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# MONTANA'S STATE WILDLIFE ACTION PLAN ADDENDUM

MONTANA FISH, WILDLIFE & PARKS
2020

The mission of Montana Fish, Wildlife & Parks (FWP) is to provide for the stewardship of the fish, wildlife, parks, and recreational resources of Montana, while contributing to the quality of life for present and future generations. To carry out its mission, FWP strives to provide and support fiscally responsible programs that conserve, enhance, and protect Montana's 1) aquatic ecotypes, habitats, and species; 2) terrestrial ecotypes, habitats, and species; and 3) important cultural and recreational resources.

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Montana Fish, Wildlife and Parks (MFWP) finalized its first revision of the State Wildlife Action Plan (Action Plan) in 2015. Since that time a number of changes have been made to the Montana Species of Concern (SOC) list decided upon by the multi-agency Species of Concern committee.

## New SGCN

One species has been added as a S2 SOC and is thus being added as a priority SGCN in the Action Plan.

Northern Myotis (*Myotis septentrionalis*)- Rank of S2 SOC (review date 9/24/2018). Federally listed as threatened under the Endangered Species Act.

Recent survey efforts have established year-round presence of the species in Montana and have provided enough data to assign a status rank. In Montana this species in known to occupy specific habitat within a limited range along the Missouri and Yellowstone river drainages near the North Dakota border. Populations of this species in the eastern US have undergone catastrophic declines due to White-Nose Syndrome (WNS), a fungal disease of bats. Although WNS is not known to be present in Montana, its eventual spread to the state presents a substantial threat to the persistence of this species.

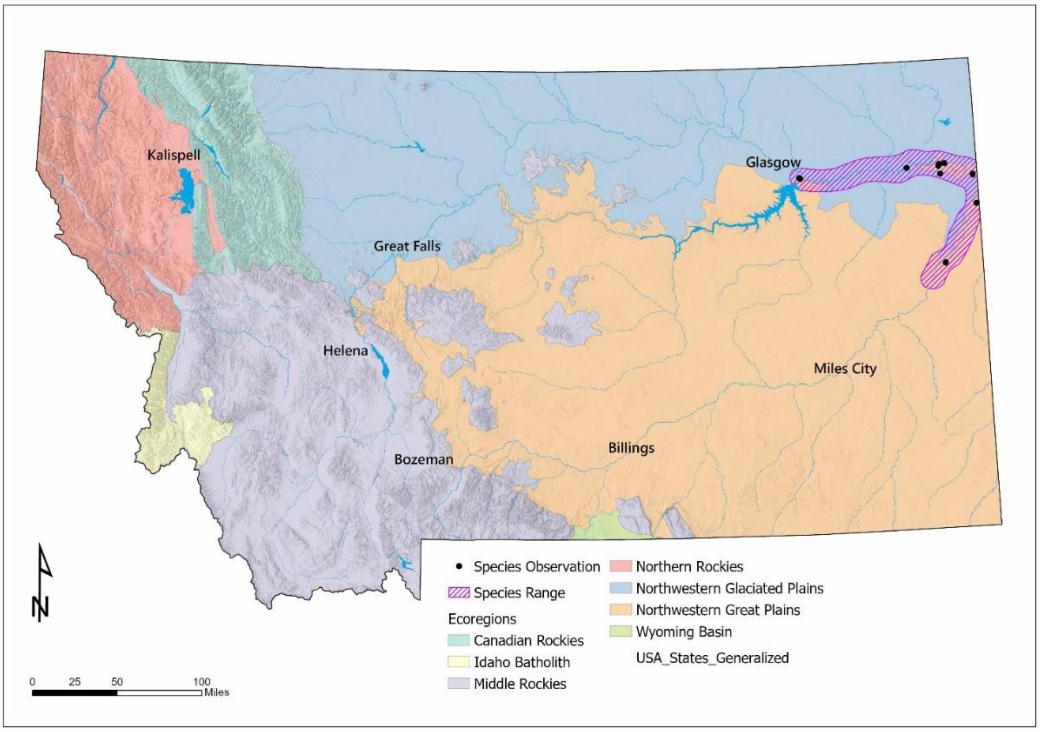


Figure 1. Montana range and observations of Northern myotis (*Myotis septentrionalis)*.

**Habitat**

Northern myotis appear to be restricted to riparian forests during the active season and mines or rock outcrops for hibernation. One individual was located hibernating in an abandoned mine in river breaks habitat in Richland County in the late 1970s (Swenson and Shanks 1979). Summer day roosts are often in cavities or crevices behind peeling bark in trees, usually in tall, wide-diameter and partially dead hardwoods (Caceres and Barclay 2000). All active season captures within Montana have been in or near riparian forest dominated by cottonwood (Populus spp.) and green ash (Fraxinus pennsylvanica) typical of the Great Plains Floodplain Ecological System. Grazing and non-native species have impacted recruitment of cottonwood and other species within the ecosystem. Conversion of forest to agriculture has reduced roosting and foraging habitat as well. Habitat has likely declined by more than 25% since European settlement.

**Management**

Although this species has suffered severe declines due to WNS in the eastern US and Canada, it remains to be seen if differences in hibernacula used by western populations will change disease transmission dynamics and mitigate the effects of this disease. If impacts are similar to the east coast, local extirpation is possible. No coordinated management activities have been developed or implemented for this species in Montana. Nevertheless, studies are underway to identify critical habitats and particularly maternity roosts that could lead to habitat protection by land management agencies. The 'Montana White-Nose Syndrome Prevention and Response Guidelines' include actions to limit the spread of the fungus that causes WNS as well as outreach actions to protect all species of bats, particularly those susceptible to WNS like the Northern myotis.

**Management Plan**

None

**Northern Myotis Current Impacts, Future Threats, and Conservation Actions**

| Current Impacts | Future Threats | Conservation Actions |
|---|---|---|
| Poorly understood distribution of the species in Montana. Species was known from one observation until new surveys in 2016. | | Monitor known sites routinely to determine population persistence and trends.<br><br>Target high quality habitat for survey and inventory.<br><br>Employ non-invasive capture techniques such as genetic analysis from guano. |
| White-nose syndrome may be having unknown and currently undetectable impacts to the species. | If disease dynamics are similar to the east coast, we may see declines of up to 100% for this species.<br><br>Because many of our bats overwinter outside of caves, disease transmission and effects may differ and moderate population level impacts. | Follow guidance found within the Montana WNS Prevention and Response Guidelines to limit spread of the disease and generally strive to conserve bats and bat habitat. |
| Grazing and non-native species have impacted recruitment of cottonwood and other native plants within the ecosystem.<br><br>Conversion of forest to agriculture has reduced roosting and foraging habitat. | Continued loss of riparian systems in eastern Montana. | Work with landowners and land management agencies to closely manage riparian forest activities that may be detrimental to this species. |

| Current Impacts | Future Threats | Conservation Actions |
|---|---|---|
| Loss of winter roost habitat, e.g., closure of mines without bat friendly gating techniques. | | Use the protection guidelines and management protocols designated for Townsend's big-eared bat (Pierson et al. 1999) as they are also appropriate for Northern Myotis, especially at winter habitats. |
| | Climate change altering habitat characteristics (e.g., air and water temperature, precipitation timing and amount). | Continue to evaluate current climate science models and recommended actions.<br><br>Monitor habitat changes and address climate impacts through adaptive management as necessary.<br><br>Routinely monitor known populations. |

Caceres, M.C. and R.M.R. Barclay. 2000. Myotis septentrionalis. Mammalian Species. 634:1-4.

Pierson, E.D., M.C. Wackenhut, J.S. Altenbach, P. Bradley, P. Call, D.L. Genter, C.E. Harris, B.L. Keller, B. Lengus, L. Lewis, and B. Luce. 1999. Species conservation assessment and strategy for Townsend's big-eared bat (*Corynorhinus townsendii* and *Corynorhinus townsendii pallescens*). Idaho Conservation Effort, Idaho Department of Fish and Game, Boise, Idaho. 68 pp.

Swenson, J.E. and G.F. Shanks, Jr. 1979. Noteworthy records of bats from northeastern Montana. Journal of Mammalogy. 60(3): 650-652

**New SGCNs**

Two species have been added as State Rank 3 Species of Concern to the Montana state SOC list and thus should be included as SGCNs but not high priority species.

**<u>Eastern red bat</u> (*Lasiurus borealis*) Listed as an S3 SOC (review date 5/3/2018).**

Recent surveys using acoustic detectors have shown this species to be present across much of central and eastern Montana during the summer and fall. Tree roosting bat species, including the Eastern red bat, are commonly killed at wind farms, which presents a substantial threat to the long-term viability of populations within the state.

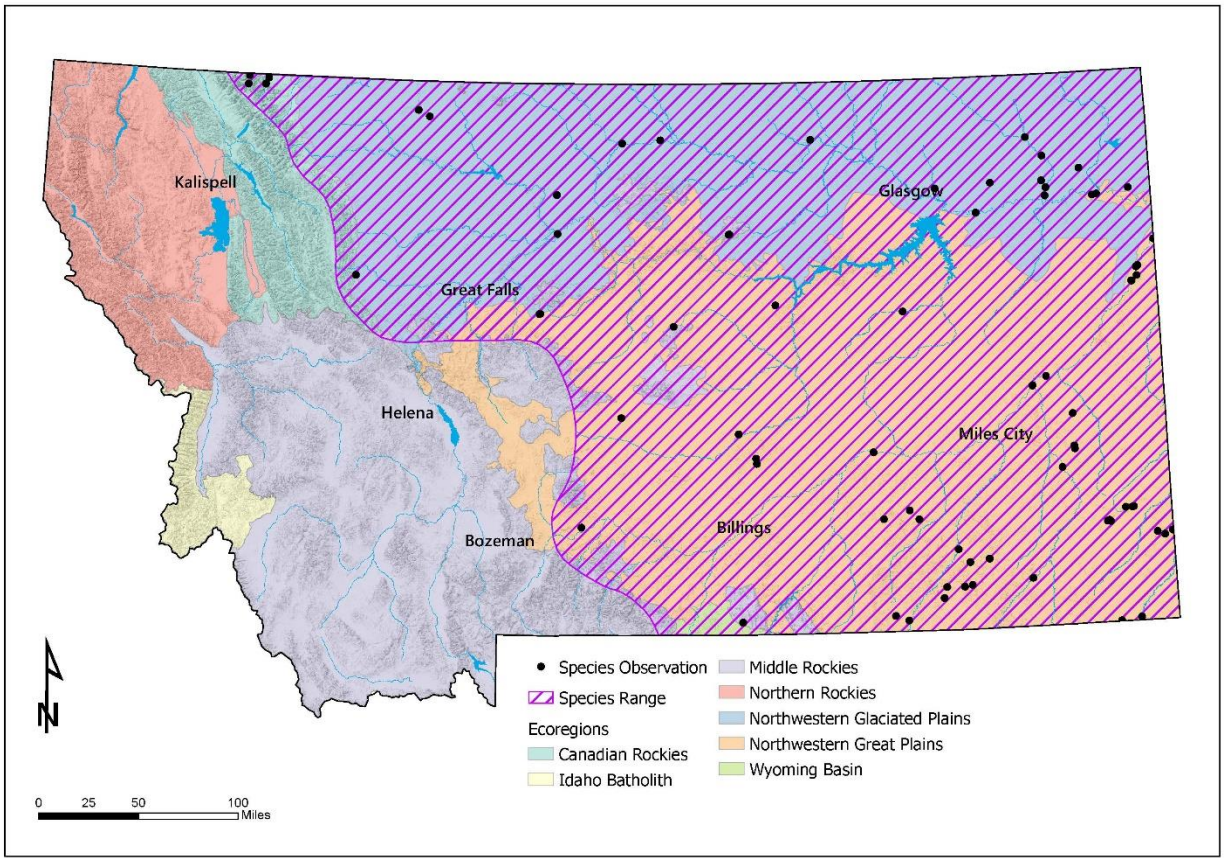


Figure 2. Montana range and observations of the Eastern red bat.

**Yuma myotis (*Myotis yumanensis*) Listed as an S3 SOC (review date 9/25/2018).**

Populations of this species are believed to be stable in Montana. However, the threat of catastrophic decline from White-Nose Syndrome responsible for the deaths of millions of individuals of closely related species in other areas, presents a threat of substantial declines within the state. Recent observations from Washington have confirmed the susceptibility of this species to WNS infection.

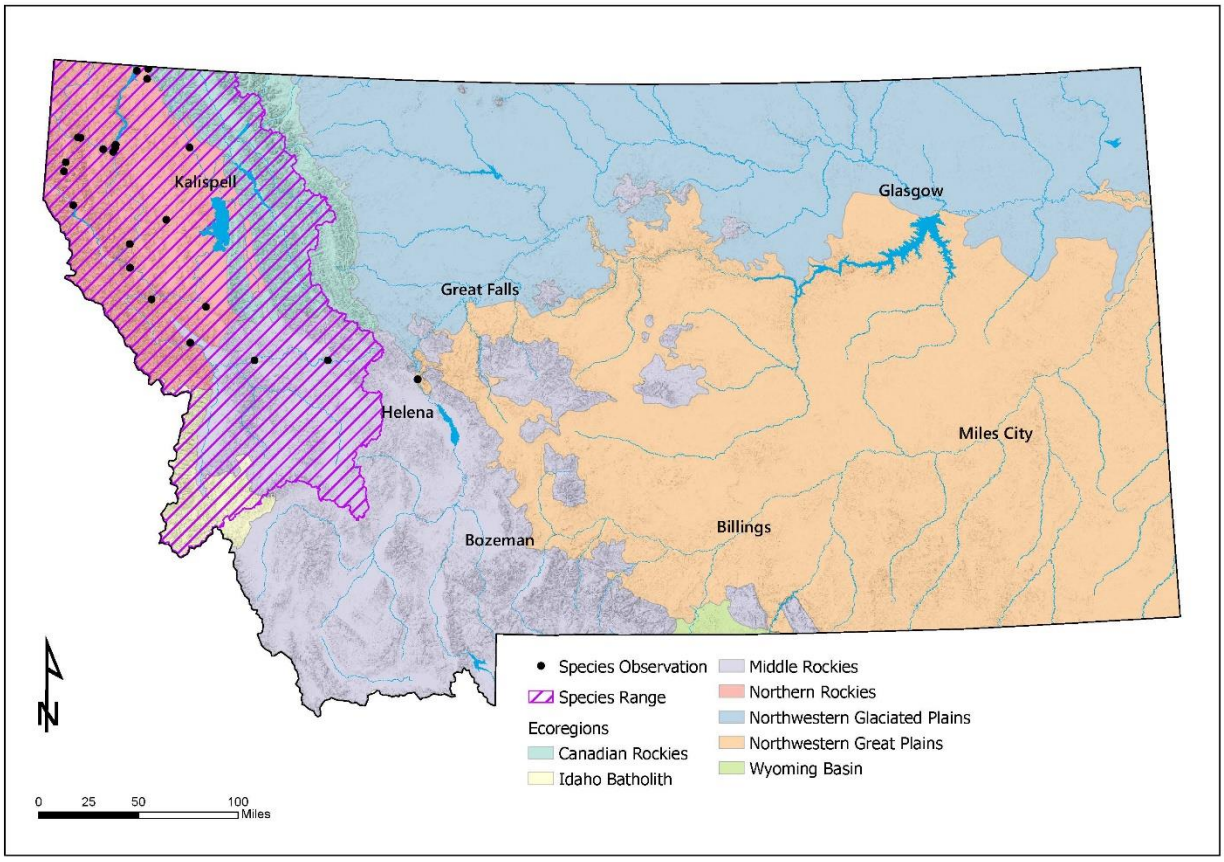


Figure 3. Montana range and observations of the Yuma Myotis.

## Downlisted SGCN

Species to be removed from the lesser priority SGCNs listed in the action plan.

Plains spadefoot- Downlisted from an S3 SOC (review date 5/3/2018).
Recent nocturnal calling surveys conducted after precipitation events on warm evenings have often detected this species east of the Continental Divide. It appears that the previous perception of rarity was due in part to lack of historical survey effort and difficulty detecting the species during much of the year and in most weather conditions. Given these data, the SOC status can no longer be justified and the species has been downlisted to an S4 SOC.

## Taxonomic Corrections

Taxonomists have changed the common names of two SGCN.

Great basin pocket mouse (S3 SOC) is now Columbia plateau pocket mouse.
Western hog-nosed snake (S2 SOC) is now plains hog-nosed snake.