
MONTANA'S BAT AND WHITE-NOSE SYNDROME SURVEILLANCE EFFORTS (ORAL PRESENTATION & POSTER)

Bryce Maxell,* Montana Natural Heritage Program, Helena, Montana 59620

Lauri Hanauska-Brown, Montana Fish, Wildlife and Parks, Helena, Montana 59620

Amie Shovlain, Beaverhead-Deerlodge National Forest, Dillon, Montana 59725

Susan Lenard, Montana Natural Heritage Program, Helena, Montana 59620

Jake Chaffin, Montana/Dakotas USDI Bureau of Land Management, State Office, Billings, Montana 59101

Christopher Servheen, USDI Fish and Wildlife Service, Missoula, Montana 59801

Bigfork High School Cave Club, <http://bigforkhighschoolcaveclub.weebly.com>

Northern Rocky Mountain Grotto, <http://nrmg.cavesofmontana.org>

Montana's bat populations face a wide array of conservation issues, including loss of roosting sites, collision and drowning hazards at sites where they forage and drink, barotrauma and collision hazards at wind farms, and the potential arrival of *Pseudogymnoascus destructans*, the cold-adapted soil fungus that causes White-Nose Syndrome and has decimated bat populations in eastern North America. These conservation issues, and the low reproductive output of bats, highlight the need to gather baseline information that can be used to mitigate impacts to populations. Beginning in the fall of 2011, a collaborative effort was initiated to document roost habitat characteristics and year-round spatial and temporal activity patterns of Montana's bats. To-date, collaborators have deployed over 30 temperature and relative humidity data loggers near known winter bat roosts; most known bat hibernacula in Montana are now being monitored. Collaborators have also established a statewide array of 50 passive ultrasonic detector/recorder stations that are deployed year-round and powered by solar panels and deep cycle batteries. Through January 2014, these recording stations have resulted in more than 2.35 million sound files containing more than 7.5 terabytes of information. Highlights to-date include numerous first records of species in regions with previously limited bat survey effort, numerous first records of bat activity during the fall, winter, and spring months, documentation of temperatures at which bats are active year-round, documentation of winter bat roost temperatures, documentation of nightly activity patterns throughout the year, and the potential year-round presence of species previously considered migratory.