bighorn Sheep	Habitat conditions are generally in satisfactory condition. However conifer encroachment occurs in all LTA's where habitat occurs. Cheat grass invasion has also occurred in some areas of the lower elevational LTAs	Climate change could exacerbate the invasion of noxious weeds, such as cheat grass. It may also increase fire frequency, however as stated earlier fire can improve habitat conditions by creating open habitat.	Potential for respiratory pathogen transmission from domestic sheep. Habitat loss from anthropogenic disturbance.	Connectivity of open habitat associated with steep rocky terrain is sustainable with habitat improvement projects that reduce conifer encroachment, and cheat grass invasion.
Oncorynchus clarki plueriticus Colorado River cutthroat trout	Existing aquatic habitat condition in most all LTAs is in suitable condition. Isolated areas of overgrazing or illegal ATV use causes some sedimentation but this is not a major concern. Riparian vegetation is at or trending toward desired condition and is helpful to maintain suitable water temperatures.	Climate change could increase stream temperatures and affect seasonal flow conditions to the point it may affect recruitment. Climate change could increase the risk of catastrophic fire, which could have a negative effect on habitat conditions through increased sedimentation causing increased stream temperatures and reduced spawning areas.	With the increase of various forms of recreation such as ATV use, increased sedimentation could result. Stocking of non-native fish can have a negative effect on CRCT	Suitable habitat is currently abundant on the Forest. In general, this habitat is only threatened in isolated areas.

Table 5. Current habitat conditions, trends, and risk factors for potential plant species of conservation concern (Information regarding current habitat conditions, ecological and human-related stressors, and habitat sustainability for plants was derived from plant assessments found in Huber 2016)

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Antennaria pulcherrima Handsome Pussytoes	Habitat consists of intermediate to rich fens that have satisfactory plant composition, ground cover, and hydrological conditions, indicating stable population trends and species persistence (studies 2-20, 3-40, 35-15).	Climate change that would lead to drier and warmer weather conditions may change hydrologic function of the fens. Drying conditions may lead to changes in plant community composition. In theory, the plant has room to migrate upslope in the plan area to suitable habitat at elevations up to 11,200 feet, which would be about 2,000 feet of elevational migration.	The fens are assessable to livestock and have over a 100-year history of grazing use. Livestock grazing is a relative threat to the plant, but wet conditions help restrict livestock from accessing or grazing much of the habitat type. Some grazing impacts are documented along the ecotones and drier areas of the habitat. Some indication of off-road vehicle use along ecotone of fen has been observed. Wet conditions minimize vehicle impacts within the fen	Long-term monitoring indicates sustainability of fen habitat with current stressors. Stable trend in plant populations, habitat and hydrological condition is indicated over a 30-year period, concurrent with livestock grazing, recreation, and environmental conditions. Livestock stocking rates, grazing intensities, allotment management, and recreation activity remain at current levels or less to maintain habitat integrity. If climate becomes consistently warmer and drier, fen habitat integrity may be compromised and plant populations may diminish if upslope migration does not occur (Studies 2-20, 3-40, 35-15).
Aquilegia grahamii Graham's Columbine	Habitat consists of both wet and dry cliff cracks and ledges, and in seeps or hanging gardens. Habitat within the plan area is and has been undisturbed and is considered in satisfactory condition. Plant population trend appears stable and persisting	Due to the vertical habitat of the canyon walls, there are currently no know existing or potential threats of populations within the plan area, which contains the core populations of the plant. Climate change that would lead to drier and warmer weather conditions may change hydrologic function of seeps and hanging gardens, but the plant also persists in dry conditions	There are no known human-related stressors within the plan area; however, a couple of populations adjacent to the plan area may be threatened by surface mine activity	Habitat sustainability within the plan area is indicated. Habitat is well protected from human-related stressors due to its topography and relative inaccessibility. A warmer and drier climate is expected to have minimal effect on plant populations because of the plant's ability to persist in dry conditions.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Cirsium ownbeyi Ownbey's Thistle	Habitat consists of desert and montane shrub communities, semi-barrens, and rocky crevices and slopes. Plant composition of habitat is satisfactory and devoid of annual invasive plants. Habitat trend is determined as stable. Populations appear stable and persisting.	There are no known natural stressors. Annual invasive plants could be a foreseeable stressor, which could change plant community composition and fire frequency. The plant at least tolerates if not benefits from natural disturbances. Climate change is not considered a foreseeable stressor, but may accelerate the spread of annual invasive plants.	May be vulnerable to herbicide spraying, biocontrol insects, or disturbance by recreation vehicles. The plant is known to colonize roadsides and other human and nature related disturbances.	Habitat is sustainable under current conditions and stressors. No evidence of plant populations being impacted from herbicide spraying or biological controls, but populations need to be avoided and accounted for when noxious weed control measures are implemented. The most apparent foreseeable threat to habitat are annual invasive plants such as cheatgrass. Annual invasive plants could change community composition and increase fire frequency, which would compromise habitat integrity and threaten plant populations.
Cymopterus evertii Evert's Wafer Parsnip	Habitat consists of limestone gravels within scattered Douglas fir and limber pine. Habitat within the plan area is undisturbed and is considered in satisfactory condition. Plant population trend appears stable and persisting. Populations appear stable and persisting (Study 4-41E).	There are no known immediate ecological threats. Two foreseeable threats are conifer recruitment and displacement and fire.	Plant habitat relatively inaccessible to humans. No known human-related stressors are identified.	Habitat is sustainable under current conditions and stressors; however, upward trend in conifer recruitment within the habitat may impact plant populations.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Cypripedium fasciculatum Clustered Lady's Slipper	Habitat consists of moderately dense to dense lodgepole pine forests where duff litter has accumulated and understory plant species are sparse. Habitat within the plan area is in satisfactory condition and has been conserved due to its current sensitive species status. Known populations are stable and persistence is indicated (studies 17-33, 18-28, 18-42, 19-38, 31-79, 42-41E-F).	Ecological stressors are those that greatly reduced or eliminate coniferous shade and increase herbaceous understory species. Stand replacement fire is a known ecological stressor that temporarily reduces quality habitat (40-100 years). Mixed coniferous forests trending from lodgepole pine to Engelmann spruce and sub-alpine fir may reduce or eliminate habitat. In these situations, long-term persistence of this plant could be dependent on periodic fire that maintains lodgepole pine stands and prevents trend toward spruce and fir dominance. Tree die-off from bark beetle epidemics that opens tree canopies, reduces shade, and promotes the establishment of other understory plants can suppress or eliminate Clustered ladyslipper populations.	Timber harvesting is a human-related stressor that, similar to fire, reduces quality habitat. Timber management has been modified to protect existing plant populations.	Long-term monitoring indicates sustainability of habitat with current stressors. Stable trend in plant populations and habitat condition is indicated over a 30-year period under current management as a Forest Sensitive species. Maintain current timber management practices to conserve habitat and plant populations. Fire would temporarily reduce habitat and negatively impact plant populations, but plant populations have persisted and are expected to persist concurrent with fire within natural burn intervals (150-300 years). Similar to fire, bark beetle epidemics can temporarily reduce habitat and negatively impact plant populations, but plant populations have persisted and are expected to persist concurrent with current and future bark beetle epidemics.
Draba brachystylis Wasatch Draba	Habitat consists of soils with limestone rocks, talus, or scree. Habitat within the plan area is and has been undisturbed and is considered in satisfactory condition. Plant population trend and persistence is unknown, but likely stable due to undisturbed habitat.	No known natural stressors of population within plan area.	No known human-related stressors of population within plan area. Threatened by development and increased recreation use outside and disjunct from plan area.	Habitat sustainability within the plan area is indicated. Habitat is well protected from human-related stressors due to its topography and relative inaccessibility.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Draba globosa Rockcress Draba	Habitat consists of alpine tundra, often associated with persisting snow beds. Numerous long-term studies indicate that habitat plant composition and ground cover are in satisfactory conditions with stable trends. Stable populations are widely distributed across the plan area and persistence is indicated (study 12-19E).	Climate change that would lead to drier and warmer conditions may be a stressor. Populations occur at the highest elevations of the plan area, which would eliminate the possibility of upslope migration during a warming climate. Plants commonly grow in disturbed, open ground of snow beds, indicating disturbance as a favorable habitat condition.	Most populations are relatively inaccessible to human impacts. Domestic sheep and mountain goat browsing, and recreation are minimal man-related stressors. The plant's very low, pulvinate-caespitose habit provides some protection from ungulate browsing. Domestic sheep grazing has decreased considerably over the last 50 years. Although few in total numbers, mountain goat populations show a gradual upward trend over the last 30 years.	Long-term monitoring indicates sustainability of alpine habitat with current stressors, and surveys and botanical collections document widely distributed and stable plant populations. Stable trends in habitat is indicated over a 60-year period, concurrent with livestock grazing, remote recreation activities, and environmental conditions. Sheep grazing has diminished considerably over the last plan period, but mountain goat populations have slowly increased. Current and foreseeable ungulate use of habitat is not expected to diminish plant populations or compromise habitat during the next plan period. If climate becomes consistently warmer and drier, habitat integrity may be compromised and plant populations may diminish because upslope migration of plant and habitat is not optional.
Draba ventosa Tundra Draba	Habitat consists of alpine talus, scree slopes, slides, fell-fields, and ridge crests. Habitat within the plan area is and has been undisturbed and is considered in satisfactory condition. Plant population trend appear stable and persistence is indicated.	Climate change that would lead to drier and warmer conditions may be a stressor. Populations occur at the high elevations of the plan area, which would eliminate the possibility of upslope migration during a warming climate.	Habitat is relatively remote, rugged, and inaccessible to sheep grazing, humans and their impacts. Mountain goat browsing is a minimal threat. Mountain goat populations show a gradual upward trend over the last 30 years.	Long-term monitoring indicates sustainability of alpine habitat with current stressors. Since habitat is relatively remote, rugged, and inaccessible to sheep grazing, humans and their impacts, stable trends in plant populations and habitat are indicated. Current and foreseeable ungulate use of habitat is not expected to diminish plant populations or compromise habitat during the next plan period. If climate becomes consistently warmer and drier, habitat integrity may be compromised and plant populations may diminish because upslope migration of plant and habitat is not optional.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Erigeron untermannii Untermann's Daisy	Habitat consists of semi-barrens along ridge tops, occasionally with scattered pinyon-juniper, Douglas-fir, and limber pine-bristle cone pine. Long-term studies document satisfactory habitat conditions with stable population trends and persistence (studies 65-32, 66-10Q, 66-10R, 66-10T, 67-111A-B).	No ecological stressors have been identified. Climate change is not a foreseeable stressor.	Oil and gas exploration is a foreseeable stressor. Due to its current sensitive species designation, habitat has been excluded from development and other potential disturbances. Livestock grazing is a minor stressor, but most known populations are inaccessible to livestock grazing due to steep slopes and/or distance to water. Habitat accessible to livestock are not preferred forage areas due to their semi-barren character. Livestock impacts are limited to occasional trailing across the habitat.	Long-term monitoring indicates sustainability of habitat with current stressors. Stable trend in plant populations and habitat condition is indicated over a 30-year period under current management as a Forest Sensitive species, which mitigates for current and potential oil and gas exploration. Maintain current mineral extraction practices to conserve habitat and plant populations. Maintenance of habitat and plant populations are predicted under current livestock grazing management due to the habitat's "non-capable" livestock grazing status.
Kobresia simpliciuscula Compound Kobresia	Habitat consists of intermediate to rich fens that have satisfactory plant composition, ground cover, and hydrological conditions, indicating stable population trends and species persistence (studies 3-40, 35-15).	Climate change that would lead to drier and warmer weather conditions may change hydrologic function of the fens. Drying conditions may lead to changes in plant community composition. In theory, the plant has room to migrate upslope in the plan area to suitable habitat at elevations up to 11,200 feet, which would be about 2,000 feet of elevational migration.	The fens are assessable to livestock and have over a 100-year history of grazing use. Livestock grazing is a relative threat to the plant, but wet conditions help restrict livestock from accessing or grazing much of the habitat type. Some grazing impacts are documented along the ecotones and drier areas of the habitat.	Long-term monitoring indicates sustainability of fen habitat with current stressors. Stable trend in plant populations, habitat and hydrological condition is indicated over a 30-year period, concurrent with livestock grazing, recreation, and environmental conditions. Livestock stocking rates, grazing intensities, allotment management, and recreation activity remain at current levels or less to maintain habitat integrity. If climate becomes consistently warmer and drier, fen habitat integrity may be compromised and plant populations may diminish if upslope migration does not occur.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Lepidium huberi Huber's Pepperplant	Habitat consists of eroding slopes and narrow, steep canyons, often associated with mountain brush and ponderosa pine. Habitat within the plan area is and has been undisturbed and is considered in satisfactory condition. Plant population trend appears stable and persistence is indicated (studies 45-14E-E2).	No ecological stressors have been identified. Climate change is not a foreseeable stressor.	No stressors identified within the plan area. Habitat is relatively accessible to livestock grazing, but the plant is not selected for forage and habitat terrain is often steep for trailing. Minimal threats may be oil and gas exploration and mining outside the plan area. A foreseeable stressor may be off-road vehicle use in more accessible habitat. The plant is found along roadsides and in fresh alluvium, which indicates some tolerance to disturbance.	Habitat sustainability within the plan area is indicated. Most habitat is protected from human-related stressors due to its topography. Continue or implement off-road vehicle use policies that would protect more accessible habitat. Maintenance of habitat and plant populations are predicted under current livestock grazing management due to the habitat's "non-capable" livestock grazing status.
Mentzelia goodrichii Goodrich's Blazingstar	Habitat consists of escarpments, eroding slopes, and semi-barrens, occasionally associated with pinyon-juniper or Douglas fir. Habitat within the plan area is and has been undisturbed and is considered in satisfactory condition. Plant population trend appears and persistence is indicated (study 67-21).	No ecological stressors have been identified. Climate change is not a foreseeable stressor.	Known populations are highly protected from livestock grazing by steep eroding slopes, distance to water, and lack of preferred forage. Oil and gas exploration is a foreseeable stressor but likely limited due to steep, eroding terrain.	Habitat sustainability within the plan area is indicated. Stable trend in plant populations and habitat condition is indicated over a 30-year period under current management as a Forest Sensitive species, which mitigates for current and potential oil and gas exploration and other threats. Maintain current mineral extraction practices to conserve habitat and plant populations. Maintenance of habitat and plant populations are predicted under current livestock grazing management due to the habitat's "non-capable" livestock grazing status.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Oxytropis besseyi var. *obnapiformis* Maybell Locoweed	Habitat consists of semi-barrens, often associated with pinyon-juniper and sagebrush communities. Habitat within the plan area is very limited but is considered to be in satisfactory condition. Core populations are located outside the plan area. Due to a single occurrence, population trend and persistence is unknown, but populations in Wyoming are determined to be stable.	No ecological stressors have been identified. A foreseeable stressor may be annual invasive plants. Pinyon-juniper and Wyoming sagebrush communities may be susceptible to annual invasive species. Climate change is considered a foreseeable stressor, and may accelerate the spread of annual invasive plants.	No stressors identified within the plan area. Outside the plan area, oil and gas development, excessive grazing, recreation, road construction, and recreational off-road vehicles are listed as stressors.	Habitat is limited within the plan area and appears sustainable under current conditions and stressors. Recognize and mitigate for potential human-related stressors to maintain habitat integrity. The most apparent foreseeable threat to habitat are annual invasive plants such as cheatgrass. Annual invasive plants could change community composition and increase fire frequency, which would compromise habitat integrity and threaten plant populations.
Papaver radicatum var. *kluanense* Alpine Poppy	Habitat consists of Red Pine Shale talus slopes and ridge tops in alpine settings. Habitat is and has been undisturbed and is considered in satisfactory condition. Plant population trend appears stable and persistence is indicated (Studies 11-6B, 12-16A).	Pikas utilize alpine poppy but are considered a minimal threat. Populations continue to persist concurrent with pika use. Climate change that would lead to drier and warmer conditions may be a stressor. Populations occur at the high elevations of the plan area, which would eliminate the possibility of upslope migration during a warming climate.	No human-related stressors are identified. Habitat is remote, rugged, and inaccessible to humans and their impacts. Mountain goat browsing is a minimal threat. Mountain goat populations show a gradual upward trend over the last 30 years.	Long-term monitoring indicates sustainability of talus and scree habitat with current stressors. Stable trend in plant populations and habitat condition is indicated over a 30-year period under current management as a Forest Sensitive species. Mountain goat populations have slowly increased, but current and foreseeable ungulate use of habitat is not expected to diminish plant populations or compromise habitat during the next plan period. If climate becomes consistently warmer and drier, habitat integrity may be compromised and plant populations may diminish because upslope migration of plant and habitat is not optional.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Penstemon acaulis Stemless beardtongue	Habitat consists of mixed desert shrub, black sagebrush, Wyoming big sagebrush, black sagebrush, and pinyon-juniper communities. Long-term monitoring indicates that habitat conditions are satisfactory, populations are stable, and persistence is documented (studies 3-26, 4-3P, 4-24D, 4-41C, 5-21F, 71-15B).	A foreseeable stressor may be annual invasive plants. Pinyon-juniper, black and Wyoming sagebrush communities are known to be susceptible to annual invasive species. Climate change that would lead to drier and warmer conditions may be a stressor. The plant has room to migrate upslope in the plan area to more suitable habitat if a warming climate occurs.	In Utah, listed stressors include recreation, off-road vehicles, and livestock trampling. In Wyoming, stressors also include gravel quarrying and road construction. The plant benefits from disturbance, including severe land disturbances. It has been found to colonize 2-track roads, road sides, gravel pits, communication facilities, and trails. Density and size of plants within disturbances are equal to or greater than those in undisturbed habitat. The plant has persisted with livestock grazing for over 100 years. Grazing appears to minimal impact the plant.	Long-term monitoring indicates sustainability of habitat with current stressors. Stable trend in plant populations and habitat condition is indicated over a 30-year period under current management as a Forest Sensitive species, which mitigates for human-related activities. Livestock stocking rates, grazing intensities, allotment management, and recreation activity remain at current levels or less to maintain habitat integrity. If climate becomes consistently warmer and drier, habitat integrity may be compromised and plant populations may diminish if upslope migration does not occur. The most apparent foreseeable threat to habitat is annual invasive plants such as cheatgrass. Annual invasive plants could change community composition and increase fire frequency, which would compromise habitat integrity and threaten plant populations.
Phacelia glandulosa var. *deserta* Desert Phacelia	Habitat consists of desert shrub and Wyoming big sagebrush communities. Habitat within the plan area is in satisfactory condition. Core populations are located outside the plan area. With a single occurrence in the plan area, population trend and persistence is unknown.	No ecological stressors have been identified. A foreseeable stressor may be annual invasive plants. Desert shrub and Wyoming sagebrush communities are known to be susceptible to annual invasive species. Climate change is not considered a foreseeable stressor, but may accelerate the spread of annual invasive plants.	Outside the plan area, off-road vehicle use or mineral exploration are noted human related-stressors. Off-road vehicle use and other recreation activities that lead to surface disturbance are stressors within the plan area,	Habitat is sustainable under current conditions and stressors. The most apparent foreseeable threat to habitat is annual invasive plants such as cheatgrass. Annual invasive plants could change community composition and increase fire frequency, which would compromise habitat integrity and threaten plant populations. Recognize and mitigate for potential human-related stressors to maintain habitat integrity.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human-Related Stressors	Habitat Sustainability
Primula incana Silvery Primrose	Habitat consists of intermediate to rich fens that have satisfactory plant composition, ground cover, and hydrological conditions, indicating stable population trends and species persistence (study 3-40).	Climate change that would lead to drier and warmer weather conditions may change hydrologic function of the fens. Drying conditions may lead to changes in plant community composition. In theory, the plant has room to migrate upslope in the plan area to suitable habitat at elevations up to 11,200 feet, which would be about 2,000 feet of elevational migration.	The fens are assessable to livestock and have over a 100-year history of grazing use. Livestock grazing is a relative threat to the plant, but wet conditions help restrict livestock from accessing or grazing much of the habitat type. Some grazing impacts are documented along the ecotones and drier areas of the habitat.	Long-term monitoring indicates sustainability of fen habitat with current stressors. Stable trend in plant populations, habitat and hydrological condition is indicated over a 30-year period, concurrent with livestock grazing, recreation, and environmental conditions. Livestock stocking rates, grazing intensities, allotment management, and recreation activity remain at current levels or less to maintain habitat integrity. If climate becomes consistently warmer and drier, fen habitat integrity may be compromised and plant populations may diminish if upslope migration does not occur.

Table 6. Current habitat conditions, trends, and risk factors for threatened, endangered, proposed, and candidate animal and plant species

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human Related Stressors	Habitat Sustainability
Lynx canadensis Canada Lynx	Conifers in all LTAs (associated with this species habitats) have been impacted by beetles. This has reduced some foraging habitat, but has increased the potential for future foraging and denning habitat. Some regeneration is occurring. Aspen stands are generally in satisfactory condition with some areas of conifer encroachment.	Climate change may increase the threat of stand replacing fire and the distribution of spruce/fir forests. Spruce/Pine beetle outbreaks in associated LTAs may continue to impact this habitat.	Fragmentation, loss, or degradation of habitat through activities such as commercial timber harvest, road building, and snow compacting activities.	A large portion of this species habitat on the Ashley is remote and receives little human related impacts and is thus likely to persist over time in the absence of ecological stressors. The beetle epidemic has decreased some lynx habitat. However, habitat sustainability for this species is likely to persist as the conifer stands affected by the beetle epidemic regenerate over time. As this occurs foraging habitat (young regenerating conifer stands) is likely to increase as well as denning habitat (snags falling to the forest floor over time).

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human Related Stressors	Habitat Sustainability
Gulo gulo luscus North American Wolverine	Because of the remoteness of wolverine habitat, these areas typically remain un-impacted by human related activities. Conifers in all LTAs (associated with this species) have been impacted by beetles. Some regeneration is occurring.	Habitat loss through climate change. As temperatures warm it may decrease the amount of colder areas that contain deep persistent snow late into the warm season. Spruce/Pine beetle outbreaks in associated LTAs may continue to impact conifer habitat.	Timber harvest and human expansion (if it expands to more remote areas).	This species habitat on the Ashley is remote and receives little human related impacts and is thus likely to persist over time in the absence of ecological stressors. However, if either climate change or the beetle epidemic persist, then there is a potential for a decrease in habitat sustainability over time.
Strix occidentalis lucida Mexican Spotted Owl	Breeding and nesting habitat for this species is unlikely to occur on the Ashley. Few canyons on the Ashley, if any at all, meet the 2x2 rule (typical canyon characteristic for breeding and nesting). However, the Ashley contains larger canyons that contain other habitat components (conifer stands). Conifer stands in associated LTAs have been impacted by beetles. This has reduced some habitat, but some regeneration is occurring.	Climate change that leads to stand replacing wild fire. Spruce/Pine beetle outbreaks in associated LTAs may continue to impact this habitat.	Overgrazing and commercial timber harvest are considered threats, but there is minimal timber harvest that occurs on the Ashley National Forest.	Habitat for this species is limited and may not occur on the Ashley, as very few canyons, if any at all, meet the 2X2 rule. However, some elements of this species habitat are likely to remain sustainable over time, since there are few if any threats to this habitat. Other elements of this species nesting habitat (conifers) may decrease as the beetle epidemic persists. However, it is likely to improve over time as regeneration occurs within those conifers stands impacted by the beetle epidemic.
Coccyzus americanus Yellow-billed Cuckoo	The Ashley likely does not contain the expansive cottonwood habitats required for this species. However, some smaller cottonwood habitat patches/stringers do occur. With a few exceptions, riparian habitats in LTAs associated with this species habitat, including cottonwood stands, are generally in satisfactory condition. These few exceptions are trending toward satisfactory condition.	Climate change could reduce the amount of riparian and cottonwood forests.	Loss or degradation of riparian and cottonwood habitat, including disruption of stream flows.	The Ashley does not contain, and is unlikely to ever contain, the expansive cottonwood tracts typical of this species habitat. The small patches/stringers of cottonwood habitats on the Ashley are expected to persist over time if they continue to remain in satisfactory conditions.

Scientific Name/ Common Name	Current Habitat Conditions	Ecological Stressors	Human Related Stressors	Habitat Sustainability
Gila cypha Humpback chub	No suitable habitat on the Forest	Climate change could affect water availability	Water depletion related projects	Not Applicable
Gila elegan Bonytail chub	No suitable habitat on the Forest	Climate change could affect water availability	Water depletion related projects	Not Applicable
Ptychochelius lucius Colorado pikeminnow	No suitable habitat on the Forest	Climate change could affect water availability	Water depletion related projects	Not Applicable
Xyrauchen texanus Razorback sucker	No suitable habitat on the Forest	Climate change could affect water availability	Water depletion related projects	Not Applicable
Spiranthes diluvialis Ute Ladies' Tresses (plant)	Habitat within the plan area consists of flood plains of the Green River that have satisfactory plant composition, and hydrological conditions, indicating stable population trends and species persistence.	Competition from aggressive graminoids (herbaceous plant) and willows may outcompete plant. Climate change that would lead to consistent drier and warmer weather conditions may reduce overall flow of the river.	Natural fluctuations in stream flow may have affected habitat following the construction of Flaming Gorge Dam. Invasive plants, such as Tamarix, may change vegetation composition and structure of stream riparian communities	Plants positively respond to occasional disturbances that reduce vegetation competition. Periodic water discharges from Flaming Gorge Dam that simulate high spring water flows provide a disturbance mechanism that clears or reduces flood plains of woody debris, which improves habitat conditions for the plant. Implement and/or maintain weed control measures that reduce or eradicate invasive plant species along river flood plains. Under these conditions, habitat sustainability within the plan area is indicated.

Key Findings

Generally, current habitat conditions for fish, wildlife, and plant species on the Ashley National Forest are suitable for all or most life history needs. Some of the animal species do migrate or have seasonal movements off the Ashley National Forest to adapt to seasonal changes. However, others species spend their entire life on the Ashley National Forest. Conifer tree encroachment continues to threaten sagebrush and grassland communities. However, habitat improvement projects in these areas are helping offset this invasion. Even with large-scale beetle epidemics, drought, fire, wind events, invasive plants, and other natural drivers, habitat is still supporting a wide array of species on the Ashley National Forest.

Species present on the Ashley National Forest today are essentially the same species prior to European settlement. Some species have declined in numbers while others have remained stable or increased. Overall, there has been an increase in the knowledge base of species distribution and numbers on the Ashley National Forest. This increased knowledge is due to an increased focus on species inventory, monitoring, and management from both the state wildlife management agencies and the Forest Service.

Current Ashley National Forest distribution of the potential species at risk ranges widely. Some species like the pygmy rabbit are currently found in just one area or land type association on the Ashley National Forest, while others species like the greater sage-grouse are found in several land type associations. All other potential species at risk are found in multiple land type associations. The outlook for some species of concern is bright with relatively low stressors and drivers (i.e., peregrine falcon). Other species of concern (sage-grouse) have potentially high levels of risk and uncertainty.

In summary, the findings of this assessment suggest that existing management plans are generally adequate to sustain suitable habitat to support the species discussed. However, with predicted changes in climate combined with new science and technology, challenges will be expected in the future management of fish, wildlife, and plants on the Ashley National Forest.

The next step in the process is to receive and consider public comments on this preliminary list of species of conservation concern. After a careful review, the Ashley National Forest and Regional Office will work together to address these concerns. However, the final decisions will be made by the Regional Forester.

A more detailed description of the evaluation process is available in the Forest Service Handbook for conducting assessments, as well as the 2012 Planning Rule. Both are available on our web site (www.fs.usda.gov/goto/AshleyForestPlan).

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Appendix 1 – List of Other Species Reviewed

Listed below are all the other plant and animal species that were given full consideration for species of conservation concern. All of the species in the table below were analyzed just the same as the species listed above that are currently potential species of conservation concern. Upon request, additional review information is available for any of these species listed in this table.

Scientific Name	Common Name	Taxa	Global Rank	S-UT	S-WY
Anaxyrus boreas	Boreal Toad	Amphibian	G4	S3	S1
Accipiter gentilis	Northern Goshawk	Bird	G5	S4	S2
Aegolius funereus	Boreal Owl	Bird	G5	NR	S2
Ammodramus bairdii	Baird's Sparrow	Bird	G4	NR	S1
Ammodramus savannarum	Grasshopper Sparrow	Bird	G5	S2	S4
Anas americana	American Wigeon	Bird	G5	S2	S5
Aphelocoma californica	Western Scrub-Jay	Bird	G5	S5	S1
Archilochus alexandri	Black-chinned Hummingbird	Bird	G5	S4	S1
Asio flammeus	Short-eared Owl	Bird	G5	S4	S2
Aythya valisineria	Canvasback	Bird	G5	S2	S4
Bucephala albeola	Bufflehead	Bird	G5	NR	S2
Calamospiza melanocorys	Lark Bunting	Bird	G5	S2	S4
Calcarius mccownii	Mccown's Longspur	Bird	G4	NR	S2
Catherpes mexicanus	Canyon Wren	Bird	G5	S4	S2
Charadrius montanus	Mountain Plover	Bird	G3	S1	S3
Chlidonias niger	Black Tern	Bird	G4	SH	S1
Dendroica nigrescens	Black-throated Gray Warbler	Bird	G5	S4	S2
Dumetella carolinensis	Gray Catbird	Bird	G5	S1	S4
Gavia immer	Common Loon	Bird	G5	NR	S1
Glaucidium gnoma	Northern Pygmy-owl	Bird	G5	S3	S1
Haliaeetus leucocephalus	Bald Eagle	Bird	G5	S2	S3
Histrionicus histrionicus	Harlequin Duck	Bird	G4	NR	S1
Hydroprogne caspia	Caspian Tern	Bird	G5	S3	S1
Icterus parisorum	Scott's Oriole	Bird	G5	S2	S1
Larus californicus	California Gull	Bird	G5	S5	S2
Larus delawarensis	Ring-billed Gull	Bird	G5	NR	S2
Loxia curvirostra	Red Crossbill	Bird	G5	S2	S5
Loxia leucoptera	White-winged Crossbill	Bird	G5	S1	S2
Melanerpes lewis	Lewis's Woodpecker	Bird	G4	S3	S2
Mergus merganser	Common Merganser	Bird	G5	S2	S4
Oreothlypis virginiae	Virginia's Warbler	Bird	G5	S4	S1
Otus kennicottii	Western Screech-owl	Bird	G5	S3	S2

Scientific Name	Common Name	Taxa	Global Rank	S-UT	S-WY
Passerella iliaca	Fox Sparrow	Bird	G5	S2	S4
Pelecanus erythrorhynchos	American White Pelican	Bird	G4	S3	S1
Phalaropus tricolor	Wilson's Phalarope	Bird	G5	S2	S3
Plegadis chihi	White-faced Ibis	Bird	G5	S2	S1
Psaltriparus minimus	Bushtit	Bird	G5	S4	S1
Rhynchophanes mccownii	McCown's Longspur	Bird	G4	NR	S2
Selasphorus rufus	Rufous Hummingbird	Bird	G5	NR	S2
Setophaga nigrescens	Black-throated Gray Warbler	Bird	G5	S4	S2
Sialia sialis	Eastern Bluebird	Bird	G5	NR	S2
Sitta pygmaea	Pygmy Nuthatch	Bird	G5	S3	S2
Sphyrapicus thyroideus	Williamson's Sapsucker	Bird	G5	S3	S2
Sterna forsteri	Forster's Tern	Bird	G5	S4	S1
Sterna hirundo	Common Tern	Bird	G5	NR	S1
Strix nebulosa	Great Gray Owl	Bird	G5	NR	S2
Sympetrum danae	Black Meadowhawk	Bird	G5	S2	SNR/SU
Vermivora virginiae	Virginia's Warbler	Bird	G5	S4	S1
Catostomus discobolus	Bluehead Sucker	Fish	G4	S3	S3
Catostomus latipinnis	Flannelmouth Sucker	Fish	G3G4	S3	S3
Gila robusta	Roundtail Chub	Fish	G3	S2	S3
Analetris eximia	A Mayfly	Insect	G3	SH	SNR/SU
Bombus occidentalis	Western Bumble Bee	Insect	G4	SNR/SU	SNR/SU
Cordulia shurtleffi	American Emerald	Insect	G5	S2	SNR/SU
Danaus plexippus pop. 1	Monarch	Insect	G4T2T3	SNR/SU	SNR/SU
Euphydryas gillettii	Gillett's checkerspot	Insect	G3	SNR/SU	SNR/SU
Perlomyia utahensis	Utah Needlefly	Insect	G3	S2	SNR/SU
Skwala americana	American Springfly	Insect	G5	S1	SNR/SU
Speyeria mormonia	Mormon Fritillary	Insect	G5T3T4	SNR/SU	SNR/SU
Antrozous pallidus	Pallid Bat	Mammal	G5	S4	S1
Baeolophus ridgwayi	Juniper Titmouse	Mammal	G5	S4	S1
Bassariscus astutus	Ringtail	Mammal	G5	S3	S1
Bos bison bison	Plains Bison	Mammal	G4TU	S2	S1
Clethrionomys gapperi	Southern Red-backed Vole	Mammal	G5	S2	S5
Corynorhinus townsendii	Townsend's Big-eared Bat	Mammal	G3G4	S4	S2
Microtus richardsoni	North American Water Vole	Mammal	G5	S3	S2
Mustela nigripes	Black-footed Ferret	Mammal	G1	S1	S1

Scientific Name	Common Name	Taxa	Global Rank	S-UT	S-WY
Myotis leibii	Eastern Small-footed Myotis	Mammal	G3G4	NR	NR
Myotis lucifugus	Little Brown Myotis	Mammal	G3	S4	S5
Myotis yumanensis	Yuma Myotis	Mammal	G5	S3	S1
Neotamias dorsalis	Cliff Chipmunk	Mammal	G5	S4	S1
Neotamias dorsalis utahensis	Utah Cliff Chipmunk	Mammal	G5T5	S4	S1
Ochotona princeps	American Pika	Mammal	G5	S4	S2
Perognathus parvus	Great Basin Pocket Mouse	Mammal	G5	S4	S2
Peromyscus crinitus	Canyon Deermouse	Mammal	G5	S5	S1
Peromyscus truei	Pinon Deermouse	Mammal	G5	S4	S1
Phenacomys intermedius	Western Heather Vole	Mammal	G5	S2	S5
Thomomys idahoensis	Idaho Pocket Gopher	Mammal	G4	SH	S2
Discus shimekii	Striate Disc	Mollusks	G5	S2	S3
Ferrissia rivularis	Creeping Ancylid	Mollusks	G5Q	S2	S4
Fluminicola coloradoensis	Green River Pebblesnail	Mollusks	G2G3	S2	S4
Fossaria techella	[No Common Name]	Mollusks	G3G4Q	SH	NR
Oreohelix eurekensis	Eureka Mountainsnail	Mollusks	G1	S1	NR
Oreohelix strigosa	Rocky Mountain Mountainsnail	Mollusks	G5Q	S5	S2
Zonitoides nitidus	Black Gloss	Mollusks	G5	S1	SNR/SU
Charina bottae	Rubber Boa	Reptile	G5	S4	S2
Crotalus oreganus concolor	Midget Faded Rattlesnake	Reptile	G5T4	NR	S1
Opheodrys vernalis	Smooth Greensnake	Reptile	G5	S3	S2
Sceloporus tristichus	Plateau Fence Lizard	Reptile	G5	NR	S1
Urosaurus ornatus	Tree Lizard	Reptile	G5	S4	S2
Aquilegia barnebyi	Barneby's Columbine	Plant	G4	S3	
Artemisia arctica ssp. arctica	Boreal Wormwood	Plant	G5T5	SNR	S2
Artemisia campestris var. petiolata	Petiolate Wormwood	Plant	G5T1?Q	S1	
Asplenium septentrionale	Grass-fern	Plant	G4G5	S1	S2
Asplenium viride	Green Spleenwort	Plant	G4	S1	S2
Astragalus detritalis	Debris Milkvetch	Plant	G3	S3	
Astragalus nelsonianus	Nelson's milkvetch	Plant	G3	S1	S3
Astragalus saurinus	Dinosaur Milkvetch	Plant	G3	S3	
Boechera crandallii	Crandall's rockcress	Plant	G2		S1
Boechera pendulina var. russeola	Daggett rockcress	Plant	G5T3?	S3	S3
Boechera perennans	Perennial rockcress	Plant	G5	SNR	S1
Boechera selbyi	Selby rockcress	Plant	G4?Q	S3	S1

Scientific Name	Common Name	Taxa	Global Rank	S-UT	S-WY
Botrychium crenulatum	Dainty Moonwort	Plant	G3	S1	S1
Botrychium echo	Reflected Moonwort	Plant	G3	S1	S3
Botrychium lineare	Narrowleaf Moonwort	Plant	G2G3	S1	S1
Botrychium paradoxum	Peculiar Moonwort	Plant	G3G4	S1	S1
Caloplaca cladodes	Branched orange lichen	Plant	G4G5	SNR	SNR
Carex atrosquama	Blackened Sedge	Plant	G5	S2	
Carex leptalea	Bristly-stalk Sedge	Plant	G5	S1	S3
Carex livida	Livid Sedge	Plant	G5	S1	S3
Cercocarpus ledifolius var. intricatus	Dwarf mountain mahogany	Plant	G5	SNR	S1
Chamaechaenactis scaposa	Fullstem	Plant	G4	S3	S2
Chiloscyphus gemmiparus	A Liverwort	Plant	G1Q	SNR	
Chrysothamnus greenei	Greene rabbitbrush	Plant	G5	SNR	S1
Cirsium murdockii	Murdock's Thistle	Plant	G2G3	S2	
Cryptantha gracilis	Slender cryptantha	Plant	G5	SNR	S1
Cryptantha rollinsii	Rollins' cryptantha	Plant	G3	S3	S1
Cymopterus duchesnensis	Uinta Basin Springparsley	Plant	G3	S3	
Descurainia pinnata var. paysonii	Payson's tansymustard	Plant	G5T3?	SNR	S2
Draba juniperina	Juniper Whitlow-grass	Plant	G2G3	?	?
Elaeagnus commutata	Silverberry	Plant	G5	S1	S3
Erigeron arenarioides	Wasatch Daisy	Plant	G3?	S3	
Erigeron nematophyllus	Needle-leaf Fleabane	Plant	G3	S1	S3
Eriogonum brevicaule var. promiscuum	Mt. Bartles Buckwheat	Plant	G4T2?Q	?	S2
Glossopetalon spinescens var. meionandrum	Utah greasebush	Plant	G5T3	S3	S1
Habenaria viridis var. bracteata	Long-bract Green Orchis	Plant	G5T5	S1	S2
Hymenoxys acaulis var. nana	Low Woollybase	Plant	G5T1T2	S1S2	
Ipomopsis polycladon	Lavender ipomopsis	Plant	G4	SNR	S1
Ipomopsis spicata	Spiked Standing-cypress	Plant	G5	S1	S5
Koenigia islandica	Koenigia	Plant	G4	S1	S1
Lepidium integrifolium var. integrifolium	Meadow Pepper-wortplant	Plant	G2G3T2T3	S1	S1
Linanthus watsonii	Watson's prickly-phlox	Plant	G3G5	S3	S1
Mimulus primuloides	Primrose Monkey-flower	Plant	G4	S1	
Oenothera flava var. acutissima	Narrow-leaf Evening Primrose	Plant	G2	S2	

Scientific Name	Common Name	Taxa	Global Rank	S-UT	S-WY
Oxytropis deflexa var. pulcherrima	Alpine Locoweed	Plant	G5T2T3	S2	
Parrya rydbergii	Naked-stemmed Wallflower	Plant	G3Q	SNR	S2
Penstemon eriantherus var. cleburnei	Cleburn Beardtongue	Plant	G4T3	S1	S3
Penstemon uintahensis	Uintah Beardtongue	Plant	G3	S3	
Phacelia incana	Western phacelia	Plant	G3G4	S2	S1
Philadelphus microphyllus	Little-leaf mock-orange	Plant	G5?	SNR	S2
Phlox opalensis	Opal Phlox	Plant	G3	S1	S3
Physaria repanda	Repand Twinpod	Plant	G1?Q	S1	
Potamogeton foliosus var. fibrillosus	Fibrous Pondweed	Plant	G5T2T4	S1	SNR
Potentilla palustris	Marsh Cinquifoil	Plant	G5	S1	S1
Ranunculus pygmaeus	Dwarf Buttercup	Plant	G5	S1	S2
Rorippa calycina	Persistent sepal yellowcress	Plant	G3		S3
Saxifraga chrysantha	Golden Saxifrage	Plant	G4	S1	S2
Selaginella mutica	Blunt-leaf spike-moss	Plant	G4G5	SNR	S1
Senecio dimorphophyllus var. intermedius	Different Groundsel	Plant	G4T2Q	S2	
Stephanomeria tenuifolia var. uintaensis	Narrow-leaved Skeletonplant	Plant	G5T1Q	S1	
Thelesperma caespitosum	Green River Greenthread	Plant	G2?	S1	S1
Townsendia mensana	Western Townsend-daisy	Plant	G3	S3	
Townsendia montana var. caelilinensis	Skyline Townsendia	Plant	G4T2T3	S2	
Trautvetteria caroliniensis var. occidentalis	Carolina Tassel-rue	Plant	G5T5	S1	