

Minutes of the Virginia Cave Board  
Saturday, November 19, 2011  
Grottoes Municipal Building, Grottoes, VA  
1:00 PM

Virginia Cave Board members present

Ms. Babs Bodin  
Dr. David Culver  
Dr. Daniel Doctor  
Dr. John Holsinger  
Mr. Thomas Lera  
Mr. Steve Lindeman  
Ms. Judy Molnar  
Mr. David R. Socky  
Ms. Meredith Weberg  
Mr. Roger Kirchen, ex. Officio Department of Historic Resources

Virginia Cave Board member not present

Mr. Andrew Harrison

Department of Conservation and Recreation staff present

Mr. Larry Smith  
Mr. Wil Orndorff

Guests present

Mr. Bill Biggers  
Ms. Sue Biggers  
Mr. Joey Fagan  
Ms. Audrey Steger Dreelin  
Mr. Lyall Steger  
Ms. Carol Tiderman

Call to Order

Chairman Thomas Lera called the meeting of the Virginia Cave Board to order at 1:00 PM.

Introductions and Announcements

Mr. Lera invited the meeting's attendees to introduce themselves, which they did, beginning with the Board members and ending with the six guests.

Approval of Minutes from March 12, 2011, Meeting

MOTION: Ms. Weberg moved that the minutes of the meeting of March 12, 2011, be accepted as amended by Ms. Weberg and Ms. Molnar.

SECOND: Mr. Socky seconded the motion.

DISCUSSION: None.

VOTE: The motion carried unanimously.

### Treasurer's Report

Mr. Smith reported that the Cave Board account contains \$1,533, which was obtained from a grant from the Cave Conservancy of the Virginias for publication of the *Virginia Cave Owners Newsletter*.

### Election of Officers

MOTION: Dr. Holsinger moved that the slate of Ms. Meredith Weberg as Chairman, Mr. Socky as Vice Chairman, and Ms. Bodin as Secretary be approved.

SECOND: Mr. Lindeman seconded the motion.

DISCUSSION: Ms. Weberg, Mr. Socky, and Ms. Bodin accepted the nomination.

VOTE: The motion passed with all members voting the affirmative with the exception of an abstention by Ms. Weberg.

Upon completion of the voting process, Mr. Lera passed the Chairman's gavel to Ms. Weberg, who thanked the members for their vote, asked for their continued cooperation in completing Cave Board tasks, and then chaired the remainder of the meeting.

### Committee Reports

#### Education and Outreach Committee Report

Ms. Weberg welcomed Mr. Socky to the Education and Outreach Committee.

Cave Week: Ms. Weberg announced that the next Cave Week will be celebrated April 22–28, 2012, and that the committee was considering a karst theme. She commended Ms. Molnar and Ms. Bodin for developing the *Web of Life* lesson plan that appeared on the Cave Board Web site for the 2011 Cave Week observance. She observed that committee efforts will involve incorporating healthy outdoor activities on the Karst Trail into the 2012 theme.

Virginia Cave and Karst Trail (VCKT): Ms. Weberg announced that Earle Berge's Eagle Scout project developing and building a Karst Trail segment at Skyline Caverns is essentially finished, and commended his organizational ability. The Karst Trail at Hupp's Hill is being maintained, while trail segments at the Germanic Heritage Foundation and on the Woods Walk are in the early planning stages. A karst trail segment at the Cedars Natural Area Preserve near the Lee County Natural Bridge is being discussed. The 26-mile trail segment named Cowpasture Karst Trail developed by Mr. Rick Lambert is fully developed, and is only waiting VDOT input for pull-offs and signage for completion. Mr. Socky is searching for a URL and will put up the VCKT Web site as soon as a logo can be developed. For logo development, committee members are asking several artists to submit easily recognizable drawings incorporating stylized graphic elements such as mountains, streams, caves, sinks, and hikers within the Virginia map outline. Web site development needs logo branding. Guest Mr. Bill Biggers suggested placing trail brochures in Virginia rest stops and visitor centers.

Virginia Cave Owners Newsletter (VCONL): Ms. Weberg thanked Ms. Molnar for her submitted article and asked for updates from Ms. Bodin on the VCKT and Mr. Orndorff on White Nose Syndrome. She also asked Dr. Doctor to write an article on dating speleothems and Mr. Lera to do a farewell column, while she will take over the chairman's column. The next issue will also contain an explanation of the op-in postcard and electronic Google Docs survey that will allow newsletter recipients on the updated mailing list to receive electronic newsletters or hard copies if they do not have Internet access.

Mr. Orndorff reported that updating the mailing list has been difficult as some counties do not have digital data on cave owners' contact information and some groups do not share information, so merging existing lists has been difficult but will be available by Christmas. DCR Public Relations Specialist Ms. Julie Buchanan will finalize the postcard format once the committee determines the exact content. Survey logistics include devising a targeted list of questions that accomplishes the committee's goals without resulting in a survey that is too long and thus discourages cave owners' response. The survey should also contain a statement of standard privacy practices ensuring the confidentiality of cave owners' personal information. Access to Google Docs survey results will be password protected.

#### Joint Technical Committee Report

As former Joint Technical Committee Chair Mr. Dave Socky has moved to the Education and Outreach Committee, Dr. Doctor replaced him as the new Chair of the Joint Technical Committee. Dr. Doctor reported that the committee examined at length a digital document design for Karst Resource Assessments developed by Mr. Bob Denton. He reminded the members that the committee is not attempting to prescribe a method of conducting karst resource assessments but instead wishes to provide recommendations and resources for planning officials and the general public interested in the topic. While standard mitigation practices are now in place in Virginia, other states have other needs, so the proposed document will describe what data are available now for assessing Karst features. While Mr. Dave Hubbard's digitized maps are not public yet, HR (high resolution) elevation data are published, and LIDAR (Light Detection and Ranging) data are available for some counties in Virginia and West Virginia. HR outline data vary with earlier efforts. Additional efforts are geared towards determining how to put in metadata (descriptions). Once the data set is online, the public will be able to access it for Karst assessments.

#### Governor's Commission on Government Reform and Restructuring

Mr. Joey Fagan and others from the caving community attended the most recent Commission meeting and reported that the recommendation to consolidate the Cave Board with the Board of Conservation and Recreation was not discussed.

#### DCR Karst Program Report

Mr. Orndorff reported that the Dominion-funded monitoring of federally protected Madison Cave isopod populations and their habitat adjacent to the Dominion Warren Power Plant site is proceeding. He also reported that the Virginia Natural Heritage

Program celebrated its 25<sup>th</sup> anniversary with field events at 12 nature preserves, including Unthanks Cave, where 24 citizens attended and visited the cave, and at Ogden's Cave, where 45 attended. DCR worked with the U.S. Forest Service to delineate the recharge area for Church Mountain Cave, a Board-designated significant cave on the George Washington National Forest. Cave Board members Dr. Holsinger and Dr. Culver accompanied DCR staff and board member Mr. Lindeman on monitoring trips for the Lee County cave isopod in August 2011, providing valuable feedback on field monitoring methods. Dr. Holsinger and Dr. Culver performed the early work on this species in the 1970's and 1980's.

In regards to the temporary closure of Fountain Cave by the Town of Grottoes/Grand Caverns Park, Mr. Orndorff pointed out that some stakeholders had the impression that the Cave Board had closed Fountain Cave. Mr. Orndorff reported that he explained to these stakeholders that the Cave Board was strictly an advisory board, and that in the case of Fountain Cave, the recommendation for temporary closure had come jointly from the Department of Game and Inland Fisheries and the Virginia Natural Heritage Program, until such time as a survey could be performed to assess the cave's reported use by hibernating bats.

Mr. Lindeman reported that efforts to acquire 280+ acres on the Powell River containing two named caves and one pit in order to establish a new nature preserve is moving forward with a Virginia Land Conservation Fund grant.

#### White Nose Syndrome (WNS) update

Mr. Orndorff reported that there is not much additional information that is Virginia-specific. The statewide bat census has established that the number of Little brown bats is significantly down but that Indiana bat numbers appear more or less stable. Tricolored bats (formerly Eastern pipistrelles) have also been hit hard. Early hibernation studies indicate that bat numbers in Little brown and Tricolored bats are reduced to approximately 10% of pre-WNS numbers. Time will tell for other species. Gray, Virginia big-eared, and Big brown bats seem relatively unaffected. Distribution of WNS seems to correlate with distribution of Little brown bats.

Dr. Culver noted that we will probably never entirely know how the contagion arrived in the U.S., but that Little brown bat populations appear to be stabilizing at low numbers in areas where WNS has been present for several years. He recommended that the Cave Board continue its policy recommendation of gear isolation and decontamination. He cited Dr. Thomas Kunz's article recommending prudence and caution as, although WNS has been found in gated caves, human activity can accelerate the speed of the spread of the contagion. He noted that there is no evidence of the decline of WNS as the fungi is being found in new places, perhaps because infected bats are moving to new locales as a result of the disturbance at their old roosts.

Dr. Doctor cited a recent study published in the journal *Nature* by scientists at the USGS National Wildlife Health Center that confirmed that WNS is transmitted from bat to bat. However, Dr. David Blehert, the lead scientist in the working group that conducted the

study, has stated: “While our study confirmed that *G. destructans* is spread bat-to-bat, it is also important to note that virtually all pathogens, especially spore-producing fungi, are spread by multiple routes. This is the reason that in an effort to further control the spread of white-nose syndrome, resource management agencies have implemented universal precautions, including limiting human access to sensitive environments occupied by bats, decontaminating equipment and clothing moved between these environments, and restricting the movement between sites.”

#### Speleothem Cleaning at Grand Caverns

Ms. Carol Tideman reported that the Grottoes Town Council has objected to her group’s cleaning practices, alleging that they are in violation of Cave Board recommendations. She explained that many of the speleothems are covered in gravel dust, and that in the process of cleaning them, they have discovered previously unknown historical inscriptions. Her group’s use of peroxide has uncovered old bleach from the cave owner’s previous cleaning efforts, causing an offensive smell which the Council has mistakenly blamed on the use of the odorless peroxide cleaning agent. Mr. Orndorff inserted that there is nothing objectionable (biologically) to using peroxide. Ms. Tideman continued with the observation that once funding is found to install appropriate lighting, growth of algae in the cave will be mitigated, but that in the meantime her group is using a 20% solution of the more costly peroxide, which her group is paying for, when ordinary water fails to remove the growth. She also noted that the use of much cheaper bleach in a 50% solution is often used by groups cleaning cave formations, and even Comet, neither of which her group uses.

Dr. Doctor observed that peroxide reduces to water.

Dr. Culver remarked that even a 5% bleach solution releases toxic chlorine, but that even hydrogen peroxide is not perfect because it harms limestone.

Ms. Tideman noted that her group rinses off the peroxide after 20 minutes, which runs off into the gravel. She reported that the Town Council has alleged that her group is violating Cave Board directives and she further noted that they use water and nylon brushes as a first resort, and peroxide only when necessary as a last resort.

MOTION: Dr. Doctor moved that within a week the Cave Board will draft a letter to the Grottoes Town Council advising proper cleaning methods, citing pertinent paragraphs from the literature, and copying the letter to the other commercial caves.

SECOND: Mr. Socky seconded the motion.

DISCUSSION: Dr. Doctor suggested our letter recommend boiling tap water used in solution to release the chlorine added by sanitation authorities to purify local water supplies. The motion should be amended to endorse Ms. Tideman’s group’s cleaning efforts as not doing anything wrong.

VOTE: The Board passed the amended motion unanimously.

### Sinkhole Database

Dr. Doctor reported that planning officials want to know where karst features are located. The process of digitizing maps, while carefully disguising the exact location of caves, is already in process and will be made available to the public. Mr. Orndorff stated that the work in progress by the Virginia Speleological Survey to develop cave density maps will aid this effort.

### Other Business/Public Comment Period

Mr. Lyall Steger addressed the Board about the concerns posed by the proposed construction of a water line to run alongside a fissure at Madison Saltpeter Cave on the west side of South River. As this is an environmentally sensitive area, the project must be done right. A 20–40 foot “utilities” easement has been requested by the Town, allowing for the installation of a water line and possibly other utilities before environmental or geologic studies are conducted. The Grottoes Town Council stated that they are considering condemnation if the easement is not granted by the owners of the Cave Hill property. The U.S. Fish and Wildlife Service had previously written a letter making the Town Council aware of the federally threatened Madison Cave isopod found within the cave system.

Mr. Lera shared other letters that he previously written on behalf of the Cave Board concerning related matters and added that the Cave Board should talk to Sumalee Hoskins at the U.S. Fish and Wildlife Service again about the waterline issue.

Mr. Orndorff said that constructing a water line at that location has the potential to cause a significant disturbance of habitat. Mr. Culver stated that the fissure is a pathway to the surface for the movement of organic carbon, a food source for the isopods inhabiting Madison Cave. But he also noted that, unfortunately, nothing can be done until harm is actually observed as critical habitat designation has not yet been issued for this threatened species. Mr. Steger added that by town law, Grottoes cannot have two water sources and, as the town now owns Grand Caverns, which has a well, there is a deadline for compliance with the law.

Mr. Lera said that the Cave Board has already sent a letter, and asked the guests to keep the Cave Board advised of further developments.

Mr. Bill Biggers reported that very few bats (<10) had used Fountain Cave in the past, and that last year the number was down to ~ 2 individuals observed in the winter of 2010-11, both with fungus characteristic of White Nose Syndrome. He also reported observing sign of Allegheny woodrats using the cave. Mr. Orndorff said he will do a bat count and make recommendations regarding whether or not to maintain any seasonal cave closures.

### Announcements

Mr. Fagan announced that the Cave Conservancy of the Virginias has been working on an easement for Virginia’s longest cave. This conservation easement will serve to permanently protect three Cave Board designated significant caves, including Virginia’s

longest and deepest cave.

Mr. Smith announced that Virginia will host the National Natural Areas Conference in Norfolk on October 9–12, 2012, and asked for cave and karst related topics for conference sessions.

The next meeting of the Cave Board will be on January 21, 2012, at the Grottoes Town Hall. The Board asked Dr. Doctor to try to schedule the next meeting on April 28, 2012 at Natural Bridge Caverns.

Adjournment

Ms. Weberg adjourned the meeting at 3:27 PM.