

Hooking the Next Generation on Lake Stewardship

Jane Oppenlander, Mike Schaffer,
Mark Schaffer, Kurt TeKolste
Lake Luzerne Association

Jeannine Bieber
Hadley-Luzerne High School

Jim Niles
Town of Lake Luzerne



Outline

2

- ▶ Motivation
- ▶ Library Story Time
- ▶ High School Student Citizen Scientists
- ▶ Feedback
- ▶ Questions and Discussion



Motivation to develop youth programs

3

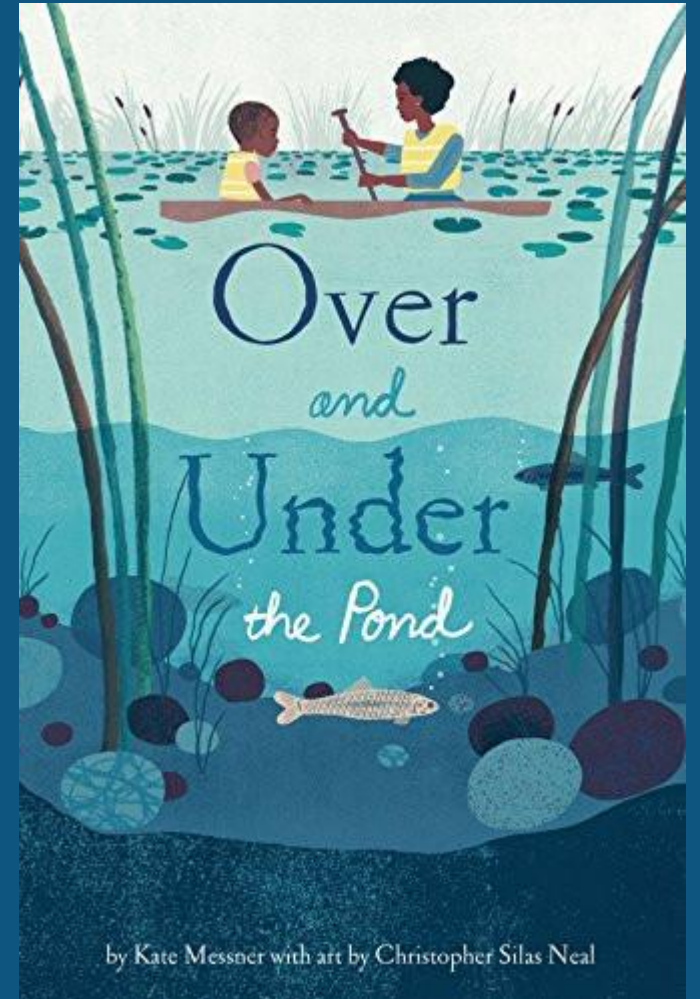
- To maintain a healthy lake, experts and conferences emphasize the importance of

community education
community education
community education

- Educate the next generation (and adults through the children)
- Lake volunteers are aging out



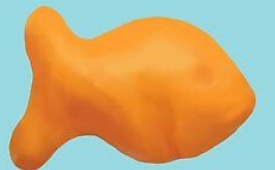
Library Story Time



Library Story Time

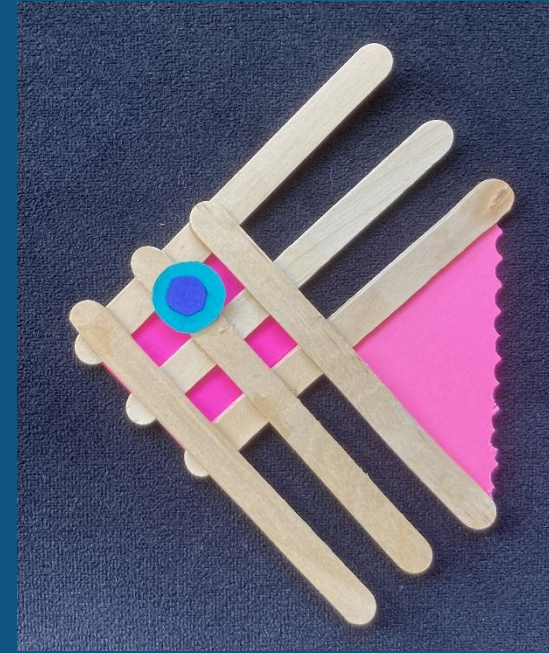
5

- ▶ Partnered with the local library to sponsor lake-themed story times
- ▶ One hour in length, 3 sessions in the summer
 - ▶ Coincided with Lakes Appreciation Month (July) and Adirondack Water Week (early August)
- ▶ Format
 - ▶ Discussion about what children can do to take care of the lake
 - ▶ One or two books – chosen by librarian, read by librarian or volunteers
 - ▶ Craft
 - ▶ Topic themed snack
- ▶ Attended by children, teens, and parents



Story Time Topics

- ▶ Fish
 - ▶ Loons
 - ▶ Water
-
- ▶ Resources
 - ▶ Libraries Love Lakes
 - ▶ Adirondack Water Week
 - ▶ North American Lake Management Association



6



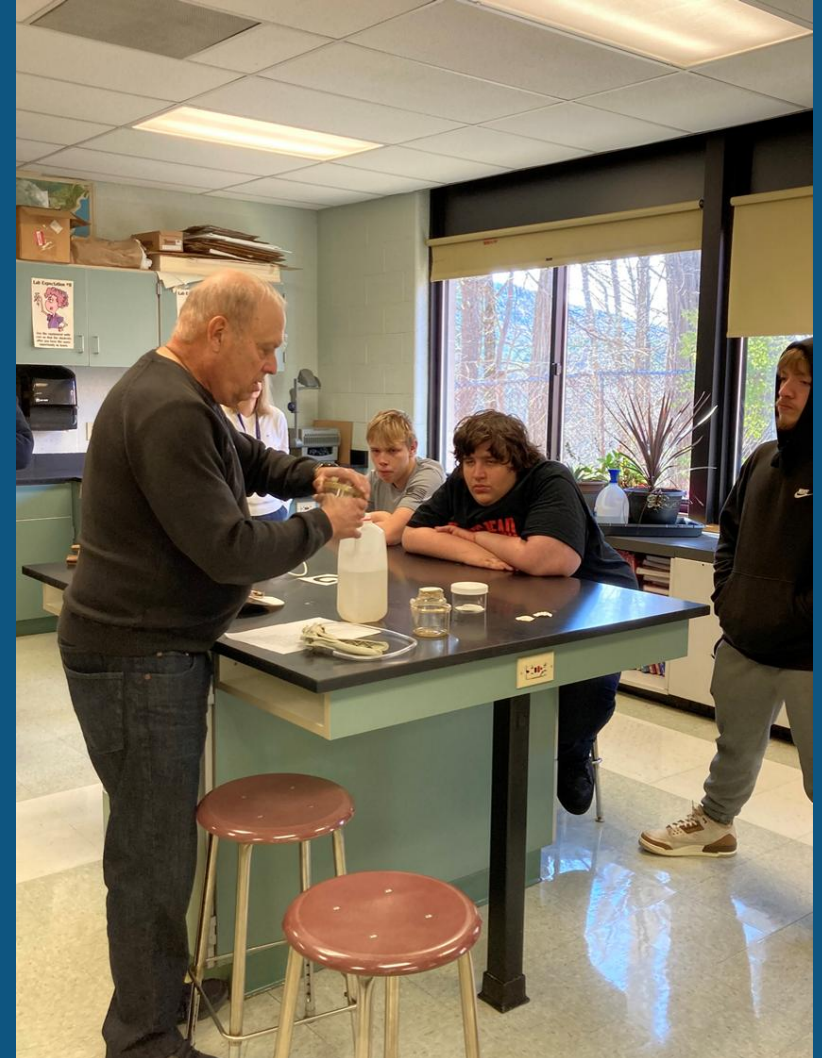
Story Time Tips

7

- ▶ If you take photos during the session, be sure and get permission from adults/guardians at least verbally, preferably in writing.
- ▶ Plan well in advance to allow for publicity
- ▶ Choose topics that relate to your lake



High School Student Citizen Scientists



Development

9

- ▶ Approached high school principal with the idea
- ▶ Fall 2023 presented to 5 science classes
 - ▶ Brief motivating discussion
 - ▶ How and why the lake association conducts water sampling
 - ▶ Demonstration of sampling equipment
- ▶ Asked for students that would be interested in being involved
 - ▶ Summer 2024 - 8 students and 3 science teachers
- ▶ Lake Luzerne Association had three lake monitoring activities for summer 2024 that students could participate in



High School Student Citizen Scientists

10

- ▶ **Students designed our lake protocol and collected the water samples for EPA sponsored study on perchlorate contamination in water sources after fireworks events**
- ▶ Students rode along on water monitoring projects and interacted with professionals from Warren County Soil and Water Conservation District
- ▶ Worked with students throughout the school year to help them develop a poster on their experience with the fireworks study for NYSFOLA conference
 - ▶ Students received academic credit
- ▶ Ended the season with a pizza party for students, parents, and volunteers sponsored by the town

High School Student Citizen Scientists Tips

11

- ▶ Be sure compliance is in order
 - ▶ Get parental permission for participation and photographs
 - ▶ School administrators can supply language
 - ▶ Appropriate insurance
- ▶ Motorized boat drivers must have NYS boating licenses as of 1/1/25
- ▶ Choose activities that integrate science curriculum and reinforce key topics
- ▶ Promotional items such as t-shirts are appreciated by the participants and help publicize the program



Teacher Perspective

13

Flexibility is KEY in terms of...

- **Scheduling**

- Calendar of opportunities for students and teachers to be on the lake with volunteers well in advance. Students could pick and plan time with the group around work schedules and vacations.

- **Communication**

- Establishing a group text in order to contact teachers and students about date or time changes was very helpful. Time on the lake was weather dependent and early notification of cancellations was appreciated by parents and students.

Teacher Perspective – cont.

14

- **Transportation**

- All of our students were not drivers and it could be a challenge to get students to the lake from their homes. Parents were working and homes were quite a distance away. Getting parents in contact with each other for carpooling is essential.
- Parent permission for a teacher to pick up and drop off students increased participation.

- **Relatability**

- It is critical to relate what students were doing on the lake to what they are learning in the classroom AND to educational and career opportunities after high school.

Student Perspective

15

- “Allowed students to experience environmental protection and actual applied science in the real world.”
- “It was fun”
- “I learned that not all scientific research projects are done well”
 - (examples: instructions, equipment provided, final data reports)
- It was good to know that the LLA existed and what concerns there are with our lake water quality.”
- "It was great to get out ON our lake. That's something I don't ever get to do."

Lake Association Perspective

16

- ▶ Lessons learned
 - ▶ Secchi disk depth appears to vary with the age of the observer
 - ▶ Enthusiastic response from parents, students, town officials, educators
- ▶ Share our appreciation of the environment with the next generation
- ▶ Help local students pursue careers in science
- ▶ Generate interest in citizen science



Source: USGS.gov

Town Government Perspective



The Town of
LAKE LUZERNE
NEW YORK

- ▶ Town Board must be receptive to new funding ideas, willing to try new ideas, and progress. The Board has to be educated too!
- ▶ Must be proactive, not just reactive. Its much easier, and cheaper, to prevent a problem than it is to fix a problem.
- ▶ Need procedures/systems in place to deal with problems, like HABS.
- ▶ Town Board has to develop relationships with stakeholders, so trust and credibility helps move good projects forward faster.
- ▶ Working with next generation will develop relationships between students and government, helping each understand how the other works and thinks.

Keys to Success

18

partners

partners

partners

- ▶ Library, school administrators, science teachers, lake association volunteers, parents, town government
 - ▶ Engaged liaison with the school system
- ▶ Many resources available online

What's Next?

19

- ▶ Library Program
 - ▶ 5 sessions including a table at summer reading kickoff event
 - ▶ Read on the beach and beach crafts
- ▶ High School Student Citizen Scientists Program
 - ▶ Repeat and recruit new students
 - ▶ Look for opportunities to broaden the student experience
 - ▶ Conferences, field trips
 - ▶ Other studies and field data collection
 - ▶ DEC environmental camp
- ▶ Lake Day – collaboration between 3 lake associations in the watershed with displays for all ages at community events

Acknowledgements

20

These programs would not be possible without the support of:

- ▶ Administration, Science Faculty and Students of Hadley-Luzerne High School
- ▶ Lake Luzerne Association
- ▶ NYSFOLA
- ▶ Staff of the Rockwell Falls Library
- ▶ Town of Lake Luzerne
- ▶ Warren County Soil and Water Conservation District

Questions & Discussion

21

