

Virginia Cave Board
November 3, 2012
Virginia Center for the Humanities
145 Ednam Drive
Charlottesville, VA

Virginia Cave Board (VCB) Members Present

Babs Bodin
David Culver
Dan Doctor
Steve Lindeman
Judy Molnar
David Socky
Meredith Weberg
Roger Kirchen, representing Dept. of Historic Resources

Virginia Cave Board Members Absent

Andrew Harrison
John Holsinger
Tom Lera

Department of Conservation and Recreation (DCR) Staff Members Present

Wil Orndorff
Larry Smith
Rebecca Stewart

Visitors Present

Bob Denton
Mark Hodge
Rick Lambert

Chairman Weberg called the meeting to order at 1:11 PM.

Introductions and Announcements

Ms. Weberg expressed the Board's thanks to the Virginia Foundation for the Humanities for providing the meeting site and to Robbie Butler and Ed Smith for facilitating the arrangements.

Approval of Minutes from the Meeting of June 9, 2012

MOTION: Mr. Socky moved that the minutes of the meeting of June 9, 2012, be approved as edited by Ms. Molnar and Ms. Weberg.

SECOND: Dr. Doctor seconded the motion.

DISCUSSION: Mr. Smith observed that the process for posting the minutes on the website within two weeks after the meeting involves emailing the draft minutes around for edits/corrections.

VOTE: The motion passed unanimously.

Treasurer's Report

Mr. Smith reported that the current balance in the Cave Board account is \$1608.

Election of Officers

The officers serving currently are: Chair, Ms. Weberg; Vice Chair, Mr. Socky; and Secretary, Ms. Bodin

MOTION: Dr. Doctor nominated the current slate of officers to serve an additional one year term.

DISCUSSION: The currently officers accepted nomination.

SECOND: Mr. Lindeman seconded the motion.

VOTE: The motion passed unanimously

Committee Reports

Education and Outreach Committee

Virginia Cave and Karst Trail (VCKT)

- Ms. Weberg reported that Julie Buchanan and Carol Zokaite from the Department of Conservation and Recreation attended the committee meeting earlier that day, which first examined and discussed the proposed logo for the VCKT. Ms. Buchanan will take it back to her office for further work with the DCR graphic artist.

- Dr. Doctor will put together a map with info supplied by VCB members of sites both currently on and sites that would be good candidates for inclusion on the VCKT. The map will be built within Google Earth and useful in Google maps; it won't be public at first so that the VCB can develop it as needed.

- Mr. Socky has bought the *virginiacaveandkarstrails.org* domain name.

The committee will work on text descriptions of each site, which are due at the end of November for Dr. Doctor to begin work on the map.

- The committee defined the VCKT audience as including public and private show cave visitors, teachers and students, the general public, and developers, and noted that karst studies are included in Virginia Standards of Learning.

- Ms. Weberg congratulated and thanked Mr. Lambert for his excellent work on designing the Cowpasture Karst Trail segment.

Virginia Cave Week

Next year Virginia Cave Week will be April 21–27, 2013. The committee agreed that the 2013 Cave Week theme will be the VCKT, for which the committee wishes to have more scheduled activities, including but not limited to, open houses at several sites; committee members will ask management of Ogdens Cave and The Cedars natural area preserves and two to three other caves, Natural Tunnel State Park, Cumberland Gap, Powell Mountain Karst Preserve, the Richmond Science Museum, and the Virginia Living Museum to participate. Discounted cave admissions are usually offered by three show caves during Virginia Cave Week. The committee agreed that the VCB needs to do Cave Week promotion much sooner than in the past and is targeting the end of January for these efforts. Committee members will also draft a letter to the show caves asking for their permission to put them on an interactive map on our website.

Ms. Weberg also commended Ms. Zokaites for putting on an informative program for local landowners at the 2012 National Speleological Society (NSS) Convention.

Cave Owners Newsletter Postcard/Survey

Ms. Weberg reported that during the committee meeting Ms. Buchanan had discussed the results of the postcard/survey. After sending out ~1,600 postcards, we received 60 to 70 responses, which constitutes a 4 percent return rate with 40 to 50 were returned to the DCR office as undeliverable. Mr. Orndorff said that he received approximately 30 phone calls, many of which said that the link did not work; the two reports will be merged.

We will have to do another nearly full mailing of the next *Virginia Cave Owners' Newsletter* that will include a 250 percent larger number of addresses on the mailing list.

Next Cave Owners' Newsletter

Mr. Orndorff suggested that we make it a smaller, 4-page newsletter that provides links to online resources throughout for pictures and other items. Ms. Stewart suggested that we determine a regular time each year to publish the newsletter that can better accommodate the schedule of DCR's public communications office.

The publishing date for the next newsletter is February 15, 2013, which is well in advance of Virginia Cave Week.

Articles that are due January 1, 2013, for the next newsletter are: 1) High Resolution Mapping by Dr. Doctor; 2) Update on the VCKT by Ms. Bodin.; and 3) Update on White Nose Syndrome by Mr. Orndorff. Mr. Orndorff noted that several postcard responses had asked for an introduction to cave conservancies article in the newsletter, for which Ms. Stewart will ask each involved agency for a paragraph describing their efforts.

Joint Technical Committee Report

Dr. Doctor reported that the committee is developing guidelines for site assessment of karst areas targeted for development to provide to those who may be looking for such information. Mr. Denton presented the remainder of the report by summarizing that the general goal of the project is providing information on 1) recommended qualifications of persons who perform site assessments, 2) necessary background information and resources to obtain it, 3) defining the scope of a site assessment investigation, 4) recommended techniques for conducting field investigations, and 5) proposing a management plan. He has submitted a paper on this study to the 13th Sinkhole Conference that can be revised for our purposes and then offered to the counties. While the counties cannot make laws that exceed state codes, they can set up guidelines for a due diligence process for karst assessment. The committee will communicate through email to come up with a draft document before the next Cave Board meeting.

DCR Karst Program Update

Mr. Orndorff introduced the new Karst Program staff member, Ms. Stewart, and then gave the Virginia Karst Program Update, June–October, 2012.

Karst Hydrology

Dye trace project taking place in Thompson Valley, Tazewell County to delineate eastern limit

of Corkscrew-Higginbotham cave system. The project was performed in cooperation with the Virginia Department of Game and Inland Fisheries (DGIF) and volunteers from the Virginia Speleological Survey.

Two dye trace projects are ongoing in Wolf Creek Valley, Giles County to delineate watershed boundaries for two biologically significant cave systems, Blankenship Blowhole and Alva Blankenship. The project is subcontracted to Joseph Fagan and Associates, with assistance from DCR staff and volunteers from the VPI Cave Club. Both of these projects are supported by the Cave Conservancy of the Virginias.

Cave Invertebrate Biology

Nearing completion is a publication titled *Invertebrate Cave Fauna of Virginia* that was prepared by Dr. Dave Culver (lead author), Dr. John Holsinger, David Hubbard, Chris Hobson, and Wil Orndorff. Publication is expected in 2013.

Monitoring Projects

Lee County cave isopod: We are in the middle of year three of a five-year monitoring project. Isopod populations appear stable or growing. Thompson Cedar Cave continues to show significant water quality impairment, although water has improved to the point that a population of the Lee County Cave Isopod is supported. A presentation that was given at NSS Convention on monitoring methods used in the project was well received.

Madison Cave Isopod population estimates at known Virginia sites: One project was completed in September 2012. Meaningful population estimates at sites other than Cave Hill (type locality) were not obtained due to a combination of 1) low water levels at several sites (Devil's Hole, Massanutten Caverns, Front Royal Caverns); 2) low or absent populations (Meade Church, Blue Hole (Augusta), 3-Maze, Brother Dave's Cave/Power Plant Pit); or 3) apparently mobile populations (Blue Hole (Augusta), Linville Quarry Cave).

Madison Cave Isopod monitoring for construction/operation of Dominion Warren Electrical Power Plant (gas-fired): First year of monitoring at MCI sites adjacent to power plant site has been completed. Isopods were absent at caves adjacent to the site prior to initiation of construction. Continuous monitoring of temperature, depth, and conductivity at these and reference site (Madison Saltpetre Cave) show radically different patterns in responses to rainfall events and base levels of temperature and conductivity. These suggest a high degree of variability within Madison Cave Isopod habitat.

Ellett Valley cave millipede (*Pseudotremia cavernarum*) monitoring: Karst Protection Assistant Rebecca Stewart is lead on this project and has visited a couple of dozen caves in Blacksburg area searching for the millipede. To date, it has been verified at only one additional cave internal to its known range. Millipede specimens collected in other nearby caves appear to be smaller individuals, either juvenile *Pseudotremia* or *Zygonopus* sp. specimens. Specimens have been sent to Bill Shear at Hampden-Sidney College for determinations. A couple of previously undocumented caves (small) have been discovered as part of this project.

Bats and White-Nose Syndrome (WNS)

Studies are being performed in cooperation with and under subcontract to the Virginia Department of Game and Inland Fisheries.

Summer mist netting results suggest general decline in *Myotis* populations, with local “hot spots” for *M. septentrionalis* and *M. liebii* where these species appear relatively abundant.

Gray bat summer entrance netting in extreme southwestern Virginia revealed no evidence for changes in Gray bat (*Myotis grisescens*) populations despite presence of *Geomyces destructans* in Gray bat caves since at least 2010.

Fall swarm studies revealed Little Brown bats and Tricolored bats to be rare to completely absent at several caves where they had been common prior to WNS. Efforts at several caves resulted in captures of zero bats in total. Netting at cave entrances where significant Indiana bat (*Myotis sodalis*) populations were known prior to WNS resulted in Indiana bat captures comparable to pre-WNS sampling events.

Gap Cave (Lee County) continues to appear WNS-free. However, Kelly Cave in adjacent Wise County, along the same ridge, was determined to be WNS-positive in April, 2012.

Virginia DGIF may have funds to gate additional significant bat hibernacula believed to be under threat from human visitation during the hibernation season.

Natural Areas Conference

The Virginia Department of Conservation and Recreation was the state host for the 2012 Natural Areas Association Annual Conference in October in Norfolk. Karst staff moderated a session on cave and karst conservation that was well attended. Staff led a three-day pre-conference cave and karst field trip that visited caves in Lee (Unthanks, Surgener), Scott (Natural Tunnel), Wise (Parsons), and Augusta (Madison Saltpetre) Counties. During the visit to the Cathedral passage in Unthanks, we discovered apparent septic tank (or possibly grey water) contamination in a small in-feeder at the entrance to the Cathedral Passage. Likely source (residential on-site waste discharge) identified using map overlay provided by Virginia Speleological Survey. DCR natural areas steward John Hartley is working with Lee County Health Department to address the issue. A dye trace is under consideration to confirm connection if necessary.

Environmental Project Review

Green USA is working with the Lee County Industrial Development Authority to develop a recycling facility near the community of Rose Hill. The facility will involve up to 20 acres of composting and a 20,000-square-foot building where materials are composted or sorted for recycling. Compost products will include agriculturally useful compost and fuel pellets. Local citizens are concerned over potential environmental impacts of site development due to the presence of sinkholes on site and have expressed these concerns to Virginia Cave Board members Steve Lindeman and John Holsinger. No known caves occur in close proximity to the site. Facility may be able to incorporate sawdust from the Curtis Russell Lumber Company (proximal to Thompson Cedar Cave, endangered and threatened species habitat) and other Lee County abandoned and operational sawmills, reducing or perhaps eliminating continued problem

of high biological oxygen demand leachate entering karst system. DCR staff is currently working with the developer to address karst groundwater issues and to work to see that sawdust composting is incorporated into facility operation.

Stewardship

A field day was held in August at the Ogdens Cave Natural Area Preserve performing invasive species control in the riparian buffer zone of Buffalo Marsh Run. Ten volunteers from the Volunteer Stewardship Committee, mostly members of the Front Royal Grotto of the National Speleological Society, participated in this event.

Updates on Board Appointments

There has been no official announcement on new appointments or reappoint of current members to the Cave Board

New Business

Board Service Recognition

The Board wishes to recognize Dr. John Holsinger's long years of service in an appropriate way and is considering several options. Mr. Smith will circulate suggested wording for an engraved plaque to Board members. Dr. Culver will produce a line drawing.

Committee Reorganization

MOTION: Ms. Weberg moved to reorganize the VCB meeting schedule for an 11 AM working session combining technical issues and education/outreach programming to be followed by a 2 PM formal business meeting.

SECOND: Dr. Doctor seconded the motion.

VOTE: The motion passed unanimously.

Public Comment Period and Announcements

Mr. Lindeman reported that The Nature Conservancy closed on the purchase of the 284-acre Bowen farm in Lee County, which protects a significant cave that formerly supported a gray bat colony, significant frontage on Hardy Creek and Powell River, and extensive karst uplands supporting rare species.

Mr. Hodge remarked that he found the meeting very informative.

Date for Next Meeting

Mr. Smith will set up a Doodle poll and the decision will be made by Thanksgiving.

Ms. Weberg adjourned the meeting at 3:32 PM.