

The Forum

NEW YORK STATE WETLANDS FORUM NEWSLETTER

WHAT’S IN A NAME?

By: Charlotte Brett, Owner/Senior Environmental Planner, Empire Environmental Partners

During the eight years that I have served on the Board of Governors for the New York State Wetlands Forum, Board discussions have returned many times to the topic of membership. Our membership base is solid, and the feedback from our members regarding annual conferences and training events is generally quite positive. We have consistent participation and support from the regulatory and consulting communities; however, a few comments each year from Forum members and annual conference attendees indicate desires for the organization to be better-rounded, to broaden its membership, to include more (developers) (municipalities) (students) stakeholders of all kinds that affect, or are affected by, New York State’s wetlands. The Board supports these goals, but it isn’t easy to achieve them.

As the Forum’s Treasurer for the past several years, I have spent time analyzing our income and expenditures to prepare financial reports for the Board. Conference registration and membership dues are the two primary ways we earn income (with trainings providing an important third revenue stream). While both of these metrics vary from year to year and there are a few outliers,

the ranges are generally fairly narrow. Registration at 9 of the past 16 conferences has been within 30 participants (170-200), and annual membership dues in 8 of the past 12 years have totaled within \$650 of each other. A year with lower than average membership dues, low to moderate conference attendance, few to no additional trainings, and/or higher than average conference expenses can result in losses of thousands of dollars. Conversely, the reverse of any of those factors can result in substantial financial gains. These items directly benefit our bottom line, which in turn affects Board decisions about how we can implement our mission. For example, our student research grant program provides value by supporting the development and dissemination of new information about New York State’s wetland resources, increasing student membership and conference attendance, and supporting our mission. This program is dependent upon annual Board approval for the expenditures. Board approval is, in turn, dependent upon confidence in a strong treasury.

And while the Forum clearly focuses on wetlands, a review of past conference agendas demonstrates that a variety of other related topics – such as streams, species and habitats, lacustrine systems, water quality, climate change, coastal resiliency, green infrastructure and sustainability planning, and environmental policy and management – are regularly considered within the Forum’s purview.

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Mission

The New York State Wetlands Forum is a non-advocacy corporation comprised of individuals and groups with diverse backgrounds, interests and viewpoints regarding wetlands and their science, use and management. Incorporated in 1994, the Forum is a 501(c)(3) not-for-profit organization. Its purpose is to improve communication among people interested in wetlands; call attention to and objectively discuss local, statewide, regional, national and global wetland issues as they relate to New York State; improve its members' knowledge and understanding of wetlands; and, make available information about wetlands to its members and the general public.

MESSAGE FROM THE CHAIR

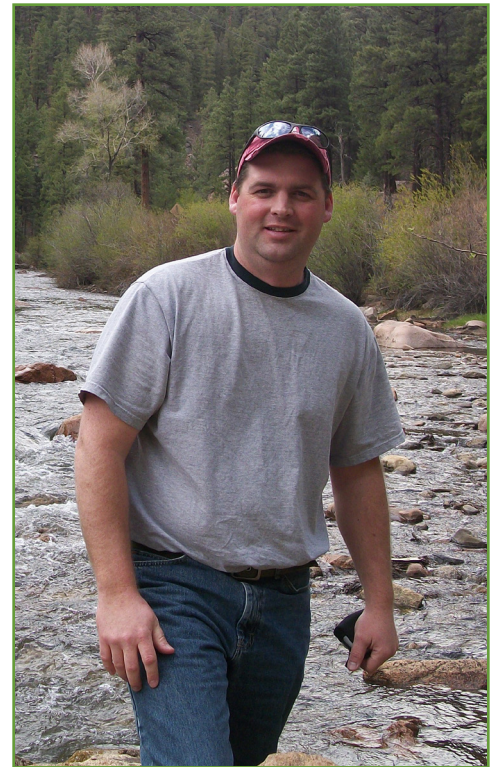
Hello New York State Wetlands Forum members. We are almost there. On April 10th and 11th, we will be holding our Annual Conference and Business Meeting in Watkins Glen, New York. We have never held our conference in Watkins Glen, and I think it will be a great spot for us to be next month. The theme of this year's conference is "Growth and Resources – Finding the Balance." No matter what your current job is, or which side of the political aisle one stands, we all would agree that finding a balance is important. With that in mind we have a jam-packed conference, with great presentations scheduled both Tuesday and Wednesday, which cover a wide variety of topics.

In addition to the work our Conference Committee has been putting forward, our Training Committee has been hard at work too. On Monday, April 9th, prior to the conference, we will be holding a training entitled "Aquatic Organism Passage and NAACC Primer & Field Demonstration." Please see the separate article regarding this training in this newsletter.

I wrote in our last newsletter about how much we need members to be involved, and I am going to stress it again now. This is the time of year, when we hold our Annual Conference, that we see most of our membership and when the greatest opportunity to be involved presents itself. Please reach out to us and let us know if you are interested in participating and to what level. We are holding a training prior to the conference, but would you be interested in another one later in the year, possibly this Fall? What would you like to see? Let us know, so we can start planning it, and how about helping us out with it? In addition, please take the opportunity to fill out the conference survey this year. We have changed it up a little, but it is still as important as ever to get the feedback we need to continue to give you the conference you deserve.

I look forward to seeing you all next month in Watkins Glen. I realize that the month of April is the beginning of a busy year for most of us, but I hope you can find the time to join us again for your annual conference. Please enjoy the articles in this latest Newsletter that our Board of Governors, Members, and Guests have contributed.

Brad Sherwood, Chair



“ASK THE NATURALIST”

Andy L. from Gloversville, NY writes:

Dear Mr. Naturalist:

I come across Witch Hobble fairly often on my forest rambles. Why is it called this?

Answer on page 6



WETLAND FORUM WORKSHOP ANNOUNCEMENT

April 9, 2018

Aquatic Organism Passage and NAACC Primer & Field Demonstration

Preceding the New York State Wetlands Forum Annual meeting will be a separate training event on aquatic organism passage and the applicability of the North Atlantic Aquatic Connectivity Collaborative (NAACC) in New York State.

This event will be held on April 9, 2018 from 10:00AM to 4:00PM, with a morning discussion at the Watkins Glen Harbor Hotel, 16 North Franklin Street, Watkins Glen, NY. Following a boxed lunch, the afternoon session will be held in the field. (Car pooling to sites may be required.)

Road/stream crossings create many challenges such as barriers to aquatic and terrestrial passage, increased flooding risk and need for structural maintenance. Given the limited resources available to correct these problems, effective tools are needed to identify, rank and prioritize specific sites and across larger landscapes. Implemented for use in NY State, the NAACC accomplishes many of these goals by providing a standardized protocol for assessing road/stream crossings coupled with a public database and secondary modeling tools. This seminar will provide an overview of NAACC concepts and a hands-on

demonstration of field survey techniques. Leading this discussion is Josh Thiel, a biologist with 17 years in the NYS DEC Division of Fish & Wildlife. Josh serves as the statewide Aquatic Habitat Protection Program Manager and provides guidance and support for stream permitting programs and other aquatic habitat initiatives including restoration and connectivity projects.

Additional discussion, led by Tim Post, DEC's Region 5 Bureau of Habitat Manager and former State Wetland Program Manager, will focus on factors influencing aquatic organisms' ability to pass obstacles. This discussion will provide important insight to the NYS Department of Environmental Conservation's Water Quality Certification requirements relative to aquatic organism passage. Such requirements are often difficult to ensure at new and retrofit crossing locations without proper consideration for design and maintenance. Here too, both an inside and field component is planned, with participants visiting sites conducive to the discussion.

Attendees should dress appropriately for the weather and wear waterproof boots. All are encouraged to review documentation available at www.streamcontinuity.org.

Cost of the training is \$65, and includes a boxed lunch. To register, please send an email for confirmation and payment instructions to the NYS Wetlands Forum at jill@nysta.mobi.

General questions may be referred to NYS Wetland Forum Training Chair, Kevin Bliss, at kbwetlands@gmail.com.

Registration is limited by allowable field space.

MEASURING AMPHIBIAN PRODUCTIVITY TO BETTER PROTECT NEW YORK'S VERNAL POOLS

By: Matthew D. Schlesinger, Ph.D., Chief Zoologist, New York Natural Heritage Program

Vernal pools (also known as “geographically isolated pools”, “woodland pools”, and “ephemeral pools”) are small, non-permanent bodies of water that are typically found in forests and provide critical breeding habitat for many amphibian and invertebrate species. Along with other small wetlands, vernal pools are subject to degradation and destruction from urbanization, roads, and human disturbance, and are often poorly protected by law. Outside of the Adirondack Park, New York's current wetland regulations only cover small wetlands (<12.4 acres) if they are considered to be of “Unusual Local Importance” (ULI). One of the criteria that wetland regulators can use to designate ULI wetlands is the support of “an animal species in abundance or diversity unusual for the state or for the major region of the state in which it is found,” but no thresholds for “unusual” are defined for New

York State. Other northeastern states have set criteria for denoting important vernal pools—for instance, vernal pools in Maine are considered “significant” if they contain 20 or more spotted salamander (*Ambystoma maculatum*) egg masses or 40 or more wood frog (*Rana sylvatica*) egg masses.

To provide state and local regulators with a scientifically sound method for determining vernal pool importance, we have compiled data from nearly 800 known vernal pools around New York, and examined how well they represent the diverse NY geography and gradients of urban development. In 2018 and 2019, we are expanding this dataset by counting egg masses in vernal pools all over the state, combined with detailed habitat sampling at a subset of pools. The result, combined with landscape metrics available from GIS analyses, will be a powerful instrument for defining the distribution and habitat relationships of amphibian productivity in vernal pools across NY in a variety of landscape settings. These data will help the state establish science-based thresholds for potential ULI designation, and ultimately lead to greater protection for these important but often overlooked wetlands.

Do you know of vernal pools in your area?

Please submit your information to the NYS Vernal Pool Mapper: <http://people.hws.edu/cosentino/vernal.html>

WHAT’S IN A NAME? (CONT.)

Recently, the Buffalo Niagara Riverkeeper – a group that is doing transformative restoration work in the Buffalo-Niagara Region – found itself in a similar position. In recognition of the fact that its name did not reflect its broad aquatic scope, the organization changed its name to the Buffalo Niagara Waterkeeper. Shortly after the new name was announced, Sheila Hess (CC Environment & Planning) and I were discussing the significance and value of this name change at the Great Lakes Restoration Conference in Buffalo. We reflected on the possibility of a similar name change for the Forum and what advantages might be gained.

If we were to become, for example, the New York State Water Forum, or New York State Wetlands and Water Forum, the name change could serve as a catalyst for an advertising and outreach campaign that better communicates the full scope of issues captured under our organization’s umbrella. This could allow us to recruit new members, which could in turn further diversify our conference agendas and training opportunities. An additional benefit would be the net positive effect it would have on our treasury, allowing us to confidently undertake even more activities that support our mission and provide value to our membership. The Forum’s 25th anniversary is next year. This is a good opportunity to revisit our history

and to look forward, taking active steps to ensure that this great organization will be around to celebrate in another 25 years – perhaps under a new name.

ASSESSING WETLAND CONDITION IN NEW YORK STATE

By: Laura J. Shappell, Ph.D., Wetland Ecologist, New York Natural Heritage Program

On a cool July day, the kind prone to spontaneous thunderstorms, my colleague and I wound our way into our newest wetland site. Because our sites are selected using a random spatially-balanced model, we never truly know what we’re going to find when we arrive at our sample point. On this muggy day in a suburb of Rochester, the shrubby perimeter gave way to a beautiful wet meadow that transitioned to a marshy area with islands of shrubs and solitary trees. Heading towards our target point, we hopped over a babbling rivulet passing common marsh forbs such as narrow-leaved cattail (*Typha angustifolia*), marsh fern (*Thelypteris palustris*), and skunk cabbage (*Symplocarpus foetidus*). Upon reaching our sample area I marveled at the carpet of thalloid liverwort (*Marchantia polymorpha*) and bryophytes. The striking eggplant-purple of golden seal’s (*Packera aurea*) leaf underside peeked out amongst clumps of spreading goldenrod (*Solidago patula*), and spotted joe-pye-weed (*Eutrochium maculatum* var. *maculatum*). My suspicions that we had stumbled upon a rare wetland community was confirmed when I spotted another calciphile, poison sumac (*Toxicodendron vernix*). Back at the office I confirmed this unique wetland in the middle of a suburban development was a rich sloping fen, a truly rare community in New York State.

Data collected at that rich sloping fen was added to our database of over 200 New York State Wetlands. Most of these data points were collected under EPA Wetland Program Development Grants (WPDG) with the goal of improving our understanding of wetland condition in NYS across a rural-urban gradient. We use a three-tiered approach, the first level being a spatial Landscape Condition Assessment (LCA) model that cumulatively depicts anthropogenic stressors (Feldmann and Howard 2012). New York Rapid Assessment Method (NYRAM) for freshwater wetlands was developed to quickly evaluate wetland condition (Shappell et al. 2016). At the finest scale we use relevé plots (Peet et al. 1998) to measure vegetation composition and plant biodiversity, data that can then be rolled into floristic quality metrics such as mean coefficient of conservatism or weighted mean C (Swink and Wilhelm 1994). These FQ metrics are based on species’ coefficient of conservatism (C) values that range from zero to ten. Species with narrow ecological tolerances have higher scores, such as poison sumac (C = 9) and golden seal (C = 7), while generalists such as narrow-leaved cattail have

lower scores (C = 1; Ring 2016). We can compare these FQ metrics across wetland assemblage types and also by LCA class, the latter can be used to develop reference standards, and assess FQ relative to the surrounding landscape. Cross-level validation has demonstrated significant correlations between FQ metrics, NYRAM, and LCA.

Although the core NYNHP wetland methodology follows the three-tiered approach, we continue to develop new methods for monitoring and assessing wetlands in NYS. This summer we will publish a final report for a WPDG exploring the relationship between wetland condition and adjacent upland land use. This spring we are kicking off a new three-year WPDG that aims to develop relevant functional assessment methodologies for NYS. Following the 2018 pilot season we will refine the functional assessment methods, and we hope to introduce a draft version of these methodologies to NYSWF prior to our major field sampling season scheduled for 2019.

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FERC'S PENDULUM SWINGS BACK TO UPHOLD DEC'S DENIAL OF CONSTITUTION PIPELINE'S APPLICATION FOR WATER QUALITY CERTIFICATION

On January 11, 2018, the Federal Energy Regulatory Commission ("FERC") upheld the New York State Department of Environmental Conservation's ("DEC") denial of Constitutional Pipeline Co. LLC's ("Constitution") application for water quality certification with respect to its \$683 million natural gas pipeline. 162 FERC ¶ 61,014. Constitution argued that DEC waived its authority under

section 401 of the Clean Water Act ("CWA") by failing to issue a decision on Constitution's application within "a reasonable amount of time." FERC disagreed and upheld DEC's denial of the same.

The denial of an application for water quality certification by DEC can (and has been) a large hurdle for pipeline companies. In order to proceed with construction of a pipeline, a company must file documentation with FERC that it received all authorizations required under federal law, or evidence of a waiver, including certification under section 401 of the CWA. Section 401 of the CWA reads, in part:

Any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate. . . . If the State, interstate agency, or Administrator, as the case may be, fails or refuses to act on a request for certification, within a reasonable period of time (which shall not exceed one year) after receipt of such request, the certification requirements of this subsection shall be waived with respect to such Federal application. No license or permit shall be granted until the certification required by this section has been obtained or has been waived as provided in the preceding sentence. 33 USC § 1341(a)(1)(2012).

Thus, if the certification is denied (or delayed) by DEC, the result is paralyzing for the company. Last fall, pipeline companies received a glimmer of hope when FERC held that DEC waived its authority under the CWA with respect to Millennium Pipeline Company's ("Millennium") application for water quality certification because DEC failed to grant or deny Millennium's application within the one-year timeframe required by the statute. DEC argued that it had one year to grant or deny the application from the time Millennium's application was complete (August 31, 2016) and Millennium argued that the one-year trigger to start the clock was when DEC received the application (November 23, 2015). FERC held that the time period from which the one-year statutory period begins to run on an application for water quality certification is when the DEC first receives the application. Accordingly, FERC held that DEC waived its authority under the CWA and issued the required Certificate of Public Convenience and Necessity ("CPCN") for Millennium to begin construction of its pipeline (this decision is currently being challenged in the United States Court of Appeals for the Second Circuit). 160 FERC ¶ 61,065.

In the wake of this decision, Constitution filed a petition with FERC for a declaratory order, asking FERC to find that DEC waived its authority under the CWA with regards to Constitution's application for water quality certification. However, the facts in Constitution's case were different enough from those in Millennium to cause FERC to swing its pendulum the other way in support of DEC's position. Constitution filed its first application under the CWA on August 22, 2013. On May 9, 2014, Constitution withdrew and resubmitted its application at DEC's request and then did the same again on April 27, 2015. DEC ultimately denied Constitution's application on April 22, 2016, 361 days after it was submitted. FERC held that each time Constitution withdrew and resubmitted its application, the one-year statutory time period started over and accordingly, DEC's denial, which was less than one year from Constitution's last submission, was within the one-year statutory time period. 162 FERC ¶ 61,014, pages 10-11.

In its petition, Constitution alleged that DEC coerced Constitution to withdraw and resubmit its application. Constitution also alleged that DEC stopped communicating with Constitution eight months prior to issuing its denial, despite earlier communications from agency staff that the application was sufficient for review and that the certification was prepared and pending issuance. DEC denied these allegations and refuted the lack of communication with Constitution. 162 FERC ¶ 61,014 at page 10.

Regardless of the veracity of Constitution's allegations, it remains true that DEC has a significant amount of authority and discretion to grant or deny applications for water quality certification and consequently, determine the future of a pipeline's construction. While FERC upheld DEC's denial of Constitution's application, it did not do so without a clear statement of its concerns regarding states' motives behind the delays in issuing decisions on applications. In the Constitution decision, FERC stated the following:

We continue to be concerned, however, that states and project sponsors that engage in repeated withdrawal and refile of applications for water quality certifications are acting, in many cases contrary to the public interest and the spirit of the Clean Water Act by failing to provide reasonably expeditious state decisions. 162 FERC ¶ 61,014 at page 12.

Obtaining the requisite water quality certification remains a hurdle for pipeline companies to advance their projects throughout New York State. The issues around these denials and pipeline construction in New York generally will likely remain highly contested and litigated as long

as DEC continues to delay or deny applications. The boundaries of DEC's authority will no doubt continue to be tested and challenged, and through those challenges, the path forward will be defined with greater clarity.

THE NATURALIST RESPONDS

"Witch Hobble", more often known as Hobblebush (Viburnum lantanoides), is an understory FACU shrub of rich moist northeast woodlands. It likes cooler woods along streambanks and shaded slopes, often in the Adirondacks. It is in the honeysuckle family and therefore has a beautiful flat-topped cluster of white flowers similar to hydrangeas. This straggly shrub has beautiful bronze-red or purple autumn color and is used by a variety of wildlife for food and cover. Deer and moose love it, and it is even edible for humans! Its characteristic naked buds in spring look like a pair of praying hands. If you have tried some bushwhacking off trail, you have most likely encountered Hobblebush as an obstacle. Its branches often bend and take root at the tips, forming dense stands of intertwining shoots and stems, tripping or hobbling, passers-by; hence its common name.

The "witch" in witch-hobble actually refers to the word descended from the Middle English word "withy," which means a strong, flexible switch-like branch. Witch Hazel, another withy-like shrub has somewhat similar characteristics. Good luck with this beautiful and beneficial shrub the next time you go off trail!



Please send your "Ask the Naturalist" questions to the NYSWF at info@wetlandsforum.org.

WETLAND MITIGATION

By: Tim Post

A literature review of studies that evaluated the success rates of wetland mitigation projects indicates that most mitigation projects do not adequately replace the amount of wetland acreage lost, nor do they adequately replace the functions and benefits of the impacted wetlands.

Historically, there were a number of reasons for this lack of success, including: lack of trained wetland restoration specialists with complete technical knowledge in wetland restoration; lack of adequate planning and design; lack of adequate oversight by regulatory agencies; lack of agency staff with a complete understanding of wetland creation;

lack of knowledge or oversight of those constructing the mitigation wetlands; and lack of adequate staff for agencies to review proposals and provide comments, ensure the mitigation project is constructed, oversee the actual mitigation construction, and to monitor the long term success of the mitigation project.

On-site mitigation projects are notorious for not being completed and not providing adequate or meaningful benefits. Such projects are often done because of the language in NYS regulations that states that mitigation must be completed in the “immediate vicinity” of project impacts. Likewise, regulations state that mitigation wetlands must be regulated under the act, which further limits where wetland mitigation sites can be located. Regulation changes would be required to adjust this language to allow a more hierarchical approach that allows off-site mitigation under a specific set of circumstances.

There are few mitigation banks in New York State, owing largely to the prohibitive costs of land in urban and suburban areas, and the above-described state limitations on mitigation site location. Literature review of the success of mitigation banks show mixed results. Historically, mitigation banks had relatively high failure rates and failed to adequately meet success criteria. They often did not adequately replace acreage lost, nor did they replace the functions and benefits of impacted wetlands. More recent requirements for long-term monitoring, wetland assessment, and corrective actions, have resulted in more consistent high-quality wetlands.

Mitigation banks (and In-Lieu-Fee programs) that are successful still have a substantial drawback. Because of the high cost of land in urban and suburban areas, and the limited number of potential sites due to previous development, mitigation banks are often located in rural areas where land is more available and cheaper. However, most wetland impacts are occurring in urban or suburban areas. Since most mitigation banks are located in rural areas, the wetland functions and benefits being lost in urban areas are not being replaced in the same area where the impacts occurred. Over time, the cumulative effect can result in substantial loss of wetland benefits in more developed areas where they are much more critically needed. Depending on the juxtaposition, rural wetland increases may not compensate for the loss of functions in more developed areas. For example, if the lost flood protection benefits are not replaced in the location where the lost wetland provided this function, there is less ability for wetlands to buffer high storm-water flows, which can lead to increased flooding in the project area or downstream of that area. This is the logic for why the Department originally included the regulatory language that mitigation must be in the immediate vicinity.

Of course, adequate onsite mitigation is not always feasible,

so there are times when mitigation will need to be done off-site. In New York State, a common approach to wetland mitigation for federally regulated wetlands is the use of In-Lieu-Fee (ILF) programs. This process has rigorous mandates for how the ILF wetlands will be located, designed, and monitored. Corrective action will be utilized to ensure wetland functions and benefits will be provided at the expected level. ILF programs provide a good option for projects where onsite mitigation isn't feasible. However, NYS currently has no legal authority to implement an In-Lieu-Fee process for wetland mitigation. Further, this does not change the requirements of state law for state-regulated wetland mitigation to be in the immediate vicinity of the impacted wetland.

RARE AQUATIC PLANT FOUND BY CAPITAL REGION CONSULTANTS

By: Steve Young, Chief Botanist, New York Natural Heritage Program



Photo caption: Riverweed (*Podostemum ceratophyllum*) growing on a rock in the Susquehanna River. Photograph by Steve Young, NYNHP.

While surveying the Hudson River near Stillwater, NY for a dam relicensing project this past fall, biologists from HDR Inc. found a large population of the state-threatened riverweed, *Podostemum ceratophyllum*. This aquatic plant resembles dark green algae glued to rocks and occurs in the riffles of shallow fast-moving water of large streams and rivers. The species is known from the St. Lawrence/Lake Champlain region and the Catskills/Hudson Highlands region, but this was the first documentation for riverweed in the Hudson River. Fortunately the consultants contacted NYNHP and brought a specimen into our office for confirmation. There are probably more occurrences out there to find, but accessing riverweed's ideal habitat means surveying in potentially dangerous parts of the river.

Wetlands and Resilience

N O I T C E T O R P T V E S V
Q Y T I L I B A T S X X U Z U
S M E Q U I L I B R I U M N L
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