

**Colorado Bat Working Group Meeting Notes**  
**10 November 2014**

Introductions – see sign-in sheet for attendees – 23 present + 4 on phone

Dan Neubaum – Review the status of the **biologically-important bat roost document**. How to provide guidance, usually to land managers, given the limited information we have. Appendix to the Bat Plan. See Dan's ppt presentation for details.

- Got feedback from participants about being on list to provide possible localized expertise
- Went over worksheet for defining a biologically important bat roost
- Providing guidance, not decisions
- Discussion of roost preservation, for example, in a cottonwood grove

Laura Ellison – overview of **North American Bat Monitoring Plan (NAbat)**. See Laura's ppt presentation for details.

- Develop rapid assessment monitoring plan
- Evaluate risk at local and regional scales
- Workshops – 4
- Acoustic monitoring (road transects) and counts at roost-sites (short- and long-term), 10 x 10 km grids, June/July timeframe
- Data collection and database
- Goal – 5-year state of N American bats (like birds)
- GIS packages ready
- Pilot surveys conducted this year – got feedback, protocol reviewed
- Questions from group – funding stability (unknown, plan to approach Congress), analyses approach of types of surveys (will be approaching differently, different detectors will be covariate), coordination (do early for success), ground-truthing acoustic data (gathered from pilot study)

Continue NAbat – Rob Schorr – roost monitoring in Yampa valley – 294 MYLU in two locations pit-tagged – will look at survival – developing citizen scientist program in the valley.

Continue NAbat – Kirk Navo – how to proceed. Discussion among group. Coordination, participation, implementation. Need a lead coordinator and need to fund the person. Interested participants to meet and talk about acoustic monitoring and planning – Kirk to send a doodle poll.

**Agency updates**

Missy Siders, BLM – WNS Adaptive Management Environmental Assessment – Kirk will send document to group again. Rock Creek mine, Paradox area COTO hibernacula – BLM was in process of withdrawing the site from claims, and in the meantime there is a claim on the site. Neither the BLM nor the CPW has contacted the claimant. There is a gate on the site. Possible intermediary, such as CNHP, to work with the claimant.

**Kevin Castle, NPS** – Overview of WNS and the NPS. How NPS controls access to caves, guidance documents, examples of what caves in the parks system are doing, priorities for FY 2015. Discussion. Education seems to work quite well in NPS.

**Tina Jackson, Colorado Parks and Wildlife** – White Nose Response Plan and committee, especially for information sharing. Compiling WN acoustic surveillance for last 4 years, and compiling temperature and relative humidity data from iButtons. Involved in NABat pilot surveys. If anyone has plans to enter a winter bat site, contact Tina about collecting WN swabs for the Winifred Frick study. Abandoned mineral lands (AML) work, with CNHP and Kirk Navo and making decisions about projects from DRMS (Colorado Division of Reclamation, Mining and Safety). Consideration of safety issues, and coordination with other agencies, such as BLM and USFS. Discussion of gate design and spacing to facilitate child safety.

**Mikele Painter, USFS** – Update of Forest Service and bat related activities for 2014. Randy Gormley is putting together a white paper on AML bat gate design and changes in, and current status of, Bats/Inactive Mines Program. Two biologists are (with Randy) using acoustic detectors to monitor bats in forest stands affected by beetle-kill areas, and in pre- and post- salvage conditions. White nose policy is the same, but grasslands in Kansas are no longer in tier 2, so all forests and grasslands in the Region 2 are in tier 1, so caves are open for visitation unless specifically closed. USFS is using a free registration process for cavers. (>400 registrations on White River Forest). Will revisit WN policy this winter to evaluate whether changes should be made. Cave management plans on White River National Forest ongoing, related to significant cave nominations.

**Kirk – Colorado Bat Plan** – Update on the Colorado Bat Conservation Plan. Formed a board of director last year. Over the last year worked on updating “bat plan”, including disease and energy development (wind, solar, oil, geothermal) sections. The following sections of the bat plan are being revised: Dan – caves and crevices, Mikele – forests, Mike & Mark – Disease, Kirk – Mining, Rob & Missy – rangeland, Amy Urban, Roger & Mike – Energy. Discussion about possible ways to integrate this with WBWG. The goal is to complete this in less than 5 years. **Missy Siders was able to get some students involved.**

#### **WNS update**

**Paul, Laura, Kevin** – Brief discussion of recent literature. Also updates from Laura about WNS database and recent St. Louis meeting, potential use of a bio-agents for use; Kevin Castle on perspective of taking lab control methods and applying in natural environments, ethical questions, first rule of vet medicine is “first do no harm”. *Lasionycteris* (silver-haired bat) has been found Pd positive for fungus. Kevin: is there a procedure for regulating application of bio-controls in Colorado? This may be a point for discussion; what is the role of the state veterinarian?

**Kirk** – Funding from CPW for work at Orient Mine (Orient Land Trust) catching Mexican free-tailed bats. Many genera of viable soil fungi on the bats.

**Michael Schirmacher** – Question and discussion about use of gates in the management and conservation of important cave roosts, within the context of WNS. Survival benefit of gates.

**CPW – Dan** – Acoustic monitoring is continuing during winter months, continuing last 3-4 years of monitoring. Some cave surveys during the winter. Some swarming surveys. Trying to learn about new survey worksites and hibernacula. Winter acoustic monitoring at perhaps 20-30 sites, and which sites to continue monitoring. Will continue monitoring as long as continue to have leadership support, etc. It helps for supervisors to hear back that continued work on bats is important. CBWG could compile a letter encouraging continued support of winter bat.

### **Wind Energy Update – Mike and Roger**

Discussion of USGS map of United State wind turbine locations (Link: <http://eerscmap.usgs.gov/windfarm/>). For Colorado: ~20 utility scale projects in Colorado, 1,532 turbines, 4 projects with fatality data; hoary bats, silver-haired bats, red bats are most frequent fatalities. Discussion of the variation of size and location of turbines. Does anyone track fatalities in the State? Permitting is done at the county level. Discussion of the State's role. Discussion of some current literature. Proposed project that may be very large on the Colorado-Wyoming border. Impacts of smaller wind turbines, such as those on individual properties. Reducing fatalities by increasing cut-in speeds. One strategy is to encourage turbine development in high wind site where changes in cut-in speed won't significantly impact gross revenue for the developer. Current funding opportunities.

### **Recent Research Updates**

**Christine Avena** – CU Boulder, PhD student. Working on skin microbiota of bats. Swab bats of different species and locations, emphasizing host (species, sex, age class) and environmental influences (pH, moisture, etc). Also looking at gut and skin microbiota during hibernation, and soil samples. Samples thus far include 14 sites, 10 species, and soil samples. Finding a number of soil-based bacteria. Discussion of possible applications to WNS. There are swabbing kits available from Christine. Lacking some species, such as spotted bats and silver-haired bats.

### **Working Group Updates:**

**Roger** – Attended Western Bat Working Group (WBWG) meeting in 2013 in Sante Fe focusing on threat matrices focusing on Land Conservation Cooperative and NatureServe rankings. Updating range maps for all western bat species, then seeking feedback from the Natural Heritage programs. Completed pallid bats, and working on spotted bats and Eumops. WBWG officer nomination is upcoming. Ballot will be finalized soon. Once the ballot is out, Kirk will send out ballot to the group, then compile votes into one vote for our chapter. Next WBWG will be a joint meeting with Southeastern Bat Diversity Network, in St. Louis, March 3 – 6 (<http://www.wbwg.org/events/SaveTheDate.pdf>).

### **Bat Trek – Kirk**

Will try to do a bat trek this year. Kristen Philbrook volunteered the Pawnee National Grassland. Kristen will try to coordinate. Roger, Cyndi, Mikele, and Laura will help with coordination. Will need a capture permit. Kirk will coordinate capture work at Orient Land Trust related to his project. Discussion of how to handle "clothing-optional" status of OLT. Mid June and mid-late August.

### **Other Items**

**Rob & Laura** – Discussion of bat banding, historical and current bat banding. Rob will send around the bat banding recommendation to the group, then seek group feedback, prior to sending on to Colorado Parks and Wildlife.

Paul & Kevin - batpack