Cave Board Meeting Minutes
November 22, 2014
Natural Bridge Park and Historic Hotel
15 Appledore Lane
Natural Bridge, Virginia 24578

Virginia Cave Board (VCB) Members Present

Ms. Michele Baird
Dr. Daniel Doctor
Mr. Robert Denton, Jr.
Mr. David Ek
Dr. John Haynes
Mr. Rick Lambert
Mr. Steve Lindeman, Vice Chairman
Ms. Marian McConnell
Ms. Janet Tinkham
Ms. Meredith Weberg, Chairman
Mr. Roger Kirchen, Department of Historic Resources, ex officio member

Virginia Cave Board Members Absent

Mr. John Graves

Department of Conservation and Recreation (DCR) Staff Present

Ms. Ellen Crowder
Mr. Michael Fletcher
Mr. Larry Smith
Mr. Tom Smith
Mr. Wil Orndorff

Others Present

Mr. Joey Fagan

Introductions and Announcements

Chairman Weberg called the meeting to order at 2:07 p.m. and declared a quorum present. She asked members and staff to introduce themselves.

Ms. Weberg noted that Mr. Michael Fletcher would now be serving in the capacity of Board secretary.

Updates on Board Appointments

Ms. Weberg welcomed Mr. David Ek as the newest member of the Board. She congratulated Ms. Michelle Baird, Mr. Steve Lindeman and Ms. Janet Tinkham on being reappointed to the Board.

Election of Officers

Mr. Bob Denton nominated Ms. Weberg to serve as chair and Mr. Lindeman to serve as vice chair. Dr. Dan Doctor seconded. There were no further nominations and the motion carried with Ms. Weberg and Mr. Lindeman abstaining.

Approval of Minutes from June 28, 2014 Cave Board Meeting

Ms. Weberg moved that the minutes of the June 28, 2014, Virginia Cave Board meeting be approved as submitted. Ms. Baird seconded. The motion carried unanimously.

Treasurer's Report

Mr. Larry Smith said that the account balance was approximately $463. With anticipated grant monies, the balance should raise to about $2,000, which would cover two more newsletters.

DCR Karst Program Update

Mr. Wil Orndorff gave the following update (inserted without editing):

DCR Natural Heritage Program Karst Office
Report to the Virginia Cave Board
22 November, 2014
Wil Orndorff, Karst Protection Coordinator

June – July: Staff collaborated with VA DGIF and Radford University on studies of summer colonies of cave associated bats species. Very few individuals were captured. Little brown bats are all but absent on the summer landscape.

July 14-18: Staff attended National Speleological Society Convention in Huntsville, AL. Former long-time Virginia Cave Board member and founder John Holsinger gave an NSS luminary address to a standing room only audience, shedding light on many subjects. Karst protection coordinator Orndorff presented a poster summarizing the current state of knowledge of the hydrology of the Cedars significant karst area in Lee County, VA. Karst Protection Assistant Ellen Koertge Crowder presented the results of biological sampling in caves along VDOT rights of way to update information on previously documented rare fauna (element occurrences) associated with caves.

July: Working with Natural Heritage zoology staff as well as scientists with VA DGIF and Radford University, a new occurrence of the Northern long-eared bat was documented in a mixed summer bat colony at Sky Meadows State Park.

August: Staff completed the fifth consecutive and final year of Gray bat biometric assessments spanning the arrival and establishment of White Nose Syndrome within the range of Gray bats. Preliminary analysis shows no significant change in summer condition of Gray bats over the time period spanning from before the arrival of WNS to the present. The disease is now present in Gray bats and in their hibernacula (mostly in Tennessee), but to date no significant die-offs have been observed.

Two papers based on data from Virginia Tech and DCR's James Cave Epikarst Observatory have been reviewed and accepted for publication:

Instrumenting Caves to Collect Hydrologic and Geochemical Data: Case Study from James Cave, Virginia by Madeline E. Schreiber[1*], Benjamin F. Schwartz[2], William Orndorff[3], Daniel H. Doctor[4], Sarah D. Eagle[1], Jonathan D. Gerst[1] will appear as a book chapter in an upcoming publication on advances in hydrological study methods.

Analysis of hydrologic and geochemical time series data at James Cave, Virginia: Implications for epikarst influence on recharge in Appalachian karst aquifers by Sarah Eagle, William Orndorff, Benjamin Schwartz, Daniel Doctor, Jonathan Gerst, Madeline Schreiber has been accepted pending revisions (in progress) for a Geological Society of America Special Publication "Caves and Karst Across Time."

Staff continues to perform updates of cave related element occurrences along VDOT rights of way. Not only are existing occurrences being updated, but previously undiscovered occurrences of rare cave fauna are being found.

In October, Natural Heritage zoology and karst staff hosted the *Stygobromus* Working Group of the Biology Section of the National Speleological Society. The group gets its name from the genus *Stygobromus,* a group of cave adapted amphipod crustaceans studied by long-time Virginia Cave Board member John Holsinger. The current project of the group is the collection of specimens from all type localities for species in the genus in order that phylogenetic analyses may be performed to better understand interspecies relationships. The October trip was almost a complete success, with site access gained to all type localities (mostly caves) in the target area (Shenandoah Valley and adjacent karst) and specimens collected from all but one of these localities.

Project Review work includes a heavy component of response to proposed natural gas high pressure transmission pipeline corridors. The Dominion Energy Atlantic Pipeline proposed to cross the karst of Highland County and the upper Shenandoah Valley, while the Mountain Valley Pipeline crosses significant karst in Giles, Montgomery, and Roanoke counties. One designated significant cave could be impacted by the Atlantic pipeline in its current configuration, while six significant caves would likely be impacted by the Mountain Valley Pipeline route, with another 6 in close proximity.

DCR staff is collaborating with Bill Balfour on the first comprehensive mapping of karst features in the Cedars significant karst area in central Lee County. To date about half of the area within the natural area preserve has been covered, and about 200 karst features have been georeferenced. Fifty of these features have significant enough extent to be classified as caves in the Virginia Speleological Survey database, and some merit additional exploration and biological inventory. A recent biological inventory trip to Smiths Milk Cave, on a tract slated for acquisition by the Nature Conservancy, resulted in the discovery of a new population of the state endangered Unthanks Cave snail (*Holsingeria unthanksensis.)* In addition, two trips were made into the type locality of this species to obtain specimens for genetic analysis. DCR has hired a new steward – Stephen Grayson – to manage stewardship efforts of the Cedars Natural Area Preserve as well as other preserves in Lee County. Grayson has been participating in the inventory and collection efforts and has significant experience working with cave and karst resources in Tennessee.

Staff is working with the US Fish and Wildlife Service to prepare the final report for a 5 year project monitoring the habitat and population dynamics of the Lee County cave isopod (*LIrceus usdagalun.)* The species appear to be secure across its range, with the majority of locations and much of the watershed in conservation ownership by Natural Heritage or the Nature Conservancy. Acquisition of a couple of the remaining critical sites may be sufficient to warrant a revision in the protection status of this species.

DCR Natural Heritage is pursuing two new research projects funded by the US Fish and Wildlife Service. The first is to update the status of 17 globally rare cave beetle species at 31 sites across western Virginia. The second project is to expand the time series monitoring of water level, electrical conductivity, and temperature from three sites funded by Dominion Power (under a Habitat Conservation Plan for the Madison Cave Isopod) to an additional eight Madison Cave isopod localities across the species' range. The purpose of this project is to better characterize the habitat dynamics of Madison Cave isopod sites.

2015 marks the next biennial bat count for Indiana bat caves, performed by Virginia VDGIF staff with assistance from DCR Natural Heritage staff as well as caver volunteers. Between 20 and 25 caves will be visited from January 1 through February 28. Results of this year's count will help to determine whether or not populations are beginning to stabilize in the wake of the WNS epidemic that hit Virginia in 2009.

Staff is working with the Cave Board and staff at VMI to prepare a karst workshop to be held in conjunction with the 2015 Environment Virginia Conference. This annual conference brings stakeholders from agencies, consultants, non government conservation organizations, and the general public together to explore solutions to Virginia's environmental challenges. It is good to see karst having a place in the spotlight this year.

Ellen Koertge Crowder will be leaving DCR Natural Heritage in January to begin a belated and elongated honeymoon in the land down under. She plans to spend time visiting the exquisite caves and karst that Australia has to offer, starting out in Tasmania.

[end of inserted report]

Land Conservation Update

Mr. Lindeman said that The Nature Conservancy, the Department of Conservation and Recreation and their partners have for some time been discussing on the need to prepare a land protection and land management plan for The Cedars and Powell River area. He said that a group of experts with knowledge of The Cedars and the Powell River area will be meeting soon to develop this conservation plan. It is expected that the meeting will be scheduled for January.

Mr. Larry Smith said that negotiations regarding an easement on an Augusta County cave property are currently stalled.

Mr. Smith said that the purchase of a small tract for inclusion in The Cedars Natural Area Preserve is progressing. He said that the hope is to close on the property in early 2015.

Mr. Lindeman said that the U.S. Forest Service has submitted a grant proposal to seek funding for the purchase land in Wise and Scott Counties that would protect a cave system with globally significant biodiversity.

OLD BUSINESS

Virginia Cave Owners' Newsletter

Ms. Weberg said that the next deadline for newsletter submissions would be December 31, 2014.

Mr. Lindeman said that he had been having conversations with the Cumberland Gap Natural Preserve where cultural inventory work is being done. He said that would possibly lead to an article.

Ms. Tinkham will work on an article regarding Cave Week that will hopefully include an interview with a cave owner.

Mr. Orndorff will provide an article regarding the New River Cave, recently acquired by the National Speleological Society, located in Giles County.

The next newsletter will include an expression of thanks to the Cave Conservancy of the Virginias (CCV) and the Virginia Region of the National Speleological Society (VAR) for their financial support of the *Virginia Cave Owners' Newsletter*.

Mr. Joey Fagan asked about the projected frequency of publishing. He said CCV had concerns that some of the material was not relevant to cave owners and some concerns with regard to the mailing list.

Ms. Weberg said that the intent was to publish twice a year.

Ms. Weberg said that she had submitted two grants. VAR had granted $400 and CCV awarded a grant of $1,200.

Virginia Cave Week

Virginia Cave Week is scheduled for April 19–25, 2015.

Ms. Weberg appointed a committee of Ms. Baird, Ms. Tinkham, Ms. Marian McConnell and Ms. Weberg to put together the activities for Virginia Cave Week. Front Royal Grotto plans to hold a second Karst Festival and Mr. Orndorff will organize trips to New River Cave.

It was suggested that the focus of the week be bats.

Virginia Cave Board Website and Web Presence

Dr. John Haynes discussed the Board web presence. He noted that a number of supporting documents were not currently available and that providing links would be a helpful resource. He noted that there had been previous discussion regarding a site that was compatible with mobile devices but that was an issue that would have to be addressed by DCR. There was discussion regarding a more prominent link to the Virginia Cave and Karst Trail webpage. It was agreed that before any cave be included in the Virginia Cave and Karst Trail, the owner should grant permission and that the appropriateness of any specific cave's inclusion be reviewed.

The Cave Board does have a Facebook presence.

Ms. Weberg appointed a committee to put together a Frequently Asked Questions (FAQ) page regarding karst. The committee will be Dr. Doctor, Mr. Rick Lambert, Dr. Haynes and Mr. Ek.

NEW BUSINESS

Mountain Valley Natural Gas Transmission Pipeline and Dominion Atlantic Natural Gas Transmission Pipeline

Mr. Denton recused himself from the room for this discussion.

Mr. Fagan noted that the CCV owns Slusser's Chapel Cave, which would receive runoff from the current proposed route of the Mountain Valley Pipeline.

Mr. Orndorff noted that the committee had recommended that the Mountain Valley Pipeline avoid six specific cave sites and that the Dominion Pipeline avoid one specific cave site.

Mr. Lindeman asked the role of the Board in this type of situation. He said that he was not certain an additional statement was necessary. He noted that there were regulations in place to deal with the concerns.

Dr. Doctor said that the role of the Board was to help the state do its job. He said that the scope of that assistance was not defined.

Mr. Lambert said that the concerns he had heard regarding the pipeline in his county were regarding potential contamination of groundwater and well heads. There is a concern regarding leakage of natural gas into groundwater, as well as how long those effects would linger.

Dr. Doctor said that most of the pipeline would lie above the water table. He said that the issue with the pipelines was mostly a safety issue.

Dr. Doctor moved that the Board comment to the Federal Energy Regulatory Commission (FERC) regarding concerns with the pipelines and copy that correspondence to the pipeline project proponents as well as the affected localities. Mr. Lambert seconded. The motion carried with Mr. Denton abstaining.

Ms. Weberg appointed a committee of Dr. Doctor, Dr. Haynes, Mr. Lambert and Mr. Ek to develop questions and answers regarding pipelines and karst. This will address biodiversity as well.

Mr. Orndorff suggested that the response include known specific concerns about the effects of pipeline construction and operation on karst, as well as emphasize particularly sensitive locations such as documented significant caves or caves with rare fauna.

Environment Virginia Conference Karst Workshop

The Environment Virginia Karst Workshop will be held in Lexington, Virginia, on March 31, 2015, prior to the opening of the Environment Virginia conference. The audience is anticipated to be mostly people associated with the environment industry along with state agencies.

Ms. Weberg appointed Mr. Ek, Mr. Denton, Dr. Doctor, and Dr. Haynes to work with Mr. Orndorff to develop the workshop.

State Response to Citizen Inquiries About Sinkholes

Mr. Orndorff noted that DCR continues to receive questions regarding sinkholes when this does not fall under the agency responsibility. It was suggested that an FAQ page be developed for the website that provides links to appropriate contacts such as the Department of Environmental Quality, the Department of Mines, Minerals and Energy and local governments to provide information. It was also suggested that citizens and other stakeholders be directed to contact a reputable geotechnical firm.

Public Comment Period and Announcements

There was no public comment.

Next Meeting

The next meeting of the Virginia Cave Board will be Saturday, February 21, 2015, at Luray Caverns.

There was no further business and the meeting was adjourned at 3:49 p.m.

Submitted by Michael Fletcher, DCR