

Black-backed Woodpecker

Picoides arcticus

REGULATORY STATUS

USFWS: Petitioned for Listing; Migratory Bird
USFS R2: Sensitive
USFS R4: No special status
Wyoming BLM: No special status
State of Wyoming: Protected Bird

CONSERVATION RANKS

USFWS: No special status
WGFD: NSSU (U), Tier II
WYNDD: G5, S2
Wyoming Contribution: LOW
IUCN: Least Concern
PIF Continental Concern Score: 10

STATUS AND RANK COMMENTS

The subpopulation of Black-backed Woodpecker (*Picoides arcticus*) that occurs in the Black Hills has been assigned a state conservation rank of T1B and a Wyoming Contribution rank of VERY HIGH by the Wyoming Natural Diversity Database. This isolated population of Black-backed Woodpecker in the Black Hills of South Dakota and Wyoming, along with the isolated population in Oregon and California, was petitioned for listing as Threatened or Endangered under the Federal Endangered Species Act (ESA) in 2012 ¹. In 2013, the United States Fish and Wildlife Service (USFWS) issued a positive 90-day finding ² and initiated a 12-month review, which remains in-progress. It is important to note that Black-backed Woodpecker in portions of Wyoming other than the Black Hills, such as the western mountains (see Distribution and Range, below), are not under consideration for ESA listing at this time.

NATURAL HISTORY

Taxonomy:

There are currently no recognized subspecies of Black-backed Woodpecker ^{3,4}. Recent genetic evidence suggests subspecies designation may be warranted for the population in the Black Hills of Wyoming and South Dakota ⁵.

Description:

Identification of Black-backed Woodpecker is possible in the field. It is a mid-sized black-and-white woodpecker, similar in size and shape to Hairy Woodpecker (*Picoides villosus*) ^{6,7}. Males and females differ in plumage. In both sexes, adults have a solid black head, back, wings, and tail; a solid white chin, throat, breast, and belly; and heavy barring on the sides and flanks. Males have a solid yellow cap, which is absent in females ⁶. Juveniles are similar in appearance to adults, but are duller overall, have a reduced or absent yellow crown patch, and slightly buffy underparts ^{3,7}. The species has only three toes on each foot, two directed forward, and one

directed backward, while most other species of woodpeckers have four toes³. It is most easily confused with American Three-toed Woodpecker (*P. dorsalis*) in its range. Black-backed Woodpecker can be identified by the all black back, while the back of the American Three-toed Woodpecker is white. Additionally, the American Three-toed Woodpecker has a narrow white eyebrow extending from the eye down to the back, which is lacking in the Black-backed Woodpecker^{6,7}. Downy Woodpeckers (*P. pubescens*) and Hairy Woodpeckers (*P. villosus*) are also similar looking species, but both of these species have large white patches on their backs, lack barring on their sides, and males have red patches on the back of their heads⁶.

Distribution & Range:

Black-backed Woodpecker is distributed across the boreal region of northern North America, and extends south into the Cascades, Sierra Nevada, and the northern Rocky Mountain region into northwestern Wyoming. There is a disjunct population in eastern Wyoming and western South Dakota in the Black Hills. The species is non-migratory, though irruptions may occur in winter to the south of its normal range³.

Habitat:

The Black-backed Woodpecker is restricted to mature, fire regulated, boreal and coniferous forests, which include the combination of decadent trees, snags, and fallen logs the species requires⁸. The species composition of these forests varies across Black-backed Woodpecker range. In Wyoming, habitat includes mature forests dominated by spruce (*Picea* spp.), Douglas Fir (*Pseudotsuga menziesii*), Ponderosa Pine (*Pinus ponderosa*), and Lodgepole Pine (*Pinus contorta*)³. Generally, the species is considered uncommon to rare in these habitats. However, local increases may occur in response to beetle outbreaks and fires⁸. These beetle-killed and burned trees, as well as decadent trees, snags, and dead wood, provide abundant wood-boring beetle larva, which the woodpecker depends upon⁸. In the Black Hills of Wyoming, the species is largely restricted to burned habitats^{9,10}. Elsewhere in its range, the species is strongly tied to unaltered areas burned within the previous four years¹¹⁻²⁰.

Phenology:

The Black-backed Woodpecker is resident in its habitat. In winter, the species is infrequently found south of its normal range. Excavation of the nest cavity typically occurs in April and May. Egg laying is thought to occur between late April and early July. In Oregon, incubation was observed between late May and early June. Fledging was observed in Idaho at about 24 days of age, and departure from the nest occurred between early June and early July, while in Oregon young left the nest as early as mid-June³.

Diet:

The Black-backed Woodpecker feeds primarily upon larvae of wood-boring beetles in the families Cerambycidae and Buprestidae, engraver beetles, and mountain pine beetles (*Dendroctonus ponderosae*)³. The woodpecker also consumes spiders, ants, wood-boring caterpillars, other insects, fruit, and mast⁹.

CONSERVATION CONCERNS

Abundance:

Continental: WIDESPREAD

Wyoming: RARE

Black-backed Woodpecker has a statewide abundance rank of RARE and also appears to be rare within suitable environments in the occupied area ²¹. In 2013, Partners in Flight estimated the Wyoming population of Black-backed Woodpecker to be around 3,000 individuals, or about 0.40% of the global population ²²; however, this abundance estimate is based primarily on Breeding Bird Survey (BBS) data and should be viewed with caution due to the low detection rate of this species in the state. From 1968–2015, annual Wyoming BBS detections of Black-backed Woodpecker ranged from 0 to 3, with none recorded in most years ²³. Just 4 Black-backed Woodpeckers were detected during surveys for the Integrated Monitoring in Bird Conservation Regions (IMBCR) program between 2009–2015 ²⁴.

Population Trends:

Historic: STABLE

Recent: STABLE to MODERATE DECLINE

Robust population trends are not available for Black-backed Woodpecker in Wyoming because the species is infrequently detected during monitoring surveys. Survey-wide trend data from the North American BBS suggest that Black-backed Woodpecker numbers increased annually from 1966–2013 and from 2003–2013, but these estimates have low credibility and are not statistically significant ²⁵.

Intrinsic Vulnerability:

MODERATE VULNERABILITY

The Black-backed Woodpecker is a fire-dependent species, utilizing the abundance of wood-boring beetles on fire-killed or fire-damaged trees for foraging, and the trees for cavity excavation ⁸. The species creates new cavities for each breeding season ³.

Extrinsic Stressors:

MODERATELY STRESSED

The Black-backed Woodpecker relies on fire killed forests and trees for breeding and foraging habitat. Fire suppression threatens the long term persistence of this species across its range, including in Wyoming ^{3, 11, 13-15, 17, 26-28}. Additionally, salvage logging in burned and beetle-killed areas threatens this species by removing dead trees that could be used for cavities and foraging ^{8, 12, 14, 16, 19, 29-33}.

KEY ACTIVITIES IN WYOMING

Annual BBS occasionally detect the Black-backed Woodpecker in Wyoming. These data are too limited to produce abundance estimates and population trends ²⁵. Similarly, the IMBCR program (formerly the Monitoring Wyoming Birds program) reports few detections of the species in the state ²⁴. Research focusing on demography and habitat use by Black-backed Woodpecker in burned and beetle killed forests has been conducted in the Black Hills region ^{34, 35}. In 2015, a graduate project was initiated at the University of Missouri, in conjunction with the United States Forest Service, to obtain Black-backed Woodpecker population estimates in the Black Hills of Wyoming and South Dakota. In 2016, call-playback surveys were conducted along 20 transects in Wyoming (totaling 200 survey locations), which resulted in 32 total detections of Black-backed Woodpecker in the state ³⁶.

ECOLOGICAL INFORMATION NEEDS

Increased knowledge of differential habitat use, if any, between the edges of burn habitats and the interior of burn habitats is needed ⁸. Basic demography is largely unknown ³. Knowledge on

the over-wintering bonds of families is needed⁸. Knowledge on the dispersal of the species after using beetle-killed forests, and fire-killed forests, is needed⁸. Abundance estimates and population trends across the species range and in Wyoming are needed.

MANAGEMENT IN WYOMING

This section authored solely by WGFD; Zachary J. Walker. Black-backed Woodpecker was petitioned for listing under the ESA in 2012¹. In 2013, the USFWS service issued a positive 90-day finding for this species and has begun analysis for a 12-month review². Black-backed Woodpecker is classified as a Species of Greatest Conservation Need in Wyoming due to insufficient/limited information on breeding, distribution, and population status and trend. Two separate but compatible survey programs are in place to monitor populations of many avian species that breed in Wyoming including the BBS and IMBCR programs. Because of the low detection rate of the aforementioned efforts, species specific surveys should be considered. Currently funded research on Black-backed Woodpecker, within the Black Hills, should be evaluated to develop a survey and management scheme. Best management practices or key management recommendations to benefit Black-backed Woodpecker include maintenance of mature conifer forest that contains an element of disturbance³⁷. Management efforts should be made to retain nesting snags and allow natural fire regimes. Salvage logging after a fire should be conducted in a patchwork fashion, leaving some areas intact for Black-backed Woodpecker and other post-fire dependent species.

CONTRIBUTORS

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Figure 1: Adult male (left) and female (right) Black-backed Woodpeckers in New Hampshire. (Photos courtesy of Glen Tepke, <http://www.pbase.com/gtepke/profile>)

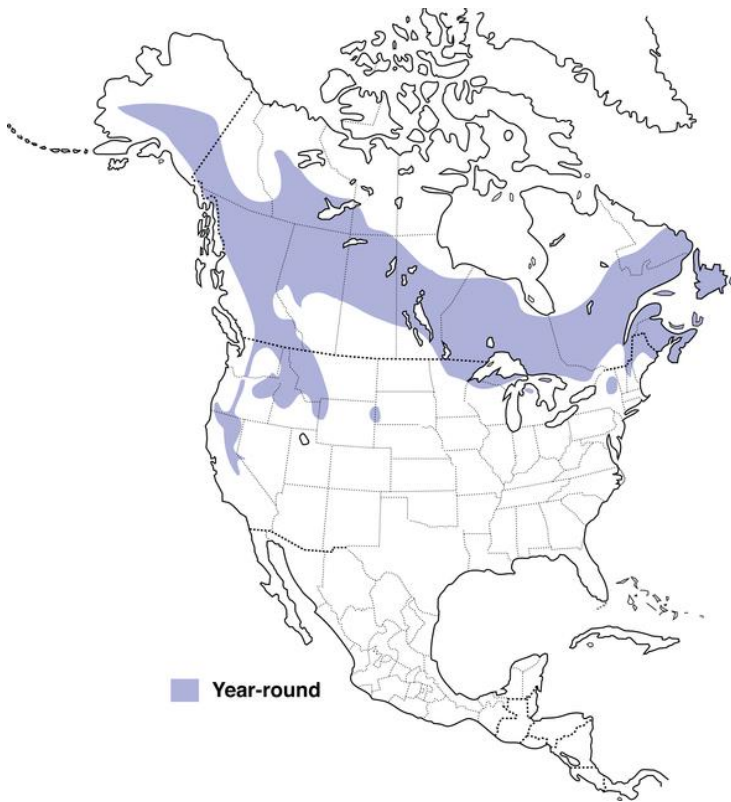


Figure 2: North American range of *Picoides arcticus*. (Map courtesy of Birds of North America, <http://bna.birds.cornell.edu/bna>, maintained by the Cornell Lab of Ornithology)



Figure 3: Ideal Black-backed Woodpecker habitat. Burned forest from the 2009 Arnica Fire, in Yellowstone National Park, 1 year post-burn. (Photo courtesy of William Romme)

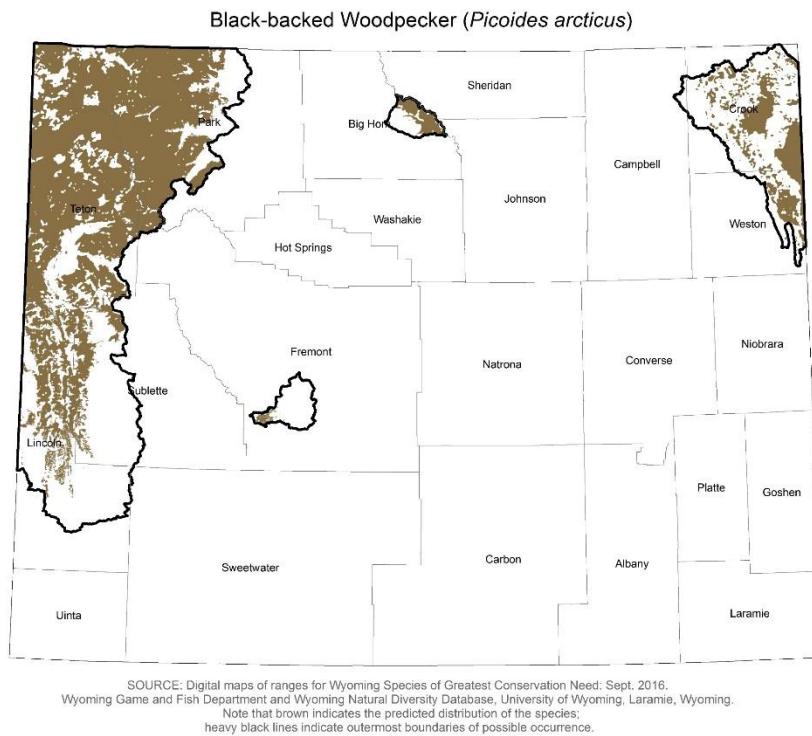


Figure 4: Range and predicted distribution of *Picoides arcticus* in Wyoming.