

Yellow-pine Chipmunk

Tamias amoenus

REGULATORY STATUS

USFWS: No special status
USFS R2: No special status
USFS R4: No special status
Wyoming BLM: No special status
State of Wyoming: Nongame Wildlife

CONSERVATION RANKS

USFWS: No special status
WGFD: NSS4 (Bc), Tier III
WYNDD: G5, S3S4
Wyoming Contribution: LOW
IUCN: Least Concern

STATUS AND RANK COMMENTS

The Wyoming Natural Diversity Database has assigned Yellow-pine Chipmunk (*Tamias amoenus*) a state conservation rank ranging from S3 (Vulnerable) to S4 (Apparently Secure) because of uncertainty about the proportion of range occupied and population trends for this species in Wyoming.

NATURAL HISTORY

Taxonomy:

Chipmunk taxonomy remains disputed, with some arguing for three separate genera (i.e., *Neotamias*, *Tamias*, and *Eutamias*)¹⁻³, while others support the recognition of a single genus (i.e., *Tamias*)⁴. Yellow-pine Chipmunk (briefly *N. amoenus*)⁵ has since been returned to the currently recognized genus *Tamias*, along with all other North American chipmunk species⁶. Fourteen subspecies of Yellow-pine Chipmunk are currently recognized. There is no modern genetic description of these subspecies, nor is there any obvious geographic separation between most of them. Of the nominal subspecies, only *T. a. luteiventris* occupies Wyoming⁷⁻¹⁰.

Description:

Identification of Yellow-pine Chipmunk is possible in the field. Yellow-pine Chipmunk is a small, reddish chipmunk with a buffy underbelly, dark facial stripes, and five dark and four light longitudinal dorsal stripes (i.e., outermost stripes are dark)^{8, 10}. The crown of the head, rump, and thighs are smoke gray mixed with cinnamon^{8, 10}. This species exhibits sexual size dimorphism, with females averaging larger than males^{8, 11-13}. Adults weigh between 29–62 g and can reach total lengths of 203–225 mm¹⁰. Tail, hind foot, and ear length ranges from 81–100 mm, 32–33 mm, and 17–19 mm, respectively. Within its Wyoming range Yellow-pine Chipmunk may be confused with Least Chipmunk (*T. minimus*), Cliff Chipmunk (*T. dorsalis*), and Uinta Chipmunk (*T. umbrinus*). However, Least Chipmunk is smaller with a white

underbelly, Cliff Chipmunk has overall grayish pelage and indistinct dorsal stripes, and Uinta Chipmunk has white outermost dorsal stripes ¹⁰.

Distribution & Range:

The distribution of Yellow-pine Chipmunk extends from southern British Columbia, across the northwestern United States, and south along the dry eastern edge of the Cascade and Sierra Nevada mountain ranges of California ^{8, 14}. In Wyoming, Yellow-pine Chipmunk is found in mountain ranges in the western and northwestern counties ¹⁰. Confirmed or suspected breeding has been documented in 8 of 28 latitude/longitude degree blocks in the state ¹⁵.

Habitat:

Yellow-pine Chipmunk is typically associated with mixed shrub communities within semi-arid coniferous pine forests ¹⁶. In Wyoming, Yellow-pine Chipmunk is found in open montane forests dominated by Lodgepole Pine (*Pinus contorta*), Quaking Aspen (*Populus tremuloides*), and juniper (*Juniperus* spp.), with shrubs and forbs as groundcover ^{10, 15}. This species may occasionally be found in willows, sagebrush, or grasslands, but always in close proximity to forested habitats ^{10, 15}. Yellow-pine Chipmunk nests are typically located in underground burrows ^{15, 17}.

Phenology:

Yellow Pine-Chipmunk hibernates from November to March or April and breeds shortly after emergence ^{8, 10, 17, 18}. Females give birth to a single litter of approximately 4 or 5 young in May or June after a 28–30 day gestation period ^{8, 10}. Young begin to venture from the den site in late June ⁸.

Diet:

Yellow-pine Chipmunk is omnivorous and feeds on conifer, shrub and grass seeds; nuts; buds and flowers; foliage; fruits and berries; roots, bulbs, and tubers; fungi; larvae and insects; bird eggs; and even small vertebrates ^{8-10, 17, 18}. This species scatter-hoards seeds at numerous cache sites during the spring, summer, and early fall ^{17, 18}. Prior to entering hibernation in November, it moves cached seeds to a single larder within a den site, where it feeds on the contents throughout the winter months during brief periods of activity ^{17, 18}.

CONSERVATION CONCERNS

Abundance:

Continental: WIDESPREAD

Wyoming: UNCOMMON

There are no robust estimates of abundance available for Yellow-pine Chipmunk in Wyoming. The species has an estimated statewide abundance rank of UNCOMMON and also appears to be uncommon within suitable environments in the occupied area ¹⁵.

Population Trends:

Historic: UNKNOWN

Recent: UNKNOWN

Historic and recent population trends for Yellow-pine Chipmunk in Wyoming are unknown.

Intrinsic Vulnerability:

LOW VULNERABILITY

Yellow-pine Chipmunk has low intrinsic vulnerability in Wyoming because it is found in a variety of montane forest and shrubland habitats and does not have life history characteristics that would make it inherently sensitive to extrinsic stressors within its distribution.

Extrinsic Stressors:

SLIGHTLY STRESSED

Montane forests in Wyoming are vulnerable to fire suppression, loss or fragmentation from harvest and management practices, disease and insects, and drought and climate change¹⁹. As a species primarily associated with Lodgepole Pine forests in Wyoming, Yellow-pine Chipmunk has likely been exposed to tree mortality from the ongoing outbreak of Mountain Pine Beetle (*Dendroctonus ponderosae*) in the state; however, potential impacts have not been studied for this species²⁰.

KEY ACTIVITIES IN WYOMING

Yellow-pine Chipmunk is classified as a Species of Greatest Conservation Need by the Wyoming Game and Fish Department. There are currently no research projects designed specifically for Yellow-pine Chipmunk in Wyoming.

ECOLOGICAL INFORMATION NEEDS

Yellow-pine Chipmunk would benefit from research to determine its detailed distribution and abundance in Wyoming. Nothing is known about adult survival or reproductive success in the state. In addition, research is needed to examine if and how Yellow-pine Chipmunk is being affected by the Mountain Pine Beetle outbreak, and whether the species is potentially vulnerable to other natural or anthropogenic disturbances facing montane forests in Wyoming.

MANAGEMENT IN WYOMING

This section authored solely by WGFD; Nichole L. Bjornlie. Little is known about Yellow-pine Chipmunks in Wyoming. Consequently, management priorities for the species in the short-term will focus on addressing these data deficiencies. Of particular importance are data on presence, distribution, population status and trends, and the impact of potential threats, including the current condition of montane forest habitat, which will ultimately be used to develop management and conservation recommendations.

CONTRIBUTORS

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Figure 1: A Yellow-pine Chipmunk in British Columbia, Canada. (Photo courtesy of Nichole L. Bjornlie)



Figure 2: North American range of *Tamias amoenus*. (Map from: Patterson, B. D., et al. (2007) Digital Distribution Maps of the Mammals of the Western Hemisphere, version 3.0, NatureServe, Arlington, Virginia.)

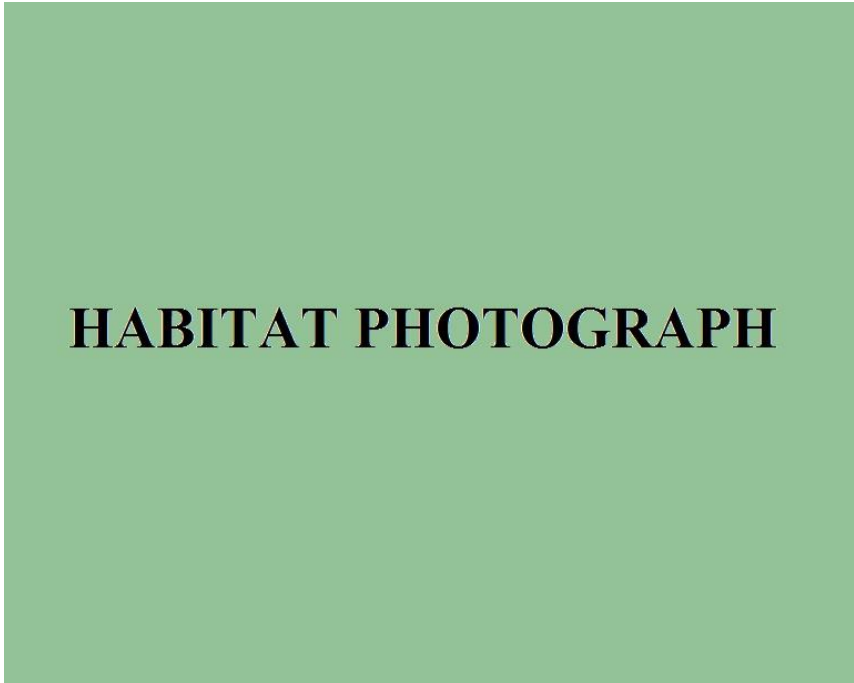


Figure 3: Photo not available.

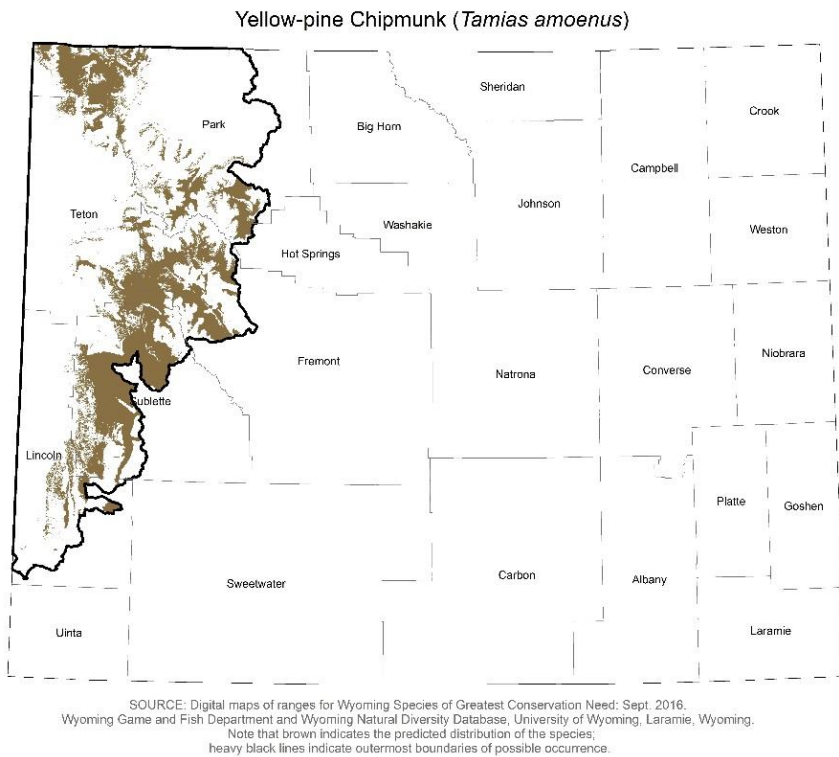


Figure 4: Range and predicted distribution of *Tamias amoenus* in Wyoming.