

Natural Areas Update
RiverWatch Monitoring Concludes
USRC Partners in Mussel Project
Living Earth Collaborative Grant Awarded
Spotlight on a Volunteer – Scott Hays



Recreation * Stewardship * Citizen Science

USRC Newsletter



Breaking news >>>

Natural Areas Invasive Removal Team Progress Continues at Mahomet Greenway



The USRC Natural Areas Team continues making great progress in its effort to control invasive honeysuckle at the Mahomet Greenway Park. The team has worked 15 events so far this season with participation from 19 volunteers, logging a total of 183 volunteer hours. The weekly work days, which had been paused for a short break, will resume on July 7th. They will continue every Wednesday morning from 9am to 11am weather permitting. The focus of the effort will remain on invasive honeysuckle removal. The team was the beneficiary of the generous donations of two Extractigators; one by Michael Lambert and the other by Anna Keck and Jason Lindsey. They are a very effective tool for pulling honeysuckle too large to hand pull. The donations are greatly appreciated.

RiverWatch Field Monitoring Concludes

Next Up: RiverWatch Open Lab

The RiverWatch Open Lab is scheduled for Saturday, July 31st, 9am – 1pm, at the Izaak Walton Cabin at Lake of the Woods, Mahomet: Registration Required

The field portion of macroinvertebrate monitoring for 2021 concluded on June 19th. This monitoring season marks the 13th year that the USRC has participation in the Illinois RiverWatch monitoring program. We had a robust turnout with 14 volunteers, 10 of which were RiverWatch trained. More than 81 volunteer hours were logged while monitoring 8 sites. Plans to monitor our 9th site were washed-out by heavy rain on the last weekend of the monitoring season. A quick look into the samples suggests that the four river sites had very good EPT taxa richness. The EPT taxa (mayflies, caddisflies, and stoneflies) are the good indicators. Of the 4 metrics that are used, the EPT taxa richness is considered to be



the best indicator of stream health. We were very fortunate to have a great group of enthusiastic volunteers! Thank you all!

2021 USRC RiverWatch Team

- Joe Niernerger – RiverWatch Trained**
- Tamara Ducey – RiverWatch Trained**
- Karin Sailor – RiverWatch Trained**
- Debra Herche – RiverWatch Trained**
- Nathaniel Herche – USRC Volunteer**
- David Subers – RiverWatch Trained**
- Joey Anthony – USRC Volunteer**
- Karen Keonig – RiverWatch Trained**
- Bruce Colravy – RiverWatch Trained**
- Gene Barickman – RiverWatch Trained**
- Walt Hurley – RiverWatch Trained**
- Brooks Hauser – USRC Volunteer**
- Elizabeth Kirby – USRC Volunteer**
- Scott Hays – USRC Volunteer**



Community Science in Action

A 10-year collaborative study, whose partners include the USRC, Illinois RiverWatch, Illinois Natural History Survey, Missouri Botanical Garden and St. Louis Zoo, will begin on July 24th



Tagged Mussel Photo by Sarah Douglass

Later this year citizen scientists, sometimes called community scientists, from the USRC and Illinois RiverWatch will once again be plucking freshwater mussels from the Sangamon River, as has been their summer ritual for the past decade. Once volunteer searchers have gathered the mussels, they will sort, identify, count, measure, and photograph them before they are returned to the portion of the river in which they were found, just as in the past. However, this year volunteers will also be tagging the mussels before they are returned to their river home. Tagging will involve gluing 4mm x 8mm numbered tags on both valves of each mussel. In subsequent surveys as each tagged mussel is recaptured, a great deal of information will be gained by noting changes over time.

The expanded effort is a 10-year collaborative study that will engage partners in research and education that include INHS, Missouri Botanical Garden, and St. Louis Zoo. These organization will partner with volunteers from USRC and Illinois RiverWatch with the goal of collecting important information about freshwater mussels that can be used by other professionals, decision makers, and educators. The project intends to demonstrate the value that citizen science can provide to the advancement of science, and more specifically to better understand the size and composition of mussel assemblages in the basin, the variability in shape, size, and growth rate of the mussels, along with their mobility. Additionally, the study seeks to expand existing knowledge concerning the natural relationship between mussel composition and the stressors to which they are exposed. Morphometric

analysis, which studies mussel size and shape, as well as genetic analysis are planned.

Titled *Biodiversity of Freshwater Mussels of the Upper Sangamon River: Community Science in Action*, the study makes available to amateur malacologists the opportunity to be a part of an exciting collaborative. Dr. Danelle Haake, Stream Ecologist and Director of Illinois RiverWatch, is the Lead for the study, funded in part by the Living Earth Collaborative. The survey sites are located in the upper portions of the Sangamon River near Mahomet and Monticello, Illinois. Tentative dates for the surveys are July 24, and August 8, 21, and 22. If you are interested in participating contact Bruce Colravy at president@sangamonriver.org.



Breaking News >>>

Living Earth Collaborative Awards Grant

The Living Earth Collaborative has awarded a grant to fund in part a project titled *Biodiversity of Freshwater Mussels of the Upper Sangamon River: Community Science in Action*. The project collaborators include the USRC, RiverWatch, Illinois Natural History Survey, Missouri Botanical Garden, and St. Louis Zoo. The grant will help fund research that hopes to answer questions on:

- The size and composition of the mussel assemblages in the basin
- The variability of shape, size, and growth rate of the mussels
- The longitudinal mobility of mussels in the system
- The genetic relatedness of populations in the different portions of the watershed
- The nature of relationships between species composition and watershed stressors

The Living Earth Collaborative at Washington University in St. Louis is dedicated to advancing the knowledge of biodiversity and to ensuring the future of earth's species in their many forms. The center celebrates the diversity of living organisms and seeks to promote further understanding of the ways humans can help to preserve the varied natural environments that allow plants, animals and microbes to survive and thrive. The center exists as a collaborative hub that facilitates interdisciplinary research among plant and animal biologist, and scholars across a wide range

of fields. The center aims to bring together the world's top minds in the field of biodiversity in an international collaborative that transcends geographic and political boundaries to address the most pressing issues facing humankind – the ability to sustain life on earth.

Project Team Members

Biodiversity of Freshwater Mussels of the Upper Sangamon River: Community Science in Action

Dr. Danelle Haake - National Great Rivers Research and Education Center – Stream Ecologist and Director of Illinois RiverWatch.

Sarah Douglass – Illinois Natural History Survey – Associate Malacologist

Dr. Christy Edwards – Missouri Botanical Garden – Conservation Geneticist in the Center for Conservation and Sustainable Development

Dr. Bob Coulter – Missouri Botanical Garden – Leads the Garden's Advanced Inquiry Program – Award winning teacher in both public and private schools

Dr. Ed Spevak – St. Louis Zoo – Curator of Invertebrates

Bruce Colravy - Upper Sangamon River Conservancy – USRC President and Citizen Science Coordinator

2021 Mussel Survey Schedule

Lake of the Woods Site
Sycamore Hollow Shelter
July 24, 9:00am – 3:00pm

River Bend Site
Shelter Near Boat Ramp
August 8, 9:00am – 3:00pm

Nettie Hart Memorial Woods Site
Meet at Main Gate
August 21, 9:00am – 3:00pm

Allerton Park Site
Meet in Main Parking Lot by the Mansion
August 22, 9:00am – 3:00pm



Meet Scott Hays, USRC Secretary

Scott was one of the original eight founding members of the Upper Sangamon River Conservancy. After he and his wife Carol and two daughters moved to a home on the river in 2006 they now call "Riverwood", Scott sought out an area river club or group. After not finding one, he sought out a group of like-minded river-rats who wanted to start something up. In 2009, the Upper Sangamon River Conservancy was born. An avid canoeist, kayaker, swimmer and general water enthusiast, Scott gets great pleasure from spending as much of his summer time as possible on and in the Sangamon River.

Scott has served twice as the USRC President and leads most of the USRC's float trips and annual river cleanup events. He helps out with a variety of other USRC activities as needed. Until the paper shut down a few years ago, Scott wrote a column for the Mahomet Citizen about life on the river called "Notes from the River", the collection of which can be found on the USRC website. He also wrote a series of columns called "Lincoln's River" that tell the stories of Abe Lincoln's association with the Sangamon River can also be found on our

website. Scott serves as a Commissioner on the Champaign County Forest Preserve District Board, as Advocacy Chair of the Illinois Paddling Council, and helped to found the Sangamon River Alliance, a group of river supporters from up and down the river from Mahomet to Springfield. Scott is recently retired from a 23 year career as Research Scientist at the University of Illinois and was a professor of American Government at SIU for 7 years before that. He led the CU Smokefree Alliance from 2003 to 2006, successfully passing smoke-free ordinances for the cities of Champaign and Urbana. After retirement, Scott looks forward to spending more time outdoors, in and on the river in the coming years. Hopefully you can catch up with Scott on the river at one of our float trips this summer listed right here in the newsletter.



Scott With the Fleet Before a Float



Become a Volunteer

To learn more about the many volunteer opportunities available at the USRC contact Mary Stech at volunteer@sangamonriver.org or visit our website at sangamonriver.org.

Quick Bio: Scott Hays

- 1991 – PhD, Political Science, Florida State University
- 1991 – Professor of American Government, Southern Illinois University
- 1998 – Research Scientist, University of Illinois
- 2003 – President, CU Smoke-free Alliance
- 2006 – Moves to "Riverwood" on the Sangamon River
- 2009 – Founding member and first President of USRC
- 2010 – Becomes USRC Float Trip Coordinator
- 2018 – Founding member of the Sangamon River Alliance
- 2021 – Retired, University of Illinois

Feature Fauna >>>

Freshwater Mussels: Unionoida

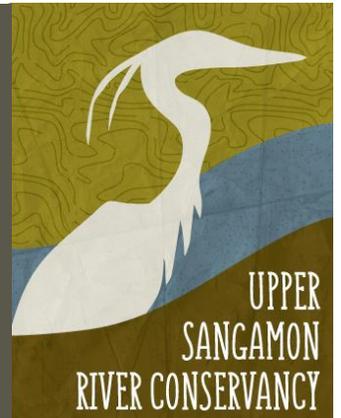
North America has been referred to as the "rainforest" of freshwater mussels due to it having the most diverse freshwater mussel fauna on Earth with its more than 300 species. Estimates are that about 70% of those are now extinct, federally listed as endangered or threatened, or in need of conservation. The Sangamon River once supported more than 40 species of freshwater mussels; today it supports 29 (Price, Bales, Shasteen. 2012). Over the past ten years the USRC has conducted 16 surveys in portions of the Upper Sangamon River and have collected 5528 mussels, including 20 live species, 23 extant species (live and recent dead), and 25 total species (live, recent dead and relic shells). Although this portion of the Sangamon River supports relatively abundant life, freshwater mussels in the Sangamon River have been in decline.



Freshwater mussels are indicator species that are important in assessing the health of streams. They are also a keystone species as well as ecosystem engineers. Which means, they modify the aquatic habitat, making it more suitable for themselves and for other species, too. As a keystone species, the loss of freshwater mussels from streams could have a cascade of detrimental impacts on other aquatic life, making them especially important to protect.

MacroInvertebrate POP QUIZ...

What's in Your River?



In preparation for the upcoming RiverWatch Lab, scheduled for July 31st from 9am – 1pm, we thought that it might be a good time to brush-up on our aquatic invertebrate ID skills. Its been a while. Feel free to use your RiverWatch ID sheets.



- Narrowwinged damselfly - nymph
- Broadwinged damselfly - nymph
- Dragonfly - nymph
- Riffle beetle - adult



- Narrowwinged damselfly - nymph
- Broadwinged damselfly - nymph
- Dragonfly - nymph
- Riffle Beetle - adult



- Midge - larva
- Riffle beetle - larvae
- Hydropsychid caddisfly - larva
- Saddlecase caddisfly - larva



- Two-tailed mayfly - nymph
- Stonefly - nymph
- Broadwinged damselfly - nymph
- Alderfly - larva



- Dragonfly - nymph
- Burrowing mayfly - nymph
- Crawling mayfly - nymph
- Dobsonfly - larva



- Alderfly - larva
- Dobsonfly - larva
- Burrowing mayfly - nymph
- Swimming mayfly - nymph



- Swimming mayfly - larva
- Burrowing mayfly - larva
- Dobsonfly - larva
- Alderfly - larva



- Riffle beetle – adult
- Water penny - larva
- Whirligig beetle – adult
- Giant water bug - adult

Quiz Answers: 1. (a), 2. (c), 3. (c), 4. (b), 5. (c), 6. (a), 7. (b), 8. (d)



Upcoming Events >>>

2021 Calendar

Adopt-a-Highway Clean-up
Museum of the Grand Prairie
Aug 15th, 9am-11am

Invasive Species Removal
Mahomet Greenway Park
July 31 – 10am -1pm
Sept 25 – 10am – 1pm
Small group every Wednesday
Beginning July 7th, 9am – 11am

Mussel Surveys
Schedule on page 2 of this newsletter

Recreational Paddle
July 25th, August 15th
Time and Place TBD
For details contact Scott Hays at
secretary@sangamonriver.org

RiverWatch Open Lab
Izaak Walton Cabin
July 31st, 9am – 1pm

Sangamon River Clean-Up
September 11th, 9am – 2pm
Time and Place TBD
Contact Scott Hays at
secretary@sangamonriver.org

Upper Sangamon
River Conservancy

president@sangamonriver.org www.sangamonriver.org

PO Box 765,
Mahomet, IL 61853