HERON TRACKS

CWC CHIPPEWA WATERSHED CONSERVANCY

The Official Newsletter of the Chippewa Watershed Conservancy Volume 32 Number 2 Spring 2025



Executive Director's Corner

As we celebrate the 40th anniversary of the Chippewa Watershed Conservancy, I've spent so much time looking at the history of the CWC that I decided to look back at my personal history with the organization.

I'm not sure when Shara and I made our first visit to a CWC preserve. My first photograph of a CWC preserve visit dates to Sylvan Solace Preserve in January 2009. I remember going back again several days later specifically to photograph frost caused by steam rising from the river. It's possible that I have older photos but those are the first that I can confirm. More than 37,000 photos later, I'm still enthralled by the preserves.

Our first financial contribution to the CWC was in 2009 and with one exception we've given every year since. We attended our first Spring Banquet in 2010 – the program included a presentation on freshwater mussels by Daelynn Woolnough and John Bush was awarded the Bob Ball Award. With the exception of 2011, we've made it to every inperson fundraiser since then.

As far as I can tell, the first program or hike that I led for the CWC was at Hall's Lake Natural Area in 2013. Shortly thereafter, these trips became a regular feature of my life. I cannot tell you how many hikes or other programs I've led since then! Around that same time, I also became a regular volunteer at stewardship activities. By 2015, I was appointed to the now-defunct Board of Advisors. In 2016, I was honored to receive the Bob Ball Award for my efforts as a volunteer.

In 2017, I was appointed to the Board of Directors, where I served until assuming the role of Executive Director in July 2019. My association with the CWC has been among the most rewarding of my life both personally and professionally. I can't wait to see what the future holds!

So that's the abridged version of my personal CWC history. What's your story? How has the CWC impacted you? What does the CWC mean to you? We want to share your memories, stories, and comments in our next issue of *Heron Tracks*. Submit your stories to cwc@cwc-mi.org.

- CWC Chair Notes

In its 1987 Wetlands Research Program Technical Report (Y-87-1), the US Army Corps of Engineers (USACE) defined the "Growing Season" as "the portion of the year when soil temperature (measured 20 inches below the surface) is above biological zero (5° C or 41° F)". This definition was further discussed in the 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), where the USACE described the beginning of the growing season in a given year as occurring when two or more different non-evergreen vascular plant species growing in a wetland or surrounding areas exhibit one or more of the following indicators of biological activity:

- a. Emergence of herbaceous plants from the ground
- b. Appearance of new growth from vegetative crowns (e.g., in graminoids, bulbs, and corms)
- c. Coleoptile/cotyledon emergence from seed
- d. Bud burst on woody plants (i.e., some green foliage is visible between spreading bud scales)
- e. Emergence or elongation of leaves of woody plants
- f. Emergence or opening of flowers

The US Department of Agriculture adds that "the growing season can be approximated as the period of time between the average date of the last killing frost in the spring to the average date of the first killing frost in the fall. This represents a temperature threshold of 28 degrees F or lower at a frequency of 5 years in 10".

Coming out of a Michigan winter, I'd like to suggest an alternate approach to defining the beginning of the growing season; perhaps something a little less technical and mundane such as the following:

The beginning of the growing season is defined by an incremental upward trend in overall hope and anticipation felt within the general population (to varying degrees by individual), as triggered by the recollection of vague memories and evidence of changing ambient conditions leading to the refutation of the common belief (at this time of the year) that we live in a landscape dominated by shades of brown, gray, and sometimes white, and that one's own epidermis and subcutaneous lipid layers are insufficient for maintaining adequate thermal homeostasis. The beginning of the growing season may be best identified when these feelings of hope and anticipation increase day over day for a period of at least five consecutive days, with intermittent periods of stagnation lasting no more than two days (with a negative trend towards zero days).

It's greening up and getting warmer, and we're beginning to experience what can only be described as a wonderous, and perhaps miraculous, event where the landscape completely transforms. Over the next month we will begin to see the browns turn to green, with a smattering of other colors coming and going. We will hear a new and varied chorus of song as birds, frogs, insects, and other creatures return, emerge, or simply get caught up in the season and begin to sing. All of this and more, as if to remind us that on the backside of every dark, dreary, lonely, and perhaps hopeless season, there is hope worth celebrating! **Enjoy your spring!**

CWC Celebrates 40 years of Conservation

This year has been all about celebrating milestones. And why wouldn't it be? Forty years of conservation work is something worth celebrating! Staff has been enjoying diving into the history of the organization, digging through old photos, and hearing founding stories. After all, a like-minded group of people passionate about preserving Central Michigan's natural beauty is what started it all. That is truly what continues to sustain this Conservancy; the group continues to grow every year and the mission continues. We would be nothing without the strong community that rallies around the CWC mission to protect and restore Central Michigan's land, water, and wildlife resources to improve the quality of life for all.

Chippewa Watershed Conservancy was founded in 1985 as a grassroots land protection organization run by volunteers. In 1995, ten years after its inception, CWC was officially recognized as a 501(c)3 non-profit organization. From there CWC continued to grow, protecting more land, gaining more supporters, and becoming more professionalized over time. We hired our first part-time staff member in October 2003. Since January of 2020, CWC has operated with two fulltime staff, who work cooperatively with our three committees and passionate Board of Directors. We now protect over 5,500 acres of land through permanent channels such as nature preserves (over 750 acres) and conservation easements (over 4,700 acres).

Chippewa Watershed Conservancy is a nationally accredited land conservancy. The accreditation seal recognizes land conservation organizations that meet national standards for excellence, uphold the public trust and ensure that conservation efforts are permanent. The Chippewa Watershed Conservancy was awarded the seal by the Land Trust Accreditation Commission in 2012. CWC was most recently reaccredited in 2024.

We look forward to diving deeper into the 40th anniversary celebration in our summer edition with stories from founding members, highlights on special events, and land protection milestones!

To submit your CWC stories, please send them to cwc@cwc-mi.org by June 30th to be included in our Summer Edition of *Heron Tracks*.



The Hidden Life of Vernal Pools

At first glance, they are underwhelming mud puddles you might come across on a hike through the woods. Sometimes murky, and not all that inviting unless you're a child determined to go home covered in the delights of dirty forest water, vernal pools may be nature's most well-kept biodiversity secret. They will not stay that way if the CWC has anything to do with it! Because these ephemeral wetlands are under-studied and often lack protection, they are arguably one of our most vulnerable habitats. That's why the CWC joined the Michigan Vernal Pools Partnership (MVPP) last year. The MVPP is a public/ private partnership of nonprofits, conservancies, businesses, individuals, educators, and agencies in Michigan that have organized to strategically work towards increased conservation and understanding of vernal pools across the region. While holding various community science training and outreach events, we have found these wetlands offer an incredible gateway into the world of conservation. Witnessing the excitement of all age groups as they learn about the many species that rely on vernal pools has been a very rewarding experience.

Over 550 species have been documented using vernal pools. Because these small wetlands host such biodiversity, they are often dubbed "coral reefs of the northeastern forests." From the obligate species that rely on vernal pools for all or part of their life cycle, to the facultative species that use them for feeding and watering grounds, these small wetlands are heavy hitters in the forest ecosystem. As soon as water fills the depressions in the spring the vernal pool season

begins. Various invertebrates can be seen swimming in the water column and hiding amongst the leaf-littered bottoms. Amphibians migrate from their winter homes to these breeding grounds to lay eggs that will quickly hatch and spend the next several months developing in a nursery, safe from fish predation. While the larvae may be safe from fish, many other forest animals, such as migratory birds and various mammals, will visit these pools for a consistent food source. This is why amphibians lay hundreds to thousands (depending on the species) of eggs as a reproductive strategy, knowing most will not make it to adulthood. This is not a cause for mourning, but an indication of a healthy food web that amphibians play an vital role in.

As quickly as the pools come to life, the season comes to an end as the amphibian larvae race to metamorphose before the pools dry. Those who make it out, move into the surrounding forest until they reach sexual maturity and subsequently journey back to the pools to breed. Some invertebrates (such as Caddisflies and Mosquitoes) that transform into winged adults leave the pool, and some that may take multiple years to transform (such as Dragonflies) will burrow into the substrate to escape desiccation. Fingernail Clams will aestivate until the water returns. Fairy Shrimp and Daphnia cysts lie dormant until another flooding occurs to induce hatching. This incredible cycle has been going on for much longer than humans have existed, and by permanently protecting these sensitive habitats, we can ensure their legacy will continue.





Every year when the first rains of spring fall and the temperatures reaches around 40 degrees, several amphibian species migrate to their ancestral breeding grounds. CWC took a group out to Hall's Lake Natural Area on March 15th to witness this magic firsthand. We visited two vernal pools on the property and observed numerous male Spotted Salamanders in the pool basin depositing spermatophores and awaiting the females' arrival to commence the annual breeding ritual.

Whimsical Living Fossils

One of the most interesting vernal pool species is a small, elegant creature known as the Fairy Shrimp. You can observe them swimming upside down, propelled by their eleven feathery legs that are also used for

respiration. Fossils of the Fairy Shrimp age back more than 500 million years ago to the Cambrian Period. Before fish existed, they inhabited the oceans but then had to evolve to live in shallow temporary freshwaters to evade predators. This small crustacean has a fascinating, but fleeting life cycle, lasting only weeks. To ensure the longevity of their species, female Fairy Shrimp lay two different types of eggs, which are technically called "cysts." One cyst is designed to hatch during that season, and the other will lie dormant until certain conditions, including a drying and freezing period, have been met.

Arnolds Add 40 Acres to Conservation Easement

John and Julie Arnold have long recognized the value of land conservation. In 2013, they signed a permanent conservation easement to protect three adjacent parcels of land in Richland Township, Montcalm County.

When recently asked why they chose to place their land in an easement the Arnolds stated, "We value natural habitats that nurture diverse species, especially those under threat from climate change and human interference. Our commitment to protect and preserve these significant spaces is driven by the notion that we don't really own them; rather we share them with native creatures who depend on us to ensure their habitat. The state of Michigan offers few incentives for landowners to protect property from development, but easements are one way. The CWC worked with us to establish a permanent easement for our property, and they did all the work! We are grateful to partner with the CWC to safeguard the well-being of plant and animal species who share with us their natural spaces."

On January 31st of this year, the Arnolds officially placed another 40 acre parcel in the conservation easement, bringing the total protected acreage of their easement to 189 acres. The new easement property is covered with a mixed age forest dominated by oak, aspen, beech, and sugar maple. Most of the property is uplands but it also includes sections of Pine River floodplain. The river enters the property near its northwest corner and flows along and near the north boundary of the property before exiting in the northeast corner. This diversity of habitats (river, floodplain, and upland forest) makes the property suitable habitat for a wide range of plant and animal species.

Thanks to John and Julie's generosity and commitment to conservation, the natural features of this beautiful property are now protected in perpetuity!



40th Anniversary Logo Contest



We are excited to announce Sarrah Smith as our 40th Anniversary Logo Contest winner! Ten participants submitted a range of creative designs. We had our work cut out for us, narrowing down a selection. First, our Relationships Committee selected the final four, and then our Board of Directors selected the winner from that pool! You can order a shirt with this design by following this link: https://bit.ly/CWCAnniversaryTshirt

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Thank you to the volunteer groups who have joined us at Mill Pond Natural Area this year! This marks the fourth year of restoration at this property.



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