

<b>SPECIES: Scientific [common]</b>	<i>Picoides dorsalis</i> [Three-Toed Woodpecker]
<b>Forest:</b>	Bridger-Teton National Forest
<b>Forest Reviewer:</b>	Randall Griebel, James Wilder
<b>Date of Review:</b>	10/16/2019; reviewed 5/21/2025
<b>Forest concurrence (or recommendation if new) for inclusion of species on list of potential SCC: (Enter Yes or No)</b>	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 \_\_\_
2. Is the Species Known to Occur within the Planning Area? Yes X No \_\_\_

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

<b>Year Observed</b>	<b>Number of Individuals</b>	<b>Location of Observations</b>
<u>Pre-Dating 1990</u> 1978-1989	13	9 observation locations spread across the Bridger-Teton National Forest. Observations are located on each of the 6 ranger districts.
<u>Post-Dating 1990</u> 1990-2019	207	All locations spread across the Bridger-Teton National Forest, located on all 6 ranger districts. *Some records did not indicate number of individuals, in that case a minimum of 1 was used.

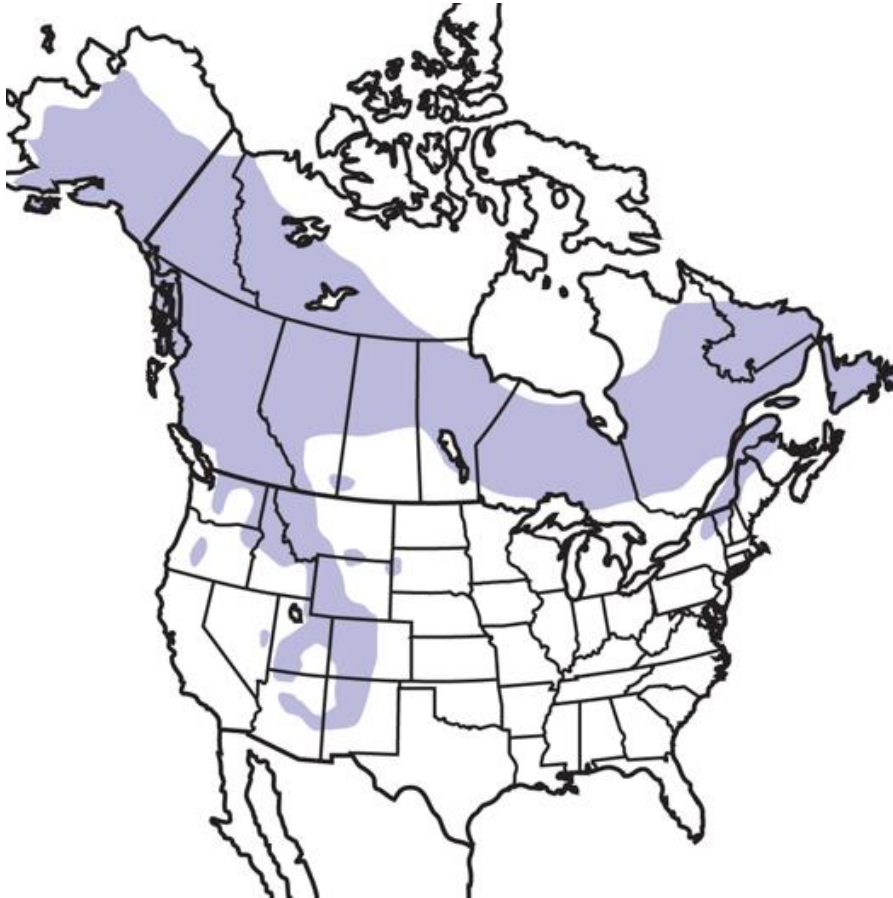
*Wyoming Natural Diversity Database, US Forest Service Natural Resource Information System, and eBird*

- a. Are all Species Occurrences Only Accidental or Transient?  
Yes \_\_\_ No X
- 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 \_\_\_

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?

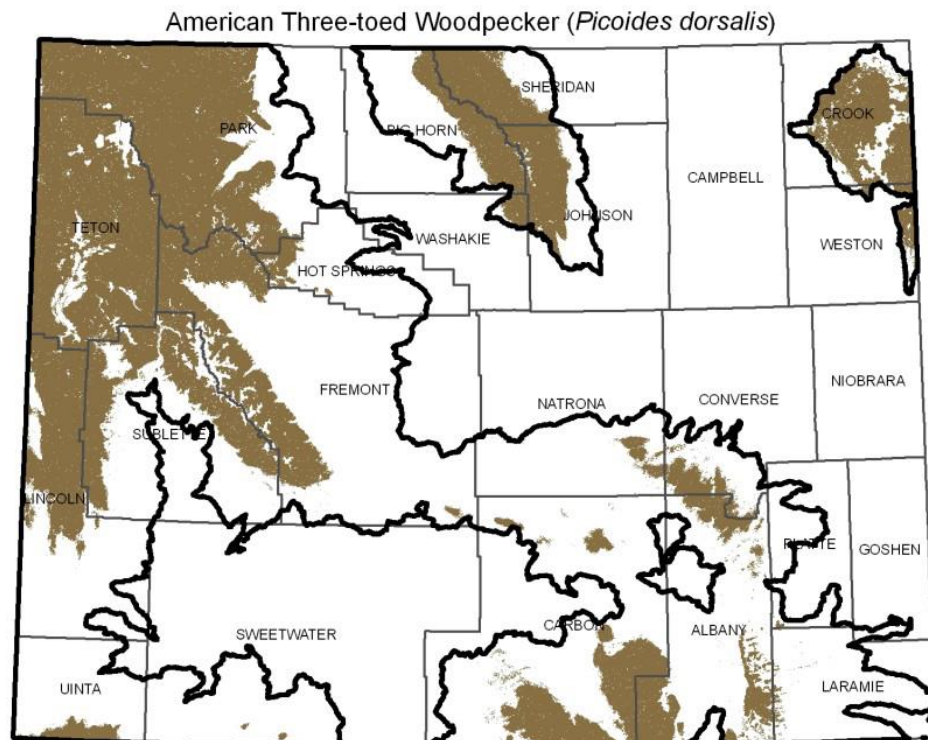
Yes X No     

d. **Map 1:** Three-toed woodpecker range map of North America.



Audubon: Guide to North American Birds Online. Accessed October 9, 2019. American three-toed woodpecker (*Picoides dorsalis*). <https://www.audubon.org/field-guide/bird/american-three-toed-woodpecker>.

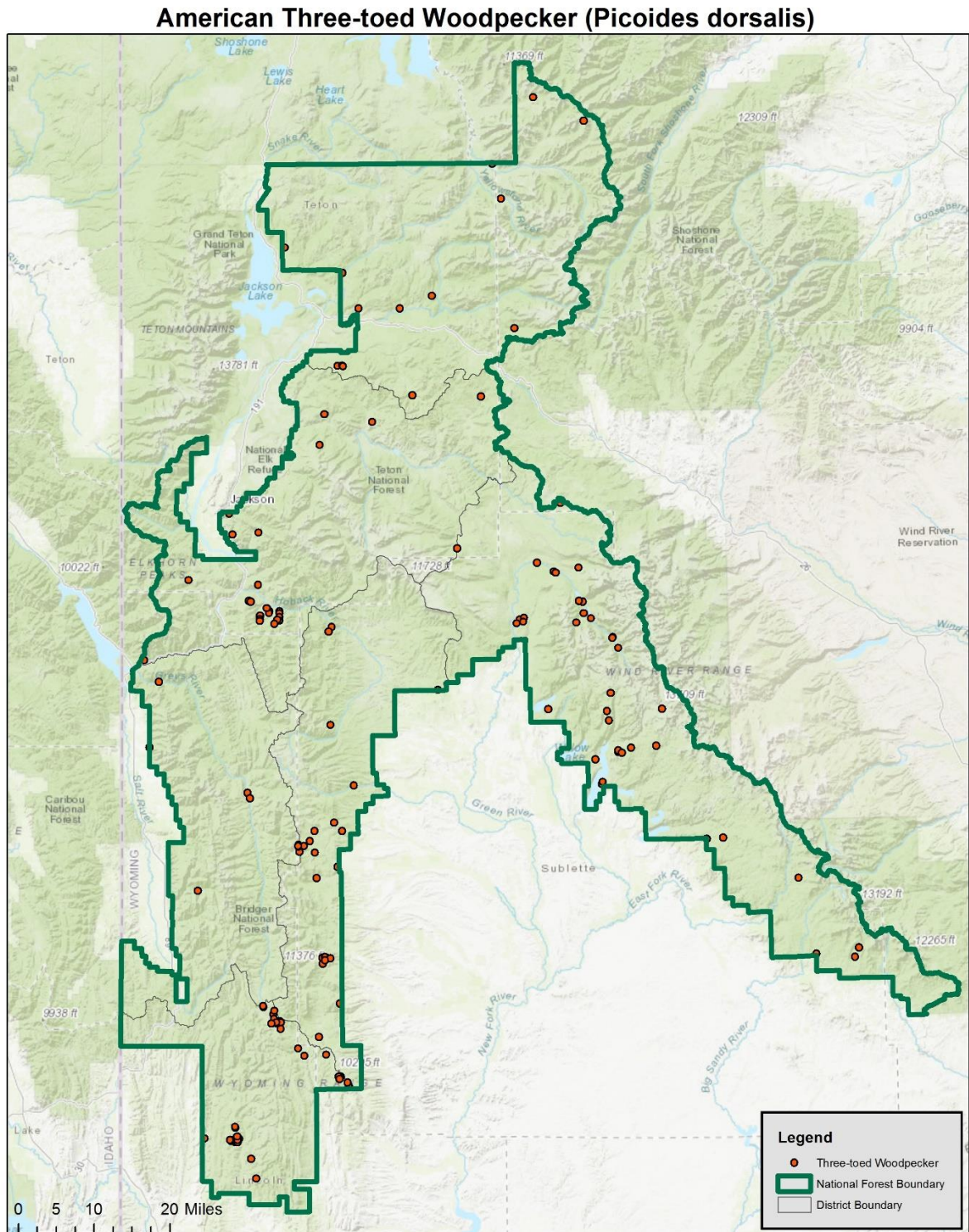
- e. **Map 2:** Range and predicted distribution of Three-toed woodpecker in Wyoming.



SOURCE: Digital maps of ranges and predicted distributions for Wyoming Species of Greatest Conservation Need: April 2010. Wyoming Natural Diversity Database. University of Wyoming, Laramie, Wyoming. Note that brown indicates the predicted distribution of the species; heavy black lines indicate outermost boundaries of possible occurrence.

Wyoming Game and Fish Department. 2017. State Wildlife Action Plan. Three-toed woodpecker (*Picoides dorsalis*).

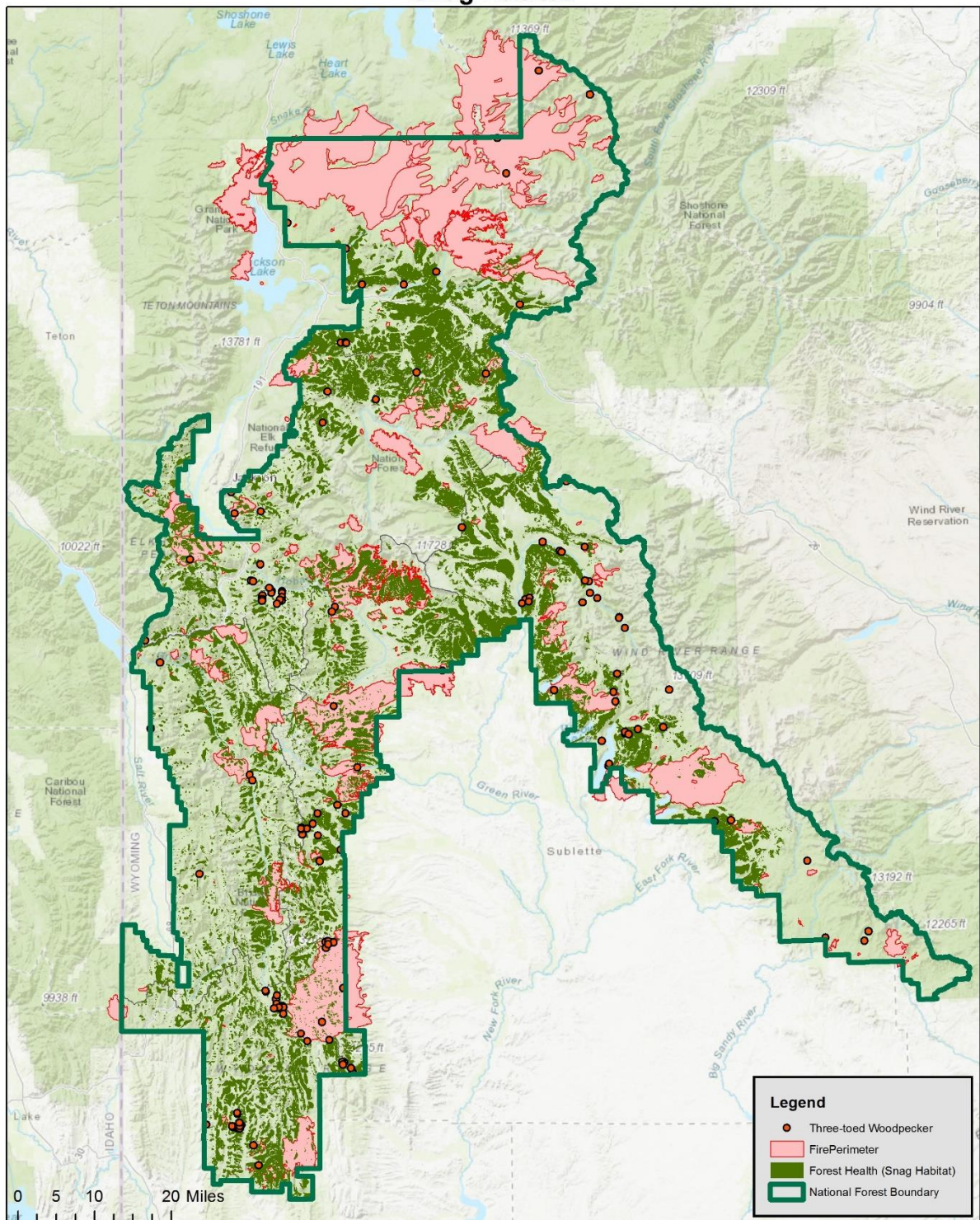
- f. **Map 3:** Map of Three-toed woodpecker occurrences on the Bridger-Teton National Forest. (Wyoming Natural Diversity Database, USFS Natural Resource Information System, eBird [2019]).



A. Egan 2019

- g. **Map 4:** Snag habitat on the Bridger Teton National Forest includes all historical to present fire polygons and forested areas damaged by insects, disease, abiotic factors, multiple factors and unknown reasons.

### Snag Habitat



A. Egan 2019

\*Live trees are present where fire severity and insect and disease is low.

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
<b>NatureServe Global Status</b>	<p><b>G5— Secure</b></p> <p><i>Common; widespread and abundant.</i></p>
<b>NatureServe State Status</b>	<p><b>S3— Vulnerable</b></p> <p><i>At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.</i></p>
<b>WGFD</b>	<p><b>Not a Species of Greatest Conservation Need (SGCN)</b></p> <p><i>[The WGFD's Species of Greater Conservation Need (SGCN) designation process is based upon its <b>Native Species Status (NSS)</b> 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>(WGFD - Wyoming Species of Greatest Conservation Need)</p>
<b>WYNDD</b>	<p><b>Species of Concern</b></p> <p><i>Species vulnerable to extirpation at the global or state level due to:</i></p> <ul style="list-style-type: none"> <li><i>a. their rarity (e.g., restricted distribution, small population size, low population density)</i></li> <li><i>b. inherent vulnerability (e.g., specialized habitat requirements, restrictive life history)</i></li> <li><i>c. threats (e.g., significant loss of habitat, sensitivity to disturbances)</i></li> </ul> <p>(Wyoming Natural Diversity Database - Species of Concern)</p>
<b>USDA Forest Service</b>	<p><b>Region 4: Sensitive Species</b></p> <p><i>Those plant and animal species identified by a Regional Forester for which population viability is a concern, as evidenced by</i></p> <ul style="list-style-type: none"> <li><i>a. Significant current or predicted downward trends in population numbers or density.</i></li> </ul>

	<i>b. Significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.</i> (FSM 2670.5 – Threatened, Endangered & Sensitive Species)
<b>UDI FWS</b>	<b>No Special Status</b>
<b>WY BLM</b>	<b>No Special Status</b>
<b>IUCN</b>	<b>LC – Least Concern</b>  <i>A taxon is Least Concern when it has been evaluated against the criteria and does not qualify for Critically Endangered, Endangered, Vulnerable or Near Threatened. Widespread and abundant taxa are included in this category.</i> (IUCN – Red List Categories and Criteria)
<b>Partners in Flight (PIF) Continental Concern Score</b>	<b>10</b>

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

Species (Scientific and Common Name): <i>Picoides dorsalis</i> [Three-toed woodpecker]		
Criteria	Rationale	Literature Citations
Distribution on Bridger-Teton National Forest	The Three-toed woodpecker is distributed from northern Alaska across Canada, and south to New Mexico (Map 1). Its range includes the western two-thirds of Wyoming, overlapping with the Bridger-Teton National Forest, where montane and subalpine forest habitat is available (USFS 2019). Much of the Three-toed woodpecker predicted habitat distribution in Wyoming is located on the Bridger-Teton (Map 2), and the species is a year-round resident on the Forest. There are gaps where Three-toed woodpecker occupancy is unknown, and occurrence records indicate moderate distribution across the Forest unit depending on available habitat (Map 3). Gaps in occurrence records are likely contributed to the difficulty in surveying for Three-toed woodpeckers, given their opportunistic foraging patterns and disturbance configurations on the landscape.	U.S. Forest Service. 2019. Bridger-Teton National Forest Sensitive Species Conservation Assessment for the American Three-toed Woodpecker. Unpublished Report. On file, Bridger-Teton National Forest, Jackson, Wyoming, USA.
Abundance on the Bridger-Teton National Forest	According to the Bird Conservancy of the Rockies, the number of individuals detected during a single year ranged from 0 to 10 on the Bridger-Teton National Forest from 2009 to 2018. On average, two individuals were detected	Bird Conservancy of the Rockies. (2017) The Rocky Mountain Avian Data Center [web application], Brighton,

Species (Scientific and Common Name): <i>Picoides dorsalis</i> [Three-toed woodpecker]		
Criteria	Rationale	Literature Citations
	per year, with the highest detections in 2014 and 2015. 7 individuals were detected across the Forest in 2018 (BCR 2017). Since 1978, a total of approximately 300 Three-toed woodpecker individuals have been observed on the Forest (Table 1). While Three-toed woodpecker abundance appears low on the Bridger-Teton, monitoring the species is particularly difficult given their foraging behavior and ability to take advantage of shifts in disturbance-dependent insect outbreaks (USFS 2019). The fluctuations in abundance and distribution across the Forest can coincide greatly with snag availability from major disturbances such as fire.	CO. <a href="http://www.rmbo.org">http://www.rmbo.org</a> .  U.S. Forest Service. 2019. Bridger-Teton National Forest Sensitive Species Conservation Assessment for the American Three-toed Woodpecker. Unpublished Report. On file, Bridger-Teton National Forest, Jackson, Wyoming, USA.
Population Trend on the Bridger-Teton National Forest	There are no Three-toed woodpecker population trend estimates for the Bridger-Teton National Forest. However, North American Breeding Bird Survey data from Sauer et al. (2017) indicates an insignificant, long-term (1966–2015) increase of 5.1% per year and short-term (2005–2015) increase of 5.08% per year in Three-toed woodpecker populations across Wyoming. Corresponding data for the Northern Rockies shows a significant increase of 3.61% long-term and insignificant increase of 4.33% short-term per year, respectively. IMBCR data for the BTNF indicates that Three-toed woodpeckers had a slight decreasing trend on the Forest from 2010-2024 (Shivik 2025).	Sauer, J. R., D. K. Niven, J. E. Hines, D. J. Ziolkowski, Jr, K. L. Pardieck, J. E. Fallon, and W. A. Link. 2017. The North American Breeding Bird Survey, Results and Analysis 1966 - 2015. Version 2.07.2017 USGS Patuxent Wildlife Research Center, Laurel, MD.  Shivik, J. A. 2025. 2025 Intermountain Region Broad-Scale Bird Monitoring Report, draft. 76 pp.
Habitat Trend on the Bridger-Teton National Forest	The Three-toed woodpecker is thought to have a relatively large home range with available habitat limited and variable. The woodpecker is known to take advantage of increased food availability in early post-fire conditions (USFS 2019). Their main foraging and nesting habitat is defined by large unfragmented patches of mature, old-growth conifer, including spruce-fir, Douglas fir, and Lodgepole pine, with an abundance of dead or dying, large-diameter trees. The species opportunistically uses fire burn areas for foraging and nesting, commonly using standing fire-killed trees (USFS 2019). Once food supply diminishes following a fire, they will return to old-growth conifer forests. It is unknown however, how far they will travel to foraging sites. Following a disturbance, Three-toed woodpeckers are most abundant the first	Helmbrecht, D., M. Williamson, and D. Abendroth. 2012. Bridger-Teton National Forest Vegetation Condition Assessment.  U.S. Forest Service. 2019. Bridger-Teton National Forest Sensitive Species Conservation Assessment for the American Three-toed Woodpecker. Unpublished Report. On file, Bridger-Teton National Forest, Jackson, Wyoming, USA.

	<p>few years, decreasing as the insect population decreases (USFS 2019).</p> <p>Suitable habitat for Three-toad woodpeckers is available across the Bridger-Teton National Forest. In fact, according to Helmbrecht and others, there is a surplus of late development stands across the BTNF. Approximately 33% (1,143,515 acres) of the Bridger-Teton National Forest is defined by late development Spruce-Fir, Douglas fir, and Lodgepole pine stands, where mature, large diameter trees dominate or co-dominate (Helmbrecht et al. 2012). Snag habitat from fire, beetle outbreaks, disease, and other factors is well distributed throughout the Forest and covers approximately 38% of the BTNF (Map 4). Additionally, snag habitat from fires in 2018 alone covers 68,579 acres. However, given snags can provide suitable foraging habitat for approximately 5 years and up to 10, following a fire (USFS 2019), the amount of potential snag habitat on the Forest from 2014 to 2018 is 106,578 acres and from 2008 to 2018 is 263,083. While snag availability depends on fire severity, fires continue to provide foraging and nesting habitat for Three-toed woodpeckers on the Forest. As shown on Map 4, mixed severity fire and diminishing forest health is represented across the entire Forest. There is evidence that Three-toed woodpeckers prefer foraging on lightly to moderately burned trees (where beetle larvae are more prevalent) as opposed to heavily charred trees (Murphy and Lehnhausen 1998, Werner and Post 1985 <i>in</i> USFS 2019), so varied fire intensity, similar to what occurs on the BTNF, may be beneficial.</p>	
<p>Threats to the Species and its Habitat on the Bridger-Teton National Forest</p>	<p><u><i>Loss of Old Growth Habitat and Snag Reduction</i></u>  <i>Timber Harvest, Fuels Reduction and Fire Suppression</i></p> <p>Because Three-toed woodpeckers rely on old growth forests with sufficient snags for cavity nesting and insect infested trees for foraging, they are highly susceptible to management practices that affect natural forest succession or limit forest snags and decay (USFS 2019). Fire-suppression and post-fire salvage logging can have negative impacts to the availability of Three-toad woodpecker habitat.</p> <p>Timber harvest that occurs within 70-90 year rotations is not conducive for old-growth stand development, and combined with fire suppression, can alter the</p>	<p>Hutto, R. L., and S. M. Gallo. 2006. The effects of post-fire salvage logging on cavity-nesting birds. <i>Condor</i> 108:817-831.</p> <p>U.S. Forest Service. 2019. Bridger-Teton National Forest Sensitive Species Conservation Assessment for the American Three-toed Woodpecker. Unpublished Report. On file, Bridger-Teton National Forest, Jackson, Wyoming, USA.</p>

stand composition and subsequently, inhibit the development of Three-toed woodpecker habitat (USFS 2019). Additionally, both suppression logging—in which the large diameter trees are removed to reduce the spread of insect infestations, and salvage logging—the reduction in dead or dying timber, result in a direct loss in Three-toed woodpecker habitat. Similarly, fuel reduction operations impact Three-toed woodpecker by reducing the amount of standing dead or down snags used for nesting and foraging (USFS 2019). According to Hutto and Gallo (2006), typical salvage logging is incompatible with maintaining endemic populations of most cavity nesting species, including the American Three-toed woodpecker.

American Three-toed woodpeckers benefit from stand replacing wildfires where the majority of the old-growth is killed by fire (USFS 2019). Across the Northern Rockies, most fire regimes were historically high intensity fires that occurred every 50-100 years. However, fire suppression has changed fire regimes, which has resulted in the utilization of frequent, low intensity prescribed fires (USFS 2019). The absence of stand replacing fires due to fire suppression and its influence on Three-toad woodpeckers is not exactly clear. Although the importance of old-growth is a significant component for the species. One potential benefit from fire suppression is that a loss in stand structure and increase in homogenous stands may be contributing to insect infestations and therefore tree mortality (USFS 2019).

Salvage and sanitation logging, fuels reduction, and lessening stand replacing fires are all common activities and management practices on the Bridger-Teton National Forest. It is possible that such actions may influence Three-toed woodpecker nesting and foraging behavior and success; however, the abundance of late-succession forest stands and amount of snag habitat available is sufficient for Three-toad woodpecker populations to persist, particularly given their large home range size. Additionally, snag habitat is increasing across the forest from continual insect, disease, and fire events, even considering current forest management.

*Fragmentation*

In addition to the composition and stand structure of old-growth forest, the configuration is equally important due to the Three-toed woodpecker's avoidance to forest edge and foraging behavior (USFS 2019). Fragmentation due to road density has been known to reduce the presence of Three-toed woodpeckers, and road construction in itself can reduce woodpecker habitat. Timber management activities may also contribute to forest fragmentation on the Bridger-Teton. The result is likely a reduction in habitat effectiveness and behavioral responses from woodpeckers. However, effects are not likely to impact Three-toed woodpeckers at the population level given their large home range and opportunistic nesting and foraging movements.

#### Pesticides

Populations of Three-toed woodpeckers are known to significantly increase with insect outbreaks and have been reported to reduce the insect populations up to 98% (USFS 2019). In areas that use pesticide treatments to reduce insect populations, the food source for three-toed woodpeckers can be depleted, and more significantly, some detrimental physiological effects may occur. Such effects may have an impact on woodpecker survival and reproduction. Pesticide use, although a risk factor to woodpeckers, is not currently practiced or utilized on the BTNF.

#### Livestock Grazing

Livestock grazing impacts to Three-toed woodpeckers on the BTNF is subtle and non-significant. In some cases, grazing within forested communities can reduce the understory vegetation and therefore reduce the ability for fine-fuels to carry low-intensity fires (USFS 2019). The end result can affect stand structure, density, and forest composition, ultimately reducing old-growth forests. Livestock grazing on the Bridger-Teton takes place predominantly within open herbaceous vegetation types with little overlap in forested communities.

#### Climate Change

Changes in climate including warming temperatures and broad-scale changes in precipitation patterns will likely increase the extent and severity of stand-replacing wildfires, disease outbreaks, and insect infestations on the

	<p>BTNF. Increases in burn frequency, size, and severity would increase snag habitat for woodpeckers, but is projected to decrease late seral forests on the landscape in the long run, which could decrease the availability of large trees and snags available for nesting and foraging. Impacts to Three-toed woodpeckers is unknown due to the complexity and uncertainty of bark beetle responses to shifts in temperature and to the changes in forest communities (USFS 2019).</p>	
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<p><b>Summary and recommendations:</b></p> <p>Three-toed woodpecker range overlaps with the Bridger-Teton National Forest where occupancy is limited to late development conifer, and availability of dead or dying trees is sufficient for nesting and foraging. While some gaps remain, Three-toed woodpecker occurrence records indicate the species is distributed across the Forest, occurring on all 6 ranger districts. Gaps in occurrence records are likely due to the difficulty monitoring the species since their movements coincide with suitable foraging and nesting habitat, and large home range size. While NatureServe lists the Three-toed woodpecker as <i>vulnerable</i> for the state of Wyoming, the Wyoming Game and Fish Department does not list the woodpecker as a Species of Greatest Conservation Need; populations of Three-toed woodpeckers across Wyoming are showing an increasing trend over the long and short term.</p> <p>A potential threat to Three-toed woodpeckers on the Bridger-Teton is the loss in late-development conifer forest and a reduction in snag habitat from forest management practices—both playing an import role in woodpecker foraging and nesting. Timber management, fire suppression, and fuels reduction activities can all modify stand composition and structure, result in direct habitat loss, and influence insect outbreaks. Current three-toad woodpecker occupancy, distribution, and sufficient suitable habitat on the BTNF suggests that populations will continue to persist across the unit along with current forest management. While distribution can be limited, and abundance difficult to determine for the Bridger-Teton, suitable habitat is currently well distributed across the Forest and is likely to remain available in the future. Snag habitat from disturbance events will continue on the Bridger-Teton National Forest at levels suitable for the species. Additionally, the progression of global climate change could result in an increase in snag habitat across the west and therefore increase Three-toed woodpecker nesting and foraging habitat over the long term. Additional threats form road construction (direct habitat loss) and livestock grazing (modification to understory composition and overall forest succession), may impact Three-toed woodpeckers on the Forest. However, such management actions are not a substantial concern as they would not have significant effects to Three-toed woodpecker populations.</p>	<p>Date: October 14, 2019</p>
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The ability for Three-toed woodpecker populations to remain within the planning unit after considering forest management implication to the species, the abundance of available habitat, and the likelihood of snag habitat continuing to increase in the future, aids in the determination that there is not a concern for Three-toed woodpeckers' capability to persist over the long term. Therefore, the Three-toed woodpecker is not recommended as a species of conservation concern for the Bridger-Teton National Forest.

Evaluator(s): Ashley Egan, Randall Griebel