



ILLINOIS RIVERWATCH

ANNUAL REPORT 2018



ILLINOIS
RIVERWATCH
NETWORK
NATIONAL GREAT RIVERS RESEARCH AND EDUCATION CENTER



**The National Great Rivers
Research & Education Center**



A STORIED HISTORY FLOWS ON

Each year our citizen scientists brave poison ivy, inclement weather, ticks, and steep banks to bring us greater understanding of Illinois' many streams. Since the start of the RiverWatch program more than two decades ago we have captured snapshots of the changing aquatic landscape. This year we had a strong turn out of dedicated volunteers, even without offering new volunteer trainings. Sometimes the news can be discouraging, but even when a stream site shows declining water quality, our insights into our environment allow us to be proactive in protecting the valuable freshwater resources of our state. Keep up the good work everyone, our streams need you!

61
Stream Sites

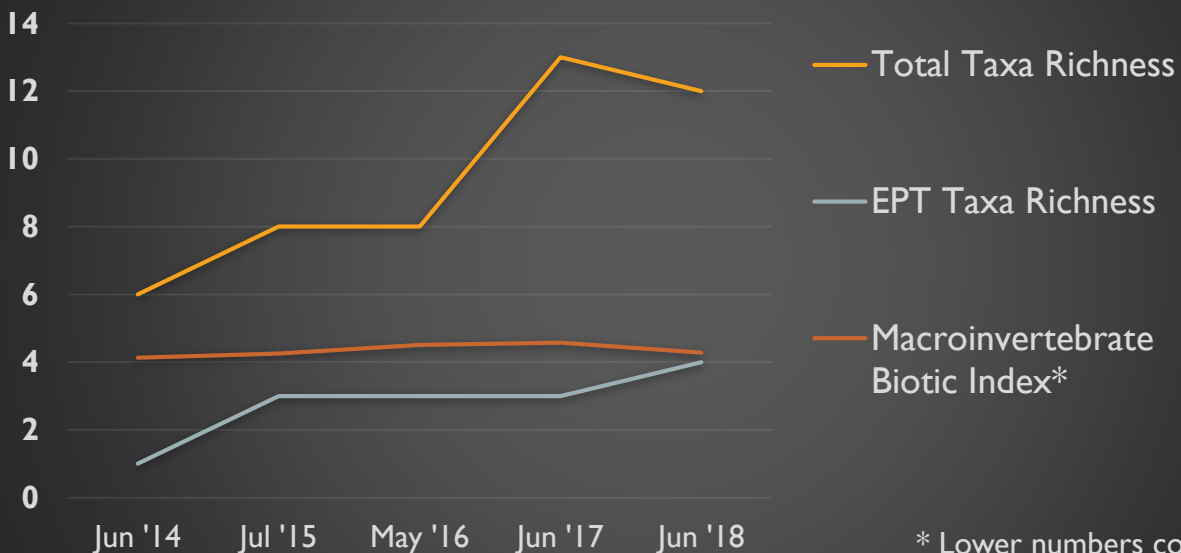
58
Citizen Scientists

122
**additional untrained
volunteers**

HEALTHIEST STREAM OF 2018

This year Wade Creak (R0128401) had the overall best stream quality values of any of our sites. Thanks to the hard work of our citizen scientists, Mary Vieregg, Cynthia Buchholz, Paul Swanson, Mary Meier, and Jan Grainger, we can tell that the efforts of the The Nature Conservancy and the Friends of the Nachusa Grasslands are successfully protecting some high quality stream habitat!

Wade Creek at Nachusa Grasslands



* Lower numbers correspond to better stream quality

STREAM QUALITY IN OUR WATERSHEDS

This graph shows the number of sites from these major watersheds that fall into each stream quality category. Stream quality (average of Taxa Richness, EPT Taxa Richness, and MBI) is from 2018 RiverWatch monitoring events. Note that no sites were monitored this year from the Little Wabash or Big Muddy watersheds.

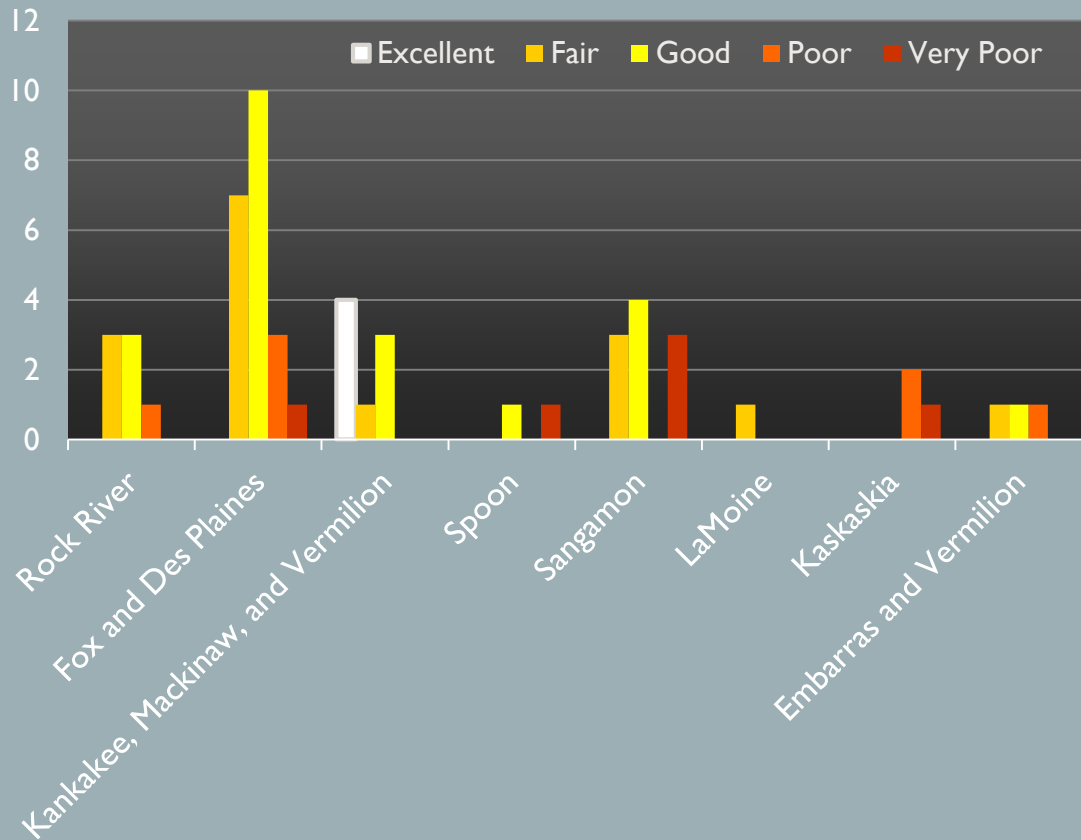


Photo by C. Benson



PRAIRIE CREEK AT MIDEWIN TALLGRASS PRAIRIE

Another of our top quality stream sites this year was Prairie Creek, which runs through protected land managed by the US forest service. Thanks to Lynn Dempsey, Brian Musker, Jeff Tepp, Devon Dempsey and all the others who have participated in caring for and monitoring this site over the years. RiverWatch citizen scientists have been monitoring Prairie Creek since 1998!

Total Taxa Richness

18

EPT Taxa Richness

9

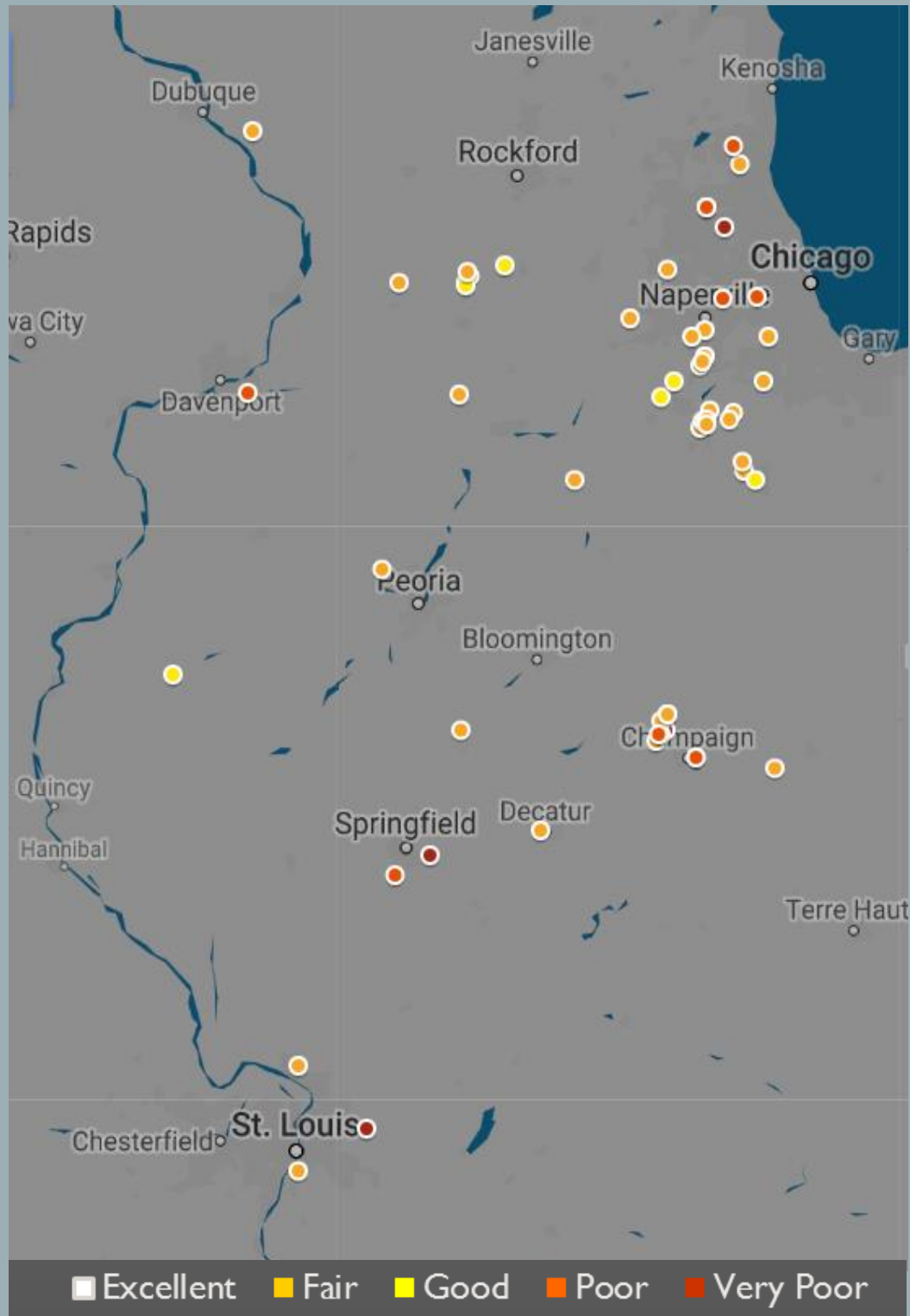
Macroinvertebrate Biotic Index

4.71

Macroinvertebrate Biotic Index Values for 2018

BIOINDICATORS IN OUR STREAMS

This map shows RiverWatch sites sampled in 2018, color coded by their MBI value. The MBI value is calculated based on the number and variety of macroinvertebrates collected, with extra weight given to the organisms we know are sensitive to pollution. This map also illustrates the skew of 2018 participation in the northern part of the state. If you have friends who live in the Big Muddy or Little Wabash watersheds, let them know about [our upcoming trainings this spring!](#)





Stream Sites with Invasive Species

	Asian Clam	Chinese Mystery Snail	Rusty Crayfish	Zebra Mussel
Rock River				
Fox and Des Plaines	6	1	2	1
Kankakee, Mackinaw, and Vermilion	5		4	
Spoon				
Sangamon	2			
LaMoine				
Kaskaskia				
Embarras and Vermilion	1		1	

Observations of invasive species at RiverWatch stream sites in 2018.

Zebra Mussels



Rusty Crayfish



STRUGGLING STREAMS

Invasive species are just one indicator that a stream could need help. One of the sites with the lowest overall quality this year was Black Branch Creek outside of Springfield. The good news is that this site actually has a long term trend of a small improvement in its MBI value since monitoring began in 1996. This is a good example of how long-term monitoring gives deeper insights.

Total Taxa Richness 5

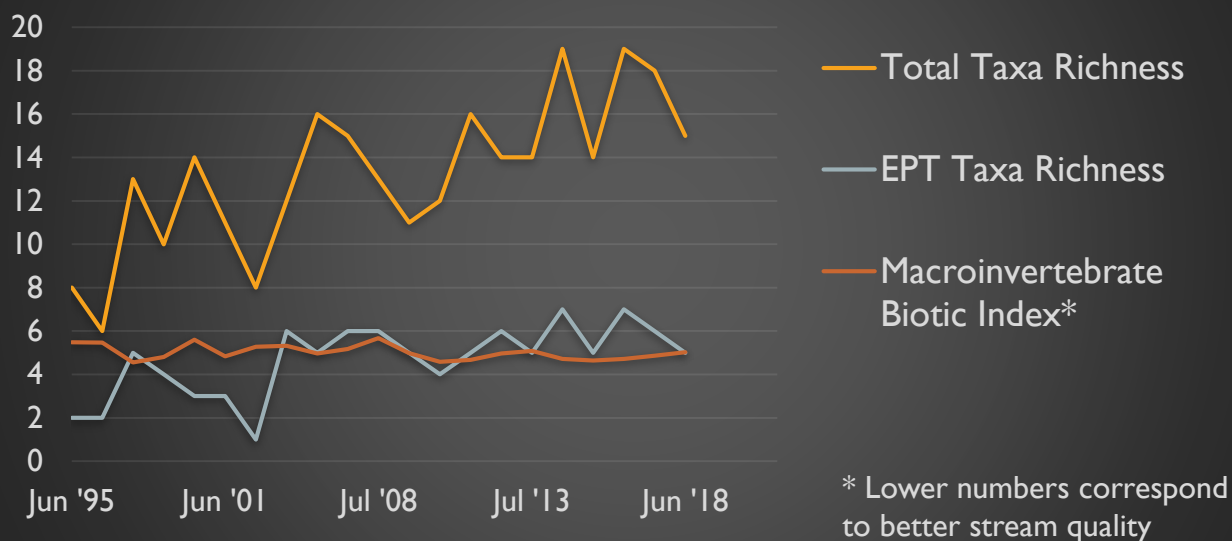
EPT Taxa Richness 0

Macroinvertebrate Biotic Index 6.23

MOST IMPROVED STREAM

Rock Creek meanders through Kankakee River State Park, located 50 some smiles south of Chicago in Bourbonnais, IL. We can observe fluctuations from year to year, but overall this stream has had an impressive trend of improvement over the last two decades. Good work Illinois State Parks, and our citizen scientist Kevin Culver.

Rock Creek at Kankakee River State Park



THE POWER OF CITIZEN SCIENCE

This year we had a high caliber batch of data. For the first time since we began having the Illinois Natural History Survey do quality checks for RiverWatch in 2006, all of the samples we sent to them were within a 10% margin of the MBI values calculated by the professionals. This doesn't mean that all the volunteers counted every organism exactly the same as the experts, so we do still have room for improvement. But it does mean that our citizen scientists are highly capable of capturing an accurate picture of overall stream health.

So What's Next?

We know from previous research as well as RiverWatch data that one of the most widespread water quality issues in Illinois is non-point source pollution from landscape runoff. As a RiverWatch volunteer, presenting your data at local government meetings and state conferences, as well as informing landowners and neighbors of your findings can spread interest in the stewardship of Illinois watersheds. RiverWatch data is accessible at <https://www.illinoisriverwatch.org> for search and download for personal use, research, presentations, articles, or outreach. Right now there is a federal proposal being considered that would change which Illinois waterways are protected under the Clean Water Act. To learn more about what this means, visit the [EPA website](https://www.epa.gov/wotus-rule) and check out their fact sheets. Have an opinion on the proposal? Make an [official comment](#) on the proposal before April 15, 2019.

<https://www.epa.gov/wotus-rule>