

Virginia Cave Board
Saturday, February 3, 2024
Department of Energy
900 Natural Resources Drive, Charlottesville, VA

TIME AND PLACE

The meeting of the Virginia Cave Board took place at 11:00 a.m. on Saturday, February 3, 2024, at the Department of Energy (formerly known as Department of Mines, Minerals, and Energy) in Charlottesville, Virginia.

VIRGINIA CAVE BOARD MEMBERS PRESENT

Robert K. Denton, Chair	Rick Lambert
Dr. Daniel H. Doctor, Vice Chair	Allen L. Louderback
Jason H. Carter	Russell Kohrs
Dr. John T. Haynes	Meredith Hall Weberg

VIRGINIA CAVE BOARD MEMBERS NOT PRESENT

John H.H. Graves	Roger W. Kirchen (<i>ex officio</i>)
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DEPARTMENT OF CONSERVATION AND RECREATION (DCR) STAFF PRESENT

Andrew Smith, Chief Deputy Director
Jason Bulluck, Natural Heritage Director
Wil Orndorff, Karst Protection Coordinator
Penelope Vorster, DCR-Karst Technician

OTHERS PRESENT

Austin Shank, Town of Grottoes
Carol Tiderman
Craig Hindman
Dr. Angel A. Garcia, Jr., James Madison University
Wendy Kelly, Virginia Department of Energy
Matt Heller, Virginia Department of Energy, State Geologist
Dave Hubbard

ESTABLISHMENT OF A QUORUM

With eight members of the Board present, a quorum was established.

CALL TO ORDER

Chairman Denton called the meeting to order at 11:00 a.m.

INTRODUCTIONS AND ANNOUNCEMENTS

Chairman Denton advised that the ASTM [American Society for Testing and Materials] "Standard Practices for Karst Surveys for Development" have been established. ASTM is currently working on follow up including detailed guidance for karst surveys.

Mr. Orndorff reported that a caving accident in Giles County on January 12 left one person deceased. The body was found at the bottom of a pit and recovered. The other caver was rescued by the 911 team from Blacksburg.

Ms. Weberg noted that the Cave Board Facebook page now has over a thousand followers.

Dr. Doctor reported that the USGS was contacted by a Soil and Water Conservation District in the Shenandoah Valley hoping to generate a discussion of karst issues. The meeting will happen within the next week.

TREASURER’S REPORT

Mr. Bulluck provided the following financial information.

**DCR - Natural Heritage (Cave Board)
Summary of Financial Activities
Fiscal Year 2024**

FY24 Beginning Cash Balance	<u>2,148</u>
Revenues (by Fiscal Year)	Amount
Prior Year Revenues	9,348
FY24 Revenues	<u>1,545</u>
Total Revenues	<u>10,893</u>
Expenses (by Fiscal Year)	Amount
Prior Year Expenses	6,992
FY24 Expenses	<u>1,107</u>
Total Expenses	<u>8,099</u>
Total Cash Balance (as of December 31, 2023)	<u>2,586</u>

*The beginning cash balance includes prior year revenue and expenses. The current cash balance is the beginning cash plus the FY24 revenue, minus the FY24 expenses.

APPROVAL OF MINUTES FROM SEPTEMBER 9, 2023

Dr. Haynes moved that the minutes from the September 9, 2023, meeting of the Virginia Cave Board be approved as submitted. Ms. Weberg seconded, and the motion carried.

DCR KARST PROGRAM UPDATE

Mr. Orndorff gave the following update:

Two recent publications 1) address groundwater isopods of Virginia and 2) a description of a new cave beetle species in Bath County.

1) “Groundwater Isopods of Virginia” publication by the Virginia Museum of Natural History, which is based on research funded by and performed in collaboration with the DCR Karst Program. The monograph contains descriptions of at least 20 isopod species in Virginia that are new to science.

2) DCR-Division of Natural Heritage (DNH) Lead Cave and Karst Scientist, Tom Malabad was one of the authors of a paper published in the journal *Subterranean Biology*. The paper discussed the rare beetle genus (<https://subtbiol.pensoft.net/article/114404/>) *Horologion* and included the description of a new species, *Horologion hubbardi* sp. nov., found in a Virginia cave. The new beetle is the second beetle described in this incredibly enigmatic genus and the first found in Virginia. The article can be viewed at: <https://subtbiol.pensoft.net/article/114404/>

Mr. Orndorff received a call from the County Attorney for Rockingham County regarding the potential for a truck stop to be constructed. The County rejected the application to rezone the property due to groundwater and karst concerns. The applicant is suing the County. The Virginia Cave Board may be asked to comment. The developer purchased the property before it was rezoned. This could be a precedent-setting case. It may also become political because Buc-ee’s was approved to develop a rest stop nearby with 250 gas pumps and 125 e-charging slots. That land was also purchased prior to the rezoning.

Reports of sinkholes have increased as the drought is ending, and waters are rising. Sinkholes are not covered by homeowners’ insurance. Some states require this, but Virginia does not.

The biennial bat count is presently being conducted. Several sites show positive signs of increasing numbers and diversity of bats. This could signal a potential leveling or decline of white-nose syndrome. This could impact the potential federal listing of the tri-colored bat.

LAND CONSERVATION UPDATE

Mr. Bulluck reported on land conservation activities since the last Cave Board meeting.

DCR/Division of Natural Heritage and the Real Property Office announced a new addition to Lyndhurst Ponds Natural Area Preserve in Augusta County. On January 31, 2024, DCR acquired a 26.1534-acre parcel from Waynesboro Nurseries, Inc. This forested property is adjacent to the northwestern boundary of the existing preserve and will improve DCR’s management capabilities with respect to prescribed fire and invasive species control. The preserve itself supports globally rare plant communities and wetlands, which provide habitat for two extremely rare plants found almost nowhere else outside of the Shenandoah Valley—the federally threatened [Virginia Sneezeweed](#) (*Helenium virginicum*) and the new-to-science Valley Doll's Eyes (*Boltonia montana*). The preserve's sinkhole ponds and streams provide important breeding habitat for a variety of amphibians, and many species of neotropical migratory birds rely on its forests and open grasslands for breeding, resting, and foraging during migrations. Over time, DCR stewardship staff will implement a variety of management practices to restore the former pastures and fields on the preserve to native grasslands and open woodlands representative of the historic Shenandoah Valley landscape.

NEW BUSINESS

CaveSim Virginia Tour 2024

Ms. Weberg reported that Zenah Orndorff is taking the lead to get CaveSim to tour Virginia on late June or mid-July. A grant from the Cave Conservancy of the Virginias will fund 5 days of CaveSim in Virginia.

Ms. Orndorff is talking with the Children's Museum in Richmond, Grand Caverns, and Roanoke Parks and Recreation Department. There are also conversations with the City of Bristol.

The Blacksburg Rescue Squad and the VPI Cave Club have provided \$1,000 which is half of what is needed to add an additional day in Blacksburg. Efforts to raise the rest of what's needed will start soon. Bringing CaveSim to Virginia is a Virginia Cave Board project in partnership with the Virginia Region of the National Speleological Society. Volunteers will be needed at each location.

Petition to List the Ellett Millipede (*Pseudotremia cavernarum*) under the Endangered Species Act

Mr. Orndorff noted that the Ellett Millipede has a global range of 8 square miles in an area being developed for a rural residential community. This is generally converting limestone woodlands to a series of yards with surface runoff and non-natural vegetation. The petition is being submitted by the Center of Biological Diversity. If the petition is found to have merit, the next step would be a species status assessment. This would be the third federally endangered cave species in Virginia.

2024 Stormwater Management Handbook (VDEQ) - Appendix E: Status and Comment Period

Chairman Denton noted that he and Mr. Orndorff are members of the Stakeholder Advisory Group (SAG) for the Stormwater Management Handbook update. The last attempt at this resource was a 2013 draft that never received final approval. The karst section needed to be updated. There have been monthly meetings in Richmond. The Handbook will now include a detailed section on karst. The Handbook will be posted to the Virginia Regulatory TownHall and will be available for public comment beginning February 26.

Mr. Smith advised that Virginia Cave Board members can comment as individual citizens, but not on behalf of the Board. They can indicate they are on the Virginia Cave Board in their comments.

The Department of Energy provided a much-needed map of carbonate bedrock in Virginia. This is needed to best drive the determination for the need of karst evaluation, not just the known presence of a karst feature.

Dr. Haynes commented that work was being done on geological mapping in Warm Springs Valley. A farmer dug out exposed limestone in a pasture for more ease with mowing. He asked if this should be included in a site investigation.

Chairman Denton said that this should be included in the investigation and noted that the handbook will be a living document with constant feedback from users. He noted that this document does not introduce new regulations but assists with compliance to existing regulations.

Dr. Doctor asked what constituted an official cave map. He referenced Florida where cave divers, not licensed surveyors with maps, would not be accepted as authoritative. He suggested that this be revisited

regarding the Virginia Speleological Society (VSS) maps being considered authoritative. He asked if the recognition of the VSS maps something would be DCR would support.

Mr. Lambert reported that he was contacted by a focus committee advisory group for the Augusta County comprehensive plan. Concern was expressed that karst was not mentioned in the plan. Mr. Lambert provided the limestone overlay district map from Loudoun County as an example. It is important for karst to be considered because of rezoning issues.

Senate Bill 299

Chairman Denton mentioned Senate Bill 299 that was pulled back before the committee could discuss it. It would have eliminated the Virginia Cave Board and moved one member from the cave and karst community to the Board of Conservation and Recreation with cave and karst issues possibly being taken care of in a subcommittee.

OLD BUSINESS

Virginia Cave Owners' Newsletter

Ms. Weberg reported that she is working with a landowner regarding a sinkhole cleanup. She would like to write an article about this so that landowners know about the existence of the program and of a State agricultural reimbursement program and are aware of necessary oversight.

Ms. Weberg asked Chairman Denton to write an article regarding the Stormwater Management Handbook as well as the Chairman's message.

Dr. Haynes asked if the mailing list was updated when cave ownership changed hands. Ms. Weberg noted that the VSS maintains the list and that it may not be updated annually. Mr. Bulluck was going to check to see if DCR had requested an updated list from VSS.

Mr. Kohrs asked if the newsletter might be considered a "Karst Owners'" newsletter that might expand the reach. After some discussion, it was decided to include info on the Virginia Cave Board Facebook page.

Mr. Bulluck will check with the Public Communications and Marketing Office (PCMO) regarding the necessary lead time for publishing the newsletter.

Virginia Cave Week

Ms. Weberg reported that Cave Week will be June 2–8, 2024. She noted that in 2023 Grand Caverns hosted a Karst Expo with a large turnout and partner involvement. The 2024 event is on June 8. There will also be a tour of Ogden's Cave Natural Area Preserve. There are already ~30 people on the waiting list from last year's tour. Ms. Weberg advised there were still opportunities for events, trips, and leaders. Mr. Shank spoke briefly about the Grand Caverns Cave and Karst Expo.

Mountain Valley Pipeline

Mr. Orndorff advised that the Mountain Valley Pipeline (MVP) is 95% constructed. The remaining construction is restricted to Giles and Montgomery Counties. The MVP crosses very near the entrance to Calcite Turtle Cave that was unknown prior to the development of the pipeline. VSS has designated this as a significant cave in Virginia. The landowner was not willing to move the pipeline route. To avoid impacts, the trench was hammered, not blasted, as well as veering slightly away from the entrance but still within the approved Xpipeline's construction right of way. The trench was lined with geosynthetic fabric encapsulating the gravel on which the pipeline was installed. This will ensure any sediment bypasses the cave and moves downslope.

Mr. Orndorff reported that recently a citizen reached out to him regarding a muddy spring in Newport, located in Giles County. The pipeline moves downslope under the stream and Highway 42 and upslope on the other side of the valley. The bore pit and spring along a fault are creating sediment into Sinking Creek as well as water supply springs. The company has provided the citizen with water and offered to connect her to the public water supply. Sedimentation episodes are expected for at least a couple of years. The company is responding, but there is no quick solution.

The November 2023 National Cave and Karst Management Symposium in Chattanooga, Tennessee, went well. DCR was well represented and the Virginia Cave Board had a display.

PUBLIC COMMENT

Dr. Angel Garcia reported that the National Science Foundation (NSF) is funding Research Experiences for Undergraduates (REU) at James Madison University (JMU). JMU has received 95 applications for students who wish to come to JMU to contextualize their research with karst issues. The 10-week course called UROCKS is in its third year.

Recently Endless Caverns and the BlueWater resort reached out to JMU to look for collaboration opportunities.

The Geological Society of America southeast meeting will be hosted at JMU, March 20–21, 2025. This is a good opportunity to showcase karst events, knowledge, and research opportunities.

Dr. Haynes reported that Dr. Garcia has developed a karst laboratory. This includes taking students to Grand Caverns. This is providing a way for non-geology major students to be exposed to caves and karst science. Over 700 trips have been held so far. Seventy percent of these students had not previously been in a cave.

Mr. Orndorff advised that the 4th Appalachian Karst Symposium hosted by the Karst Waters Institute and the West Virginia Cave Conservancy (WVCC) will be held November 7–10, 2024, in Lewisburg, West Virginia. The WVCC Banquet will be held on November 9, 2024.

NEXT MEETING DATE

Staff will poll for the following dates:

- May 11
- June 1
- Friday evening, June 7 (if near Grottoes or Grand Caverns)

- June 15
- June 22

ADJOURN

Mr. Kohrs moved to adjourn at 2:49 p.m. Mr. Haynes seconded. sThe meeting was adjourned with no objections.