

Colorado Working Bat Group Minutes

22 April 2005

Members Present:

Cyndi Mosch (Cave Resources)
Toni Piaggio (WBWG)
Sophie Oglesby (CDOW)
Nancy LaMantia-Olson (CDOW)
Lea' Bonewell (CDOW)
Kirk Navo (CDOW)
Kristen Philbrook (USFS)
Robin Sell (BLM)
Jeremy Siemers (CNHP)
Rob Schorr (CSU/CNHP)
Joe Doerr (USFS)
Laura Ellison (USGS)
Paul Cryan (USGS)
Cheri Jones (CU Denver)
John Burghardt (NPS)
Mike Sherman (CDOW)
Don Shrupp (CDOW) GAP presentation during lunch.

Western Bat Working Group (WBWG)

Toni is the newly elected WBWG Vice President and she named the other new officers. She talked about feedback from the questionnaire that was sent out and gave an overview of the WBWG Portland conference discussions. She will share our meeting comments to WBWG during the conference call next week.

WBWG questionnaire feedback:

- Many of the questionnaires were returned with helpful comments and suggestions.
- Research and grant writing funding was mentioned in a few questionnaires. Toni said that right now WBWG doesn't have the resources to devote to this. Maybe they will find someone to volunteer to help.

Toni's comments about the Portland conference:

- There was much discussion about wind farms.
- Attendance was low, with less than 100 people. It seems there is a lack of funding for people to attend these events. Because of low attendance, Hilton Hotel reservations were under by \$12,000. Pat (Ormsbee) talked to the Hilton management and negotiated with them about the shortfall.
- Lyle Lewis was acknowledged and awarded for his efforts.
- The location of the next conference in 2007 was discussed. In a city or a rural area? At a research station or have a field trip? Nothing was resolved at this time.
- Winter activity of bats was discussed. In one study, a solar powered Anabat was placed in a hibernaculum and some winter activity was heard. In Nevada, a few bats were seen flying in winter and taking an interest in water features, even though the

water was icy. Winter activity was looked at in Nevada, California, and Alberta, Canada.

- The group discussed the use of dues or fees to help pay for conference travel funding and/or for research grants. Currently, WBWG has about 150-200 members. Canada has a strong working group, with newsletters and other communication.
- WBWG is working on nonprofit status. One unresolved question on the IRS application is, do we accept dues?

CBWG results/action items from WBWG discussion:

- CBWG members say they are willing to pay dues to WBWG.

CBWG emails

Kristen asked about the amount of CBWG email people are receiving from her. Was it too much or too little? Overall, people responded that they thought the amount was okay.

CBWG website

The CBWG website was generally discussed, focusing on maintenance and ideas:

Maintenance:

- Mike Herder is still maintaining the WBWG website and adding information as needed.
- Peter McDonald with USFS might be able to help with the CBWG website.
- How much detail do we want? Do we want to maintain the CBWG site ourselves or have it done through WBWG? The consensus was that CBWG should decide what we want on our state site instead of waiting for WBWG.
- Some website programs mentioned were Dreamweaver, AOL, and Microsoft Front Page.

Website posting ideas:

- List of members.
- Bat projects/research in Colorado.
- Training opportunities.
- Equipment exchanges.
- Grants.

Other:

- There's not a lot of communication between academia and CBWG right now.
- General bat education should continue to be forwarded to Colorado Bat Society (CBS), with a clear link to on the CBWG website.

CBWG results/action items from website discussion:

- Jeremy will compile website posting requests and ideas for the CBWG. Send information to Jeremy at jsiemers@lamar.colorstate.edu.
- Rob will create the model for the website.

Wind Farms

Paul led the discussion about bats and wind farms.

- Paul talked about the Bats and Wind Energy Cooperative, which involves BLM, USGS, BCI, USFWS, and other agencies and organizations. Last year in Florida, a well-facilitated meeting included federal agencies and wind power groups like the American Wind Energy Association. They discussed what is and isn't known about bats and wind farms, the major issues, and the next steps to take. It was decided that a lot of research is needed quickly.
- Bats are hitting wind farm turbine blades, but are they foraging around the turbines or migrating through? A good study is being conducted at the Mountaineer site in West Virginia, where lots of bat carcasses have been found under the turbines. Three to four hundred red, hoary, and eastern pipistrelles were found, killed by the turbines. It seems that mostly migratory bats are being killed, especially red and hoary bats, mostly mid-July through October. This equates to about 48 bats per turbine. By using thermal imaging cameras, one bat was seen hit by a turbine. At this time, no estimates have been made in the United States about bat mortalities due to turbines. Results so far suggestion that bats are being attracted to the turbines by the wind turbulence. It also seems that more mortalities occur on wind farms than on individual solitary turbines. In the next year or so, proposals for funding for research are being compiled.
- Kristen passed around a BCI memo that talked about Mountaineer site in West Virginia. See www.batcon.org and look for wind turbines to see more information.
- More publicity is making its way into the mainstream media about bats and wind farms. A recent Denver newspaper article was passed around, which probably originated from a Washington Post article.
- Most wind farms are on private land. Robin said that in Colorado, the only public land proposed for building turbines is east of Antonita and on Vail Mountain. Public land regulations are different than on private lands. Many bats migrate through is eastern Colorado where wind farms are and more turbines are being built.
- Guidelines have been developed for studying bats and birds hitting turbines. There is currently no protective status for bats regarding turbines. More information and the guidelines may be viewed at www.awea.org.
- Kirk said that there is a USFWS meeting next week about wind farms. They will be creating guidelines with the Bats and Wind Energy Cooperative. Kirk's contact with the USFWS may have retired, though.
- It was discussed that it's great that wind energy is an alternative energy source, but that it is discouraging that there are so many bat mortalities.
- The question was asked, does CBWG want to join the Bats and Wind Energy Cooperative? At this point, we will attend meetings and gather information.

CBWG results/action items from wind farm discussion:

- Paul has a pdf on the wind farm issue, which he will send to CBWG attendees.
- At some point, CBWG needs to add wind farms to the Colorado Bat Plan.
- Paul and Rob will attend the meetings as CBWG representatives and Kirk will check with Sandy Vanna-Miller, USFWS, about interagency involvement.

Off-shore oil drilling funding (Started out as CARA)

Kirk said that to get this funding, states have to come up with a conservation plan, which includes several steps, such as public input. Colorado's multi-agency participation group met and divided into groups - mammals, birds, herptiles, etc. The meeting was

successfully in favor of bats. The habitat priority type was called “Rocks”, which includes caves, mines, and crevices. The people facilitating the plan have the Colorado Bat Plan. Townsend’s, fringed myotis, Allen’s big-eared bat, spotted bat, and *Myotis occultus* are on the plan. So far, this funding source looks good, but it might change, depending upon how other decision-makers look at the results. But bats are in front because we’ve done a lot of work, like the Colorado Bat Plan, to make this successful so far.

Townsend’s

Townsend’s bat research and surveys were discussed:

- From Toni’s dissertation results, there are two Townsend’s subspecies in Colorado, but there are some holes in the information due to the lack of samples in some areas. Her results showed good genetic diversity in the state. She has a paper in the process of being proposed for publication. Toni said that both subspecies are showing up in Boulder County, but that the only southwestern subspecies in Boulder are males. She surveyed the Moffat Tunnel as a possibility of how the western Townsend’s subspecies end up in Boulder County. Guano was found, but no bats. She also thought that some lower mountain passes might allow for this passage. Toni is still interested in collecting wing punches from some areas where there is a lack of data, especially along the Colorado River corridor and in both Boulder and Larimer counties.
- The question came up about population estimates on bats. It was stated that there is a recent USGS publication on bat population trends.
- Joe said that the White River National Forest around the Flat Tops is a management issue regarding bats because of the caves. In both Spring and Hubbard’s caves, there is historical data of Townsend’s hibernacula. A survey was conducted in the 1960’s and then again in February 2005. Approximately 90 bats were found historically in Spring cave and around 10 currently. In Hubbard’s cave, the historical count was about 500 bats and currently it was 473 bats. The bats were using the same part of the caves and the temperatures were nearly the same as historically. No human disturbance was observed in Hubbard cave in February of this year. At Spring cave, a geology class had been there recently. Fulford cave was also surveyed, with no bats found. Two other parties of people were encountered in on the survey day in February. There is no documentation of maternity use at these sites.
- Cyndi would be willing to host a cave trip if people are interested.
- Kirk said that an article just came out in Bat Research News about the Bats/Inactive Mines Project’s 14 years of results and bat gate use. Kirk will send the article out to people. Overall, bats continue to use mines with gates, including culverted sites.

CBWG results/action items from Townsend’s discussion:

- Kirk will send the Bat Research News article out to CBWG members.

Bats and uranium mines

Bats and uranium mines were discussed:

- Kirk said that this topic was in the forefront a few years ago and has come up again recently. Research was encouraged to explore bats in uranium mines, but nothing was pursued. The Bats/Inactive Mines Project decided to survey and recommend

gating sites with significant bat use. If it was found that bats using uranium sites was an issue in the future, then the bats could be excluded then.

- John B. said that an article came from S. Africa about this topic, but it turns out to not be pertinent to us. John did some work with Utah's mine project. John emailed Jim McArdle (CDMG), Tony Gallegos (Utah Abandoned Mines), and Mark Mesch (Utah Division of Oil, Gas and Mining) to ask for their opinions. Tony Gallegos in Utah said he does not have a guideline about exclusion, but Utah has decided not to gate more mines in uranium country. Tony said that mammals do not benefit from radiation. Utah has about 800 bat gates, mostly in uranium areas. Jim McArdle says that we are encouraging bats to use uranium mines and maybe we should exclude them.
- Kirk said that we don't have any evidence that bats are being impacted by uranium. The issues are the same as before. If the bats have no habitat, they will be worse off than they are now. Cave disturbance and other human disturbance has depleted historical habitat.
- John said that this topic will come up in the Reno, NV workshop. Richard Graham (EPA) said he doesn't think the S. African article is pertinent to us.
- Toni suggested that we make a statement saying that more research is needed or that we take a position. There is no data to support that radiation harms bats and there are "hot" caves that have long supported bats. The majority of Colorado's Townsend's maternity roosts are in uranium mines and displacing them would impact the populations. Townsend's are known to be mine/cave obligates.

CBWG results/action items from bats and uranium mines discussion:

- Toni will draft a statement for the CBWG and will present it to the WBWG.

GAP – Mapping distribution

Don Shrupp gave a lunch-time presentation on the Gap Analysis Program. These maps show habitat, terrain, and animal distribution (biodiversity). He showed us COGAP (Colorado's) and SW-reGAP (the southwest group states) distributions. The SW-reGAP state participants are Colorado, New Mexico, Utah, Nevada, and Arizona.

Professionals can also add information to the distribution. They need to register one time and can then submit their information about animal distribution findings. Don gave a handout on contacts and websites, a brochure on the Southwest Regional Gap Analysis Project, and a list of states that are leading the individual bat species distribution information.

Colorado Bat Call Library

Kirk said that Loren Golten (CU- Boulder) is working on a bat call library for her Master's project, but is not here today. Kristen is working with Mesa Verde on this, too. Is this something that CBWG wants to pursue? Do we want to go this direction? It would be there as a reference for professionals. Kristen has volunteers who want to collect bat calls and have her lead this project. Kirk, Laura, and Toni have recorded bat calls. Jason Williams (Nevada State DNR) is a good person to talk to about bat calls. Analyzing calls takes resources, money, and time. Expertise is needed and even then, the technology is not high enough and may never be completely accurate. Paul and Laura think that using a call library for species identification is not the direction we should go, but that bat detectors in general are good for monitoring and identifying bat

activity in an area. The acoustic bat detectors (Anabat or Sonabat, for example) can identify bats to genus, so these detectors are still valuable.

CBWG results/action items from call library discussion:

- The CBWG states that they are not going to get involved with the bat call library.
- Paul will send Kristen information about bat calls and the difficulty of identifying bats to species.

Bat Blitz

Do we want to do this? In 2003, we had a field rendezvous, but in 2004 we didn't have enough time. Do we want to have more of a systematic blitz or do something more relaxed? Does someone need help or is there a need in a particular location? Some ideas that were talked about were Dinosaur National Monument (Laura said no mistnetting is allowed there anymore) and looking for Allen's big-eared bat. After discussing areas, it was decided that White River National Forest area will be surveyed, focusing on caves and water sites. We are looking at late August or early September, on a weekend, probably for 2 nights and 3 days.

What does CBWG want to do and which direction do we want to go?

We were focused in the past, when we were working on the Colorado Bat Plan, but now, we're just meeting once a year to exchange information. Do we want to be more focused? For example, to revise the Colorado Bat Plan. We could form committees to deal with issues, but there will probably be a limited number of CBWG volunteers for a committee. Conference calls could continue to be used on a limited basis. We could take one afternoon during the bat blitz to discuss which direction we want CBWG to go. Part of it depends on the direction that the WBWG goes.

State Reps

It was mentioned that the FS wildlife position Randy Ghormley is in makes it difficult to secure fundings to attend the meetings. The Chapter should encourage participating land management agencies to fund the meetings.

Colorado Bat Plan

The Colorado Bat Plan was discussed:

- Does everyone have access to the plan? Yes. We'll need to revise the plan at some point.
- Toni said that at the Portland meeting, Nevada said that they decided to get a lot of agencies sign off on their plan and now it's not done yet. Colorado didn't do that and their plan is complete. Idaho and Arizona's plans were state agency driven and they were approved.
- Kristen said she uses the plan when she's looking at distribution. The negative about not having the Colorado Bat Plan approved by agencies is that if you want to create a project and you don't have backing by your agency, it doesn't give them a lot of backing and they might not be able fund what's recommended.
- Kirk said that Mary Kay Ramsey (USFS) told him that Arizona was not helping support a bat mine issue on a mine closure on forest lands. So, even though a state approves or doesn't approve the plan, it doesn't always mean that the states or other

agencies will follow the plan. However, the plan can be useful in trying to apply for grants and funding.

Roundtable

- Toni said that Townsend's genetics work is long-term and she still want some wing punches from some specific areas, like the Colorado River drainage and the San Luis Valley (Arkansas River Basin). She's also trying to find out the elevation limit for the subspecies *pallescens*. Toni will send a map to Kristen to distribute so that we can see the holes where data needs to be collected.
- Jeremy and Rob are doing some small mammal survey work in the northwestern and southwestern parts of the state, which includes bats. They were asking Kristen about areas that she thinks needs to be surveyed in the southwest. Kristen said that there is a new national monument – Canyon of the Ancients – and there might be some need for surveys there.
- Cyndi said she's interested in doing cave work and is looking for funding and ideas on how to go about it.
- Kirk said that the Bats Inactive Mines Project (BIMP) is in it's 15th year and that we're off and running this season. We have stuff all over the state, including around Frisco (maybe we could get some samples for Toni) and in the southwest in uranium mines. Kirk, Toni, and John are going to Reno in May for the Bats/Mines workshop. In 1995, BIMP went from an externally based to an internally based program. We still use volunteers externally, but we have a big internal work program portion now. The workshop talk Kirk is giving in Reno will show the history and how the project has evolved over the years.
- Nancy said that for the last two winters, BIMP has found silver-haired bats roosting in uranium mines in the southwestern part of the state. We hadn't seen these bats roosting in mines previously.
- Kristen said that at the field office, a radio tag survey was conducted and Alice Chung-McCoubrey (USFS, Albuquerque) came with her crew and surveyed areas that had been hydro-mowed around Cortez and Mancos. They didn't capture many bats because there were a lot of water choices for the bats where they were trapping. They captured a female non-lactating big free-tailed bat and then followed her about nine days. She went to Rico and then two days later went to Mesa Verde about 50 miles away. The bat ended up being on state land, between NPS and USFS lands. This year they're using bat detectors before and after treatments to detect bat activity. They'll be searching for water sights this year to use radio tags in another year.
- Jeremy said that last June, he captured three spotted bats, one pregnant female and two males.
- Laura said that this is the fifth year of the bats/rabies project in Ft. Collins. They're finding bats with rabies exposure in 2001 that have been recaptured in 2004 and they're still alive. Over 5,000 bats were captured in four years and they've only found three rabid ones. And she says, wear gloves when handling bats!
- Paul said that a five-year project is being proposed to research bats in the North and South American health departments to study rabies and taxonomy. The rabies variant of silver-haired bats is the one that kills the most people.
- John said that his bat interests are currently with uranium mines.

Summary of CBWG Followup/Action Items

From the WBWG discussion:

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From the website discussion:

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From the wind farm discussion:

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