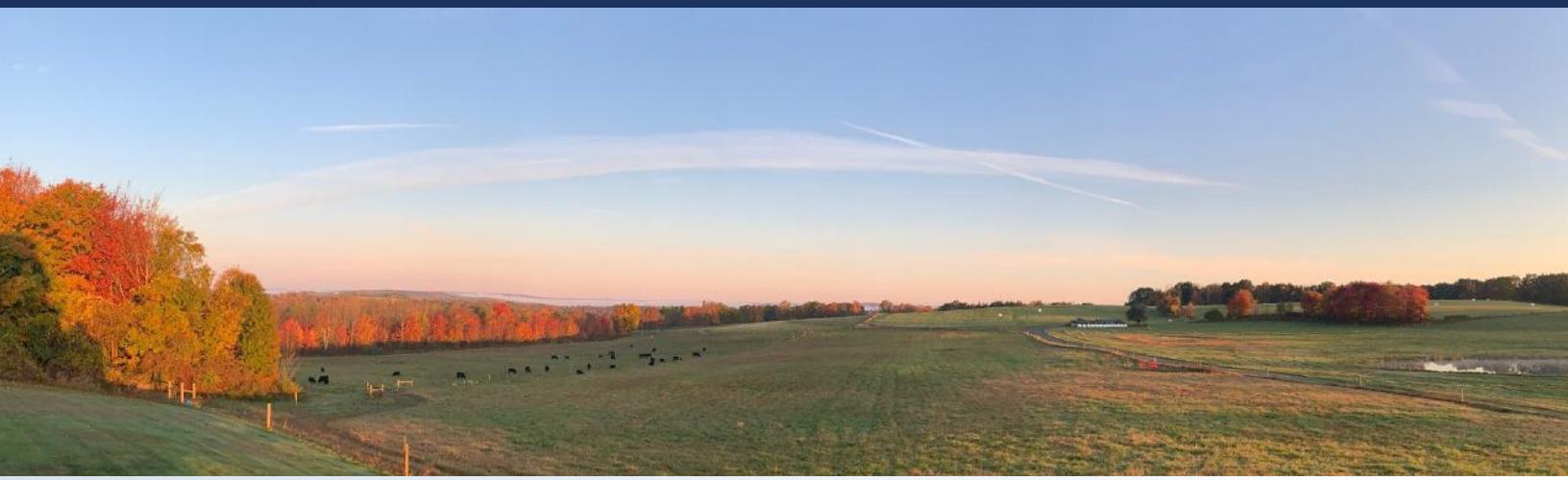
October 25, 2019

Bi-monthly

NEWSLETTER



USC MOU Making It's Way Around the Watershed!

Just a reminder that the updated USC MOU is making its way to your county, please make note the changes to the document were minor and mainly includes the addition of 2 new member counties, Yates and Schoharie. Please let Wendy know if you have any questions or would like for her to attend a board meeting regarding the update!

UPCOMING EVENTS

November:
15 - USC Bi-Monthly Meeting
15 - 17 - 14th Annual Chesapeake Watershed Forum

December:
6 - Deadline for Tree's for Tributaties Request

January:
29 - 30 - 2020 Delaware Wetlands Conference

Add your event to our calendar by emailing Palmerm@co.tioga.ny.us

IN THIS ISSUE

Bradford Conservation District & USC Stream Team Host Dirt & Gravel Roads Training

By: Mike Lovegreen
USC Stream Coordinator

The Bradford County Conservation District hosted and conducted a training on the PA Dirt and Gravel Roads Program that was applauded by all as a worthwhile and successful day. Joe Quatrini, the technical team leader of the Bradford District, led the training with support from the Bradford Dirt and Gravel (D&G) Roads Team. The day began with an overview of the Program as developed and implemented in PA. The D&G Roads Program is a $30 million plus program administered by Conservation Districts that provides an assistance program to Municipalities to address road drainage and road repairs on dirt and gravel roads and "low volume roads" that directly relate to water quality impacts. Participants of the training were impressed with the scope and flexibility of the program as it is administered by PA Conservation Districts. Bradford County has the dubious distinction of having the most mileage of dirt and gravel roads in PA, and along with the steep topography and flashy hydrology, entitles them to over $1.2 in annual allocations to address road related water quality issues is a variety of ways.

The Bradford District then conducted a field tour of a variety of sites that demonstrate various practices that address dirt and gravel road issues. Some of the practices included road filling to allow sheet flow off roads to the country side, various road ditch lining practices and sediment control at ditch outlets. The District provided the instruction, lunch and transportation for the training. The D&G training was part of the menu of trainings offered by the USC Stream Team. For more information about any of the trainings or interest in stream/watershed related training, contact Mike Lovegreen, Stream Team Leader at Mike.lovegreen@u-s-c.org.

EPA Ag Roundtable Event

By: Wendy Walsh
USC Watershed Coordinator

On September 4th and 5th the USC welcomed EPA Regional Administrator, Peter Lopez and his staff to the Upper Susquehanna River Watershed. What started months ago with a request by US EPA Region 2 to hear farms perspective on regulatory issues turned into a 2-day event, including tours of five different farms in Cortland County and ended with a roundtable session with 50 participants. The main take away on day 2 included:

· Reimbursing farms for the environmental and ecosystem benefits they provide to the community
· Programming needs to focus on being proactive rather than reactive
· Increase flexibility with grants
· Strategic planning for the future of ag
· Education for new farmers and the general public

At the conclusion of the event, the USC walked away with some new contacts in our Region 2 office that seemed excited to learn more about what we do and what we need to accomplish our watershed goals.

Status of Hellbender Project in Upper Susquehanna Watershed

By: Michelle Herman
TWT Field Station Employee

As of October 2019 the eastern hellbender restoration project has made much exciting progress. The project, initiated in 2017, was in response to the Upper Susquehanna River watershed's disappearing and aging hellbender population. By 2014 sightings of the species were reduced to a single adult with a nest at just one of 23 historic sites throughout the watershed. Some of the eggs from this nest were collected and taken to the Bronx Zoo in hopes of "headstarting" them, a conservation strategy that involves raising animals in captivity until they are past their early, most vulnerable life stages and then releasing to the wild.

In August 2017 our partners at the Bronx Zoo transferred 102 two-and-a-half-year-old juvenile hellbenders (about half from the 2014 nest, half from a secure population in the Pennsylvania portion of the watershed) to a rearing facility in Central New York. Here the juveniles were raised in groups that received different water sources and food (crayfish) to investigate how traditional "sterile" versus more naturalistic / "dirty" rearing conditions impact growth, health, and survival in the wild.

Above: Tagged Adult Male
Below: Tagged male guarding nest

All photos provided by Michelle Herman

In August 2018 the remaining 99 three-and-a-half year old juvenile hellbenders were PIT-tagged and released at the historic site still occupied in 2014. Prior to the releases the site underwent habitat enhancement, as natural rock cover is generally limited to nonexistent in some segments. Reaches with natural rock received artificial habitat structures ("huts") that supplemented units placed in 2016 and 2017. These handmade concrete huts are about 80-100 pounds each and simulate a cavity underneath a rock; they also feature a capped observation port on top. New habitat was created in a reach that lacked rock by installing large sedimentary slab rocks and huts over two days in June 2018. As of October 2019 53 huts have been placed in the stream (33 sized for adults, 20 for juveniles)....

(Continued on Page 4)

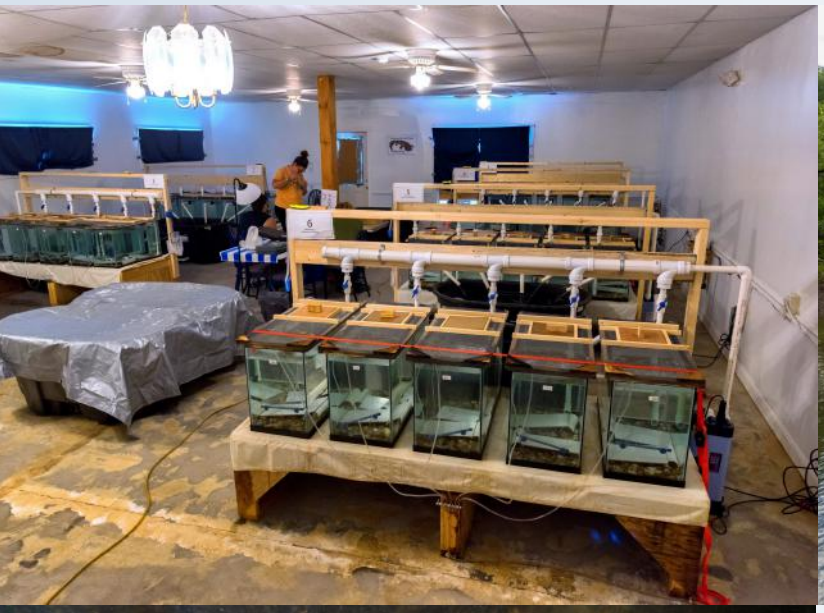
Above: Hellbender in hut

Continued ... Status of Hellbender Project in Upper Susquehanna Watershed

Initial monitoring of the juvenile cohort from mid-September 2018 through June 2019 was hampered by persistent high flows. Once the water levels were workable, repeated scans of the site with a PIT-tag reader between July and October 2019 detected 32 of the 99 headstarted juveniles, with 26 corresponding to a live individual. Eighteen have been captured for a health assessment to date and appear to be in great condition so far. They have been recorded in both juvenile and adult-sized huts, as well as under the placed slab rock.

The huts have also led to some surprising discoveries. In addition to confirming that the hellbender from 2014 is still present, we have found ten new, untagged adults between 2017 and 2019 via regular hut checks. Five of these new adults were found just this year, which is especially amazing considering that in the eight years prior to this project intensive rock lifting surveys produced only three individuals. To date six nests have also been recorded inside the huts, with three from this year. So far the huts are proving to be useful tools that provide a clear benefit to hellbenders as well as researchers wishing to monitor them without the disruption of rock lifting.

Monitoring of the juvenile cohort continues, as well as monitoring the development and dispersal of the larval hellbenders currently inside three huts.



Above Left: Inside Hellbender Lab

Above Right: June 2019 Rock Slab Installation

Below Left: Larvae Inside Hut

Photos provided by: Michelle Herman

We Need Uncomplicated Cattle

By: Troy Bishopp
USC Grazing Specialist

Peterboro, NY—When John O'Brien was a young lad and saw his first cow standing in a field, his Mum said, "It was all over for him; this fascination with bovines." Nearly 55 years later, the Australian CEO of Nature's Blueprint Cow, renowned international livestock judge and cattle industry maverick is still spreading the news that we need uncomplicated, efficient cattle.

The cow connoisseur brought his highly opinionated perspectives, experiences and observational skills to help identify the most economically functional animal to Central New York, in front of a capacity crowd of 100% grass-fed dairy & beef farmers. "A cow's level of efficiency in naturally converting available resources into nutritious consumer food is the key to a farmers' profitability, sustainability, lifestyle and consumer health", emphasized O'Brien.

"I have always been drawn to the moderate framed, wide-based cow (whether dairy or beef) because all my observations reveal this body type does well in all environments, said O'Brien. It's refreshing to see the consumer's interest in grass-fed and meat products; however the availability of these genetics to function efficiently in our pasture environments and provide profit from this market is very low".

Why are we so confused about modern genetic improvement? O'Brien says we have been riddled by decision-making based on production, "promotable" genetic traits and everything predicated around the perfect season mentality, of which I've never witnessed. This has led to frail cows that need too many inputs, management time and cannot thrive in a pasture environment. We have been an industry that is far easier to deceive than to enlighten. All decisions are paid for by the commercial farmer but not commercially based. Everyone is making money out of the modern cow except the farmer".

Photo Left: John O'Brien and Nathan Weaver judge some youngstock on pasture.

Photo Below: John feels Nathans cow is uncomplicated.

O'Brien's views were prejudiced in favor of the old-world master cattle breeders he knew growing up who practiced intense observation, rigorous culling and knitted pedigrees together for prepotency, repeatability and longevity. "We should emulate the few people endowed with these qualities especially that of discriminating very slight differences whereby judgement can only be acquired by long experience. They never stopped looking for the "thrivers" from within the survivors and sought the survival of the fittest within their own environmental conditions". ... (Continued page 6)

Continued ... We Need Uncomplicated Cattle

John took the farmers on a slideshow journey back to the 1940's cow and bull traits that were thriving on forage-based systems and made stark comparisons with today's modern genetics. He reiterated that a cow is your biological bovine harvester and the herd of cows is your engine room. "How efficiently your herd is in converting available resources into a saleable product whilst satisfying their maintenance requirements is the key to your sustainable margin/profit level", said O'Brien.

O'Brien described his favorite grass-based cows as "The ones you don't notice, that look the same 365 days a year and still do everything. They are not lazy, are moderately framed and wide-based, have a large rumen and rump, great hair coat, doesn't have a dirty tail and calves every year". "Research reveals that cows like this, with larger body volume, have much larger rumens than taller, narrower cows; hence they are able to process feed at a much slower rate and therefore can extract much more goodness from forage, than the taller, narrower cows with smaller rumens", said John.

The cow whisperer detailed his free gains (productivity) from correct genetic design: Lower herd maintenance requirements, reduced dystocia, improved components, better foot structure, reduced calving interval, easier calves/yearlings to rear, reduced vet requirements, lower animal husbandry costs, less replacements required and net seller of females. Selecting the bull that helps fill the uncomplicated cattle mantra spawns these considerations: Does he thrive in your similar environmental constraints? Can you see his dam, full sister, and sire's daughters? Is he wide based and have a proper jaw and muzzle? Is he masculine? Ask many questions and go with your gut on how his relatives will perform under your forage management.

After a local lunch and fellowship around the table, Mr. O'Brien and farm host Nathan Weaver of Grünen Aue Organic Dairy Farm led the large contingent of graziers out into the lush paddocks to evaluate cows and some of the offspring from John's Nature's Blueprint Cow genetic pool. Seeing and sharing the cow man's eye first-hand was a valued perspective that led to many conversations on improvement. "We have been using Nature's Blueprint Sires for the last six years with offspring in their fourth lactations. It is evident that these cows have the genetic makeup to perform well on our all-forage diet, said Weaver. We enjoy providing the learning opportunity to others who share in our passion of grass-based farming systems".

"In the final analysis, nature is the barometer, stressed O'Brien. Get out of the road and let nature do it. Always default to nature. Hard times give you the chance to identify the best animals. Keep coming back to the same question: What would happen in nature? Learn to evaluate how an animal will respond to your environment. To be profitable and sustainable, and have a quality of lifestyle, farmers must have cows which work for them. As well as great cows, farmer profitability has always been a high priority and I firmly believe efficient cow design is the key. Strive for uncomplicated cows".

The event was sponsored by Maple Hill Creamery, Organic Valley Cooperative, The Nathan Weaver Family, The Peterboro Amish Church Community, The Madison County Soil & Water Conservation District and the Madison County Graziers Group.

Photos Above: Johns still loves evaluating cows in a Central NY rain storm & shares in the grass whsipering.

4th Annual Upper Susquehanna Watershed Forum

By: Emily Dekar
USC Ag Coordinator

The 4th Annual Upper Susquehanna Watershed Forum was held at Binghamton University, Center of Excellence on October 1, 2019. With approximately 125 attendees, we kicked off the day with welcoming presentations from Otsego County Conservation Association, Choose Clean Water Coalition, Binghamton University, and the Upper Susquehanna Coalition. Faith Vavra, from Congressman Brindisi's office (NY 22nd district), presented on behalf of the Congressman on his recent efforts to protect and improve water quality within the watershed. Jim Tierney, Deputy Commissioner for Water Resources NYSDEC, our keynote speaker, gave an excellent overview of New York's history with water quality conservation efforts prior to the TMDL, and discussed how New York's programs and funding sources continue to evolve overtime. During the forum, attendees could choose from a number of session topics such as Watershed Research, Innovative Practices for Improving Water Quality, Partnership Highlights and Strategies, Communicating the Need for Watershed Conservation, as well as a walking tour of Fuller Hollow Creek. With 10 exhibitor displays, and 7 poster presentations there was plenty of time during the day to look around as well as network with other attendees. We wrapped up the day with a combined session on Funding Mechanisms regarding the Chesapeake Bay Phase III WIP, with presentation from National Fish and Wildlife Foundation, Environmental Protection Agency's Chesapeake Bay Program Office,New York State Department of Environmental Conservation, and New York State Ag & Markets.

The major takeaway's from the forum was the importance of partnerships and flexibility! Without partnerships and program flexibility, it is extremely difficult if not impossible to get implementation on the ground. We hope that with these Watershed Forum's and other events similar to these, we can continue to build on current partnerships as well as initiate new connections for future partnership opportunities, to collaborate and enhance New York's conservation programs.

Project Spotlight : Tioga PA Conservation District

Submitted by: Mike Lovegreen

Mansfield University Students to develop Watershed Assessment for Holden Creek

Mansfield University Watershed Management Students, Tioga County Conservation District, Tioga County Emergency Services, Upper Susquehanna Coalition, Steuben Soil and Water District and Osceola Township are joining forces to evaluate the Holden Brook Watershed.

The Watershed Assessment will give us the groundwork necessary to look for future grants to enhance and protect the area. Holden Brook has experienced multiple flooding events over the last year, which has led to stream erosion, water rescues, and property damage.

This project is very interesting as it crosses state boundaries and really shows how multiple agencies andgroups can pull together to work towards a common goal. The students will be evaluating the stream banks, floodplain area, vegetation along the stream, and also making recommendations as to areas that may have potential for projects.

If you have any questions or concerns please contact Erica Tomlinson at the Tioga County Conservation District at 570-724-1801 ext. 1300.

Project Spotlight : Madison County Soil & Water Conservation District

Submitted by: Troy Bishopp

Rock Lined Waterway Helps Grazing System

Working to install a pasture system project often times take other ancillary practices to guard water quality and improve field conditions. This was the case on a beef farm in West Edmeston, NY where a seasonal stream was impacted from torrential rain events and was "leaking" and eroding into a 10 acre field, making cropping and grazing a real challenge. Madison County's SWCD team of Steve Lorraine, Jerry Boyd and Troy Bishopp designed and worked with the landowner and contractor to install a 400' rock-lined waterway sized to a 100 year storm event. Because of the slope, 6 inch average diameter stone was used to prevent erosion. A buffer fence was added to protect the area from animal impact. "The improved situation has made a real difference", said the landowner.

Above Right: Before Construction
Below Right: During Construction

Above Left: During Construction
Below Right: Project Completion

Project Spotlight : Cortland County Soil & Water Conservation District

Submitted by: Stacy Russell

Paul Allen: Vernal Pools and Wetland Restoration Project

Paul Allen, with help from CCSWCD, the National Fish and Wildlife Foundation (NFWF) and the Upper Susquehanna Coalition (USC) recently created several vernal pools on his forested property in the Town of Virgil, NY. Vernal pools are ephemeral wetlands, often known as vernal ponds or woodland ponds. These unique, seasonal, shallow pools of water often fill with spring and fall runoff, but dry up for a portion of the year and are therefore unable to support fish. As such vernal pools provide safe breeding grounds for amphibians such as; frogs, toads and salamanders.

In addition to providing a unique habitat, vernal pools also filter nutrients and help mitigate flooding by absorbing seasonal runoff. Many human activities such as land clearing, urban development and road building can threaten these distinctive environments. Paul Allen recognized this threat and agreed to enhance some of his existing wetlands while at the same time allowing the creation of several new wetland areas. " I really wanted to improve the wetland habitat and increase biodiversity on my property. It is great to see the frogs and birds using these new habitats. I couldn't be happier with the results", states Allen.

Project Spotlight : Madison County Soil & Water Conservation District

Submitted by: Joann Burke

Bunk Silo With Leachate Collection System

This bunk silo with a silage leachate collection system was installed this fall on a farm in DeRuyter. The original designed plan was to use concrete but with the increasing price of concrete the farmer decided to use asphalt to stay within the budget. Asphalt was less than half the price of concrete and studies show that asphalt does not deteriorate from the silage acids compared to concrete. Low flow goes to a pump out tank and high flow is directed to a bark bed and VTA. The VTA had not yet been installed at time this picture was taken.