

SPECIES: Scientific [common]	<i>Potamogeton robbinsii</i> [Flatleaf pondweed]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	Daniel Lay/Rose Lehman, K. Clause, Trevor Bloom
Date of Review:	1/28/2020; 3/27/25
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
9/15/1951	N/A	Horseshoe Lake, ca 22 miles south-southeast of Pinedale.	10 feet of clear water on a marly bottom.	Collector: C.C. Skinner #227881 (Rocky Mountain Herbarium, accessed 2020). SEINet, 2020) WNDD, 2025.
8/1/1952	N/A			

¹The Consortium of Pacific Northwest Herbaria (Consortium of Pacific Northwest Herbaria 2019) and the Rocky Mountain Herbarium (RMH, 2020) 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___ No X

If yes, document source for determination and stop assessment.

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

Yes___ No__

If no, provide explanation and stop assessment

No known occurrences since 1990.

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

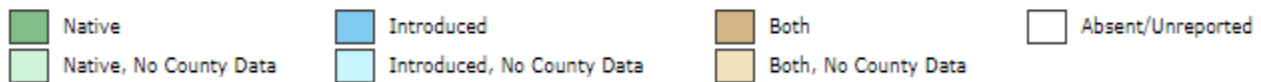
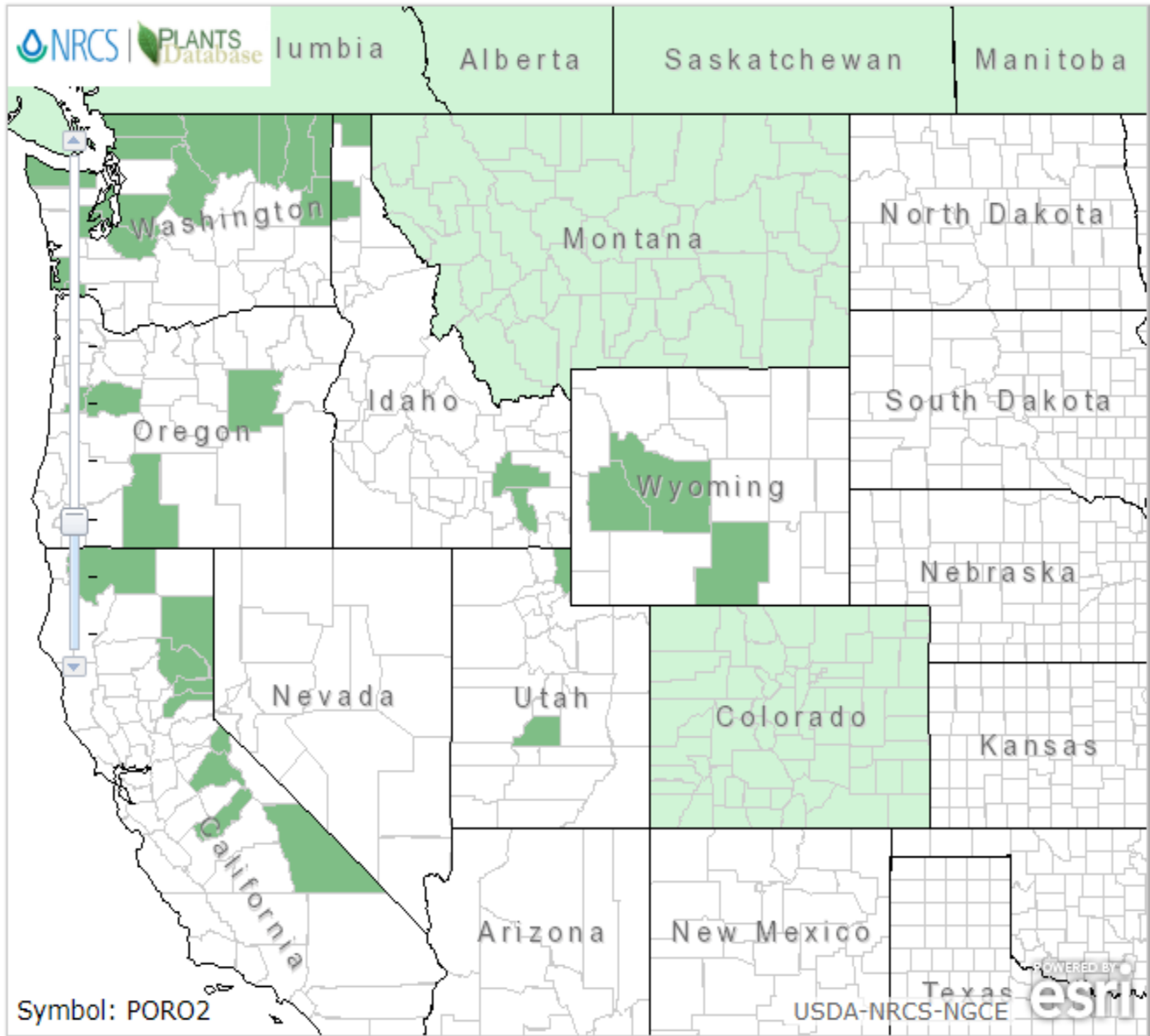
Yes X No___

Provide explanation for determination

Habitat since the 1950's has been relatively stable and there is no reason to believe it does not still exist.

If determination is no, stop assessment

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



Native Status:



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— Apparently Secure <i>At very low risk of extinction or elimination due to a very extensive range, abundant populations or occurrences, and little to no concern from declines or threats.</i>
NatureServe State Status	S2—Critically Imperiled <i>At high risk of extirpation in the jurisdiction due to restricted range, few populations or occurrences, steep declines, severe threats, or other factors</i>
WYNDD	N/A G5/S2 <i>Species vulnerable to extirpation at the global or state level due to:</i> <i>a. their rarity (e.g., restricted distribution, small population size, low population density)</i> <i>b. inherent vulnerability (e.g., specialized habitat requirements, restrictive life history)</i> <i>c. threats (e.g., significant loss of habitat, sensitivity to disturbances)</i> (Wyoming Natural Diversity Database – not a Species of Concern)
USDA Forest Service	Not listed
USDOI FWS	Not listed
USDOI BLM	Not listed

Sources: WYNDD 2025; Heidel 2018; USDA Forest Service Regions 2 and 4 Sensitive Species Lists; NatureServe 2020.

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 <i>Potamogeton robbinsii</i> occurrences in the Bridger-Teton National Forest. There is one occurrence at Horseshoe Lake on the Bridger-Teton NF within the Bridger Wilderness. This plant is a wetland obligate to Horseshoe Lake.
Distribution outside the Bridger-Teton National Forest	British Columbia to Labrador, south to central California, Utah, Montana, Wyoming, Indiana and Pennsylvania. In Wyoming it is known from the Medicine Bow and Wind River ranges and Yellowstone Plateau in Carbon, Fremont, Sublette, and Teton counties.
Abundance on the Bridger-Teton National Forest	<p>No abundance data was collected for the 1951 or 1952 visit.</p> <p>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:</p> <ul style="list-style-type: none"> • 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. 2002)
Population Trend on the Bridger-Teton National Forest	Data on population trends for this species have not been collected. No other sources provide additional population or multi-year trend monitoring data on the BTNF.
Habitat Trend on the Bridger-Teton National Forest	Habitat trend fluctuates with annual snowpack and precipitation. The composition and distribution of alpine ecosystems will be affected by decreasing snowpack. Most riparian communities in the alpine setting are highly vulnerable. Vegetation dominance may shift to species that are more tolerant of seasonal droughts. Some species may be able to persist or migrate to suitable habitat, but the lower extent of some communities will be compromised by tree establishment. (Halofsky et al., 2018).
Threats to the Species and its Habitat on the Bridger-Teton National Forest	Wetland/riparian habitat may be threatened by climate change affects and disturbance or loss of habitat. A decline in winter snowpack is expected to become an increasing trend, which will result in less stored water, and decreased stream flows that provide habitat for <i>P. robbinsii</i> . Changes in flow regimes can impact the amount, season, and timing of flows, this can substantially alter associated wetland/riparian species because of their dependence on fluvial geomorphic process, surface water, and groundwater. This occurrence is located in the high-elevation riparian areas, and are at a high risk for adverse effects from

Criteria	Rationale
	<p>climate change. These high-elevation communities have high vulnerability to climate change because of moderate to high sensitivity and low to moderate adaptive capacity. (Halofsky et al., 2018)</p> <p>Wild ungulate grazing can impact wetlands/riparian areas by altering water quality, and facilitating noxious aquatic weed expansion into wetland areas. Recreational activities such as fishing can also have adverse impacts on <i>P. robbinsii</i>.</p>
<p>Life history and demographic characteristics of the species</p>	<p><i>Potamogeton robbinsii</i> is a wholly submersed, multi-branched aquatic herb with slender rhizomes, that flowers August-September. Dispersal is via fragmented rhizomes or the transport of turions (Adamec, 2018). Habitat is described as the margins of ponds, lakes and slow moving streams at 7,450-10,360 feet (Fertig, 2000).</p>
<p>Date: January 28, 2020 Reviewer: D. Lay</p>	

Summary and Recommendations
<p>Species (Scientific and Common Name): <i>Potamogeton robbinsii</i> (Flatleaf pondweed)</p>
<p><i>Potamogeton robbinsii</i> is listed as S2 (imperiled) and G5 (secure) globally. General habitat has been described as submerged aquatics rooted in the mud of lakes, ponds or slow-moving streams. Although it is rare in Wyoming, its main distribution is considered secure in the Great Lakes area.</p> <p>Only one occurrence has been documented on the BTNF with only two visits total (1951 & 1952). This occurrence has had no baseline abundance or population trend assessments conducted. Additional surveys and long-term trend monitoring need to be conducted on these occurrences to assess the trend of the populations on the BTNF.</p> <p>This occurrence overlaps the Bridger Wilderness which does provide protections against domestic grazing, and limits recreation and development. Climate change is projected to be a long-term threat to both populations and habitat for this species, and is of substantial concern as these high-elevation riparian communities are expected to be at high risk of adverse effects. Aquatic Invasive plant species have not been documented in the immediate area of these lakes. Due to lack of sufficiency population status and trends, the Bridger-Teton's low contribution to global ranking, and it no longer listed as a WYNDD Species of Concern, it is not recommended to be a Species of Conservation Concern.</p>
<p>Evaluator: Daniel Lay Date: 1/28/2020 Updated: K. Clause 3/27/25</p>

References

- Adamec, L. 2018. Ecophysiological characteristics of turions of aquatic plants: A review. Retrieved from <https://www.sciencedirect.com/science/article/pii/S0304377018300172>
- Consortium of Pacific Northwest Herbaria. 2019. Specimen data search. Available at: <http://pnwherbaria.org>.
- Fertig, W., 2000. Wyoming State Species Abstract. Wyoming Natural Diversity Database. Laramie, WY: University of Wyoming.
- Fertig, W. 1999. Sensitive plant surveys and status of rare plant species on Bridger-Teton National Forest, 1997-1998. Report prepared by the Wyoming Natural Diversity Database, Laramie, Wyoming.
- Fertig, W. 2000. Status of Plant Species of Special Concern in US Forest Service Region 4 in Wyoming. Prepared for the U.S. Forest Service, by the Wyoming Natural Diversity Database, University of Wyoming. Laramie, WY.
- Halofsky, Jessica E.; Peterson, David L.; Ho, Joanne J.; Little, Natalie, J.; Joyce, Linda A., eds. 2018. Climate change vulnerability and adaptation in the Intermountain Region. Gen. Tech. Rep. RMRS-GTR-375. Fort Collins, CO: U.S. Department of Agriculture, Forest Service, Rocky Mountain Research Station. Part 1. pp. 1–197.
- Heidel, B. 2012. Sensitive and rare plant species inventory in the Salt River and Wyoming Ranges, Bridger-Teton National Forest. Wyoming Natural Diversity Database. Laramie, WY.
- Heidel, B. 2018. Wyoming plant species of concern, March 2018. Wyoming Natural Diversity Database, Laramie, WY. Accompanied by Wyoming plant species of potential concern, with tables of additions and deletions.
- Heidel, B. 2019. Botany inventories in select fens of the Caribou-Targhee and Bridger-Teton National Forests. Report prepared for the USDA Forest Service – Region 4 by the Wyoming Natural Diversity Database - University of Wyoming, Laramie, Wyoming.
- Jones, G.P., R.S. Smith, W.F. Fertig, D.A. Keinath, M.L. Neighbours, L.A. Welp and G.P. Beauvais. 2001. Rare Species and Riparian Vegetation of the Snake River Basin in Wyoming. Prepared for the U.S. Bureau of Reclamation, by the Wyoming Natural Diversity Database, University of Wyoming. Laramie, WY.
- Kesonie, D. and Hartman, R. 2011. A Floristic Inventory of Grand Teton National Park, Pinyon Peak Highlands, and Vicinity, Wyoming U.S.A. *Journal of the Botanical Research Institute of Texas* 5(1) pages 357 – 388.
- National Resources Conservation Service (NRCS). 2020. Internet website: <https://plants.usda.gov>. Accessed on August 03, 2019.
- NatureServe. 2020. NatureServe Explorer: An online encyclopedia of life [web application]. Version 7.1. NatureServe, Arlington, Virginia. Internet website: <http://explorer.natureserve.org>.
- Rocky Mountain Herbarium Specimen Database. 2020 University of Wyoming, Department of Botany. Laramie, WY. Internet website: <http://rmh.uwyo.edu/data/search.php>. Accessed July 2020.
- SEINet. 2020. SEINet data portal. Available at: <http://swbiodiversity.org/seinet/collections/index.php>.
- Wyoming Natural Diversity Database. 2025. Wyoming Natural Diversity Database; Data Explorer. Laramie, WY: University of Wyoming.