

WNS INTERAGENCY/CAVER MEETING  
JULY 26-28, 2010 6:30 P.M.

**Carlsbad, NM July 26, 2010, in attendance:**

National Speleological Society (NSS)

Ken Harrington, Southwest Region  
Frank Everitt, Hondo Grotto/Cave Research Foundation  
Rich Wolfert, Pecos Valley Grotto  
Bill Eston, Pecos Valley Grotto  
Patty Daw, Southwest Region  
William Tucker, Lubbock Area Grotto , High Guards Restoration Project  
David S. Belski, White Sands Grotto  
Carol Belski, White Sands Grotto  
Mark Joop

National Cave and Karst Research Institute

George Veni  
Lewis Land  
Dianne Gillespie

Chihuahuan Desert Conservation Alliance

Steve West

U.S. Forest Service

Cherie Edwards  
Paul Buck  
Gary Ziehe  
Jerry Trout

National Park Service, Carlsbad Caverns

John Benjamin  
Paula Bauer  
Dale Pate

Bureau of Land Management

Bill Merhege  
Doug Burger  
Donna Hummel  
Jim Stovall  
Chuck Schmidt  
Marikay Ramsey  
Aaron Stockton

**Las Cruces, NM – July 27, 2010, in attendance:**

Fort Stanton Cave Study Project

Wayne Walker  
Steve Peerman

National Speleological Society  
Kenneth Stabinsky, Southwest Region NSS  
Rob Wood, Mesilla Valley Grotto

U.S. Forest Service  
Donna Owens  
Ed Armenta  
Gary Ziehe  
Larry Cordova

Bureau of Land Management  
Tom Phillips  
Oswaldo Gomez  
Bill Childress  
Jim McCormick  
Donna Hummel  
Bill Merhege  
Rena Gutierrez, BLM  
Mark Hakkila  
Marikay Ramsey  
Jack Barnitz  
Ray Lister

National Park Service  
Dale Pate

**Albuquerque, NM July 28, 2010, in attendance:**

National Speleological Society  
Lee Skinner, SW Region  
Patrick O'Connell, SW Region  
Buzz Hummel, SW Region  
Dave Decker  
Jennifer Foote – Parajito Grotto  
Kevin Lorms, Sandia Grotto  
C.L. Kieffer, Sandia Grotto

National Cave and Karst Research Institute  
Diana Northrup

Fort Stanton Cave Study Project  
Pete Lindsley  
Karen Lindsley  
John J. Corcoran

Explore NM  
Kenneth Ingham

Bureau of Land Management  
Bill Merhege  
Donna Hummel  
Marikay Ramsey

Veronica Maldonado  
Ken Jones  
Lindsey Eoff  
Thomas Gow  
Andrea Chavez  
Jesse Juen  
U.S. Forest Service  
Don DeLorenzo  
Bobbi Barrera  
Art Morrison  
Brian Davis  
National Park Service  
Kayci Cook  
U.S. Fish and Wildlife Service  
Tom Buckley

### **MEETING INTRODUCTION**

An agency representative welcomed all attendees to each of the three meetings and thanked everyone for their participation.

Introductions were made by all those in attendance.

It was explained that there are three purposes for holding such meetings:

1. To inform cavers and researchers about the discussions taking place with the various agencies.
2. To gather ideas and recommendations on actions the agencies should consider and how and when to do it.
3. To determine what roles the cavers and researchers can take once these decisions are made.

No decisions would be made at the meetings. Instead comments from the three meetings would be taken to Senior Management of all the agencies to help inform their decisions on what actions might be appropriate to address WNS in New Mexico.

The agencies have not yet determined a course of action but are working together to develop a coordinated strategy.

Agencies that have committed to this effort are BLM, US Fish & Wildlife Service, Forest Service, National Park Service and NM Department of Game & Fish.

Bill Merhege encouraged attendees to email him ([bmerhege@blm.gov](mailto:bmerhege@blm.gov)) by week-end if they came up with anything else that was not covered at their meeting.

The cavers' dedication and volunteerism is valued. The agencies are looking for the caving community's input and are here to listen.

The agencies are expecting to develop their WNS strategy within 3-4 weeks if not sooner.

**MEETING PURPOSE #1: Inform cavers/researchers about discussions underway between the agencies**

• **OUR MANAGERS (BLM STATE DIRECTOR LINDA RUNDELL, REGIONAL FORESTER CORBIN NEWMAN, NM GAME AND FISH DIRECTOR TOD STEVENSON, NATIONAL PARK SUPERINTENDENTS JOHN BENJAMIN AND KAYCI COOK, AND USFWS REGIONAL DIRECTOR BENJAMIN TUGGLE) ARE WORKING TOGETHER TO DEVELOP A COORDINATED STRATEGY TO ADDRESS WNS IN NEW MEXICO**

**A.**

• **WE WANT A CONSISTENT APPROACH THAT CONSIDERS USER DESIRES AND THE RISK OF THE FUNGUS TO THE BAT POPULATIONS IN THE STATE.**

**B.**

• **THEY HAVE DIRECTED STAFF (US) TO WORK WITH USER GROUPS (YOU), PRIOR TO DECISIONS BEING MADE, TO GET IDEAS AND SUGGESTIONS FOR THE AGENCIES TO CONSIDER.**

**C.**

• **THEY ARE ALSO INTERESTED IN WHAT SUPPORT AND ASSISTANCE THE CAVING COMMUNITY MIGHT BE ABLE TO PROVIDE ONCE MANAGEMENT DECISIONS ARE MADE.**

**D.**

• **YOUR COMMENTS WILL HELP INFORM OUR AGENCY LEADS AND WILL BE CONSIDERED ALONG WITH INPUT FROM OTHERS - NO DECISIONS WILL BE MADE TONIGHT.**

**E.**

• **DESPITE A RAMPANT RUMOR MILL, NO DECISIONS ABOUT CLOSURES HAVE BEEN MADE AT THIS POINT BUT WE ARE CONCERNED AND COMMITTED TO TAKE APPROPRIATE ACTION TO ADDRESS THE WNS RISK AND HOPE TO HAVE A COURSE OF ACTION IN THE NEXT 3-4 WEEKS.**

**F.**

- **REGARDLESS OF THE FUTURE MANAGEMENT DECISIONS, WE CONSIDER THE CAVING COMMUNITY A VALUABLE RESOURCE AND WANT TO WORK WITH YOU. OUR DECISIONS MIGHT BE INFLUENCED BY A SIGNIFICANT SPREAD OF THE DISEASE, NEW DATA, OR OTHER FACTORS BUT TONIGHT WE'RE HERE IN GOOD FAITH TO LISTEN, LEARN, AND INCLUDE YOU IN THE PROCESS.**

**G.**

- **FINALLY, THE FOUR NATIONAL AGENCIES (BLM, USFS, FWS, AND NPS) ARE CURRENTLY DEVELOPING NATIONAL POLICY FOR WNS AND THESE POLICIES MAY INFLUENCE WHAT IS DONE HERE IN NEW MEXICO. HOWEVER, WE'RE HOPEFUL THAT ALL THE POLICIES WILL ALLOW OUR MANAGERS A DEGREE OF LOCAL DISCRETION TO ALLOW THEM TO RESPOND IN A COORDINATED FASHION.**

**MEETING PURPOSE #2: Get ideas/recommendations on what actions the agencies should consider and how and when to do it**

**H.**

- **SEASONAL CLOSURES OF HIBERNACULA AND POSSIBLY OTHER OCCUPIED BAT ROOSTS (MATERNITY, BACHELOR, NIGHT ROOSTS)**
- **CAVES WITHOUT BATS REMAIN OPEN**
- **USE WEB FOR NM WNS DISCUSSIONS**
- **DEVELOP A DATABASE FOR CAVES AND THEIR PARTICULAR RESOURCES, ACCESS ETC.**
- **100% CLOSURE OF CAVES IN THE EAST RESULTED IN UNDOCUMENTED USE**
- **CONTINUE MONITORING AT CURRENTLY MONITORED CAVES; INITIATE MONITORING AT OTHER SIGNIFICANT BAT ROOSTS**
- **AGENCIES CONSIDER DECONTAMINATION STATIONS AT HIGH-USE AREAS (PERMANENT AND/OR PORTABLE)**
- **AGENCIES EXPLORE BULK PURCHASE OF LARGE # OF DISPOSABLE "TYVEK" SUITS**
- **CLOSING SOME AREAS AND NOT CLOSING OTHERS BASED ON USAGE OR GEOGRAPHY.**
- **DURATION OF CLOSURES NEEDS TO BE DISCUSSED**
- **LEAVE SOME BAT CAVES OPEN UNDER CURRENT MANAGEMENT. COMPARE IMPACTS WITH CAVES THAT ARE CLOSED. DEVELOP AND SET UP STUDIES UNDER VARIOUS DESIGNS.**
- **What can be gained by closing all caves? How is WNS being transmitted? Bat to Bat? Human to Bat? Not sure if anyone has answered the human to bat transmission question. Monitor the transmission research.**
- **What research is going on? Find out about existing research. Caves that have known bat use; gather info and pass on.**
- **Caves not occupied by bats should be left opened.**
- **Need inventories before closure determining type of use by bats. Other significant research such as hydrology/microbiology research could be interrupted if caves are not accessible.**

- Access should be allowed with proper de-contamination protocol. D-con should slow it down.
- **CATEGORIZE CAVE USE BY BATS – TYPE OF USE (HIBERNACULA, MATERNITY, BACHELOR COLONIES, ETC), WHEN USED (WINTER, SUMMER), AMOUNT OF USE (YEAR ROUND, SEASONAL), NUMBER OF BATS, AND SPECIES OF BATS.**
- Can be difficult to identify bat use (more complicated in the west than the east); roost switching during winter and summer.
- Need to think in terms of not only caves but mine adits & shafts; mine openings are not regulated; Las Cruces has thousands of adits & shafts in 54 mining districts.

**MEETING PURPOSE #3: Determine what role(s) the cavers/researchers are willing to have/do when decisions are made**

### **FIELD WORK**

- **SIGNAGE BY AGENCIES AND CAVERS**
- **REACHING OUT TO PRIVATE LANDOWNERS WHO HAVE CAVES ON PRIVATE LAND**
- **SENSORS/SURVEILLANCE AT CAVES**
- **VOLUNTEERS ASSIST WITH FUNGI STUDIES**
- **CAVER MONITORING BAT USE AT CAVE ENTRANCES**
- **AGENCIES DEVELOP AN CAVE/BAT POINT OF CONTACT (LIAISON)**
- **USE CAVING COMMUNITY FOR CAVE INVENTORIES, WNS SURVEYS**
- If substantial number of caves are closed, difficult for agency staffs to monitor. Cavers could help out.
- Caving community may know about bat populations that agencies don't know.
- **REPORT UNAUTHORIZED USE OF CLOSED CAVES OR CAVES UNDER SOME RESTRICTION.**
- Party caves are a distinct problem; by the time you get there people are gone
- Need to develop a method for reporting vandalism/ to let agencies know.
- **CONSIDER VOLUNTEER PATROLS WHERE FEASIBLE, REIMBURSE CAVERS FOR MILEAGE.**
- **PRIVATE PROPERTY CAVES NEED TO BE REACHED.**
- **TWO YEARS AGO WE COULD NOT GET ACCESS TO NEW MEXICO STATE LANDS. NOW WE HAVE A PERMIT TO LOOK FOR CAVES. HOWEVER, THE STATE LAND OFFICE PERMIT NEEDS WORK. PERMITTEES HAVE ACCESS TO ANYTHING. WHEN THEY SEND OUT A PERMIT, THEY COULD SEND OUT A WNS BROCHURE.**
- **A BILL WAS CREATED TO INCREASE TO \$5 MIL FOR RESEARCH FOR WNS. WE ARE GETTING PEOPLE TO WRITE TO CONGRESS FOR SUPPORT.**

### **EDUCATION**

(Educate the public by: Developing a consistent message, emphasize the economic impact/benefits of bats, local grottos could develop/deliver educational programs for schools, fairs etc., provide teaching aids for schools, work with Interagency Education Teams)

- EDUCATION FOR NON-GROTTO MEMBERS
- WEB-SITES (EXPLORENM.COM) AND CAVE INFO
- PROVIDE EXHIBITS/BOOTH/BROCHURES TO STATE FAIR, COUNTY FAIRS, NATURAL HISTORY MUSEUM, ZOO BIO PARK, VISITOR CENTERS.
- EDUCATE SCIENCE TEACHERS, PERHAPS THROUGH THEIR ANNUAL NM CONVENTION
- DEVELOP AN INTERAGENCY INFORMATIONAL BROCHURE/PAMPHLET
- GET NATIONAL MEDIA INVOLVED - NPR, OTHERS
- WORK WITH TEACHERS TO TEACH STUDENTS ABOUT THE SYNDROME. STUDENTS THEN BRING HOME INFO TO SHARE WITH FAMILY MEMBERS
- EDUCATE THE PUBLIC THAT THEIR ENTRY INTO CAVES/MINES COULD HARM BATS
- THE NEW MEXICO/ARIZONA BAT WORKING GROUP PUT TOGETHER A BROCHURE THAT IS DIRECTED TOWARD CASUAL/RECREATIONAL CAVERS. NOT WIDELY DISTRIBUTED TO THIS POINT. WE SHOULD SEND IT OUT TO AGENCIES AND OTHERS.
- WNS MONEY IS TARGETING RESEARCH NOT EDUCATION.
- DEVELOP AN EDUCATION PLAN
- BROCHURES WITH INFORMATION SHOULD BE AVAILABLE AT SOME OF THE NON-GATED CAVES. THEY CAN BE VANDALIZED BUT AT LEAST IT IS AN ATTEMPT.
- YOU SHOULD HAVE A PUBLIC FORUM TO REACH AS MANY PEOPLE AS YOU CAN. GET ON THE RADIO, CREATE A SLOGAN, AND TRY TO CATCH THE PUBLIC'S IDEAS.
- ASK THE COLLEGE FILM SCHOOL TO DO FILMING ON WNS TO GET THE WORD OUT.
- AN OBVIOUS ROUTE TO GET THE WORD OUT TO RECREATIONAL CAVERS IS TO INCLUDE WNS INFO/PROTOCOLS WITH ALL CAVE PERMITS
- EDUCATE THE KIDS BECAUSE THE ADULTS TAKE KIDS WITH THEM. TO REACH A LOT OF FAMILIES, DEVELOP A STUDENT BROCHURE LIKE THE ONE DURING FIRE PREVENTION WEEK.
- WE CAN EDUCATE A LOT OF PEOPLE DURING BAT FLIGHT PROGRAMS.
- I THINK SCHOOLS NEED TO BE INVOLVED WITH PERMISSION TO PASS OUT FLYERS WITH EVERY KID. IT IS A CHEAP WAY TO REACH A LOT OF PEOPLE.
- BLM CONTACTED THE DEPARTMENT OF DEFENSE AND THEY WANT TO BE INVOLVED. BIA WANTS TO GET INVOLVED.
- SUGGEST AN INTERAGENCY FILM DOCUMENTARY.
- SHARE ALL BROCHURES/EDUCATIONAL MATERIALS WITH GROTTO ORGANIZATIONS FOR THEIR USE AND POSTING ON THEIR INTERNET SITES.
- WE SHOULD OFFER TRAINING TO ANYONE DOING INTERPRETATION TO MAKE SURE THEY ARE PUTTING OUT ACCURATE INFORMATION, WITHOUT EMBELLISHMENTS.
- CAREFUL TO NOT TO RELY TOO MUCH ON BROCHURES – HOW MANY TIMES HAVE YOU IMMEDIATELY TOSSED SOMETHING SOMEONE THOUGHT WAS IMPORTANT?
- YOU SHOULD USE RADIO, ETC. KENW DOES SMALL TOWN SHOWS. WE SHOULD GET A SPOT.
- DOES ANYONE HERE KNOW IF ANYTHING IS GOING ON WITH SOCIAL MEDIAS, LIKE FACE BOOK? ESPECIALLY FOR A YOUNGER AUDIENCE?
- DEVELOP A WELL WRITTEN ARTICLE, NOT SCIENTIFIC AND DRY, JUST SHORT AND TO THE POINT.

- **WEB RANGERS IS POPULAR. IF WE COULD TAP INTO EXISTING SITES FOR KIDS, THEY WILL HELP EDUCATE THEIR PARENTS.**
- **THE MOST IMPORTANT MESSAGE TO MAKE IS THAT BATS ARE IMPORTANT. INCLUDE BATS ROLE IN THE ECOSYSTEM, POLLINATION, EATING INSECTS, POSITIVE INFLUENCES ON OUR ENVIRONMENT. LOOK AT HOW BATS PLAY A ROLE AND HOW OUR WORLD WILL CHANGE IF THEY SUCCUMB TO THIS FUNGUS.**
- **PRIVATE LANDOWNERS AND RANCHERS/FARMERS HAVE ALLOTMENTS WITH BLM AND FS. THE AGENCIES CAN COMMUNICATE TO THEM--PROTECT BATS BECAUSE THEY KEEP THE BUGS OFF THE CROPS.**
- **NEED TO INCLUDE SOIL CONSERVATION AGENCIES – THEY WORK WELL WITH FARMERS/RANCHERS WHO BENEFIT FROM BATS EATING INSECTS THAT CAN BE DAMAGING TO CROPS.**
- **AGENCIES CAN FIND DISCRETIONARY FUNDS FOR PRIORITY PROJECTS. ALL AGENCIES NEED TO BEGIN THINKING ABOUT 2011 FUNDS FOR WNS EDUCATIONAL PRODUCTS**
- **MANY OF TONIGHT’S SUGGESTIONS FIT INTO NORMAL AGENCY WORK.**

### **GENERAL QUESTIONS/COMMENTS**

- This meeting is a perfect example of the public, and federal and state agencies working together. Even with our differences and conflicts, we’re working together and sharing ideas.
- Another important partner to consider is White Sands Missile Range.
- Circulate these notes among your local groups—so what was discussed gets out to others.
- As far as any anticipated expenses, not asking Grottos to spend any money. Emphasis is on partnership.
- Some tribal biologists have been contacted about this effort, however additional tribal contacts will be necessary.
- **IS THERE AN ISSUE ABOUT BEING IN THE PROXIMITY OF THE ENTRANCE OF A CAVE COMPARED TO ENTERING A CAVE? WHAT ACTIVITIES COULD BE DONE IF A CAVE IS CLOSED? THE READING IN E-MAILS (USFWS AREA 3 IMPLEMENTATION GUIDELINES) RECOMMENDED CLOSURES, BUT AS AN ACTIVE CAVER WE ARE THE BEST RESOURCE ON BAT LOCATIONS AND CONDITIONS. IF CAVES ARE CLOSED, DATA CANNOT BE COLLECTED. WE HAVE PAST BAT RECORDS AND CAN CONTINUE COLLECTING DATA. . WE ARE WORKING FOR FREE. THINK ABOUT CAVERS AS A RESOURCE TO COLLECT DATA. THERE IS NO DOCUMENTED PROOF OF HUMAN BEINGS TRANSMITTING THE FUNGUS. WE HAVE ADOPTED STRICT DECONTAMINATION RULES BEFORE ENTERING CAVES. CAVERS SHOULD BE USED AND CONSIDERED AN ASSET.**
- **WHAT NEW MEXICO HAS BEEN DOING SEASONAL CLOSURES DURING HIBERNATING TIMES, NURSERY TIMES, AND WHILE BATS ARE IN THOSE AREAS, CAVERS DO NOT GO IN. THERE ARE SOME AREAS THAT BATS USE THAT AGENCIES DO NOT KNOW ABOUT. BATS USE MULTIPLE AREAS THAT PEOPLE ARE NOT USING. CLOSING OFF ALL WILL REDUCE INFORMATION IN KNOWN AREAS, WHERE BATS ARE SEASONALLY. BLM DOES QUITE WELL WITH CURRENT PRACTICE OF SEASONAL CLOSURES.**



- AN EXAMPLE: ONE CAVE CLOSED FROM EARLY SUMMER UNTIL SEPTEMBER 15. MANY NURSERIES ARE CLOSED APRIL 15 TO SEPTEMBER 15.
- WE DO NOT KNOW WHERE MANY HIBERNACULA ARE.
- THERE MAY BE DIFFERENT FORMS OF HIBERNATION OUT WEST THAN BACK EAST. BACK EAST BATS OFTEN HIBERNATE IN LARGE GROUPS, WHILE OUT WEST THEY ARE SPREAD OUT. DIFFERENT PATTERNS MAKE IT MORE COMPLICATED TO IDENTIFY HIBERNACULA.
- DUE TO A LIMITED AMOUNT OF FAT RESERVES IN HIBERNATING BATS, IF YOU WAKE UP A BAT TOO MANY TIMES, IT CAN BE A DEATH SENTENCE BECAUSE BATS USE A LOT OF THEIR ENERGY RESERVE EACH TIME THEY WAKE UP.
- THERE IS WHOLE LOT WE DO NOT KNOW ABOUT HIBERNATION IN BATS.
- THE BEST RESOURCE NSS HAS IS A WNS LIAISON THAT INTERFACES WITH EVERYONE STUDYING THE DISEASE WITH A WEB SITE UPDATED DAILY—NOTING WHERE IT IS, WHERE IT IS DISCOVERED. IT IS A GOOD SOURCE OF INFORMATION.
- WHAT KIND OF RESOURCE DO WE HAVE ABOUT HOW WNS IS SPREADING?
- CDC HAS RECENTLY GOTTEN INVOLVED. USFWS IS THE AGENCY TAKING THE DRIVER'S SEAT. GEORGIA, LIKE NEW MEXICO, IS AN ADJOINING STATE AND USFWS IS TREATING THE ADJOINING STATES BY INCLUDING THEM IN THEIR POLICY. GEORGIA WROTE A MANAGEMENT PLAN ON WNS. THEIR APPROACH WAS VERY FAIR, TAKING IN THE LATEST INFORMATION. HIBERNACULA WERE ALREADY OFF LIMITS DURING THE WINTER SEASONS. DECONTAMINATION PROCEDURES BY USFWS ARE TO BE FOLLOWED. THEY ENCOURAGE NO CLOSURES EXCEPT SEASONAL ONES, BUT RECOMMEND DECONTAMINATION IF YOU ARE FROM A WNS STATE.
- JERRY TROUT HAS A COPY OF GEORGIA'S WNS MANAGEMENT PLAN.
- IF STATES WRITE WNS MANAGEMENT PLANS, DO THE FEDS FOLLOW THEM?
- MOST STATES ARE TREATED REGIONALLY BY USFWS, SHUTTING ALL CAVES. OUTSIDE THEIR JURISDICTION IS STATE BY STATE. ANOTHER STATE, KENTUCKY, HAS BEEN A NEIGHBORING STATE TO WNS FOR A LONG TIME AND THEIR USFWS PERSON COLLECTED BACKGROUND DATA ON SOIL, ETC., WHERE EVER CAVES ARE LOCATED. GEORGIA AND KENTUCKY ARE A GREAT RESOURCE TO TALK TO.
- US FOREST SERVICE REGIONS 8 AND 9 CLOSED THEIR CAVES AND MINES MAY 2009. THEY HAVE SINCE REVAMPED THEIR CAVE CLOSURE MANAGEMENT PLAN, HOWEVER NOT SURE WHAT CHANGES HAVE OCCURRED.
- THE USFWS GUIDANCE DOCUMENTS HAD DIVIDED THE WNS ZONES INTO AREAS 1-3 BASED ON WHICH AREAS HAD CONFIRMED WNS. AREA 3 INCLUDES CAVES AND MINES THAT ARE 250 MILES OR MORE FROM THE NEAREST KNOWN OCCURRENCE, WITH A GOOD CHANCE OF INFECTION IN THE NEAR FUTURE. IT WAS WRITTEN LAST WINTER AND SPECIFIC IN DOCUMENTING THAT IT IS ONLY GOOD FOR THIS SEASON WITH THE UNDERSTANDING THAT MORE WOULD BE LEARNED AND THAT THE SITUATION WOULD EVOLVE AND BE UPDATED.
- WE ARE IN AREA 3, BASED ON THE OKLAHOMA SITE.
- A RECENT PUBLICATION FROM NPS AND USGS STATES THAT ALTHOUGH BATS PLAY A MAJOR ROLE IN SPREADING THE DISEASE FROM ONE AREA TO ANOTHER, THERE IS CIRCUMSTANTIAL EVIDENCE TO SUPPORT HUMAN TRANSMISSION FROM CAVE TO CAVE. THE SAME FUNGUS IS KNOWN FROM EUROPEAN CAVES; HOWEVER THERE ARE NO REPORTS OF

BAT MORTALITY ASSOCIATED WITH IT. QUESTIONS REGARDING HUMAN TRANSMISSION HAVE ALSO ARISEN BECAUSE THE SPREAD OF WNS HAS NOT FOLLOWED THE TYPICAL DISPERSAL PATTERNS OF BATS. UNTIL SCIENCE CATCHES UP, THERE IS NO WAY TO KNOW.

- THE CAVE MYOTIS IN OKLAHOMA DID NOT DIE BUT DID HAVE THE FUNGUS ASSOCIATED WITH WNS. THIS OBSERVATION IS NOTABLE IN THAT IT IS THE FIRST REPORT OF THE FUNGUS ON A CAVE MYOTIS. THE CAVE MYOTIS IS A SOUTHWESTERN SPECIES, OCCURRING FROM OK AND TX, WEST INTO NM, AZ, CA AND SOUTH INTO MEXICO.
- DURING HIBERNATION KEEP SEASONAL CLOSURES THE WAY THEY ARE NOW
- WE CAN STILL GET RESEARCH DONE DURING NON-HIBERNATION TIMES.
- ALSO CLOSE DURING THE SUMMER FOR NURSERY ROOSTS.
- IN NM THERE ARE 2,367 KNOWN CAVES. (LATER CORRECTED TO 2403 KNOWN CAVES, 1113 ON BLM AND 507 ON NPS)
- WE ARE TALKING ABOUT A HUGE NUMBER OF CAVES TO MANAGE. WE CAN MANAGE GATED ONES, BUT TRYING TO MANAGE ANY WITH BATS OR TRY TO FIND WHERE THEY ARE WILL BE DIFFICULT. CAVERS ARE SECRETIVE. WE ARE TRYING TO PUT OUT A NUMBER TO UNDERSTAND THE MAGNITUDE.
- WE [BLM] KNOW THE NUMBERS AND UNDERSTAND TRUST.
- SUGGESTION: BLM CAVES HAVE CAVERS ON WEEKENDS. WHY DON'T EMPLOYEES VOLUNTEER TO EDUCATE THE WEEKEND CAVERS BY STANDING BY THE CAVE?
- ANOTHER SIDE: HOW MANY THOUSANDS OF DOLLARS DO WE SPEND FOR GATES TO PROTECT COLONIES OF BATS, LIKE A CERTAIN SPECIES? COMING UP LATER, CAVE CLOSURES FOR CAVERS BUT NOT FOR RESEARCH. THIS IS A PROBLEM IN THE COMMUNITY. WILL THEY [RESEARCHERS] DO LESS DAMAGE THAN I WOULD? WHY DO RESEARCHERS HAVE FREE REIGN? THIS ISSUE HAS BEEN HEARD FOR YEARS.
- IT IS IMPORTANT FOR A NEIGHBORING STATE TO TAKE THE OPPORTUNITY WHEN IT GETS HIT TO GET GOOD BASELINE DATA. OTHERWISE, WE WILL NOT KNOW WHAT IS RELATIVE. KENTUCKY AND VIRGINIA CAN STEER AGENCIES ABOUT WHAT KIND OF DATA IS NEEDED BEFORE IT HITS.
- THERE IS THE CASE OF A LARGE CAVE MYOTIS NURSERY WITH 30,000 BATS HOWEVER THIS YEAR THERE ARE ZERO BATS, MOST LIKELY BECAUSE SOMEONE SHOT THEM AS THEY EXITED AND THEY NO LONGER COME BACK. PEOPLE NEED TO UNDERSTAND THE VALUE OF BATS
- CAVERS ARE PATROLLING CAVES, BUT DO NOT WANT TO BE REQUIRED TO SPEND WEEKENDS DOING SO. INSTEAD, CAN ASSIST AGENCIES BY PROVIDING INFO WHEN THEY NOTICE SOMETHING. MAKE A NETWORK/WEBSITE TO REPORT THINGS. WE SHOULD BE AN AWARENESS NETWORK, TO KEEP EYES AND EARS OPEN, NOT A TATTLE-TALE GROUP.
- IF AGENCIES PRODUCE SIGNS, COULD GROTTOS PUT THEM UP? YES.
- IF CAVES HAVE A BAT COLONY, THEN THE AGENCY NEEDS TO KNOW ABOUT IT, THIS INFORMATION NEEDS TO BE DOCUMENTED AND SHARED BETWEEN CAVERS AND AGENCIES.
- PART OF THE EFFORT SHOULD BE FOR BIOLOGISTS TO COME UP WITH STANDARDIZED MONITORING THEN TEACH CAVERS TO HELP WITH MONITORING. MONITORING NEEDS TO HAPPEN TO KEEP TABS ON THE SPREAD OF WNS. IF WNS DOES SHOW UP, WE NEED TO FIGURE OUT HOW TO DO IT WITHOUT SPREADING THE FUNGUS BY OUR OWN ACTIONS.

- **A PROBLEM IS THAT BASE LINE DATA TAKES SEVERAL YEARS.**
- **THERE IS A LOT OF USABLE DATA ALREADY OUT THERE.**

I.

Meetings were closed with the agencies thanking the participants for attending and sharing their ideas. We hope these meetings will be a model for rest of the west – cavers and agencies working together on a difficult issue. Notes from meetings will be distributed to all attendees and can be shared with others that were able to make the meetings.