

Yuma Myotis (*Myotis yumanensis*)

Species Status Statement.

Distribution

Yuma myotis occurs west of the Rocky Mountains, from southern British Columbia to central Mexico. This bat lives throughout Utah, being most common in the southern part of the state, and elsewhere, in the desert regions (Oliver et al. 2000, UDWR data).

Table 1. Utah counties currently occupied by this species.

Yuma Myotis	
BEAVER	JUAB
BOX ELDER	KANE
CACHE	MILLARD
CARBON	SAN JUAN
DAGGETT	TOOELE
DUCHESNE	UINTAH
EMERY	UTAH
GARFIELD	WASHINGTON
GRAND	WAYNE
IRON	WEBER

Abundance and Trends

Rangewide trends are unknown. In Utah, Yuma myotis is locally common in some places and rare elsewhere (Oliver 2000). Monitoring surveys since 2009 show stable occupancy (UDWR data).

Statement of Habitat Needs and Threats to the Species.

Habitat Needs

Yuma myotis is most common in lower elevations in association with water (Oliver et al. 2000, UDWR data). However, surveyors have found this bat in a wide range of elevations and habitats. They have found day roosts, night roosts, and maternity colonies in buildings, bridges, caves and mines. The wintering habits of Yuma myotis in Utah are unknown; presumably, it hibernates.

Threats to the Species

The invasive disease white-nosed syndrome (WNS) is the greatest threat to Yuma myotis. The disease affects bats during hibernation, leading to dehydration, emaciation, and eventual death. In 2017, a Yuma myotis from Washington State tested positive for WNS. However, there are currently no estimates of population impact.

Table 2. Summary of a statewide-scale threat assessment and prioritization completed in 2013 (UDWR 2015; Salafsky et al. 2008). Note that these threat rankings do not apply at the scale of local populations; a threat ranked medium at the overall, statewide level may be the most important threat to a local population. The threat assessment provides more information not presented here, including lower ranked threats, crucial data gaps, and definitions for all the threats and data gaps.

Yuma Myotis
High
Disease – Alien Organisms

Rationale for Designation.

As of 2019, Utah managers had not detected WNS in the state. Elsewhere, managers have documented the causative fungus as near as eastern Wyoming and western Washington. Given its past rate of spread, WNS will probably reach Utah within 5 years. The impact of WNS on bat populations is highly variable. Some species experience population declines of greater than ninety percent, while other species exhibit more moderate population declines, and still others show no population-level impacts (Lanwig et al. 2016). Managers do not know how WNS will affect Yuma myotis populations, as it went undetected in the species until 2017. However, given the rapid declines in other small-bodied bat species, there is cause for increased conservation attention.

Conservation actions will focus on implementing the Utah Bat Conservation Plan and WNS Management and Surveillance Protocol (Oliver et al. 2009, Roug et al. 2016). These documents outline goals, objectives, and strategies designed to prevent this disease from establishing in Utah bat populations, and provide management and surveillance strategies should WNS be detected in Utah.

Economic Impacts of Sensitive Species Designation.

Sensitive species designation is intended to facilitate management of this species, which is required to prevent Endangered Species Act listing and lessen related economic impacts. The listing of other bat species in eastern states has prompted requirements for extensive regulatory compliance for a wide variety of project categories including transportation, utility rights-of-way, habitat management, and forest management. Given the wide distribution of Yuma myotis, formal and informal consultation could be required for most projects with a federal nexus.

Restrictions would be placed on activities around sensitive areas including maternity roosts and hibernacula. Even where mitigation is not ultimately required, ESA compliance increases the cost and alters timelines of many projects. Additionally, Yuma myotis is known to roost in buildings, and ESA listing could complicate efforts to remove the bats from structures.

Literature Cited.

- Langwig K.E., W.F. Frick, J.R. Hoyt, K.L. Parise, K.P. Drees., T.H. Kunz, J.T. Foster, and A.M. Kilpatrick. 2016. Drivers of variation in species impacts for a multi-host fungal disease of bats. *Philosophical Transactions of the Royal Society B* 371: 20150456.
<http://dx.doi.org/10.1098/rstb.2015.0456>
- Oliver, G.V. 2000. The bats of Utah. Publication Number 00-14. Utah Division of Wildlife Resources. Salt Lake City, Utah, USA. 140pp.
- Oliver, G., K. Hersey, A. Kozlowski, K. Day, and K. Bunnell. 2009. Utah bat conservation plan. Utah Division of Wildlife Resources. Salt Lake City, Utah, USA.
- Roug, A, K. Hersey, K. Day, and G.V. Oliver. 2016. Utah white-nose syndrome management and surveillance protocol. Utah Division of Wildlife Resources. Salt Lake City, Utah, USA.
- Salafsky, N., D. Salzer, A.J. Stattersfield, C. Hilton-Taylor, R. Neugarten, S.H.M. Butchart, B. Collen, N. Cox, L.L. Master, S. O'Connor, and D. Wilkie. 2008. A standard lexicon for biodiversity conservation: unified classifications of threats and actions. *Conservation Biology* 22: 897–911.
- Utah Division of Wildlife Resources [UDWR]. 2015. Utah Wildlife Action Plan: A plan for managing native wildlife species and their habitats to help prevent listings under the Endangered Species Act 2015-2025. Publication Number 15-14, 385 pp.