

Northeastern Cave Conservancy News

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Northeastern Cave Conservancy, Inc.		
Officers		
President	Bob Simmons	president@necaveconservancy.org
Vice President	Thom Engel	vicepresident@necaveconservancy.org
Secretary	Mitch Berger	secretary@necaveconservancy.org
Treasurer	William Folsom	treasurer@necaveconservancy.org
Board of Trustees		
Devon Hedges		d.hedges@necaveconservancy.org
Jacob Morris-Siegel		j.morris-siegel@necaveconservancy.org
Kevin Dumont		k.dumont@necaveconservancy.org
Erik Nieman		e.nieman@necaveconservancy.org
Ramon Armen		r.armen@necaveconservancy.org
Leslie Hatfield		l.hatfield@necaveconservancy.org
Michael Chu		m.chu@necaveconservancy.org
Morgan Ingalls		m.ingalls@necaveconservancy.org
Wayne Russell		w.russell@necaveconservancy.org
Committee Chairs		
Acquisitions	Chuck Porter	acquisitions@necaveconservancy.org
Bylaws	Joe E. Levinson	bylaws@necaveconservancy.org
Education	Thom Engel	education@necaveconservancy.org
Membership	Peter Youngbaer	membership@necaveconservancy.org
Nominating	Norm Berg	nominating@necaveconservancy.org
Fundraising Barn Dance	Vacant Emily Davis and Michael Warner	fundraising@necaveconservancy.org barndance@necaveconservancy.org
Office	Emily Davis and Michael Warner	office@necaveconservancy.org
Preserves	Thom Engel (Onesquethaw)	onesquethaw@necaveconservancy.org
	Joey O'Reilly (Sellecks)	sellecks@necaveconservancy.org
	Mitch Berger (Knox)	knox@necaveconservancy.org
	Michael Chu Thom Engel Chuck Porter (Clarksville)	clarksville@necaveconservancy.org
	Erik Neiman (Ella)	ella_armstrong@necaveconservancy.org
	Devon Hedges (Bentleys)	bentleys@necaveconservancy.org
	Morgan Ingalls Jacob Morris-Siegel (Merlins)	merlins@necaveconservancy.org
	Luke Mazza (Bensons)	bensons@necaveconservancy.org
	Kevin Dumont (Spider)	spider@necaveconservancy.org
Liaisons Surprise Cave Thacher Park	Al DeMaria Thom Engel	surprise@necaveconservancy.org thacherpark@necaveconservancy.org
Publications Editor Publisher Publicity	Christa Hay Danny Brass Christa Hay Christa Hay	publications@necaveconservancy.org newsletter@necaveconservancy.org publisher@necaveconservancy.org publicity@necaveconservancy.org
Science	R. Laurence Davis	science@necaveconservancy.org
Technology	Michael Chu	technology@necaveconservancy.org
Investment	John Fioroni	investment@necaveconservancy.org
Risk Management Insurance Liaison	Mitch Berger Mitch Berger	riskmanagement@necaveconservancy.org insurance@necaveconservancy.org
Special Use	Thom Engel	specialuse@necaveconservancy.org
Volunteer Value	Vince Kappler	volunteervalue@necaveconservancy.org

The *Northeastern Cave Conservancy News* is published quarterly by the Northeastern Cave Conservancy, Inc. The Northeastern Cave Conservancy promotes the study and preservation of speleologically significant properties in the northeastern United States. Annual membership is \$20 (Regular), \$5 (Additional Family), \$50 (Benefactor), \$100 (Institutional), \$125 (Family Life Membership), and \$400 (Life Membership). All checks made payable and sent to:

Northeastern Cave Conservancy Inc. · P.O. Box 254 · Schoharie, N.Y. 12157

www.necaveconservancy.org

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Next Board Meeting

**Sunday, March 8, 2020 at 10:00 am
 Saugerties, New York**

Spring Board Meeting

**Sunday, June 7, 2020 at 10:00 am
 Melrose, New York**

The Northeastern Cave Conservancy, Inc. (NCC) is a not-for-profit corporation committed to the conservation, study, management, and acquisition of caves and karst areas having significant geological, hydrological, biological, recreational, historical, or aesthetic features.

To these ends, the NCC combines the resources and expertise of affiliated cave explorers, educators, scientists, landowners, and conservation officials.

The NCC programs are focused mainly on the preservation of caves and karst. Outreach includes education in schools and local communities, establishment of park spaces on karstlands, and educational messages about the significance of groundwater pollution on this sensitive underground ecosystem.

NCC members assist in the exploration, survey, and protection of these natural resources, and manage them so you can explore them yourself.

NCC logo design by Christa Hay



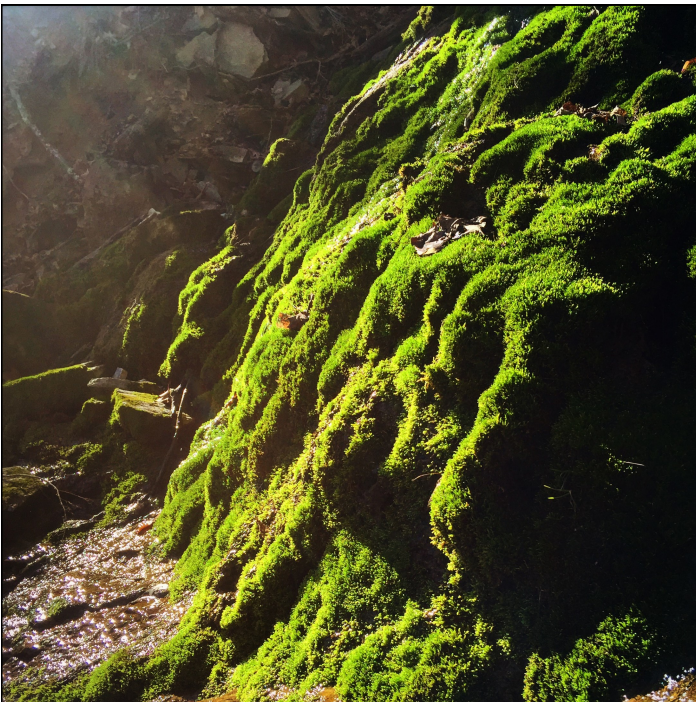
CALCAREOUS TUFA AN UNDERAPPRECIATED KARST FEATURE — Kevin Dumont —

Even among Earth scientists, the term “karst” is not widely known or used. When I find myself in the company of science-minded people and mention the word, I invariably follow it up with a mention of underground drainage or, more simply, caves, which is usually enough to keep the conversation moving. However, there are many other less-significant features and occurrences that are also related to karst besides sinkholes, caves, sinking streams, and springs. One of those is a little-known type of deposit known as calcareous tufa.

Groundwater flowing through a karst aquifer is the agent of chemical weathering and erosion responsible for the origin and growth of karst features. To be slightly more specific, it’s the chemistry of the water and what’s dissolved in it that determines whether the carbonate bedrock through which it flows will dissolve or not. Water flowing through and in contact with limestone has a limit of how much dissolved bedrock it can hold in solution. Once this limit is met, the water loses its capacity to dissolve more stone until something changes, like temperature or exposure to air with different properties.

Groundwater flowing through a karst aquifer will generally reach chemical equilibrium at some point along its journey, then continue to flow under the same conditions. Frequently, equilibrium means saturation with respect to calcium carbonate (the chemical composition of limestone) until the water finds its way back to the surface at a spring. Upon exposure to the surface environment, equilibrium is disrupted, the water’s capacity to hold dissolved limestone plummets, and calcium carbonate precipitates. When this happens in a place where the water is flowing quickly downhill, air gets incorporated into the structure and a spongy rock made mostly of calcite is created. This is the rock we call calcareous tufa.

The water chemistry and physical conditions necessary to create tufa exist at the resurgence representing the entrance to Spider Cave. In the stream channel leading up to the cave entrance are what appear to be boulders covered in lush, green moss. The moss is growing on an underlying layer of tufa, which makes a suitable substrate with its porous texture. If you poke around near the sides of the stream channel, you’ll be able to find chunks of tufa that might look something like the one shown in the photograph. While tufa may not be as spectacular as other karst landforms, it helps to tell the larger story of what happens underground and the delicate chemical balance responsible for the creation of the features we love to visit and explore.





All photos on pages 3 and 4 by Kevin Dumont.



Closing for the Alan Traino Karst Preserve on November 21, 2019. From left to right: Maryanne McGovern Kenyon (NCC attorney), NCC President Bob Simmons, sellers Zata and John Palange, Brendan Baynes (Palange attorney).

NORTHEASTERN CAVE CONSERVANCY SEEKING CANDIDATES FOR THE POSITION OF TRUSTEE ON THE NCC BOARD OF DIRECTORS

The Nominating Committee of the Northeastern Cave Conservancy, Inc. (NCC) is soliciting candidates for Trustee of the NCC Board of Directors. Each spring, three of the nine Trustee seats come up for election. Trustees are elected by the members of the NCC via emailed ballot during the last half of May, and those elected are seated at the June Board meeting. The Board of Directors, which consists of the Officers and Trustees, set policy for the NCC. The Board meets quarterly, generally for half a day, with frequent communications, mostly via email, between meetings.

Candidates need to be a current member of the NCC. No specific prior experience is required; however, experience in land conservation and stewardship, business, finance, law, fundraising, or community outreach is always helpful.

You may wish to review the NCC Board Manual and the minutes from previous meetings of the Board: <http://www.necaveconservancy.org/wp-content/uploads/2017/09/NCC-Manual-2017-09.26.pdf> and <http://www.necaveconservancy.org/minutes/>.

A summary of the election process and terms is at: <https://docs.google.com/document/d/1ss-IJ4LfCXbCuopMyMYE6h0kJcYIPcaiEum-MxnSyDo/edit?usp=sharing>.

If you would like to be considered as a Trustee candidate, please send a bio/platform to nominating@necaveconservancy.org by May 8 for inclusion with our electronic ballots. I'll send an acknowledgement to you when I receive it. If you know of anyone who would make a good Trustee, please ask them to consider becoming a candidate. If you have questions about the process, or would like to see sample bios/platforms, please contact Norm Berg, the Nominating Committee Chair, at nominating@necaveconservancy.org, call 860-621-2080 (leave a message), or contact any NCC Board member.

Norm Berg
NCC Nominating Committee Chair
nominating@necaveconservancy.org

Northeastern Cave Conservancy, Inc. (NCC)
<http://www.necaveconservancy.org>

PRESERVE MANAGEMENT OPPORTUNITIES AVAILABLE

The Northeastern Cave Conservancy has several preserve management opportunities we are looking to fill.

- Preserve Manager, Alan Traino Karst Preserve. This opening is for our newest preserve, located in Coeymans NY. The preserve was recently acquired by the NCC and will see the development of parking, trail, kiosk, changing area, etc. this year.
- Preserve Co-Manager, Onesquethaw Cave Preserve. Manager Thom Engel is looking for someone to assist with the day-to-day tasks on the preserve in New Scotland, NY, with the thought that the new person would take over the preserve in the next year or so.
- Preserve Co-Manager, Bentleys Cave Preserve. Preserve Manager Devon Hedges is looking for someone to assist with the day-to-day management of this preserve in Berlin, NY. Again, the eventual plan would be for the Co-Manager to take over the preserve in the not-too-distant future. Bentleys is some distance from the majority of our preserves. So, ideally, the Co-Manager would reside in the general area of the cave (convenient but not required).

If you might be interested in any of these positions (or know just the right person we should approach), please let me know at president@necaveconservancy.org. Also, feel free to reach out to the current Managers or Interim Managers of these preserves (or any of our preserves), if you'd like to get more directly involved in cave stewardship.



Porcupine damage to the NCC sign near the Ward Entrance to Clarksville Cave. Photo by Bob Simmons.