

Minutes of the Virginia Cave Board  
Saturday, March 12, 2011  
Grottoes Municipal Building, Grottoes, VA

Virginia Cave Board members present

Mr. Thomas Lera, Chairman  
Ms. Babs Bodin  
Dr. Daniel Doctor  
Mr. Steve Lindeman  
Ms. Judy Molnar  
Mr. David R. Socky  
Ms. Meredith Weberg

Virginia Cave Board members not present

Dr. David Culver  
Mr. Andrew Harrison  
Dr. John Holsinger

Department of Conservation and Recreation staff present

Mr. Wil Orndorff

Guests present

Mr. Rick Lambert, VSS  
Mrs. Mary Sue Socky

CALL TO ORDER

Mr. Lera called the meeting to order at 1:04 PM.

INTRODUCTIONS AND ANNOUNCEMENTS

Mr. Lera introduced new VCB board member Steve Lindeman, and invited all present at the meeting to introduce themselves.

TREASURER'S REPORT

Mr. Larry Smith (DCR) sent a report in his absence. With an opening balance of \$2,189, the VCB made a single expenditure of \$890.80 to print and mail the December 2010 Cave Owners' Newsletter. The VCB gratefully acknowledges a \$75 donation from the Blue Ridge Grotto, as part of their annual "Cave Bucks" donations to volunteer caving organizations. The closing balance is \$1,373.20.

APPROVAL OF MINUTES from the November 20, 2010 meeting

MOTION: Mr. Socky moved that the minutes of the meeting of November 20, 2010 be accepted as amended by Ms. Molnar via email.

SECOND: Dr. Dan Doctor seconded the motion

DISCUSSION: none

VOTE: motion carried unanimously

## OLD BUSINESS

### Education and Outreach Committee Report

Ms. Weberg reported that preparations for Cave Week (April 17-23, 2011) are well underway. The 2011 theme is "Bats in the Web of Life," which was suggested by Ms. Molnar. Ms. Weberg thanked Mr. Socky for updating the website with the current information and for cleaning up links to other pages. Ms. Weberg reported that she has updated the publicity templates and verified commercial cave email addresses pursuant to her soliciting their support for cave week activities. She will send Mr. Smith a suggested message for the Governor's release. Ms. Molnar suggested use of a web of life image she found on the internet and will ask the designer for permission to link to our page. Ms. Bodin will craft a lesson plan with bibliography to go online April 1 for use by classroom teachers. Ms. Molnar offered a classroom activity template that results in open-ended discussion and is age appropriate at any level that Ms. Bodin will use as the centerpiece of the lesson plan.

Development of The Virginia Cave and Karst Trail (VCKT) is steadily progressing. Earl Berg is finishing his Eagle Scout Project at Skyline Caverns, which involves digging post holes and erecting signage on March 26. Ms. Bodin contacted The Museum of the Shenandoah Valley (Winchester) to link their planned "Wood's Walk," which includes karst interpretation, to the VCKT. She also talked to a board member of The Germanic Heritage Foundation, which has identified several karst features at the Hotel-Keller site in Tom's Brook, pursuant to their erecting a VCKT marker. Mr. Lambert announced that a 26-mile driving trail has been developed in Bath and Highland counties that requires VDOT input for pull-offs. Mr. Orndorff suggested that VCB add existing sites to the trail, and Ms. Bodin agreed to contact those sites for their permission. The committee will design a VCKT logo and ask commercial caves to sponsor signs. Mr. Socky agreed to develop a web site that gives driving directions to VCKT signage and includes photos of destinations. In order to give a surface organization to the VCKT and to divide clusters of trail signs into manageable segments that allow for future growth, Mr. Orndorff suggested that the VCKT be organized according to standard geological regions. Future inquiries regarding expansion of the VCKT can be directed to Ms. Bodin, who has agreed to coordinate the project.

Ms. Weberg thanked all contributing writers for the successful publication of the December 2010 Cave Owners' Newsletter (CONL) and announced deadlines of May 7 and November 5 for submission of articles for the 2011 newsletters. The May issue will include reports on Cave Week activities and updates on the VCKT and White Nose Bat Syndrome (WNS), as well as other submissions. Ms. Molnar suggested that VCB observe the Civil War Sesquicentennial celebrations by highlighting the role caves played during the conflict. Mr. Orndorff agreed to check on bulk mailing options for the postcard that will allow the CONL mailing list to opt out of hard copy delivery to their homes. Mr. Lambert agreed to find out how many cards will be needed. This was to be done by finding out how many landowners we know of and adding the total number of caves that we don't know who the owner is. Ms. Weberg will make a grant proposal to

VAR for funding the May newsletter.

### Joint Technical Committee Report

Dr. Dan Doctor reported that there has been no response to Mr. Lera's letter to DCR on Stormwater Management Practices. He noted that, in review, since there is no uniformity on best practices regarding karst site assessment, the committee is brainstorming ideas for putting such a document together, utilizing existing literature from various sources, including, but not limited to, NSS cave management symposium documents; Living on Karst symposia; proceedings from sinkhole conferences on developments and problems on karst; NSS publications; Project Underground materials; work by the CCV; consulting firms; and literature on the impact of wind power development on bats. The committee does not want to reinvent the wheel and will simply link to major works if they cite an extensive document. They are also issuing a disclaimer: they are not seeking to issue a policy or new directives; the members wish to simply provide information in a more centralized fashion and to distill often extensive resources into a more easy-to-use reference for busy professionals that will provide manageable snippets of information instead of a tome, in essence providing a "where to go for information" resource.

There has been no official word on VCB status in regard to State Reorganization of Boards and the name of the third appointee to the VCB.

### DCR Update

Mr. Orndorff reported on Current Karst Activities, Natural Heritage News, the Virginia Tech Spring Break Cave Expedition, an update on WNS, and the Louisville Conference.

### Current Karst Activities

Since there is no general legislative funding for the following activities, they are being accomplished by contracts.

- Winter hibernacula surveys with DGIF staff
- Rockingham county landfill dye trace
- Attended joint Northeast-Southeast-Midwest Bat Working Group meeting in February
- Continuing Lee County Cave Isopod monitoring with USFWS
- Starting Madison Cave Isopod population assessment
- Monitoring projects related to Dominion Energy Warren County Power Station
- Starting late hibernacula WNS studies to see how banded bats are doing
- Starting Summer 2011 studies of gray bat migration and little brown bat summer roosts

### Natural Heritage News

- The General Assembly establish five new stewardship positions and authorized an additional \$800,000 annual expenditure for natural heritage operating funds
- The Field Mountain Operations steward position (territory includes Stay High Cave and Ogden Cave) has been filled with Wes Paulos
- Mr. Orndorff coordinated the Stay High Cave Rescue on February 12; the victim was

successfully extracted from a confined space at the cave entrance with cooperation from local EMS, VSS cavers, and VPI Cave Club

- Potential additions to the natural area preserve system are being pursued

The Virginia Tech Spring Break Cave Expedition was held in Scott County, organized by DCR staff, and attended by 14 volunteers from the VPI Cave Club.

- Surveyed approximately 2000 of passage in three caves
- Discovered two caves previously unknown to VSS
- Led trip to Gilly Cave for Black Hills State University Spring Break Group
- Performed monitoring trip to Pason Cave on CSV's Powell Mountain Karst Preserve

#### White Nose Syndrome (WNS) Update

- Suspected sites now exist very far west of the original outbreak
- To date, there are no new sites west of Indiana, but the contagion has now spread to Indiana and North Carolina
- There are eight confirmed Virginia caves with WNS; caves along the Valley and ridge Province have pervasive WNS except for extreme Southwest Virginia
- Rocky Hollow Cave is the first in Powell Valley
- Cave Hill and Dixie are now positive
- The first appearance in the Powell River Basin was noted in February 2011
- The Shenandoah Valley caves were not sampled because of the lack of bat caves but WNS is assumed pervasive because of positive Jefferson County (WV) caves

#### Bat Species

- Numbers of Little Browns are down 75-95% except in breathing Cave
- Indiana Bats seem unaffected in some caves but are just gone in other caves where they were usually found (no live bats, no dead bodies) - possibly proximity to Little Browns may disturb Indiana Bats
- Northern Long-Eared bats are showing high mortality in the North, and will be assessed in Virginia during the Fall Swarm 2011
- Pips are difficult to assess; in caves with good data, their numbers are down 75-95%, but in other places their numbers are "up"
- Big Browns appear generally unaffected but one suspicious specimen awaits analysis
- Tree bats continue to appear unaffected

At the Louisville Conference it was reported that:

- Little Browns and Northern Long-Eared Bats are taking the biggest hit from WNS
- Reports of "survivors" of WNS are coming from NY state
- Reproductive ability, called "recruitment," among "survivors" is reported to be 10% of pre-WNS levels
- Female survivorship is higher than male survivorship in Little Brown bats
- The VCB policy on WNS was praised by numerous conference individuals
- Other states may follow Virginia's lead
- Decontamination of caving gear when transported long distances is a big concern stated by conference attendees
- An entire afternoon was devoted to wind power generation's effects on bats, which are felt most severely in migratory tree species

- Reducing high velocities reduced mortality 50%
- While species variable, ultrasonic deterrents cut mortality up to 50%

### Report on Speleothem Sampling in Grand Caverns

Aided by actual samples, Dr. Dan Doctor noted that speleothems record past climate because their oxygen isotopic content can be measured and compared to other global oxygen isotope records such as ice cores or ocean sediment cores. Uranium-thorium radioactive isotope dating is used on these calcium carbonate formations to establish their age. Specimens collected to date include naturally broken or fallen stalagmites, and speleothems accidentally broken during the cave survey of the new discovery area, as well as small, inconspicuous cores of in-place material. Dates obtained from the top and bottom of a stalagmite specimen will reveal the ages of the speleothem growth span. For this purpose, researchers target cores of clean, dense speleothems as porous cave formations do not provide good samples. The researchers got fairly good coverage around the cave in order to get a handle on speleothem growth during different time periods, a process which is similar to tree ring dating. By collecting information from numerous examples, a continuous climate lineal record can be assembled. Core samples were taken from speleothems located in both the tour area and the newly discovered area. The sampling process is not yet complete as it is an extremely painstaking process to move through the new area.

### NEW BUSINESS

#### Announcements/Site Updates

Ms. Molnar reported that Grand Caverns, which was open seven days a week for the first time during the winter, has received a grant for their riverbank restoration project from the Virginia Department of Forestry which included stabilization of the riverbank & educational signs on the trail along the river. A Civil War Trails marker is on its way

Dr. Dan Doctor was interviewed by the Harrisonburg Daily-Record for the Grand Caverns sampling project.

Ms Molnar thanked Mr. Orndorff and Ms. Carol Zokaites for providing current Virginia WNS information to the Virginia Living Museum.

Mr. Lera set the next VCB meeting will be on Saturday, August 27, 2011, at the Grottoes Municipal Building. The Fall meeting will be on Saturday, November 19, at a location to be announced later.

#### Adjournment

**MOTION:** Ms. Weberg moved to adjourn this meeting of the Virginia Cave Board.

**SECOND:** Dr. Dan Doctor seconded the motion.

**VOTE:** The motion passed.

Mr. Lera adjourned the meeting at 3:11 PM.