

# Montana's Collaborative Approach to the Looming Threat of White Nose Syndrome—An Unlikely Partnership

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The discovery of White Nose Syndrome (WNS) in a New York state cave in 2006 spurred a chain reaction of cave closures across eastern states. The reaction eventually spread to the Rocky Mountain states, with Region 2 of the Forest Service closing public access to caves in 2010, in essence closing caves in the states of Colorado, South Dakota, Wyoming and Kansas. While no one knows when or if WNS will ever impact bats in western states, it is known that improperly decontaminated boots, ropes, and other caving equipment can transport the fungus (*Geomyces destructans*) that is responsible for WNS. Excluding or limiting entry of cavers with caving equipment from infected sites to uninfected sites makes a lot of sense. Total exclusion, on the other hand, does little to build relationships between recreationists and land management agencies nor does it advance a collective understanding of caves and cave biota, encourage data sharing, or open communications.

The state and federal agencies in Montana recognized that critical cave and bat presence information is most likely to be gathered by cavers working in partnership with the agencies. In 2010, members of the Northern Rocky Mountain Grotto (NRMG), Bigfork High School Caving Club, U.S. Forest Service (USFS), Bureau of Land Management, National Park Service, Montana Department of Environmental Quality, Montana Natural Heritage Program (MNHP), and Montana Fish, Wildlife and Parks met in Missoula to start a conversation. The intent of the meeting was to share information about WNS and to build relationships between the caving community and agency

staff. The topic of cave closure was the elephant in the room. Through a facilitated process the group of more than 30 individuals produced two lists: the best possible outcomes of working together to prevent WNS and the worst possible outcomes of working together to prevent WNS. Have we realized all of our best possible outcomes of working together? Not exactly, but a surprising amount of progress has been made and we're not done yet.

### SOME OF THE NOTABLE SUCCESSES:

***Good working relationships based on successful communication:*** Since the first partner meeting in 2010 we have had 1-2 meetings per year to share information, discuss the latest concerns of both agency personnel and cavers, and coordinate work goals.

***Better understanding of bat species diversity, abundance, and habitat use:*** We have nearly 50 SM2 ultrasonic acoustic detectors out across the state that are passively recording bat activity year-round several of which are being maintained by volunteers. Additionally, cavers have reported bats they have observed, have noted temperatures of bat roosts, and have deployed over 30 HOBO data loggers in caves across Montana to document the year-round temperature and humidity of our western caves. This information is critical to understanding the characteristics of bat roosts and whether caves in our region are likely to support the growth of *Geomyces destructans*. The majority of these loggers have been deployed by cavers, often in places agency personnel are not trained to access.



Hans Bodenhamer

Bigfork High School Caving Club member Abe Malley, collecting soil samples for WNS testing

### ***Set a good example for new cavers:***

The positive, cooperative relationship that exists now between the caving community and agency staff sets the stage for working relationships into the future. A handful of super-dedicated cavers have rallied others within the field to work cooperatively and share information in the interest of long term cave and bat conservation.

***Better appreciation of the seriousness of WNS:*** Cavers and agency staff have presented information on WNS and our cooperative efforts to audiences across the state. Students from the Bigfork High School Caving Club teamed up with an experienced caver and a MNHP zoologist for two presentations at the 2013 Montana Wildlife Society



Bob Bastasz

Volunteer Mike McEachern documenting cave formations with a 3-D camera in the Scapegoat Wilderness



Kristi Dubois

Volunteer Bob Bastasz checking an acoustic monitoring station

Montana's Collaborative Approach : By the Numbers (2010-June 2013)	
# of volunteers assisting with cave and bat monitoring	20+
# of volunteer hours donated to date	600+
# of state, federal and non-government entities working together	8
# of ultrasonic acoustic bat detectors deployed	50+
# of HOBO data loggers deployed in caves	30+
# new hibernacula recorded since 2010	8

chapter annual meeting.

**Ability to be proactive:** The intense data collection that has occurred since 2010 has resulted in a more thorough understanding of bat roost habitats in Montana, including documentation of 8 new bat hibernacula. This baseline data is providing the basis for Montana specific planning efforts such as development of a WNS Threats Prevention Plan.

Widespread introduction to clean caving: Members of the Northern Rocky Mountain Grotto have committed to follow the latest decontamination protocols for caving gear. The USFS and the NRMG are discussing implementation of a program that would rent 'clean' gear to out of state cavers while visiting Montana.

**Increased data sharing and research:** Montana along with 5 other states was awarded a competitive State Wildlife Grant

to collect information that can be used to respond to the threat of WNS. Both the Caves of Montana project and the NRMG signed on as cooperators to this funding proposal. In May, 2013 Montana received a second State Wildlife Grant specific to continuing data collection and analysis.

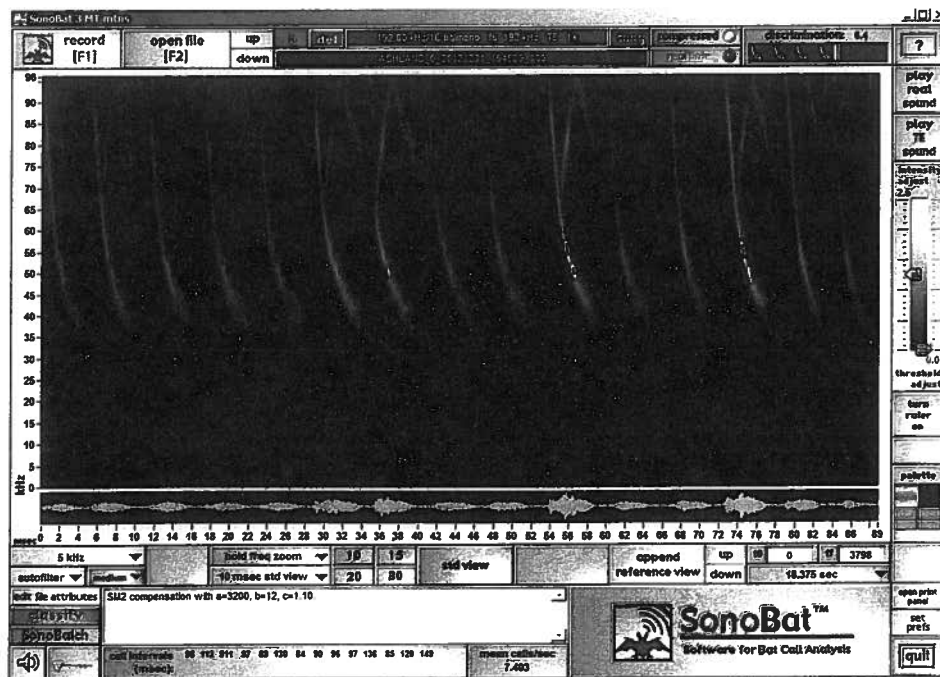
Members of the NRMG have designed a new cave register system that would collect basic information from cavers and provide a look into the frequency of cave visitation, the reasons behind caving, and information of interest noted by cavers during visits.

**Further educational opportunities regarding bats:** A poster of Montana's bat species was produced by the MNHP that includes photos, species accounts, and range maps for all 15 of Montana's known bat species. A manuscript on 'Winter Records of Montana Bats' was also produced. The posters and publication have been distrib-

uted at meetings, to federal, state, tribal, and private partners across the state, and to libraries and schools. The inclusion of volunteers and NRMG members at cooperative agency meetings has simplified the process of educating others about bats.

**Continuity and consistency in management decision making cross multiple agencies with support by stakeholders:** Land management agency staff meets with wildlife management agency staff at least twice a year to partner on efforts to engage the caving community, secure funding, and explore cooperative approaches to disease prevention.

We've realized none of our worst possible outcomes, like rampant illegal caving activity or complete loss of agency credibility, but we know the battle to prevent the spread of WNS to Montana is far from over. We hope to maintain a positive trajectory of open communications and strong relationships among the agencies responsible for wildlife and cave management and the cave enthusiasts. It is the belief of many involved that Montana cavers have set the example of working cooperatively to maintain access, share information, and assist in preventing the spread of WNS. We're looking forward to many more years of cooperative work with all of the dedicated and passionate folks involved in bat and cave conservation.



example of a bat call (fringed myotis) that could be collected by one of the 50 ultrasonic acoustic bat detectors set up across Montana

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