

**Virginia Cave Board  
Staunton Public Library, Staunton, Virginia  
Saturday, February 24, 2018**

**TIME AND PLACE**

The meeting of the Virginia Cave Board convened at 11:00 a.m. on Saturday, February 24, 2018 at the Staunton Public Library in Staunton, Virginia.

**MEMBERS PRESENT**

Steve Lindeman, Chair	Marian McConnell
Dr. Daniel H. Doctor, Vice Chairman	Janet Tinkham
Anthony R. Bessette	Meredith Hall Weberg
Robert K. Denton, Jr.	Roger Kirchen
John T. Haynes	

**MEMBERS ABSENT**

David Ek	Rick Lambert
John H.H. Graves	

**DCR STAFF PRESENT**

Thomas L. Smith	Michael Fletcher
Rochelle Altholz	Kimberly Freiberger
Jason Bulluck	Wil Orndorff
Rob Evans	Isaac Sarver

**OTHERS PRESENT**

Ben Carr, Madison Cave

**ESTABLISHMENT OF A QUORUM**

With eight (8) members present, a quorum was established.

**CALL TO ORDER**

Chairman Lindeman called the meeting to order at 11:01 a.m.

**TREASURER'S REPORT** – *Jason Bulluck, DCR*

Mr. Bulluck advised that the current balance in the account remains at \$0.00. He noted that a grant of approximately \$1,000 was expected from the Richmond Area Speleological Society (RASS) for funding the upcoming *Virginia Cave Owners' Newsletter*.

**APPROVAL OF MINUTES FROM NOVEMBER 10, 2017**

**BOARD ACTION**

Ms. Tinkham moved that the minutes of the November 10, 2017 meeting of the Virginia Cave Board be approved as submitted by staff. Ms. Weberg seconded and the motion carried unanimously.

**DCR KARST PROGRAM UPDATE** – Wil Orndorff, DCR

Mr. Orndorff gave the following report.

Accomplishments:

DCR staff represented karst issues for the state, in cooperation with VA DEQ, at the State Water Control Board hearings on the Mountain Valley and Atlantic Coast natural gas transmission line project hearings in December 2017. Orndorff provided testimony on potential impacts by the pipeline to karst groundwater and biological resources, and on the adequacy and limitations of the approach used by the companies to address karst issues during the National Environmental Policy Act (NEPA) process. Orndorff and staff continue to work closely with consultants for each project and with DEQ staff to ensure that karst issues are addressed appropriately and to the maximum extent practicable within the constraints of the projects.

Hibernacula counts for bat species not listed under state or federal endangered species acts prior to White Nose Syndrome were completed in February in conjunction with the Department of Game and Inland Fisheries. Significant findings are: 1) Tricolored Bats continue to persist on the landscape, albeit in low numbers, and were present in nearly every cave visited; 2) Little Brown Bats were rarely seen in fewer than half of the caves visited this winter, and with one exception never more than a few individuals; 3) the one exception was Woods Cave in Page County, where over 400 seemingly healthy Little Brown Bats were present. Woods Cave merits further investigation as to the reasons for the survival of this population. Fungus was observed on these bats in 2016, so it is likely that the population has been exposed to *Pseudogymnoascus destructans*, the pathogen that causes White Nose Syndrome.

Several caves on the Natural Area Preserve System were added for even year reference hibernacula counts in an effort to begin establishment of long-term records. These sites include Gallohan #1 Cave on the Cedars Natural Area Preserve, Ogdens Cave and Unthanks Cave NAP. The goal is to have five to ten caves on the NAP systems as part of the standard reference cave list for biennial bat hibernacula monitoring. In particular, small caves generally not considered bat caves prior to the arrival of WNS may play a big role in the survival of some affected species.

The 2018 Joint Bat Working Group meeting will be held in Roanoke March 27-29, 2018. DCR staff will attend and present preliminary results of a DCR led initiative to study summer Gray Bat cave roost site occupancy throughout the Upper Tennessee River basin in Virginia. Results will greatly improve our ability to make informed conservation and protection decisions pursuant to this species and these sites (.e.g. time of year restrictions for certain types of activities, determining key sites for land protection, et cetera.) Staff will also provide logistical support to the Virginia Department of Game and Inland Fisheries, the host of the event.

Since the last Cave Board meeting, three publications by Natural Heritage karst office staff have been accepted for publication and are in press. A paper on habitat characterization for the Madison Cave isopod will be presented at the 2018 Sinkhole Conference being held in April in Shepherdstown, WV, and the associated peer-review article will appear in the proceedings. Two papers were accepted for publication in the proceeding of the 2018 National Cave and Karst Management Symposium, one summarizing a recently completed project performing conservation status updates on seventeen

globally rare cave beetle species known from Virginia, and the second summarizing agency-led effort to minimize impacts to karst systems from the Mountain Valley and Atlantic Coast gas transmission pipelines.

Collaborative investigations by Lewis Bioconsulting, American University biologists Dan Fong and David Carlini, and DCR karst staff into the taxonomic relationship within the genus *Lirceus* continue to produce surprising results. Because of the Lee County cave isopod's (*Lirceus culveri*) federally protected status, these results may have direct conservation implications. Through a combination of traditional taxonomy and molecular genetics, it appears that what were thought to be a handful of species may turn out to be a larger species complex, one for which traditional defining taxonomic characters may be problematic for accurate species delineation. From a cave perspective, at least two more cave limited species *Lirceus* are likely to be described in Virginia.

Several environmental issues have been brought to the attention of DCR karst staff over the last few months:

- A citizen reports that a contractor is dumping hydromining slurry from an American Electric Power substation expansion project in Wythe County into a pond made by plugging a local sinkhole. In addition the overflow from the pond flows to a second sinkhole. Concern is discharge of the slurry to groundwater bodies. Virginia DEQ staff were contacted both by Cave Board Chair Steve Lindeman and DCR karst protection coordinator Wil Orndorff. DEQ staff investigated, and reported back that the project was allowed by the County of Wythe under an agricultural exemption. It is unclear whether such an exemption is appropriate for the project, which involves disposal of waste from off-site commercial excavations.
- An anonymous report was made to DCR Karst staff of the disposal of demolition debris into the sinkhole containing the state significant Cope Cave in Lee County. DCR coordinate with DEQ solid waste authorities, who have since contacted the landowner who at this time appears to be willing to remediate the situation.
- Two citizens contact DCR staff for assistance in sinkhole remediation. DCR staff provided information and materials, including the Cave Board's Residents' Guide to Sinkholes document.
- Finally, the Town of Christiansburg approached DCR in regards to the legality of filling sinkholes, with the particular concern that the filled areas may subsequently be used for residential and/or commercial construction without appropriate geotechnical engineering solutions. DCR explained that currently such activity is not regulated unless it otherwise violates state solid waste regulations.

Current outreach activities include preparation by DCR's Tom Malabad of an article for the forthcoming Cave Owners Newsletter, and presentations by Orndorff to the New River Chapter of the Master Naturalist and to the VPI Student Grotto of the National Speleological Society.

Current projects underway at the DCR Karst Office include expansion of the effort to monitor summer use of caves in Virginia by the federally endangered Gray bat, performance of biological inventory for federally and state protected cave associated species within Virginia's non-tobacco growing region, karst resource biological and hydrological assessments on the National Forest in cooperation with The Nature Conservancy, and data management updates for cave associated species.

The DCR Karst Program currently projects a budget shortfall of ~\$70,000 for fiscal year 2019. Failure to meet this need may result in significant staff reductions. Karst staff is approaching its federal, state, and NGO partners in conservation in search of funds to address this shortfall. A proposal will be submitted to the Cave Conservancy of the Virginias by March 1, 2018, requesting funding to address the majority of this budget deficit. The proposal will be focused on updating conservation tools and associated data to better address karst conservation needs.

**OTHER DCR UPDATES** – *Rob Evans, DCR*

*Holsinger Conservation Fund*

Mr. Evans advised that there has been a general shortfall in funding to complete projects. The Department has legislative authority to raise funds for the Natural Area Preservation Fund. Authority to solicit funds must be given by the Governor. DCR is interested in producing rack cards to highlight specific natural heritage features and to provide information so that the public can make donations.

Mr. Evans distributed several sample rack cards for the Board to review. One specifically addresses cave and karst features.

The fund to receive funds has been named in honor of John Holsinger, former Cave Board member. Donations would apply directly to this fund for specific work related to cave and karst.

*Cedar Public Appreciation Days – May 3, 4 and 5*

The Cedars Natural Area Preserve is one of the nation's top biological hot spots. The days to recognize the area will include speakers, music, and historical storytelling and will promote awareness of the Preserve and biological features to the local community.

*Cave Vandalism – Bluefield*

A cave located across from Bluefield College was reported as having significant trash and graffiti. While the cave is protected under state law there is no one to enforce that protection. A citizen made the inquiry, but the owner must be involved. At this point, the cave may be too far gone to be a focus of cleanup and protection.

Ms. Tinkham asked that anyone with conservation projects forward the information to her. She will share with the Grottos network. Several groups are looking for projects.

**LAND CONSERVATION UPDATE**

*The Nature Conservancy – Steve Lindeman*

Mr. Lindeman advised that the Russell Sawmill located in the Cedars area has been acquired.

The Nature Conservancy is involved in the planning of the next Cedars/Powell River Conservation Partners Meeting. The partners work to set priorities for the Cedars along the Powell River.

DCR – Rob Evans

DCR continues to work with mitigation projects through the DuPont and Skiffes Creek Settlements.

Mr. Smith noted that there is an opportunity for contributions to the State Open Space Conservation and Recreation Fund on Virginia Tax Forms. Half of the money goes to localities while the other half stays with DCR. This is a key source of funding for natural area acquisitions.

### **NEW BUSINESS**

Mr. Lambert was unable to attend the meeting. Mr. Haynes read the follow reports on his behalf.

#### *Staunton Caverns*

As a reminder, Staunton Caverns, also known as Staunton Quarry Cave, is one of the Cave Board's Significant caves. It also qualifies in the Economic, Geological, and Historical categories. Terri Brown, Virginia Karst Specialist in 1995, believe it was also significant hydrologically and possibly biologically. If so, Staunton Caverns could qualify as a Very Significant Cave. She also believed the cave could be a useful tool in educating the public about karstlands. The City of Staunton is built in karst.

I met with Steve Owens, Staunton City Manager, and Thomas Sliwoski, Director of Public Works, on February 6. We discussed opening the natural entrance of Staunton Caverns:

1. To allow bats to reoccupy the cave,
2. To determine if the measures agreed on in 1995 did protect the cave from the road construction
3. Getting biologists in to sample the cave and count bats.
4. And if the cave is safe the ultimate reopening of the manmade entrance for educational and recreational purposes.

I found the City manager and Public Works director very willing to work with us to accomplish these goals. Their concerns were:

1. Wanting the cave certified as explosive free
2. Limiting the City's liability
3. Other small concerns which they quickly offered solutions to.

The explosive concern occurred when a city employee saw a stick of dynamite in a drill hole in the ceiling of the manmade entrance. It had been there since 1907 and the State Police removed it by hand. Blasting caps were also found in the cave, these were more recent. Explosives lockers with explosives were in the cave during the 1995 survey of the cave.

We discussed how we would proceed. I pointed out that in 1907, William Lardner, who commercialized the cave, had to get permission from the adjoining landowner to commercialize the cave. They pulled the surveys of the property and found that they indeed did not own the

entire cave and that a corner of the foundation around the natural entrance is on the property boundary.

I agreed to contact the adjoining landowner and ask him to cooperate with us. That was on February 6 and I have not heard back from him. I'll follow up with a second letter this coming week. If I do not hear back from the adjoining landowner or if he says "no," I'll meet again with the City to determine if they are willing to proceed with part of the cave being "off limits." I'll make a report at the next Virginia Cave Board meeting.

#### *Natural Chimneys Park*

In December of 2017, the Highland County Cave Survey entered into an agreement with the County of Augusta to inventory the karst features of Natural Chimneys Park. We are being aided by members of the Augusta County Cave Survey. The survey meets the 4<sup>th</sup> Saturday of each month at 9:00 a.m. and is an open survey, anyone can attend. It is also child friendly. We have surveyed seven karst-features, all small, and are on our third dig. Members of the Virginia Cave Board are invited.

As a result we will offer a Virginia Cave Week activity in the park on April 28, 2018 at 1:00 p.m. This activity is being supported by the James Madison University Geology Department. The public is invited.

#### *Assessment of state resources devoted to karst-related issues – Wil Orndorff*

Mr. Orndorff noted that he had given a presentation in this regard at the Natural Tunnel meeting. He suggested that this discussion be deferred until the next meeting.

#### **OLD BUSINESS**

##### *Virginia Cave Owners' Newsletter – Meredith Weberg*

The newsletter is in final draft form and edits are being made. The mailing will be funded through a grant from the Richmond Speleological Society (RASS). The target for the mailing is early April, prior to Virginia Cave Week.

Ms. Weberg is working on a grant for multiple year funding for the newsletter. The grant request will be for \$5,000. Each issue costs around \$900.

##### *Virginia Cave Week – Janet Tinkham*

Virginia Cave Week is April 22-28, 2018. The theme is Cave and Karst. So far, three events are scheduled:

Grand Caverns, April 22  
Front Royal Grotto, at Skyline Caverns, April 27  
Natural Chimneys, April 28

Cave Board members wishing to host events or participate should contact Ms. Tinkham.

*Virginia Cave and Karst Trail Signage and Brochure – Meredith Weberg*

The cost for printing 12x12 signs to be produced in the State Park sign shop is \$17.00 per sign. There is currently no funding for the signs.

Ms. Weberg suggested adding the Cave Board website address to the signs.

Ms. Weberg will contact each of the sites and ask if they are interested in signage and how many signs they would need.

Ms. Weberg provided a draft brochure for the Cave and Karst trail and asked that members contact her with suggested edits or revisions. She will work with the DCR Public Communications Office regarding the design and printing.

*Appalachian Karst Symposium 3 and Sinkhole Conference – Dan Doctor*

The Conference will be held the first week in April. Those wishing to volunteer may register at the student rate.

The Virginia Cave Board and DCR are official sponsors of the conference. A table display will require someone to staff it through the conference.

Additional information is available at [www.sinkholeconference.com](http://www.sinkholeconference.com).

*2019 National Cave and Karst Management Symposium – Wil Orndorff*

This is a biannual event that will be held in Bristol, Virginia in October 2019. The week-long Symposium is geared towards those who manage cave and karst resources.

DCR, the Virginia Cave Board, and the Cave Conservancy of Virginia are co-sponsors.

Mr. Lindeman volunteered to serve on the steering committee on behalf of the Cave Board.

*Atlantic Coast Pipeline/Mountain Valley Pipeline – Jason Bulluck, DCR*

Mr. Denton recused himself from the pipeline discussions.

The Virginia Marine Resources Commission requested that DCR review a number of water body crossings with regard to the pipelines. There were four crossings review for the Mountain Valley Pipeline. That information was submitted in December. The permit for the pipeline was approved by VMRC on January 23. One of the conditions for approval is that DCR shall be contacted regarding any stream crossings during the installation.

Atlantic Coast Pipeline comments were submitted on February 3. This involved eight crossings of streams associated with karst features.

**PUBLIC COMMENT**

There was no public comment.

**DATE FOR NEXT MEETING**

Staff will poll the Board regarding a meeting date in late June.

**ADJOURN**

There was no further business and the meeting adjourned at 2:50 p.m.

Respectfully submitted,

Steve Lindeman  
Chair