

SPECIES: Scientific [common]	<i>Thamnophis sirtalis fitchi</i> [Valley Gartersnake]
Forest:	Bridger-Teton National Forest
Forest Reviewer:	Randall Griebel, James Wilder
Date of Review:	08/20/2018; reviewed 2/24/2025
Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)	NO

FOREST REVIEW RESULTS:

1. The Forest concurs or recommends the species for inclusion on the list of potential SCC:
Yes ___ No X
2. Rationale for not concurring is based on (check all that apply):
Species is not native to the plan area _____
Species is not known to occur in the plan area _____
Species persistence in the plan area is not of substantial concern X

FOREST REVIEW INFORMATION:

1. Is the Species Native to the Plan Area? Yes X No ___

If no, provide explanation and stop assessment.
2. Is the Species Known to Occur within the Planning Area? Yes X No ___

If no, stop assessment.

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

Year Observed	Number of Individuals	Location of Observations	Source of Information
2008-2011	2	Blackrock Ranger District; Pilgrim Creek and Spread Creek	Wyoming Natural Diversity Database (January 2018)
2010	1	Jackson Ranger District; Game Creek	

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

Yes ___ No X

If yes, document source for determination and stop assessment.

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

Yes_ X__ No___

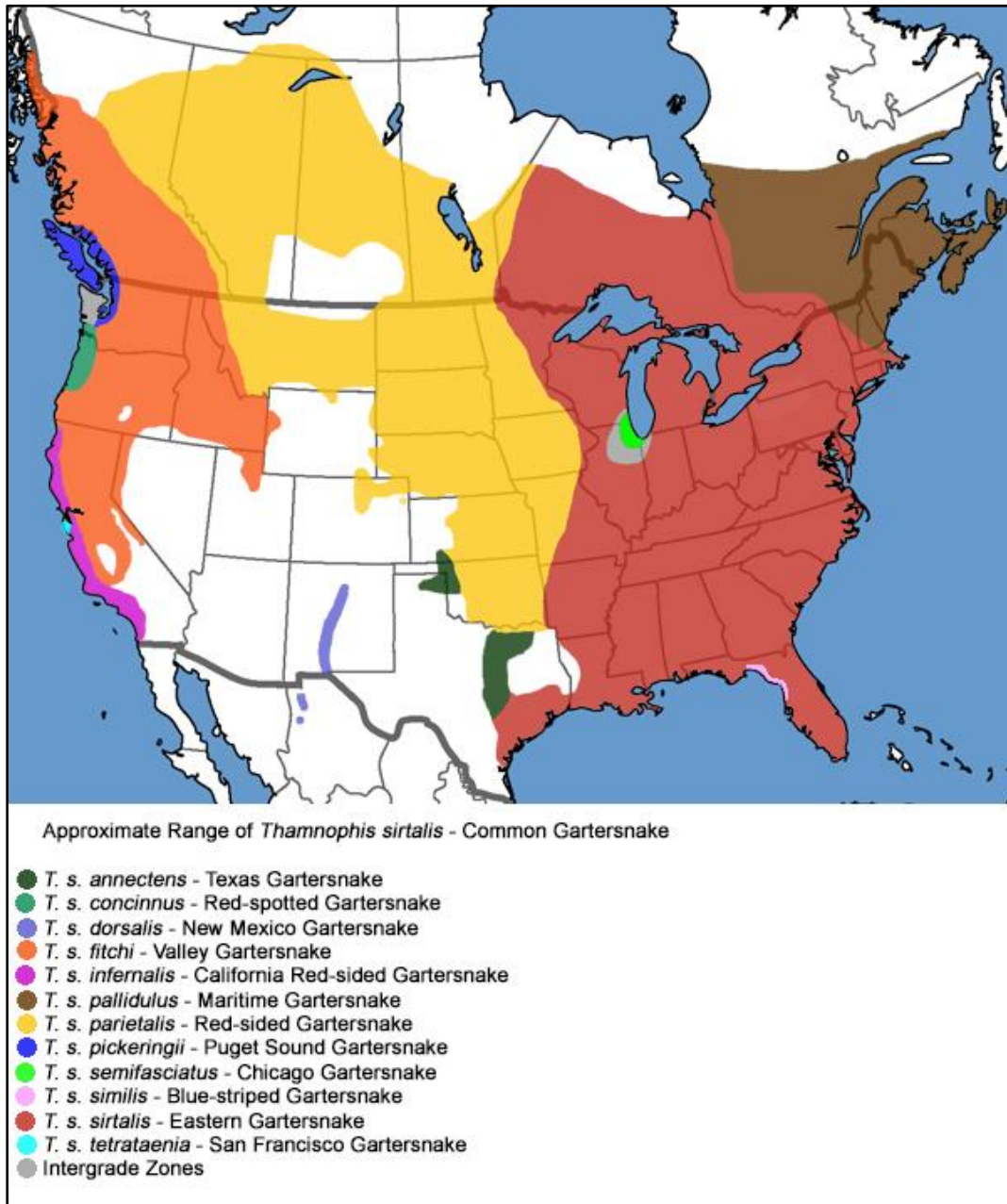
If no, provide explanation and stop assessment

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

Yes_ X__ No___

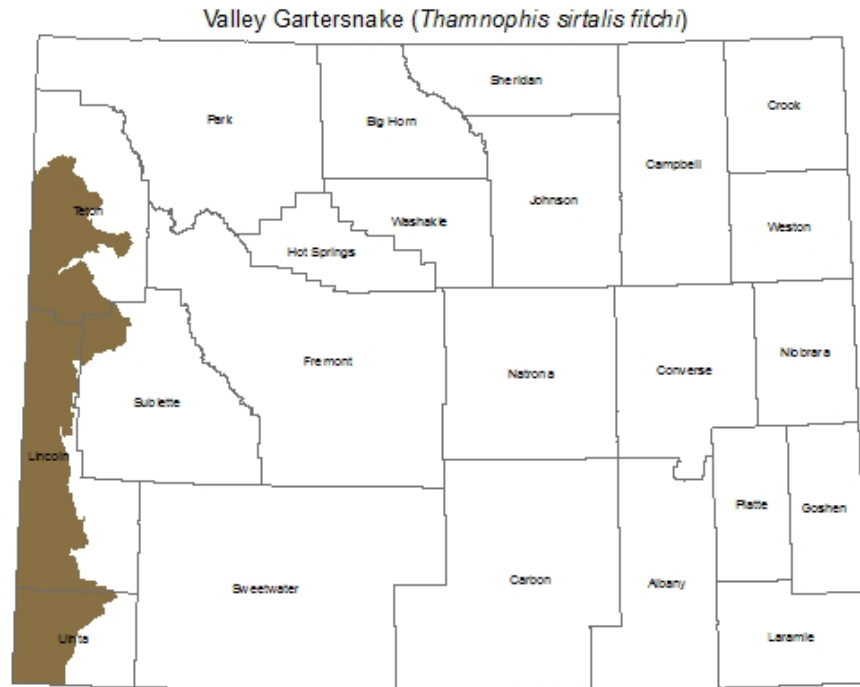
Provide explanation for determination; If determination is no, stop assessment

d. **Map 1**, Valley Gartersnake Distribution Map of North America.



Rossman et al. in *The Garter Snakes - Evolution and Ecology* 1996 * show *T. s. fitchi* ranging along the central coast from south of Monterey Bay to Santa Barbara County. Robert Stebbins, in his 2003 western field guide, shows *T. s. infernalis* along the central coast with an intergrade zone around Ventura County. I have chosen to show *T. s. infernalis* ranging along the south coast with no intergrade zone, after personal communications that told me the *T. sirtalis* in that area show characteristics of *T. s. fitchi*, but are still *T. s. infernalis*, however I remain skeptical and wait for more information. www.californiaherps.com. Accessed June 2018.

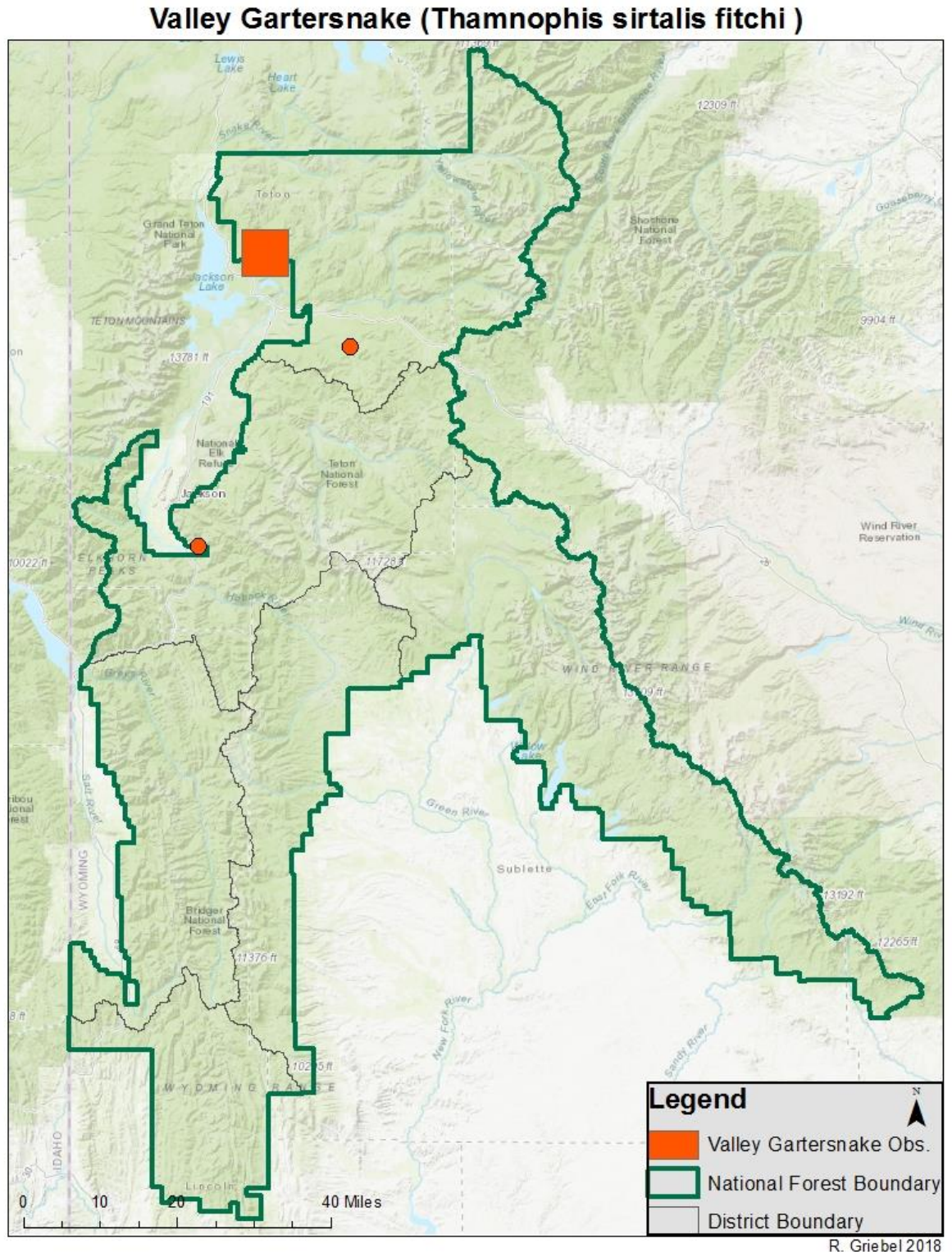
- e. **Map 2**, Range and predicted distribution of *Thamnophis sirtalis fitchi* in Wyoming.



SOURCE: Digital maps of ranges for Wyoming Species of Greatest Conservation Need: February 2016. Wyoming Game and Fish Department. Note that brown indicates the current known range of the species.

Wyoming Game and Fish Department. 2017. State Wildlife Action Plan. Valley Gartersnake (*Thamnophis sirtalis fitchi*).

- f. **Map 3**, Map of *Thamnophis sirtalis fitchi* occurrences on the Bridger-Teton National Forest. Wyoming Natural Diversity Database (January 2018).



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

Table 2. Status summary based on existing conservation assessments

Entity	Status/Rank (include definition if Other)
NatureServe Global Status	G5TNR— Demonstrably Secure, Not yet ranked
NatureServe State Status	<p>S2—Imperiled</p> <p><i>Imperiled—Imperiled in the nation or state/province because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the nation or state/province.</i></p>
WGFD	<p>NSSU, U, Tier 3</p> <p><i>Population Status: Restricted distribution, population numbers and threats are unknown.</i></p> <p><i>Limiting Factor: Habitat - limited habitat. Species found near permanent water along corridors. Degree of habitat loss is unknown.</i></p> <p><i>Tier 3: Lowest priority</i></p> <p><i>[The WGFD's Species of Greater Conservation Need (SGCN) designation process is based upon its Native Species Status (NSS) classification system that compares population and limiting factor variables using a 16 cell matrix. As a species moves from a placement closest to the upper left corner of the matrix (Aa/NSS1) toward the lower right corner (Dd/NSS7) the species' population status in Wyoming is considered more secure. Numerical scores were assigned to each of these variables and summed to provide a total score (i.e. NSS3). SGCN were placed into one of three tiers based on their total score: Tier I – highest priority, Tier II – moderate priority, and Tier III – lowest priority.]</i></p> <p><i>(WGFD - Wyoming Species of Greatest Conservation Need)</i></p>
WYNDD	<p>Species of Potential Concern</p> <p><i>(SOPC, also known as watched species) includes species that appear to be secure at present, but because they have limited distribution as regional or state endemics they could become vulnerable under large-scale changes. Species with this status warrant periodic checks.</i></p> <p><i>(Wyoming Natural Diversity Database - Species of Concern)</i></p>
USDA Forest Service	Region 4: No special status

UDI FWS	No Special Status
WY BLM	No Special Status
IUCN	<p>Not yet assessed; LC - Least concern</p> <p>The valley gartersnake subspecies of the common gartersnake has not been assessed for the IUCN red list. The common gartersnake IUCN status is least concern.</p> <p><i>A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category. (IUCN – Red List Categories and Criteria)</i></p>

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

Species (Scientific and Common Name): <i>Thamnophis sirtalis fitchi</i> [Valley Gartersnake]		
Criteria	Rationale	Literature Citations
Distribution on Bridger-Teton National Forest	<p>The Valley Gartersnake is found near permanent water along corridors west of the Continental Divide (Maps 1-2; WGFD 2017).</p> <p>Distribution is difficult to determine because of the lack of baseline surveys and the cryptic nature of this species. Suspected low density on the Bridger-Teton National Forest (BTNF) because of the paucity of observations within the forest boundary relative outside the boundary. The association of valley gartersnakes with the foothills and lower montane life zones (The Wyoming Naturalist 2018) may also limit their distribution in the higher elevation areas of the BTNF.</p>	<p>The Wyoming Naturalist. 2018. Valley gartersnake. http://www.wyomingnaturalist.com/html/herps/r_valleygarter_snake.html.</p> <p>Wyoming Game and Fish Department. 2017. State Wildlife Action Plan.</p> <p>Wyoming Natural Diversity Database (May 2018).</p>
Abundance on the Bridger-Teton National Forest	<p>There is a lack of basic information on the species presence, distribution, and ecology in Wyoming (WGFD 2017). Given that there are 3 reported detections of this species on the forest (Map 3), it is assumed that their abundance is low within the Forest boundary.</p>	<p>Wyoming Game and Fish Department. 2017. State Wildlife Action Plan.</p> <p>Wyoming Natural Diversity Database (May 2018).</p>
Population Trend on the Bridger-Teton National Forest	<p>The population status for Wyoming indicates a restricted distribution but the population numbers and threats are unknown (WGFD 2017). The population trend is not known for the forest.</p>	<p>Wyoming Game and Fish Department. 2017. State Wildlife Action Plan.</p>
Habitat Trend on the Bridger-Teton National Forest	<p>In general, Valley Gartersnakes inhabit lower elevation grasslands, woodlands, shrub brush, chaparral, forests, riparian areas, marshes, swamps, meadows, pastures, old fields, cemeteries, and vacant lots, usually near water or wet vegetation (Ernst and Ernst 2003, Baxter and Stone 1985 in WGFD 2017). They utilize rock and earth dams, gravel banks, rock crevices, stone causeways, old wells, ant mounds, beaver lodges, and rotting logs as hibernacula. This species may have limited habitat in Wyoming and degree of this habitat loss is unknown (WGFD 2017). The BTNF provides the habitat characteristics desired but may be at the extreme limit for elevation and climate the species needs to thrive.</p>	<p>Wyoming Game and Fish Department. 2017. State Wildlife Action Plan.</p>
Threats to the Species and its Habitat on the	<p>Valley gartersnakes may have limited habitat in Wyoming and the degree to which suitable habitat has been lost is unknown (WGFD 2017).</p>	<p>Wyoming Game and Fish Department. 2017. State Wildlife Action Plan.</p>

Species (Scientific and Common Name): <i>Thamnophis sirtalis fitchi</i> [Valley Gartersnake]		
Criteria	Rationale	Literature Citations
Bridger-Teton National Forest	Timber harvest practices and prescribed burning activities may be a threat if they remove or reduce habitat structures important to the species (i.e., rocks, stumps, logs, and bark from dead or fallen trees). Although climate change impacts are unknown, warming could benefit the species on the forest where they could survive at higher elevations. However, increased temperatures and extreme weather patterns could result in more wildfires and drying of wetland areas desired by the species.	
<p>Summary and recommendations:</p> <p>The BTNF is at the eastern extent of the range of the valley gartersnake and there are very few detections of this species on the Forest. However, the species is cryptic and there have not been thorough surveys on the forest. Although their abundance and distribution across the forest is uncertain, the few detections recorded suggest that abundance is low on the BTNF.</p> <p>While habitat is limited, and abundance appears low on the BTNF, habitat loss is not increasing significantly on the BTNF and the species is demonstrably secure rangewide. While there is uncertainty of population trends on the Forest, there is little concern for habitat loss, concluding that the species' capability to persist over the long-term within the planning unit is currently adequate. Therefore, it is not recommended that the valley gartersnake be proposed as a Species of Conservation Concern for the Bridger-Teton National Forest.</p> <p>Evaluator(s): Randall Griebel</p>		Date: August 20, 2018