SPECIES: Scientific [common]	*Agrostis oregonensis* [Oregon bentgrass]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	**Daniel Lay/Rose Lehman,; K. Clause**
Date of Review:	**1/23/2020; 3/25/25**
Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)	**No**

FOREST REVIEW RESULTS:

1. The Forest concurs or recommends the species for inclusion on the list of potential SCC:
   Yes___ No_X__

2. Rationale for not concurring is based on (check all that apply):
   Species is not native to the plan area _____
   Species is not known to occur in the plan area _____
   Species persistence in the plan area is not of substantial concern ___X____

FOREST REVIEW INFORMATION:

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

   If no, provide explanation and stop assessment.

2. Is the Species Known to Occur within the Planning Area? Yes_X__ No___

   If no, stop assessment.

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

Year Observed	Number of Individuals	Location of Observations (USFS District, Town, River, Road Intersection, HUC etc.)	Habitat Description	Source of Information[1]
8/21/2006	N/A	Pond at head of tributary of Coulter Creek, at saddle by head of East Whetstone Creek, ca 14.5 miles north-northeast of Moran, ca 30.5 miles northeast of Moose.	Pond shore surrounded by scattered *Picea engelmannii*.	Collector: David Scott, Collection #3299 (Rocky Mountain Herbarium 2020)
8/6/1897	N/A	Near Gros Ventre river and Slate Creek.	Elevation 6,900-8,200 ft. Mixed-conifer, riparian.	Collector: Frank Tweedy, Collection #36 (Rocky Mountain Herbarium 2020)

[1]The Consortium of Pacific Northwest Herbaria (Consortium of Pacific Northwest Herbaria 2019) and the SEINet data portal (SEINet 2019) were also searched, and no additional occurrences on the Bridger-Teton National Forest were found.

a. Are all Species Occurrences Only Accidental or Transient?

Yes__x_ No___

If yes, document source for determination and stop assessment.

While the entire Bridger-Teton has not been surveyed, there are 4 large scale surveys that have returned no occurences, meanwhile this species is globally secure. Known occurence areas have experienced minimal alterations similar to adjacent suitable habitats without occurences, suggesting that its absence in other areas is not related to habitat alteration, but that it may be occuring at the edge of its range.

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

Yes___ No_x_

If no, provide explanation and stop assessment

There is only one known occurence since 1990, and it is located in the Teton Wilderness. No abundance or trend monitoring is available.

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

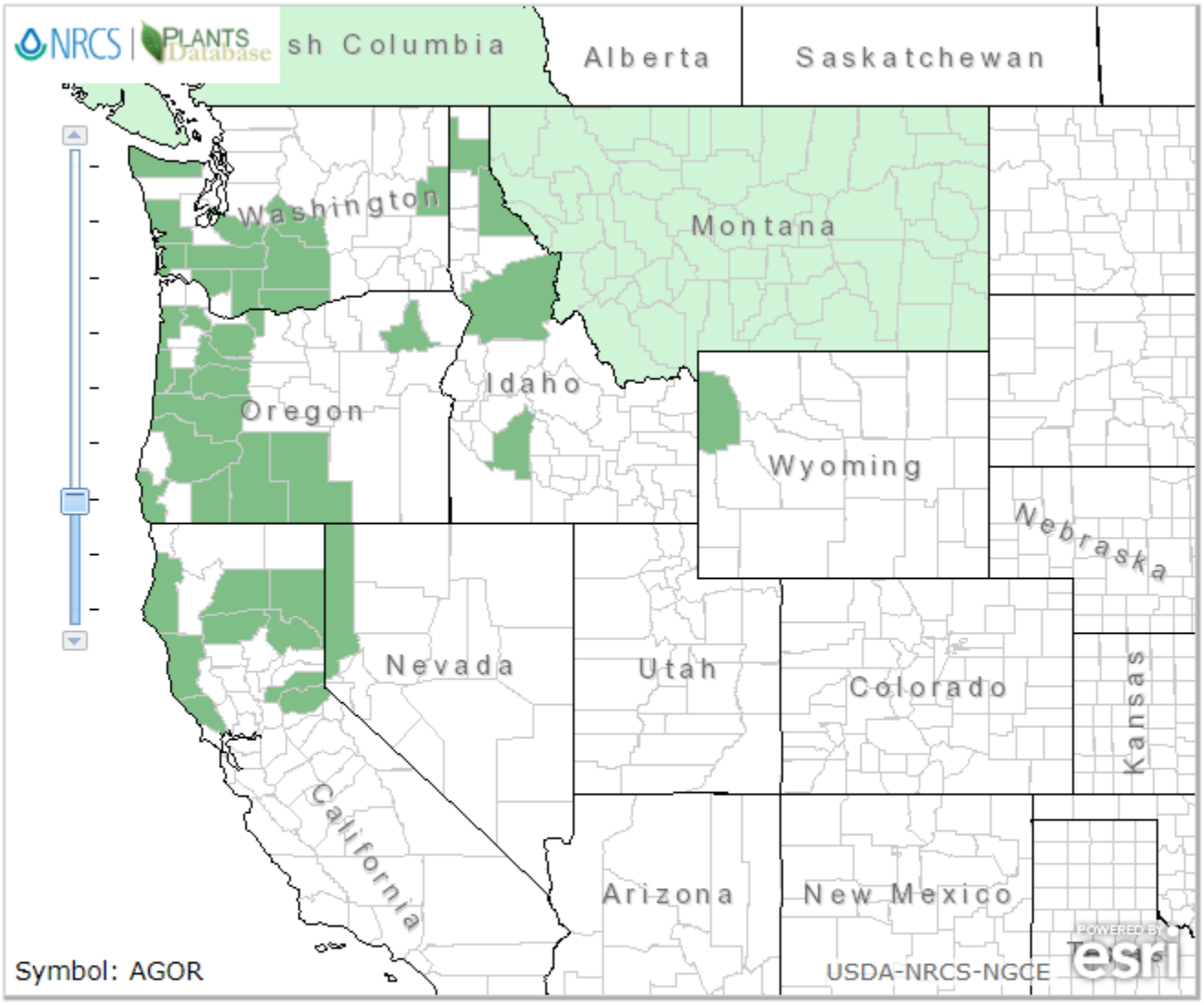
Yes___ No__x_

Provide explanation for determination

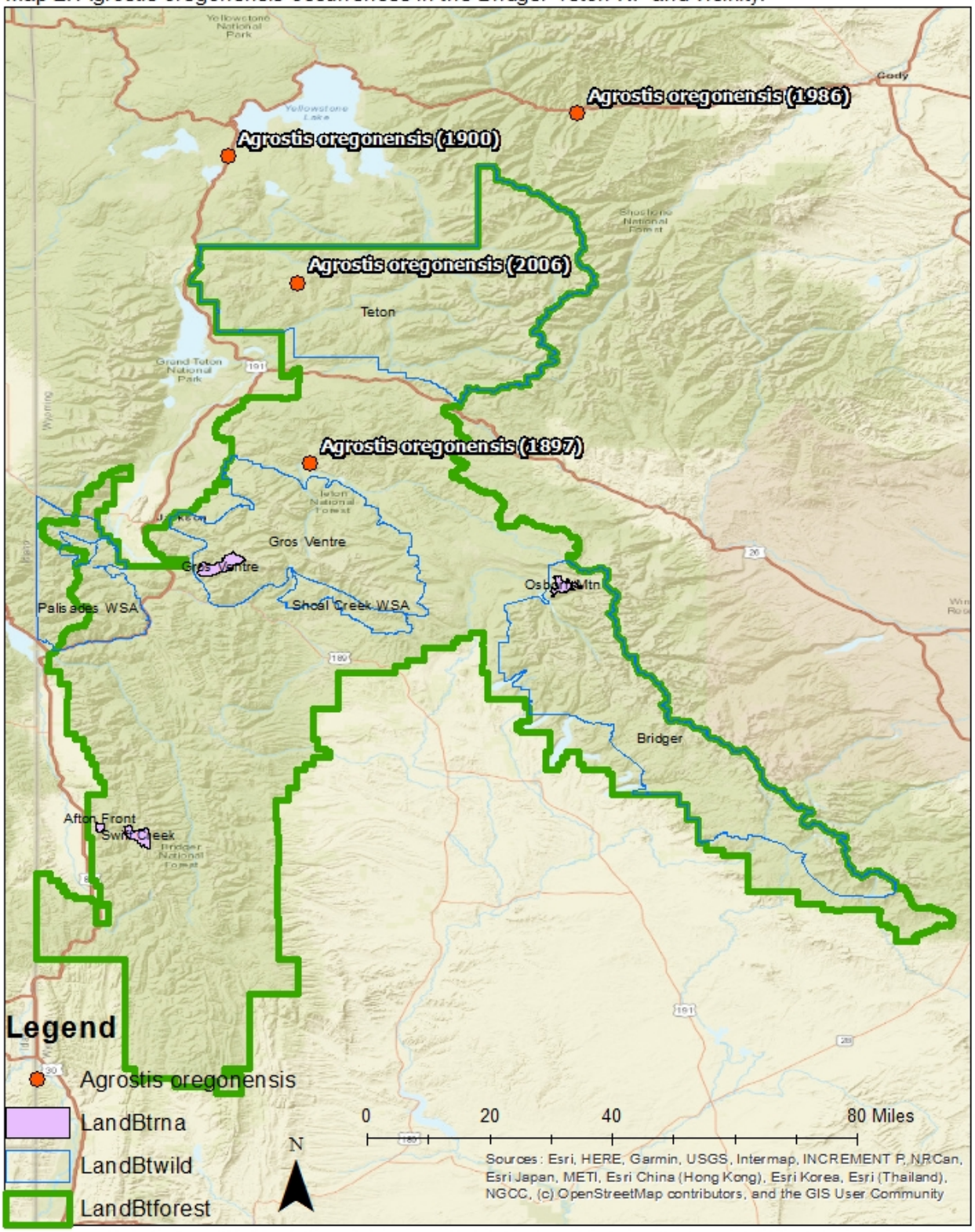
The 1897 occurence was visited in 2024 and not found. No trend monitoring is available.

If determination is no, stop assessment

d. **Map 1**, *Agrostis oregonensis* range in Wyoming and surrounding states (NRCS 2020).



Map 2: Agrostis oregonensis occurrences in the Bridger-Teton NF and vicinity.



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

Table 2. Status summary based on existing conservation assessments

Entity	Status/Rank (include definition)
NatureServe Global Status	**G5—Secure** *At very low risk or extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.*
NatureServe State Status	**S1—Critically Imperiled** *At very high risk of extirpation in the jurisdiction due to very restricted range, very few populations or occurrences, very steep declines, severe threats, or other factors.*
WYNDD	**Plant Species of Concern** **G4/S1** *Species vulnerable to extirpation at the global or state level due to:* *a. their rarity (e.g., restricted distribution, small population size, low population density)* *b. inherent vulnerability (e.g., specialized habitat requirements, restrictive life history)* *c. threats (e.g., significant loss of habitat, sensitivity to disturbances)* (Wyoming Natural Diversity Database - Species of Concern)
USDA Forest Service	Not listed
USDOI FWS	Not listed
USDOI BLM	Not listed
IUCN	Not listed

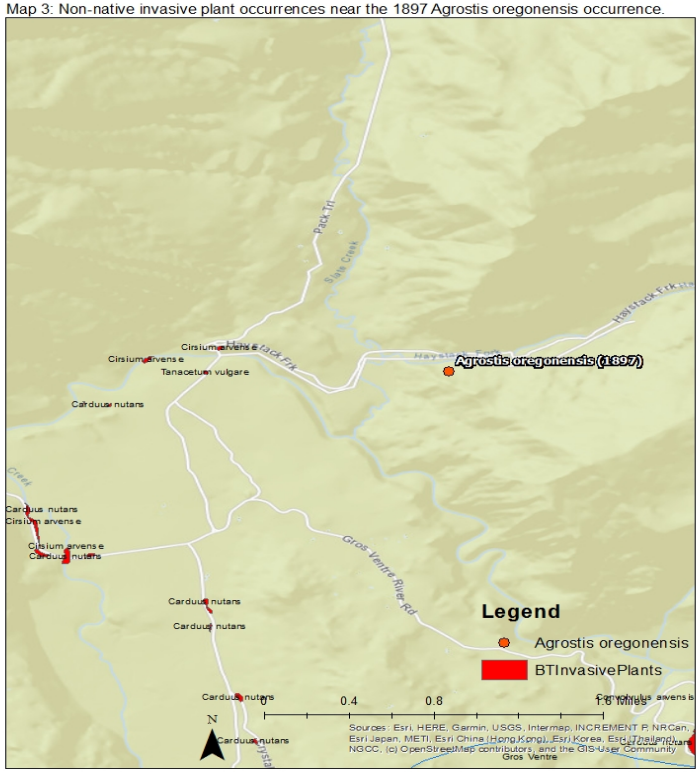
Sources: WYNDD 2019; Heidel 2018; USDA Forest Service Regions 2 and 4 Sensitive Species Lists; NatureServe 2019

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

Criteria	Rationale
Distribution on the Bridger-Teton National Forest	Table 1 and Map 2 detail *Agosteris oregonensis* occurrences in the Bridger-Teton National Forest. One recent occurrence (2006) is located within the Teton Wilderness and one historic occurrence (1897) lies along the Gros Ventre river. A 2024 field survey resulted in no occurrences at the 1897 site.
Distribution outside the Bridger-Teton National Forest	Southern British Columbia to California and Nevada, east to western Montana and northwest Wyoming. In Wyoming, known from historical records in the Teton Range (Teton County) and a recent report from the Absaroka Range (Evert 1991) (Fertig, 1996).
Abundance on the Bridger-Teton National Forest	Abundance information is lacking for occurrences on the Bridger-Teton National Forest. Due to the rare occurrences in riparian communities, abundance is presumed to be low. Although the entirety of Bridger-Teton National Forest has not been floristically inventoried, some areas within and adjacent to Bridger-Teton National Forest have been surveyed over the years. This species was not documented during these survey efforts: • Sensitive plant surveys and status of rare plant species on Bridger-Teton National Forest, 1997-1998 (Fertig 1999) • A Floristic Inventory of Grand Teton National Park, Pinyon Peak Highlands, and Vicinity, Wyoming U.S.A (Kesonie and Hartman 2011) • Sensitive and rare plant species inventory in the Salt River and Wyoming Ranges, Bridger-Teton National Forest (Heidel 2012). • Rare Species and Riparian Vegetation of the Snake River Basin in Wyoming (Jones et al. 2001)
Population Trend on the Bridger-Teton National Forest	There are no data on population trends for this species. Population sizes have not been estimated and multi-year population or demographic monitoring has not been initiated for any site.
Habitat Trend on the Bridger-Teton National Forest	Habitat for *A. oregonensis* consists of stream margins, wet meadows, and boggy areas in the mountains (Hitchcock et al. 1969). These populations occur at 6,100’ to 8,000’ feet in elevation, and the most recent occurrence is located within the Teton Wilderness (Map 2). There is no specific trend data for the habitat in which *A. oregonensis* occurs, and therefore interpretation is used to analyze trends in habitat. Aerial imagery and a USFS GIS database of existing grazing allotments,

Criteria	Rationale
	invasive plant populations, historical wildfires, trails, roads, Wilderness Areas, and Research Natural Areas (RNAs) was assessed at each occurrence (USFS GIS 2020). One large fire in 1988 overlapped the 2006 occurrence of *A. oregonensis*. These data indicate there was potential for fire to have impacted the *A. oregonensis* population and habitat. No active grazing allotments overlap known occurrences. However, as active grazing allotments cover a large portion of the Forest area, it is possibly that impacts from grazing could occur in potential habitat where occurrences have not been documented. There are a few known invasive plant occurrences that are <1 mile of the 1897 *A. oregonensis* populations. There are no known invasive plant occurrences near the 2006 *A. oregonensis* occurrence. Given the above information, it is likely these populations have experienced low to moderate impacts from natural disturbances (non-native plants and wildfire) and low anthropogenic disturbance. With any disturbances such as the wildfire in the 2006 occurrence, habitat trend could have been altered to a stage of early succession.
Threats to the Species and its Habitat on the Bridger-Teton National Forest	Riparian and wetland habitat may be threatened by climate change effects and disturbance or loss of wetland habitat. Changes in flow regimes, such as those from water diversions and dams, impact the amount, season, and timing of flows. This can substantially alter associated riparian and wetland species because of their dependence on fluvial geomorphic process, surface water, and groundwater. Floods are responsible for erosion, transport, and deposition of sediments, as well as the amounts and location of vegetation and debris. Many dominant riparian species, such as cottonwoods and willows, are pioneer species that depend on these events to provide bare, moist substrates necessary for seed germination and plant establishment (Halofsky et al. 2018). Mid-elevation riparian and wetland communities are rated as having a moderate to high sensitivity to climate change, moderate adaptive capacity, and moderate to high vulnerability (Halofsky et al. 2018). Mid-elevation riparian plant species may have the ability to move upward in elevation, but where resilience has been compromised by human uses, these systems may not be able to easily adjust to changes in their environment. Invasive species that already dominate many mid-elevation sites are likely to expand their dominance. As riparian areas become drier, upland species will continue to expand into these sites (Halofsky et al. 2018). Grazing can impact wetlands by altering water quality, trampling herbaceous vegetation, increasing bare ground, and facilitating noxious weed expansion in riparian areas. Rangelands form a major component of ecosystems in the Bridger-Teton National Forest, and there are open rangelands throughout the Forest (USFS 2017). Although no active grazing allotments overlap the two occurrences, it is likely that they overlap potential habitat and could limit future recruitment. While adherence to rangeland management

Criteria	Rationale
	plans will limit the chance of overgrazing, there is potential for impacts to A. *oregonensis* and its habitat to occur. One of the occurrences on the Forest are within the Teton Wilderness Area. A Wilderness Area is “an area of undeveloped Federal land retaining its primeval character and influence, without permanent improvements or human habitation, which is protected and managed so as to preserve its natural conditions" (Wilderness Act of 1964), indicating that effects from anthropogenic activities area likely minimal. Additionally, no roads exist near either occurrence, which further confirms the low potential for human effects. Proximity (within ~1 mile) of all occurrences to non-motorized trails may cause a slight increase in human presence but because the occurrences are in remote, alpine locations, they likely seldom see human visitors. Although invasive species exist within the one mile of the 1897 occurrence (see map 3), the occurrence area is currently free of invasive species. Howev, it could be affected by the spread of that nonnative plant species in the future. The 2006 occurrence is not within close proximity to nonnative plant populations, and is within an area of limited anthropogenic activity.

Criteria	Rationale
	Map 3: Non-native invasive plant occurrences near the 1897 Agrostis oregonensis occurrence.  A forest system road does come within 500 feet of the 1897 occurrence, but the occurrence of 2006 is located in the wilderness, away from any forest travel system (see map 3). The above analysis suggests that habitat for *A. oregonensis* may have experienced low to moderate impacts from natural and anthropogenic disturbances, but may experience increased affects from climate change and invasive plant species in the future.

Criteria	Rationale
Life history and demographic characteristics of the species	*Agrostis oregonensis* is a tufted perennial graminoid that flowers July through August, and is similar to A. scabra. Life history and dispersal capacity knowledge is generally limited. Habitat is described as occurring along stream margins and in wet meadows in mid to high elevation mountains. (WWND, 2019).
Date: January 22, 2020 Reviewer: D. Lay Updated: K. Clause 3/25/25	

Summary and Recommendations
Species (Scientific and Common Name): *Agosteris oregonensis* (Oregon bentgrass)
Agrostis oregonensis is listed as S1 (critically imperiled) and G5 (secure) globally. Although it is widely distributed throughout its range, it is typically uncommon. Only two occurrences have been documented on the BTNF, both with no abundance data. This suggests that the species is highly vulnerable to stochastic events on the Forest. *A. oregonensis* population trends have not been monitored on the Forest. General habitat has been described as stream margins, wet meadows, boggy areas in the mountains. Overall, potential habitat is thought to be stable in many places. Threats to suitable habitat include unrestricted grazing, invasive plants, wildfire, habitat development, hydrologic alteration, and climate change. There is no active grazing in or around the two known occurrences. A few different invasive species have been documented within 1 mile of the 1897 EO, but are the area is generally free of invasive species . Climate change has the potential to be a long-term threat to both populations and habitat for this species. The only known occurence since 1900 was in wilderness which is protected. No population data; population size not estimated, demographic monitoring not initiated. No population trend data. No habitat trend data. Abundance information lacking, plant not found in four survey efforts: 2001, 1999, 2011, 2012. No grazing allotments overlap occurrences. Few known invasives within 1 mile of occurrences. Likely low to moderate impacts from natural disturbances, and low likelihood of anthropogenic impacts. Due to a lack of sufficient trend data, low existence threats, and globally secure populations suggesting its occurrence on the Bridger-Teton is related to the edge of its range, *A. oregonensis* is not recommended as an SCC at this time.
Evaluator: Daniel Lay Date: 1/23/2020 Updated: K. Clause 3/25/25

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