

# HEADWATERS

A core publication of the Lilly Center for Lakes & Streams | Summer 2022

## Ahoy, a Buoy!

Deepening  
water literacy  
through summer  
collaboration



LILLY CENTER FOR  
**LAKES  
& STREAMS**





Matt Burlingame



Rusty Martinez

## HI, HAVE WE MET YET?

Introductions are in order. We are Matt and Rusty, the two newest additions to the Lilly Center staff. You may have spotted our faces at different events or on your recent visit to the Lilly Center.

We only joined the team a couple of weeks apart, but that is where the similarity stops! Matt grew up on a farm in western Pennsylvania, eventually earning his master's degree in fisheries from Kansas State University. As assistant director of research at the Lilly Center, Matt strategizes major research efforts and analyzes data to help make your lake cleaner and safer.

Rusty, on the other hand, grew up in the high desert of southern Mexico. The lack of water taught him the importance of healthy water sources. Rusty received a bachelor's degree in photography from Grace College and leads strategic communication efforts to advance the Lilly Center's mission.

Would you join us in welcoming Matt and Rusty? Say "hey" the next time you see one of them! •

***New faces, same excellence. Learn more about our efforts at [lakes.grace.edu](https://lakes.grace.edu).***

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# AHOY, A BUOY

## Collaborating for a deeper understanding of Lake Wawasee

Something is happening on Lake Wawasee that has never happened before. Thanks to several generous supporters, a research buoy is providing vast amounts of **around-the-clock data** to help unlock the mysteries of Lake Wawasee.

For over 15 years, the Lilly Center has conducted studies and routine testing on Kosciusko County's lakes and streams, including Lake Wawasee and its inflowing and outflowing streams. Each summer, lake sampling occurs on **14 local lakes** once a week from June

through August. But what if there was a way to look at the lake between samplings, a way that could show us patterns that we may not have otherwise seen?

"A research buoy on one of our lakes is key to making our county's lakes healthier," explains Dr. Nate Bosch, Lilly Center director. "It's a

Wawasee's first research buoy entered the water. The idea for the buoy came from conversations with Alex Levinson and Alan Tehan. The **buoy itself** was made in collaboration with the Department of Engineering at Grace College and installed with the help of the Herdrich family. The **sensor array** beneath the buoy, the part

**"The buoy is a strategic solution to understanding algae toxins"**

DR. NATE BOSCH

strategic solution to understanding one of the major challenges on our lakes: algae toxins. **We're thankful for generous supporters and partners who made this idea a reality."**

After a year of collaboration, research, fundraising, and construction, Lake

that gathers the data, is a specialized piece of monitoring equipment similar to the one used for routine lake sampling. Special thanks to the Levinson family for their support in this area.

According to research technician Jed Harvey, "The buoy's sensor array collects several hundred data points each day. It measures parameters like pH, conductivity, and dissolved oxygen **every 15 minutes**. The buoy is also able to track different algae types through a process called fluorescence."

What have we learned since the buoy went into the water? The short answer is: **it's complicated!** Gathering enough data to have a comprehensive understanding



ABOVE: Engineering students from Grace College begin testing a prototype of the research buoy.

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## COLLABORATION WAS THE NAME OF THE GAME THIS SUMMER

Summer is a great time to get outside. But without the structure of a classroom, community education has some challenges!

“We wanted our summer programs to be as robust as our school year programs,” explains Sarah Baier, education program specialist. “But this requires collaboration.”

In addition to year-round partners like lake associations and watershed groups, partners like Warsaw Community Library, The Bowen Center, and The Nature Conservancy collaborated with us on summer education programs. In all, **almost 800 students** took a step closer to water literacy.

Check out the snippets below for a small taste of how your partnership made a difference in the lives of future leaders. •

## SUMMER SNIPPETS



WCHS volunteers joined Lilly Center staff and other organizations to provide water literacy education at Lakes Festival 2022. Here, a student learns about our watersheds. Special thanks to **Warsaw Parks Department** for the partnership.



This year, lake ecotours featured a fresh new perspective: lake history! Dr. Terry White (pictured), Pete Smith, Ann Garceau, and Thom Howard gave of their time and expertise to share about their lake's history.



Kid-size waders allow students to jump into learning feet-first! Summer educational programs are possible thanks to generous supporters and partnerships with organizations like **Presby Preschool!**

Find other ways to get involved at [lakes.grace.edu/get-involved](https://lakes.grace.edu/get-involved)!

## AHOY, A BUOY CONT'D

of something as complex as Lake Wawasee takes years, even decades. However, **the information collected from the buoy will help us create a “temporal profile” of Lake Wawasee as it changes over the summer months.**

“This information will expand our knowledge of how algae, nutrients, and other water quality parameters vary over time,” explains Matt Burlingame, assistant director of research. “It will give us additional insight into how these conditions impact microcystin toxin production in our lakes.”

In the meantime, the buoy continues to collect around-the-clock data from Lake Wawasee. This data, alongside other research conducted by the Lilly Center,



ABOVE: Students and staff celebrate launching the buoy into the waters of Lake Wawasee for the first time.

is a piece of the puzzle to better understand how to make Kosciusko County's lakes clean, healthy, safe, and beautiful.

If it's successful, we may expand lake buoy monitoring to other locations. For now, this pilot project will remain on Lake Wawasee.

So, next time you are out on Lake Wawasee, keep an eye out for the lime green buoy and its orange flag in Natti Crow Bay. Spread the word and help keep **detailed data flowing for years to come.** Thanks to this milestone, we're one step closer to understanding Lake Wawasee's secrets. •



## CONSIDER GIFTS THAT LEAVE A LEGACY

Protect the lakes for your children's children

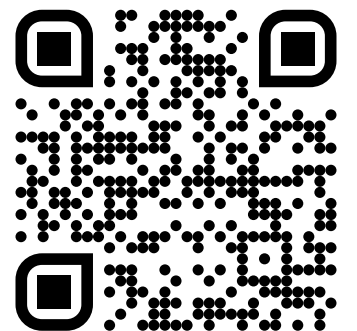
Education and research make a difference in our children's lives today. But how can we ensure future generations reap the benefits and continue a tradition of safe, healthy, lakes?

Making a legacy gift, also called planned giving or an estate gift, supports research and education initiatives in Kosciusko County for years

to come. Your grandchildren and your lake will thank you.

The first twenty families to commit to a legacy gift will be inducted into **the Lilly Center's Founders Circle** - a group committed to the future of our lakes & streams.

Learn more about giving at [lakes.grace.edu/give](https://lakes.grace.edu/give) or by scanning the QR code. •



[LAKES.GRACE.EDU/GIVE](https://lakes.grace.edu/give)





## CELEBRATING 15 YEARS OF LAKE COLLABORATION

