

**Virginia Cave Board  
Saturday, June 30 2018  
Natural Bridge State Park**

**TIME AND PLACE**

The meeting of the Virginia Cave Board convened at 11:00 a.m. on Saturday, June 30, 2018 at Natural Bridge State Park in Natural Bridge, Virginia.

**MEMBERS PRESENT**

Steve Lindeman, Chair	Rick Lambert
Dr. Daniel H. Doctor, Vice Chair	Janet Tinkham
David Ek	Meredith Hall Weberg
John T. Haynes	

**MEMBERS ABSENT**

Anthony R. Bessette	Marian McConnell
Robert K. Denton, Jr.	Roger Kirchen
John H.H. Graves	

**DCR STAFF PRESENT**

Rochelle Altholz, Deputy Director for Administration  
Rob Evans, Natural Areas Protection Manager  
Michael Fletcher, Board and Constituent Services Liaison  
Wil Orndorff, Karst Protection Coordinator  
Isaac Sarver, Deputy Director for Board and Constituent Services

**OTHERS PRESENT**

Mark Hodge, Cave owner

**ESTABLISHMENT OF A QUORUM**

With seven (7) members of the Board present, a quorum was established.

**CALL TO ORDER**

Chairman Lindeman called the meeting to order at 11:04 a.m.

**TREASURER'S REPORT** – *Rob Evans, Natural Areas Protection Manager*

Mr. Evans reviewed the following information.

**DCR - Natural Heritage (CAVE BOARD)  
Fund Statement  
As of June 30, 2018**

FY14 FUND BALANCE -	\$1,447
<b><u>REVENUE</u></b>	
FY15 Revenue	\$1,600
FY16 Revenue	\$0

FY17 Revenue	\$250
FY18 Revenue	
• RASS donation \$1,000	
• TRA donation \$1,700	
<b><u>TOTAL REVENUE</u></b>	<b>\$4,550</b>
<b><u>DISBURSEMENTS</u></b>	
FY15 Disbursements	
• Newsletter \$1,350	
FY16 Disbursements	
• Newsletter \$990	
FY17 Disbursements	
• Newsletter \$957	
FY18 Disbursements	
• Newsletter \$957	
• Cave & Karst Trail Signs* \$1,696	
<b><u>TOTAL DISBURSEMENT</u></b>	<b>\$5,950</b>
FUND BALANCE - June 30, 2018	\$47

\*Based on quote for 53 count, reflective, metal 12" x 18" signs. Not yet invoiced at the time of the June 30 VCB meeting.

#### **APPROVAL OF MINUTES FROM FEBRUARY 24, 2018**

Mr. Haynes moved that the minutes of the February 24, 2018 meeting of the Virginia Cave Board be approved as submitted by staff. Ms. Weberg seconded and the motion carried unanimously.

#### **DCR KARST PROGRAM UPDATE** – *Wil Orndorff, Karst Protection Coordinator*

Mr. Orndorff presented the following report.

DCR Natural Heritage submitted two grants to the Cave Conservancy of the Virginias in spring, 2018. The first grant proposal requested \$63,000 to partially fund staff to work on a project entitled "Conservation Assessment of Natural Heritage Cave Resources in Virginia: Phase 1, New River Karst Region." This project is designed to update our database to more accurately reflect cave and karst conservation needs, and will include significant fieldwork including the first biological investigations of several dozen state designated significant caves. Accurate and comprehensive conservation biology data is the first step towards effective prioritization of conservation efforts. This project was fully funded. A second proposal was for ~ \$19,000 for taxonomic work and species descriptions for the karst and cave associated asselid isopod genus "*Lirceus*." This request was partially funded for \$10,000 which will be subcontracted by VA-DCR to a taxonomist with expertise in the taxonomy of the freshwater isopods of North America. Virginia DCR Natural Heritage Program greatly appreciates the continued

support of the Cave Conservancy of the Virginias in efforts to achieve our mutual mission to protect the cave and karst resources of the Commonwealth of Virginia.

DCR Karst Program staff submitted a report on June 29 entitled "Evaluation of the hydrology, bat use, and gate status of selected caves, karst areas, and mines on the George Washington and Jefferson National Forests, Virginia, 2017-18" to The Nature Conservancy and the George Washington and Jefferson National Forest. This report documented research and assessments performed by DCR to assist the US Forest Service in management of its cave and karst resources in Virginia.

The third Appalachian karst symposium was held in conjunction with the seventh Sinkhole Conference in April 2018 at the National Conservation Training Center in Shepherdstown, West Virginia. The conference was cosponsored by the Karst Waters Institute and the National Cave and Karst Research Institute, with additional sponsorship of the Appalachian Karst Symposium by the Virginia Cave Board. Virginia Cave Board member Dan Doctor was conference co-chair, and Cave Board member Bob Denton led a field trip on karst in the urban setting in addition to teaching a short course. Cave Board members Janet Tinkham and Meredith Weberg attended and set up a display on the Virginia Cave Board and its role in cave and karst protection.

DCR Karst staff continues to play a central role in karst issues associated with the Mountain Valley and Atlantic Coast gas pipelines. Each project has been under construction since late winter, with Mountain Valley Pipeline already in the site grading and pipe-laying phase. There were significant impacts to karst resources from the Mountain Valley Pipeline construction in May and June 2018 following moderate rainfall events along the project in Montgomery County. These impacts and the state and corporate response to them are the topic of a power point presentation Orndorff delivered to the Cave Board. The 2019 National Cave and Karst Management Symposium will be held in Bristol, Virginia from October 7 – 11, 2019. The organizing committee consists of Wil Orndorff, Steve Lindeman, Cory Halliday, Janet Tinkham, Tom Malabad, Katarina Kosic Ficco, and Zenah Orndorff. The Virginia Cave Board, the Cave Conservancy of the Virginias, and Virginia DCR are cosponsors of this event, which is geared toward folks who actively manage cave and karst resources. This includes representatives from state and federal agencies, non-profit organizations, members of academia, and individual citizen stakeholders.

### **LAND CONSERVATION UPDATE**

*The Nature Conservancy – Steve Lindeman, Board Chair*

The Nature Conservancy continues to work on properties in the High Knob area of Wise and Scott Counties. There are karst resources in those areas. TNC is also working on the Pine Mountain area on the border between Kentucky and Virginia.

TNC continues to work with DCR regarding acquisition of properties for the proposed Clinch River State Park. There are currently three tracks of land on the list located in Wise, Russell, and Scott Counties.

*Department of Conservation and Recreation – Rob Evans*

DCR worked with the Cave Conservancy of the Virginias regarding a grant through the DuPont project.

DCR was hoping to receive additional authorization for Natural Area Preserve acquisitions, but that was not in the final, approved state budget. DCR continues to work with resources and projects already approved.

In 2017, DCR sent a proposal through the U.S. Fish and Wildlife service regarding recovering lands with federal listed endangered species. The hope is that this will result in significant cave protection.

**2018 Cedars and Powell River Partners meeting and Cedars Appreciation Days** – Rob Evans, Wil Orndorff, Steve Lindeman

*2018 Cedars and Powell River Partners meeting*

The third meeting of the Cedars and Powell River Partners included protection partners, The Nature Conservancy, DCR, NRCS, and others interested in the protection work in those areas. The Department of Game and Inland Fisheries has now expressed an interest in working in that area.

Mr. Lindeman noted that there was not much public participation, but there was a good representation of those working in the protection areas.

Mr. Orndorff commented that it was helpful to have DGIF at the table as they bring a different management capacity.

One of the problems with land protection in the area is that many of the properties in consideration have houses or other construction. There can be a negative public perception regarding the state acquiring and dismantling buildings. However, most of the structures are a clear threat to protecting the resources. The challenge becomes finding funding to pay for removal.

*Cedars Appreciation Days – Rob Evans*

Mr. Evans reported that the event was well attended by about 60 people. Most of these were from outside the region. Their presence helped to raise awareness in the local community. Speakers included Delegate Terry Kilgore, representatives from the Friends of the Cedars, and members of the Virginia Native Plant Society. Chris Ludwig, DCR botanist, led field trips in the area.

The partners discussed how to provide for more public access to the area without jeopardizing the protected resources.

Mr. Sarver noted that the Virginia Native Plant society wrote the DCR Director commending the Natural Heritage participants and the partners who supported the event.

**NEW BUSINESS**

Chairman Lindeman noted that terms for three Board members are expiring. Ms. Tinkham has opted not to continue as a Board member. Mr. Lindeman and Mr. Bessette have applied for reappointment.

**OLD BUSINESS**

Mr. Ek noted that one of the functions of the Cave Board is to provide recommendations regarding cave and karst matters. He recommended that the Board develop a well thought out, concise paper that would be forwarded through DCR to make recommendations regarding priorities in the state budget.

Mr. Ek will prepare a draft and circulate that through DCR staff for Board review and consideration.

Chairman Lindeman noted that Mr. Orndorff had previously discuss the need for an assessment of State Karst Resources.

Mr. Orndorff advised that he had not prepared a formal presentation. He noted that the issue would not be addressed through the state budget without action from the General Assembly. Funding from the EPA was cut in 2008. Since that time there has been no funding dedicated to karst resources from EPA via DEQ to the Natural Heritage Program.

Mr. Ek noted that the document should not be too specific, but should be a tool to highlight the deficiencies in cave and karst management.

It was suggested that, for the next Board meeting, officials in surrounding localities be invited to attend the meeting. The agenda could include an item to discuss karst resources in those areas.

*Virginia Cave Owner's Newsletter – Meredith Weberg*

The Cave Board received a \$1000 grant from the Richmond Area Speleological Society to fund the most recent issue of the newsletter. If funding is obtained, another newsletter might be produced in 2018. Otherwise the target will be to publish the next newsletter prior to Cave Week in 2019.

Mr. Ek will follow up with a grant request to the Cave Conservancy of Virginia.

It was suggested that the newsletter could be developed for a broader audience beyond cave owners and address issues of concern to localities. Consideration will be given to sending an electronic version to localities.

*Virginia Cave Week – Janet Tinkham*

Ms. Tinkham expressed appreciation to Mr. Lambert, Dr. Doctor, Ms. Weberg, Mr. Orndorff and others for volunteering to be a part of Virginia Cave Week that was held April 22-28, 2018. Ms. McConnell also hosted a movie night.

Attendance was disappointing this year. Better attention needs to be paid to the public relations and promotion of the event. There was discussion regarding moving Virginia Cave Week to the fall when there might be fewer competing events.

Consensus was to keep the week in April and work to improve the promotional aspects.

*Virginia Karst Trail Signage – Meredith Weberg*

Ms. Weberg distributed Virginia Karst Trail signs to members and staff for distribution across the Commonwealth.

*Appalachian Karst Symposium 3 and Sinkhole Conference – Dan Doctor*

Dr. Doctor reported that the Symposium was very successful. He noted that the proceedings are posted and will be available publicly once the information is updated. He will provide the link to DCR for inclusion on the webpage. Individual papers will also be available.

Dr. Doctor expressed appreciation to the Cave Board members who attended and helped with the Symposium.

*Staunton Caves Update – Rick Lambert*

Mr. Lambert reported that there had been no progress regarding permission to enter the Staunton Caverns. Review of the property indicated that the property at the entrance is divided with another landowner. That landowner does not live in the area and has not responded to correspondence.

*2019 National Cave and Karst Management Symposium – Wil Orndorff*

The 2019 National Cave and Karst Management Symposium will be held October 7-11, 2019 at the Holiday Inn and Conference Center in Bristol, Virginia. The Symposium is geared towards those who manage caves, including cave conservancies and agencies.

*Atlantic Coast Pipeline/Mountain Valley Pipeline – Wil Orndorff*

Mr. Orndorff gave an update regarding the Atlantic Coast Pipeline and Mountain Valley Pipeline.

Mr. Orndorff gave an update regarding the Atlantic Coast Pipeline and Mountain Valley Pipeline projects.

Mr. Orndorff delivered a power point presentation to the Board providing an overview of significant issues to date on the Mountain Valley Pipeline (MVP) with erosion, sedimentation, and karst systems. There have been ten failures associated with MVP in Montgomery County since May 2018 that resulted in release of sediment in the direction of sinkholes, with several reaching sink bottoms. One spring whose watershed is crossed by the MVP disturbed area has exhibited significant sedimentation on at least 3 occasions between May 15 and July 1, 2018, likely as a result of sediment discharge from the MVP project to sinkholes. The erosion and sediment control measures that failed were based on approved erosion and sediment control plans, illustrating the insufficiency of existing standards to adequately address erosion and sedimentation concerns.

Mr. Orndorff advised that most of the failure points have been addressed by MVP with enhanced erosion and sediment control measures, which are designed to perform better in future storm events, and that the Mountain Valley Pipeline is upgrading Erosion and Sediment Control measures at other areas of concern along the pipeline route.

Regarding the Atlantic Coast Pipeline:

- Only tree clearing in Virginia to date.
- DEQ Groundwater staff is coordinating closely with DCR and Geoconcepts Engineering for protection and monitoring in vicinity of two public water supplies – Deerfield (Augusta County PSA) and Garden Springs (City of Staunton)

#### BOARD ACTION

Ms. Weberg moved that the Virginia Cave Board send a letter of concern regarding the issues with the MVP and ACP pipelines and noted failures in karst areas. Dr. Doctor seconded and the motion carried.

DCR staff will help with the coordination of the letter.

#### PUBLIC COMMENT

Chairman Lindeman presented a plaque and the following letter of appreciation to Ms. Tinkham for her service to the Board.

In appreciation for her outstanding service, be it known:

That Janet Tinkham joined the Virginia Cave Board at the end of 2013 and since joining, she has worked tirelessly to promote the conservation of caves and karst and the education of the public about these precious resources. She has spearheaded the efforts of Virginia Cave Week each year, supplying ideas and enthusiasm to make the annual Cave Week a success. She has helped with the Virginia Cave and Karst Trail, helping make it a reality; she has even done trail maintenance on one segment. She has written articles for the *Virginia Cave Owners' Newsletter*. She has participated in lively discussions at meetings, all with the aim to protect our Commonwealth's caves and karst.

Marian McConnell, Virginia Cave Board member and cave owner, sums up Janet well: "Janet truly has a heart for caves and cave conservation. She has been creative, energetic, and hardworking in her (and the Board's) efforts to educate the public about the importance of respecting and taking care of caves, karst, and sinkholes. She has been an inspiration to me, and countless others and is very much appreciated! I know even though she may be "retiring" from the Virginia Cave Board, she'll always be a tireless and positive advocate for caves and the critters who live in them."

Janet is also a Board member of the Cave Conservancy of the Virginias. She has led the Landowner Appreciation Committee for the Virginia Region of the National Speleological Society for many years, recognizing cave owners for their efforts to conserve their caves. She now serves on the Region's Conservation Committee. She has led a number of sinkhole cleanups, from organizing volunteers to disposing of trash and metals that previously polluted the sinkhole.

Janet is a committed cave conservationist and the Virginia Cave Board will miss her service. We do know that she will continue to work towards conservation and education after her tenure on

the Board ends. Thank you, Janet, for all you've done for the Virginia Cave Board and all you will continue to do for caves and karst.

There was no further public comment.

**NEXT MEETING**

Staff will poll Board members regarding a meeting date in October. The meeting will be held in western Virginia.

ADJOURN

There was no further business and the meeting adjourned at 4:15 p.m.