

# Building Long-Term Community Science Collaborations

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RiverWatch Director & Stream Ecologist



**NATIONAL GREAT RIVERS**  
RESEARCH • EDUCATION • OUTREACH

# Key Elements for Successful Community Science Programming



## Shared Goals

- Alignment between scientists and volunteers
- Purpose drives participation

## Specialized Training

- Standardized methods for quality data
- Workshops, field practice, online content, resources and materials

## Outreach and Engagement

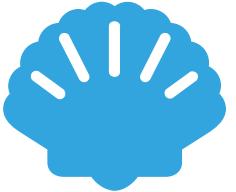
- Building interest and recruitment
- Presentations, press releases, social media, traditional media

## Communication

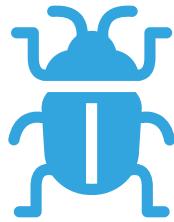
- Regular updates on data use and outcomes
- Program news
- Volunteer feedback and appreciation

## Collaboration

- Agencies, universities, NGOs, and volunteers
- Pooled resources and ideas
- Builds resilience and program longevity



Sangamon River  
Mussel Monitoring



Illinois  
RiverWatch



Winter Chloride  
Watch

## Highlighted Programs



# SHARED GOALS

## Sangamon River Mussel Monitoring



# Sangamon Mussels

- Upper Sangamon River Conservancy: conducting surveys since 2010
- 2021 partnership for a 10-year project
- Shared questions:
  - How many mussels & species?
  - How much do mussels move?
  - How do the genetics of mussels change along the river?
  - How variable are size, shape, and growth rate among species?



# Sangamon Mussels

- Ten 10-meter transects + downstream areas
- Day-of training (no experience required)
- Mussel collection
  - 90 minute search per transect; usually 30 minutes x 3 volunteers
  - Less strict rules for upstream and downstream sections
- Mussel processing
  - Tagged
  - Identified
  - Measured
  - Photographed
  - Genetics (first 2 years)
- Mussels returned to transect where collected



# SPECIALIZED TRAINING



**ILLINOIS**  
**RiverWatch**

  
The National Great Rivers  
Research & Education Center



# Illinois RiverWatch

- Statewide volunteer water quality monitoring program focused on aquatic macroinvertebrates
- Operating since 1995
- Goals:
  - Collect quality data on stream health
  - Educate community members on the importance of our water resources
  - Encourage stewardship of our waterways



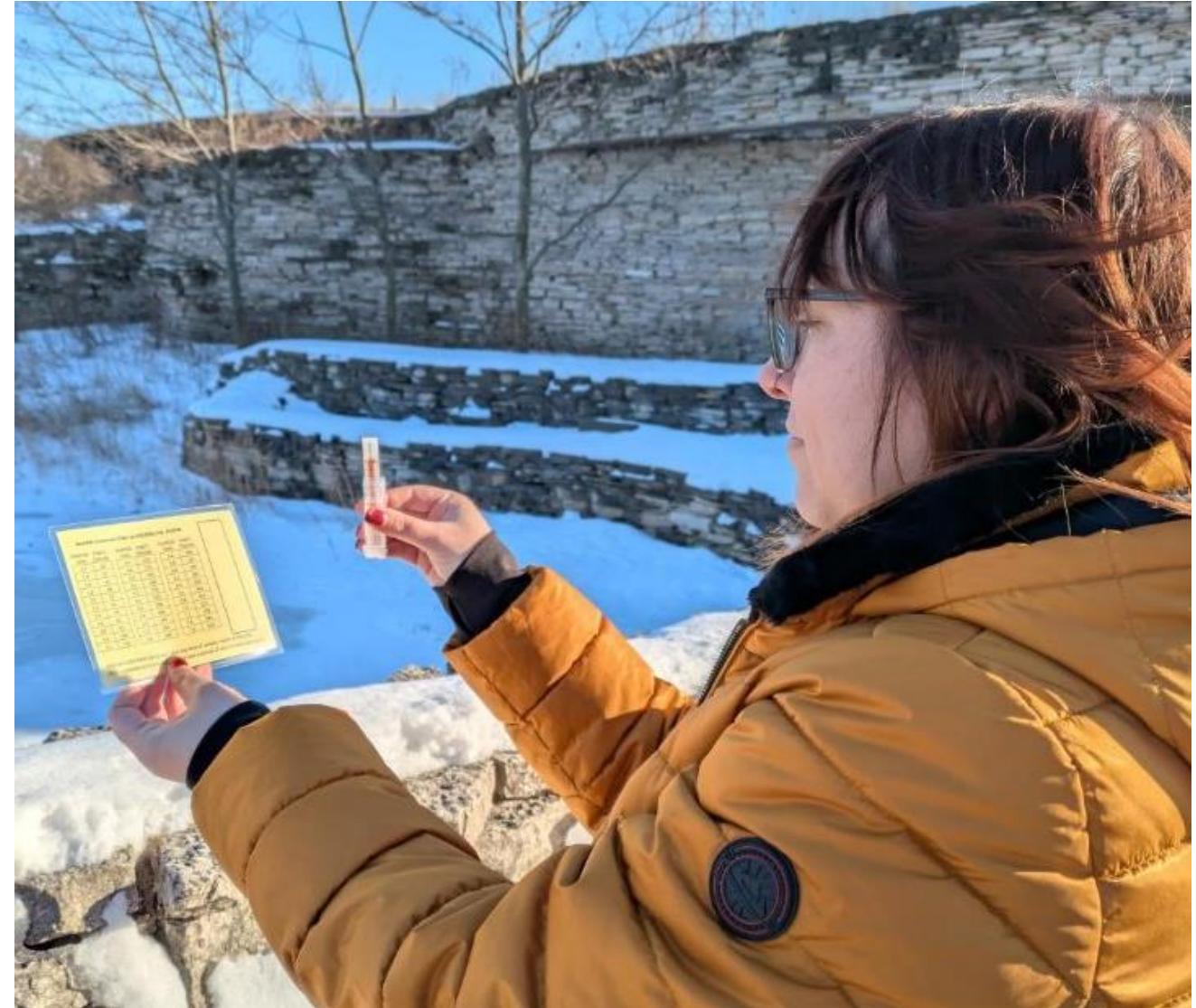
# Illinois RiverWatch

- Spring workshops
  - 6-7 hour in-person
- Sites monitored 1-2 times a year
  - Habitat survey
  - Biological survey
- Invertebrate identification in lab
  - Some IDs to family
- Quality assurance checks
- Online refresher videos and testing



# OUTREACH & ENGAGEMENT

## Winter Chloride Watch



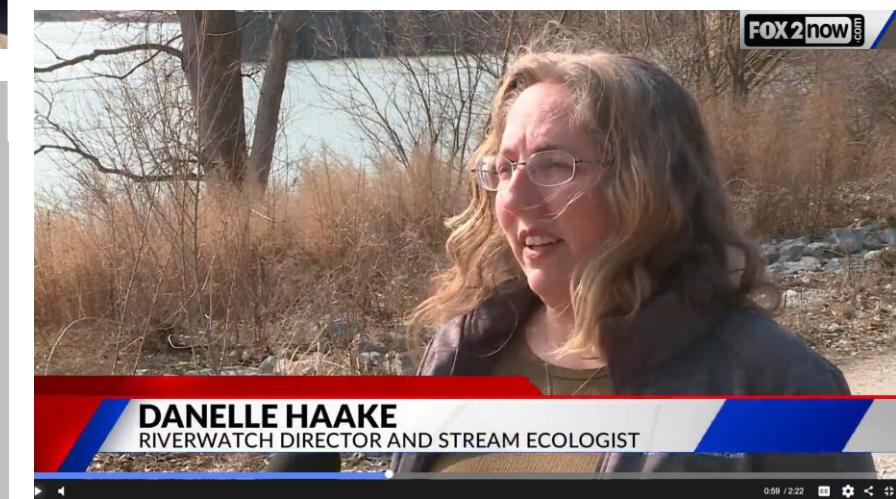
# Winter Chloride Watch

- Volunteers measure chloride from road salt use
- Project introduced in 2021
- Goals:
  - Educate about the problem of road salt reaching freshwater
  - Identify waters where chloride concentrations are high
  - Help communities make better decisions about salt use



# Winter Chloride Watch

- Tabling at community events
  - Ice Jam at the Dam
  - Earth Day series
- Presentations
- Weekly social media infographics
- Traditional media interviews
  - TV news - St. Louis and Chicago
  - Radio - NPR to small town shows
  - Newspapers
- Podcasts



# Winter Chloride Watch

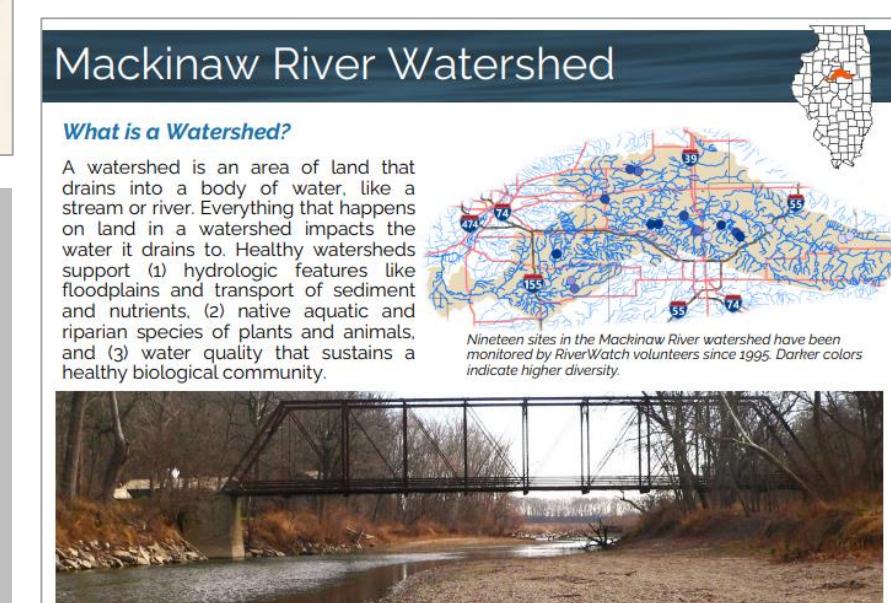
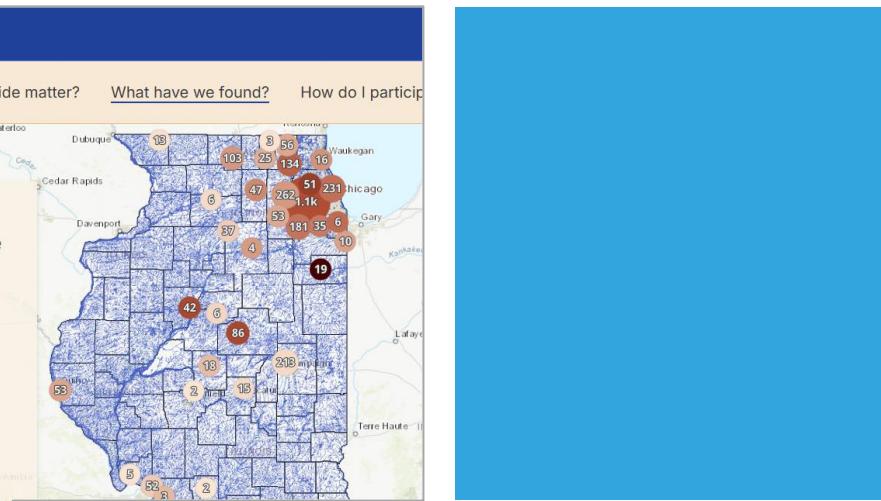
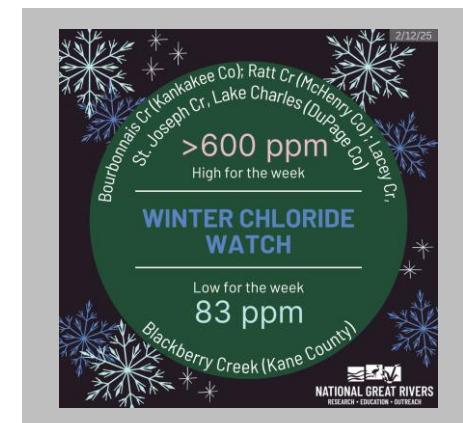
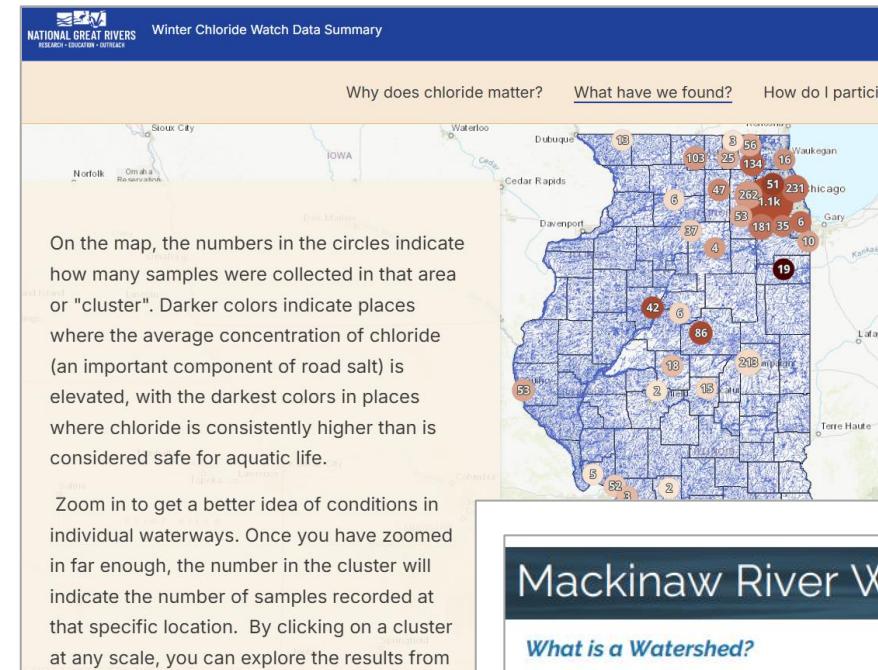
Year	Trained	Dataset
2021-22	47	216
2022-23	81	319
2023-24	218	972
2024-25	194	1380



# COMMUNICATION

## Updates on Data Use and Outcomes

- ArcGIS Storymaps
- Watershed reports
- Infographics



# COMMUNICATION

## Program News

- Newsletters and email campaigns
- Social media

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ILLINOIS RIVERWATCH

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Sample Your Knowledge

Quiz: Water Chemistry Basics 3

Threatened & Endangered

OPEN LABS

Do you have a macroinvertebrate sample that needs to be identified from your summer stream survey? Join us at one of our open labs!

LAB DATES AND LOCATIONS

- July 12 - Peoria (Peoria County)
- July 14 - Alton (Madison County)
- July 19 - Champaign (Champaign County)
- July 19 - Richmond (McHenry County)
- July 19 - Rockford (Winnebago County)
- Aug 9 - Joliet (Will County)
- Aug 16 - Belleville (St. Clair County)
- Sept 20 - Bourbonnais (Kankakee County)
- TBD - Geneva (DeKalb County)

EMAIL US TO REGISTER

riverwatch@ilc.edu

STEMMING THE FLOOD: RESEARCH AND EDUCATION TO PREVENT INVASIVE SPECIES

Recording Now Available

Illinois RiverWatch Monitoring Opportunity

ILLINOIS RIVERWATCH

NATIONAL GREAT RIVERS



# COMMUNICATION

## Volunteer Feedback and Appreciation

- Surveys
- Requests for feedback
- Awards

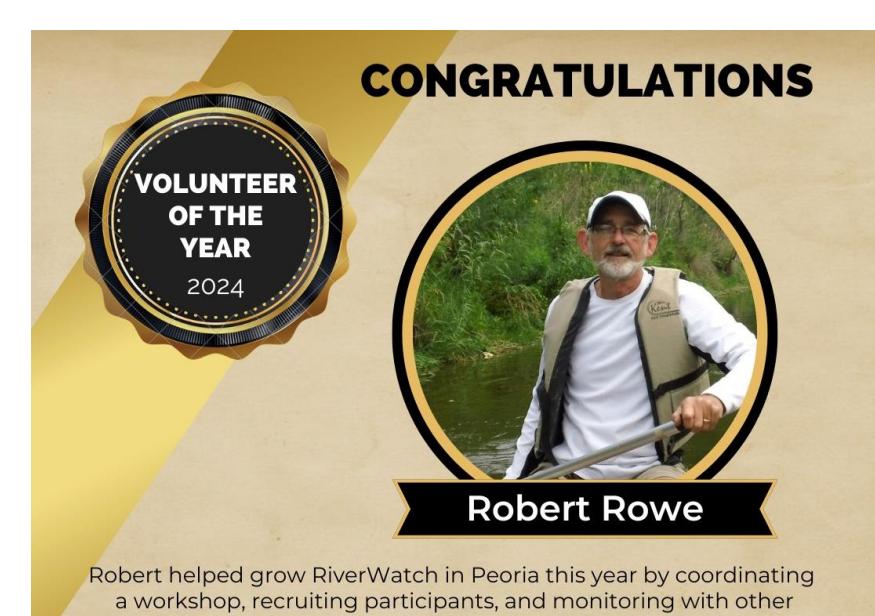


2025 RiverWatch Post Workshop Survey

When you submit this form, it will not automatically collect your details like name and email address unless you provide it yourself.

1. Which workshop did you attend?

Alton  
 Belleville  
 Bourbonnais  
 Decatur  
 Genoa  
 Grafton  
 Joliet



# COLLABORATION

- Accumulating strengths and skills
- Pooled resources
- Builds resilience



## Illinois RiverWatch

- Site permissions/permitting
- Workshop hosts
- Monitoring kit hosts



Prairie Research Institute  
**Illinois Natural History Survey**

## Sangamon River Mussel Monitoring

- Scout Troops



## Winter Chloride Watch

- Forest preserves and park districts
- Local watershed organizations



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Questions?

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