

Western Cave Conservancy

Protecting the West's Last Frontier

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Weller Natural Preserve & Rippled Cave News

by Marianne Russo, Preserve Manager

It has been a busy spring up at the preserve. What have we been doing up there? Well, there are several things to report on. We have continued to make progress on our long-term vegetation management plan and have a great start at defining the northern property line. Our dream of replacing the old derelict building is taking shape and of course there have been several recreational and training-related trips to the cave by local grottos. Last, but not least, we continue to build friendly relationships with our many preserve neighbors.

Vegetation Management & Property Boundaries

In the late winter, volunteers spent three workdays clearing and burning thick stands of manzanita and deadfall and surveying the northern boundary line. This long, straight, boundary is approximately 1,400 feet long and traverses some of the steepest slopes on the property. However, because the brush is less dense in this area, the survey itself went considerably faster than it had on the western boundary last year. One more pass by the survey crew and it will be ready for placement of boundary markers. Our brush clearing efforts yielded a good trail up to the northwest corner and reduced vegetation in one of our

worst fire hazard zones. Rest assured that we are not “clear-cutting” or eradicating any native species—not even the abundant Poison Oak! At this time almost all tree specimens are being left, although at some point in the future we will probably thin them out in certain areas to enhance the health of the forest as a whole. We are also preserving exceptional examples of mature manzanita and many younger plants of this species will be allowed to grow in scattered locations. We have not abandoned on our mission to search and destroy all



Photo: Marianne Russo

Scotch Broom, though. Tiny plants that are coming up where all the mature plants were removed last year have been sprayed with Roundup® and this will be periodically re-applied throughout the year.

Goodbye Old Party Shack, Hello New Preserve Multi-Purpose Shed

This winter, plans were made to remove the old building, construct a small temporary shed, and get geared up to start the construction of the new multi-purpose structure. You might be asking yourself what this is all

about. Why is the WCC building it, and what will it be used for? All good questions.

During the course of the last two winters while we spent many days working on the preserve, the old building proved to be very useful, as leaky and insecure as it was. We were able to leave tools, supplies, the portable toilet, and extra containers of water on site, rather than dragging them back and forth. The building also provided a place to change clothes and use the “loo” in private, as well as giving shelter from rain. We decided to replace the existing building with a new one of the same category (a shed). While the footprint (400 square feet) is large enough to require a county building permit, it is a minimal enough struc-



Photo: Jerald Johnson



Photo: Marianne Russo

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ture that the fee was very reasonable, and virtually no other restrictions or regulations were triggered. In addition to the previously described uses, we plan on storing some chairs and folding tables inside the new building so folks can use them either inside or outside to eat lunch or to have a flat surface to work on. Other uses will emerge with time, I'm sure. We decided to move quickly on this project last year when we found out from Amador County that building and fire regulation changes and fee increases were scheduled for January 1, 2008. These changes would have made the project substantially more expensive.

On March 15th, 19 volunteers showed up for the BIG TEAR DOWN! It was a long all-day effort, but by sundown, the old building was reduced to a few piles of boards and debris and the temporary shed was finished enough to lock up the Luggable Loo™ (portable toilet) and a few other odds and ends. A large scaffold on wheels was set up inside the building and was moved around as a platform to remove the roof. This worked exceptionally well and was the safest way to work on this rather tall building (the peak of the roof was approximately 16 feet above the ground). One trailer load of debris was hauled off at the end of the day and we salvaged many of the better boards to be used as needed on the temporary shed and other future projects around the preserve. A particularly excit-



**The
south
wall
comes
down!**

**Grading
and
Foundation
Work**

Photo: Marianne Russo



The new building starts to take shape



Photo: Marianne Russo



Photo: Matthew Leissing



Photo: Marianne Russo

Siding, doors, and windows are installed

Photo: Marianne Russo

ing moment was when the south wall was released from the rest of the structure and came down as a single unit. Yee ha!

Later in March and again in early April a few more days were spent on cleanup and preparation of the old foundation slab for the new construction. Most of the remaining waste was hauled to the dump

and all of the overhanging trees and branches were cut down or trimmed back. For many years the old building had flooded with runoff water, so the slab was covered with a thick layer of clay-rich silt. Removing this turned out to be quite a chore!

In May we hired a local equipment operator to spend a day re-contouring the slope immediately around the slab so that water would drain away instead of flooding the building. After pouring water and then scrubbing the slab with brushes for many hours, we figured out a way to use a power washer. Since

the bulk of the clay has already been removed by elbow grease, the power washer finished the job nicely with only about 50 gallons of water. We had brought about 25 gallons with us and since we have established good relations with the neighbors, were able to go down the road to fill all the containers up again. We used a generator to power the washer, and then we siphoned the water and gravity-fed it from a large 25-gallon bucket set on a platform attached to the lumber rack of a truck. This worked like a dream!



Photo: Matthew Leissing

After cutting off the old foundation bolts, doing a corner repair and filling in a gap in the center of the slab, we were ready to set the wood foundation sill plates. These 4" x 8" pressure-treated wood beams were attached with 8-inch foundation screws and construction adhesive. Now we were ready to begin framing! In mid July, we had a two-day building marathon. It was an out-

standing success! With the expertise and hard work of our many volunteers, we finished framing the walls and roof, attached most of the siding, and installed the windows and door. The siding job included the application of Tyvek® building paper and metal flashing around the base. A few days later, we returned to do some more work. We finished attaching all the siding, completed the roof sheathing, cut holes for the two skylights, and hung all the fascia boards. By the time you read this, we expect to have installed the skylights and put up the trim, and will probably have gotten our county inspection, and be planning a roofing and painting workday.

Upcoming Projects & Events

Of course our main focus for the rest of this year will be finishing the building and conducting a fundraising campaign to pay off the loans used to finance it.

Roof framing & sheathing, & more siding



Photo: Marianne Russo

Photo: Marianne Russo



Photo: Marianne Russo



Photo: Marianne Russo & Marc Hasbrouck

When the rainy season comes again we will resume vegetation work and finish the boundary line survey. We also are moving the entry gate back 30 feet along the driveway, in compliance with new regulations. The gate as it is now is unsafe because it opens out onto the road. The new gate will open in toward the property, and thus will not be in the way of road traffic when people enter or leave the preserve.

Once the building is completed, we are planning to have a Preserve Dedication and WCC Supporter Appreciation Open House. Many of you who have contributed faithfully to this organization have expressed a wish to see the preserve for yourself, and we would love to show it off to you. This will be an opportunity to check out the building, take a walking tour of the preserve, and perhaps take a peek into the cave. Local grottos will have experienced volunteer guides and basic equipment to loan. Look for an announcement of this event in an upcoming newsletter.

WCC Offers Conservation Grants

WCC is looking to support the good work being done by outside groups. Throughout the Western states people who love caves have gathered together in groups large and small for various reasons: to enjoy caves, socialize, improve their skills, and also to protect caves. Of course, that latter task is most relevant to WCC, and we want to help.

Often these groups don't have the funds they need to complete gating or other conservation projects, and we offer conservation grants to bridge the financial gap. In 2006 the Conservancy helped Timpanogos Grotto gate Nutty Putty cave in Utah. We're looking for other worthy projects, so if you have one in mind, please send email to mail@westerncaves.org and request our short grant application.

Property Tax Exemption

Great news just came in: WCC has obtained a property tax exemption and refund for the Weller Natural Preserve!

In California, land trusts such as the Western Cave Conservancy can apply for what's oddly called a "welfare exemption." The process takes a while, with approval needed from both the State and from the County Assessor. The exemption encourages organizations such as WCC that serve the public good. Since we allow members of the public to visit the property and the cave (provided of course that they have proper training and equipment), the State of California and Amador County have approved our applications. Even better, 85-90% (depending on the year) of our previously paid property taxes has been refunded—totaling just over \$3,000! We are thrilled to be able to put this money to use on WCC projects.

About White Nose Syndrome

WCC would like to alert you to a serious problem affecting bats and caves in the northeastern U.S. It is possible that this threat to hibernating bats could spread to other parts of North America, including the West.

What is White Nose Syndrome?

White Nose Syndrome (WNS) is a name given to an as yet unidentified agent or agents causing mass mortalities at a growing number of bat hibernacula in and around New York State. First documented near Albany, New York in the winter of 2006-07, White Nose Syndrome refers to a white fungus on the noses of many affected bats. The fungus may be a symptom and not the cause of the mortality observed. It is unclear at this point if or how WNS is transmitted. Biologists and/or cavers have since documented WNS in an increasing number of bat hibernacula (caves and mines where bats overwinter) in New York, Vermont, Massachusetts and Connecticut, where it continues to kill bats at an alarming rate, with more than 90% of the historic populations gone in some cave and mine sites.

What are the Symptoms?

- ♦ Bats are found in roosts in colder regions of caves or mines or in areas not normally identified as winter roost sites, and/or may be concentrated in unusually high numbers near entrances, often within the zone of light penetration.
- ♦ Bats near affected sites are observed flying during daylight hours and dying on the landscape under a range of temperature conditions.
- ♦ Dead or dying bats may be found on the ground or on buildings, trees, or other structures.
- ♦ Some, but clearly not all affected bats have a white fungus around the nose. The fungus can also be present on the wings, ears, and/or tail.

It seems that bats are losing their fat reserves (needed to survive hibernation) long before the winter is over, and they are dying.

*WNS is not the only cause of white fungus on hibernating bats. If you see a bat with a white fungus, but you are not in a known affected area and none of the other signs of WNS are observed, then it may not be WNS.

How Might White Nose be Spread?

- ♦ Direct cave-to-cave transmission by bats during fall swarm or pre-hibernation movements.
- ♦ Transfer between bats while at summer colonies, then moved to clean hibernacula. For instance, bats banded at a summer colony in Vermont have been found hibernating in three different mines.
- ♦ Cavers and bat researchers could be moving the problem between sites on their gear. Most affected sites first documented in 2008 had clearly been visited by people who had been at the original four sites in 2007.
- ♦ Indiana bats, and to a lesser extent little brown bats typically hibernate in dense clusters. It is hard to imagine a condition

more conducive to the spread of disease, if white nose is a disease.

What species of bats are affected?

Vulnerability seems to vary between species and between sites. Eastern pipistrelle, little brown, northern long-eared, state-listed small-footed, and federally endangered Indiana bats have been found with WNS. Big brown bats are typically found in lower numbers at the affected sites, and have not been seen with symptoms to date. WNS has had a significant impact on the endangered Indiana bat population in the region, and has the potential to be catastrophic to the common Little Brown Bat, which has suffered the highest numbers of mortalities.

What is being done?

To identify the cause of mortality, lab analysis, supported by field work, has been conducted to study the pathology and identify potential causes—viruses, contaminants, bacteria, immune response or depression, fungus, environmental factors such as humidity and temperature.

To keep people informed, The U.S. Fish and Wildlife service (USFWS) has provided a website (www.fws.gov/northeast/white_nose.html). Researchers have established media contacts and are coordinating with stakeholders (caver groups, conservation organizations, state and federal agencies)

Caves in the affected area have been closed during hibernation season. The National Speleological Society (NSS) closed their nature preserves in New York, and Pennsylvania, reopening them in May. The preserves will now operate as usual, pending new developments. The New York caves may all close again with the beginning of hibernation in mid-October. A preserve in West Virginia was also closed, then reopened, in collaboration with state and federal natural resources officials.

In Albany, New York, on June 9–11th, some 75 scientists, field researchers, state and federal agency personnel, and cavers met for a three-day Science Strategy Conference on White Nose Syndrome.

Despite working together on WNS as a group for less than six months, a lot has been accomplished. They have: mapped the progression of WNS, documented its symptoms, analyzed bats from several states, identified the fungi on the bats, planned for summer, fall, and winter surveys, and developed public communications.

The final day of the WNS Conference was devoted to synthesizing the work of the participants, setting up several task forces to deal with things like coordinating media outreach, funding, revising protocols on decontamination, developing a field diagnostic for WNS, developing protocols on sample collection and sharing, finalizing a scoring system for grading wing degradation in bats found in summer maternity and roosting colonies.

Peter Youngbaer, the NSS Liaison on WNS, wnsliaison@caves.org was included in the task forces on communications, funding, and decontamination especially for cavers. This latter point has been a

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Windeler Gate in Progress

Last year WCC signed an agreement with the U.S. Forest Service to manage Windeler Cave. Since that time we've made progress on the most urgent task: constructing a new gate.

Windeler is a beautiful cave in California's Mother Lode area. The cave's previous stewards did a great job keeping it safe; including sealing the entrance after a break-in compromised the previous gate. So the first job we set ourselves as the new stewards was to re-open the cave while still keeping it secure. Hence the need for a new and very solid cave gate.

The challenge is unusual. Many nearby caves are used by bats, and would require "bat-friendly" gates. However, Windeler has never in its long history been open to the surface, and thus, was never colonized by bats. Our goal is to keep the cave just as it has always been, so that means keeping bats, dry air currents, and vandals out.

The current gate design has come together through a combination of creativity and luck. Members of the Windeler subcommittee Doug Bradford and Jim Hildebrand have been using their spare time to move this project forward. Jim and others had been penciling out various gate designs, but three factors focused that effort. First, the Forest Service made it clear that any gate re-

placement project should have minimum impact on the soil and rock near the entrance; that eliminated large gate designs. Second, Doug by chance got hold of a large piece of 3/4-inch thick stainless steel. And finally, Jim happens to work with a machinist with the tools and expertise to build the gate.

The basic gate design is now complete, and the steel has been cut to shape. That in itself was a challenge, since even a plasma torch could not do the job. In fact, the best way to cut this plate was on a special industrial machine that uses a computer controlled, high-pressure water jet enriched with crushed garnet to

slowly cut the plate. Sounds very expensive right? Well, Jim explored his contacts at work, telling people about this interesting and worthy project, and managed to get the plate cut for free!

So it's taken longer than we hoped, but luck has been with us. Of course, things move slowly in any volunteer effort, but the project is moving forward. We are very grateful to those involved, and we all have a responsibility to take great care and do this right. In the near future, it's likely we'll need "grunt work" in the service of installing the gate. If we work together, once again people will be able to see the wonders of Windeler Cave.



Photo: Jim Hildebrand

White Nose Syndrome, continued from page 5

hot topic of discussion, as many in the caving community have raised questions about the efficacy of some of the protocols. Certainly, the possible spread of WNS by humans, both cavers and researchers, cannot be ruled out yet, especially because of the manners in which fungi may be spread. **There remains a high level of concern that WNS not be allowed to take hold in other parts of the country, potentially affecting other species or continuing to damage other colonies of the endangered Indiana bat.**

A lot of time was spent discussing potential funding sources such as federal grants. Unfortunately, most of these funds have priorities set by Congress over a year ago, so there is a time lag in getting WNS elevated in the national funding streams. Private fundraising was discussed and will be pursued, as these funds have the potential to be more quickly available, and with less restrictions. Bat Conservation International and the North American Center for Bat Research at Indiana University already have established funds, and a WNS-specific fund may be established within the NSS or National Speleological Foundation.

What should cavers know and do?

The US Fish and Wildlife Service and the states request that cavers observe all cave closures and advisories and avoid caves or pas-

sages of caves containing hibernating bats. Please do not systematically search for bats with WNS. The USFWS-recommended precautions can be found at <http://www.fws.gov/northeast/whitenosemessage.html>. These decontamination procedures may prove to be important for prevention of the spread of WNS.

White Nose has persisted for at least two seasons. In two years, it has killed more than 90% of bats in affected sites. It is spreading rapidly, and we still do not know what it is, or how it is spread.

This article was compiled using information from the following websites:

http://www.fws.gov/northeast/white_nose.html

<http://www.fws.gov/northeast/pdf/white-nosefaqs.pdf>

<http://www.fws.gov/northeast/whitenosemessage.html>

<http://www.caves.org/committee/conservation/WNS/wns3-30-08.pdf>

<http://www.caves.org/committee/conservation/WNS/donations.htm#Open>

<http://www.caves.org/committee/conservation/WNS/WNS%20Info.htm>

<http://www.speleobooks.com/WNS/agenda3.html>

Please visit them for more information.