Bat Surveys within Spokane County Parks During Years 2003 - 2013

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Fifteen species of bats are known to live in Washington during summer months; however, we presume at least 13 remain in Washington throughout the winter in a state of hibernation (or frequent shallow torpor in mild-climate regions of the Puget Trough). Recent surveys have noted one species thought to migrate south during winter (silver-haired bats) may remain in the freezing regions of Washington year-round. It is unclear whether these are juveniles, strictly males, or another subset of the population. We are interested in gathering baseline data on species presence during all seasons to determine where in Spokane bats are active, as well as to determine their frequency of arousal from hibernation, and associated climate variables during periods of arousal.

Wildlife biologists have performed bat surveys in the region over the past 10 years, often during personal time and not supported by funding; although, Washington Department of Fish and Wildlife (WDFW), Bureau of Land Management (BLM), Riverside State Park, and City of Spokane Parks and Recreation have collaborated on a bat education event over numerous summers. During all occasions, bat species presence data was collected. We include the results of these surveys in this report.

Surveys performed in the Spokane region during the summers of 2003 – 2012 utilized Pettersson d240x bat detectors with iRivers to record bats echolocating at various sites within public parks. Programs iRiver Music Manager, Winamp, and Sonobat were used to process and analyze the recorded calls. Captures were also performed, which allowed an increase in the number of species detected.

We appreciate Spokane County Park District, Spokane County Utilities, and Riverside State Park for allowing these surveys to take place on their properties. Determining where bats are active, as well as what species remain in the region during winter is valuable information for wildlife management. Photos and information about species can be found online at http://www.batcon.org.

Nancy Williams is a wildlife biologist with BLM, and Ella Rowan is a wildlife biologist with WDFW. *Most data is personal data, rather than agency data; please seek their permission prior to its reference or use in publications.*

Riverside State Park

Summer surveys were performed during bat education events and for other purposes over the years. Detectors were set in the Deep Creek region or were hand-held. Captures were also used to identify species during some events. The following species were found:

2003: *Antrozous pallidus, Eptesicus fuscus, Myotis californicus, M. evotis, M. yumanensis*

2005: A. pallidus, M. evotis, M. lucifugus/yumanensis (uncertain which or if both)

2006*: Corynorhinus townsendii, M. californicus, M. evotis, M. lucifugus, M. thysanodes, M. yumanensis, M. ciliolabrum*

2008*: C. townsendii, M. californicus, M. evotis, M. lucifugus/yumanensis*

2009*: E. fuscus, M. californicus/M. ciliolabrum (uncertain which or if both), M. lucifugus/M. yumanensis (unsure which or if both), M. thysanodes*

2012*: Corynorhinus townsendii, M. evotis, M. lucifugus/yumanensis, M. californicus/ciliolabrum*

Winter surveys consisted of one detector set in the Deep Creek region, approximately 50m west of the bridge over Deep Creek. Detector was set for approximately 3 hours at dusk.

3/08/2011: *Lasionycteris noctivagans*.

3/11/2011: *L. noctivagans*, *M. yumanensis*, *M. lucifugus*, and possibly 2 other species that cannot be confirmed at this time.

We performed one forest gap survey using 3 bat detectors set north of Deep Creek. They were set for approximately 1 hour at dusk.

7/09/2011: *A. pallidus, L. noctivagans, M. thysanodes, M. lucifugus, Lasiurus cinereus, M. evotis*, and possibly 2 additional species that cannot be confirmed at this time.

Liberty Lake County Park

Detectors were set at the public beach facing the water, along a trail, and elsewhere on site.

Feb 2011: *M. californicus, M.ciliolabrum, L. noctivagans*

Mar 2011: *M. californicus, M.ciliolabrum, L. noctivagans, M. yumanensis and M. thysanodes*

Nov 2011: *Eptesicus fuscus, L. noctivagans, Myotis spp.*

Dec 2011*: M. californicus, L. noctivagans*

Jan 2012: *L. noctivagans, Myotis spp.*

Feb 2012: *Myotis spp.*

Mar 2012: *M. californicus, L. noctivagans*

Apr 2012*: L. noctivagans, M. californicus, M. ciliolabrum*

Saltese Flats

We set one detector at the northern edge of the pond at Saltese Flats. Detector was set for approximately 3 hours at dusk.

11/20/2011: We heard no bats.

12/02/2011: We heard no bats.

Appendix A: Bat Species Native to Washington

Antrozous pallidus	pallid bat
Corynorhinus townsendii	Townsend's Big-eared bat (state sensitive species)
Eptesicus fuscus	big brown bat
Euderma maculatum	spotted bat
Lasiurus cinereus	hoary bat
Lasionycteris noctivagans	silver-haired bat
Myotis californicus	California myotis
Myotis ciliolabrum	western small-footed myotis
Myotis evotis	western long-eared bat
Myotis keenii	Keen's myotis (state sensitive species)
Myotis lucifugus	little brown bat
Myotis thysanodes	fringed bat
Myotis volans	long-legged myotis
Myotis yumanensis	Yuma myotis
Parastrellus hesperus	canyon bat