

# HEADWATERS

A core publication of the Lilly Center for Lakes & Streams | Spring 2024

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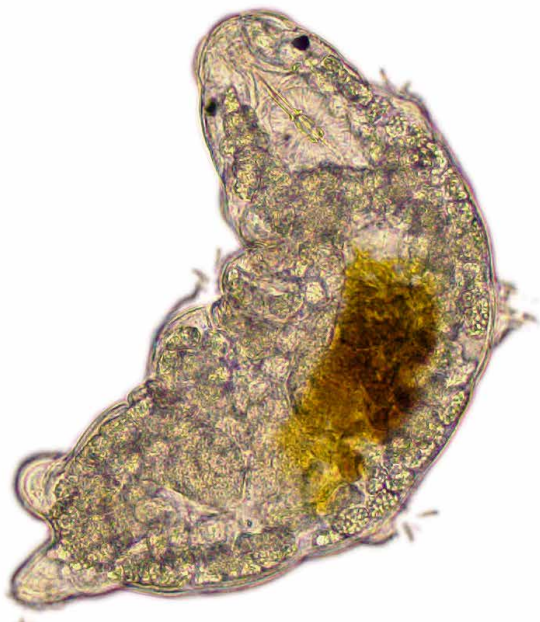
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LILLY CENTER FOR  
**LAKES  
& STREAMS**



# TINY AQUATIC BEARS

*Tardigrada*, commonly known as water bears, are considered the “most indestructible animals on earth.” The phylum Tardigrada comprises over 1,000 species, characterized by their **bear-shaped stature** and unique claws on each foot.

These microscopic animals are typically 1 mm or less in size, making them very small and hard to see with the naked eye. What sets these invertebrates apart is their ability to **survive extreme conditions**. From the deep sea to sand dunes, they have even survived outer space! However, they prefer freshwater mosses and lichens like those in Kosciusko County.

They can survive unfavorable conditions by entering a state of suspension known as the **tun** state. During this time, their bodies dry out and appear lifeless, and their metabolism slows. They can survive for years in this state until conditions become favorable again.

Water bears, though small, are **mighty and resilient creatures** that are here to stay! •

***Discover how the Lilly Center “zooms in” on your lake by visiting [lakes.grace.edu](http://lakes.grace.edu).***

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Cover: This zooplankton, known as a bosmina, feed on algae and use their large front leg to collect food from the water.

## STAFF

**Dr. Nate Bosch**  
Director

**Jeremy Price**  
Associate Director

**Judy Fisher**  
Stewardship Coordinator

**Sarah Baier**  
Asst. Director of Education

**Matt Burlingame**  
Asst. Director of Research

**Dr. Joseph Frentzel**  
Cell & Molecular Biologist

**Jed Harvey**  
Research Technician

**Rusty Martinez**  
Asst. Director of Marketing

**Grace St. Clair**  
Lead Education Coordinator

**Ariel Wagner**  
Education Coordinator

**Emma Crosby**  
Marketing Assistant

## CONTACT

**Email**  
[lakes@grace.edu](mailto:lakes@grace.edu)

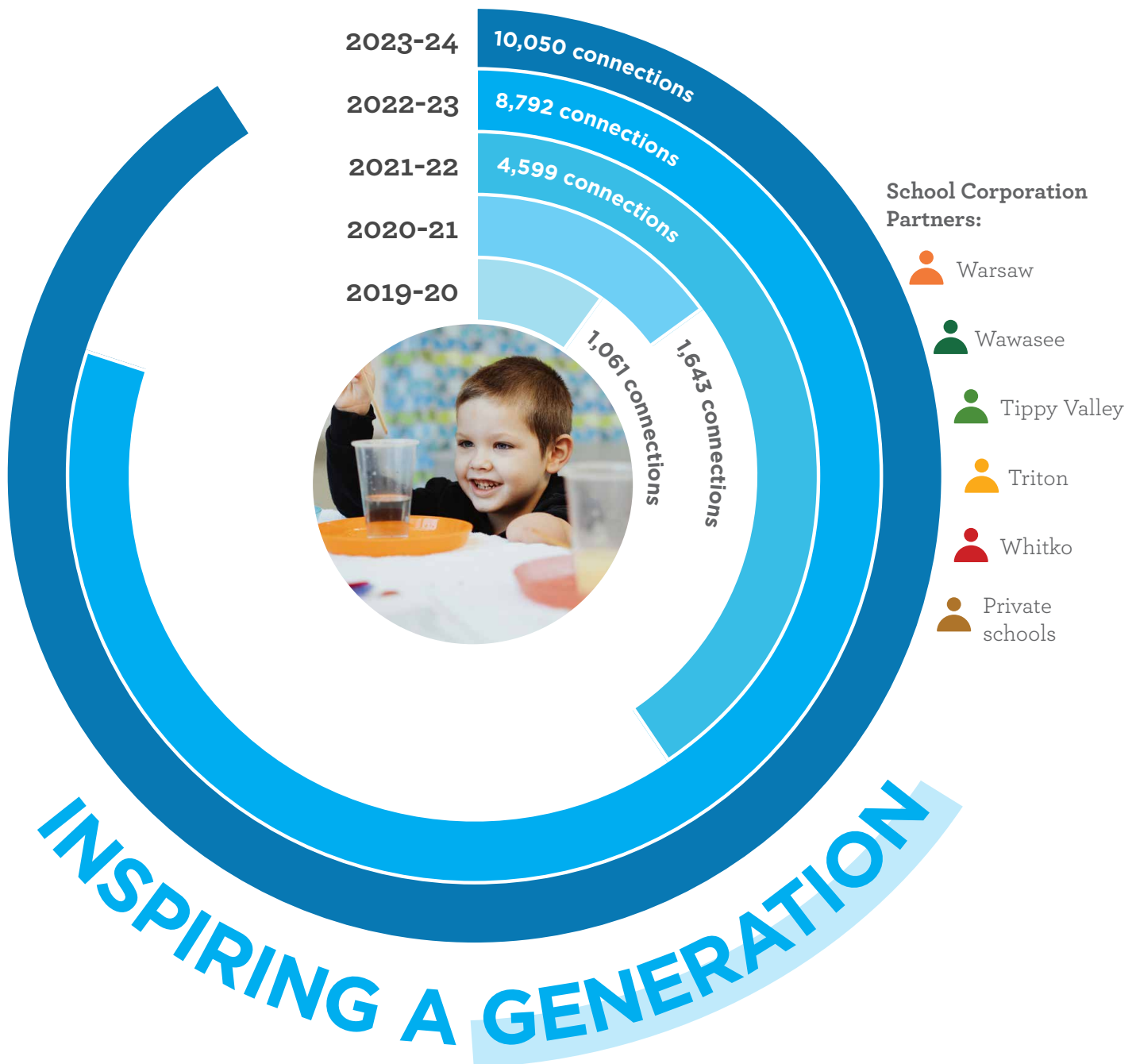
**Phone**  
574-372-5281

**Website**  
[lakes.grace.edu](http://lakes.grace.edu)



LILLY CENTER FOR  
**LAKES  
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GRACE  
COLLEGE



Over **10,000** student connections will be made this year.

Thousands of students receive an innovative, hands-on education that **“zoom in”** on Kosciusko County’s waterways and native fish. Programs like Lake in the Library, Classroom Lake Experience, and field trips to the Lilly Center reinforce

the value of **caring for our lakes** with age-appropriate concepts that meet state standards.

“Our school corporation partners are incredible,” said Sarah Baier, assistant director of education at the Lilly Center. “Students are so excited to come back each year and build on what they learned last year.”

Since the construction of the Lilly Center facility five years ago, **over 25,000 student connections** have been made. Thank you for your support that inspires the **next generation** of leaders! •

***Discover the unique K-12 education programs available through the Lilly Center by visiting [lakes.grace.edu/education](https://lakes.grace.edu/education).***





Alix Underwood, research analyst at IFPRI.

# I CAN MAKE A CHANGE

When faced with a choice, Robert Frost famously chose the road less traveled.

Alix Underwood, a former intern at the Lilly Center for Lakes & Streams, made a choice while at Grace College that would determine her **unique career path**.

However, Underwood almost did not attend Grace. An injury during her senior year of high school slowed a promising

volleyball career. Grace was one of the few schools that continued to pursue her. However, Underwood was uncertain that her interest in environmental biology aligned with Grace's environmental program. Her coach suggested that she look into the Lilly Center's **applied research**; she was hooked.

"I loved putting on chest waders and going out and getting samples, and the coworkers were great, too," Underwood remembers. She went on to spend four years

working with the field research team.

Two required classes for her environmental biology major were a turning point for Underwood. "I thought of aquatic ecology and environmental ethics as my two potential paths in life. I loved the environmental ethics class!"

During a class discussion about animal rights, she teared up, saying, "This problem is so huge, and nobody's doing anything about it." Her



L: Underwood (green sweatshirt) learns from IDNR staff. C: Underwood (far right) in Panama. R: Underwood's capstone project in Guatemala. Photos courtesy of Underwood.

classmates later noticed that someone had done something: Underwood had chosen to become vegetarian as a result of further research.

She added, "The lesson was that I can decide that I don't like the way something is, and I can make a personal change. It was empowering to know that **I can change my life and make a stance** about something."

Underwood's career after Grace includes two years with the Peace Corps in Panama, a master's degree in global affairs at Notre Dame, a capstone project in Guatemala, and much more. Today she is a research analyst at the International Food Policy Research Institute in Washington DC.

Underwood's experiences as a college student helped her

**"zoom in"** on a career path in policy. "Policy has been this powerful factor that makes things worse or, in some cases, better," she said.

The UN recognized the human right to water in 2010. Unlike much of the world, water is plentiful in Kosciusko County.

"Just because you have lots of resources doesn't mean you are immune to a water crisis," Underwood said. "Flint is an American city that had a huge

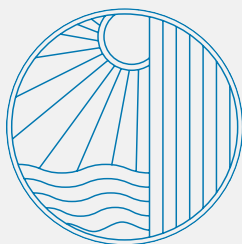
water crisis. It's important to have experts and resources in place to fight that water battle."

The experts at the Lilly Center **collaborate** with local organizations to **equip you** with tools to make our lakes & streams clean, healthy, safe, and beautiful. •

**Discover relevant research and educational resources about your lake at [lakes.grace.edu](https://lakes.grace.edu).**

**I can change my life and make a stance about something.**

*Alix Underwood*



### Ensure your lake legacy.

Join the Lilly Center Legacy Society by making a gift through several estate options with tax advantages. Talk to Dr. Nate Bosch about how you can join the Founders Circle and become part of an initial group of 20 members today:

574.372.5282 | [boschns@grace.edu](mailto:boschns@grace.edu)





A new study reports that Kosciusko County could experience a total increase in housing values of almost

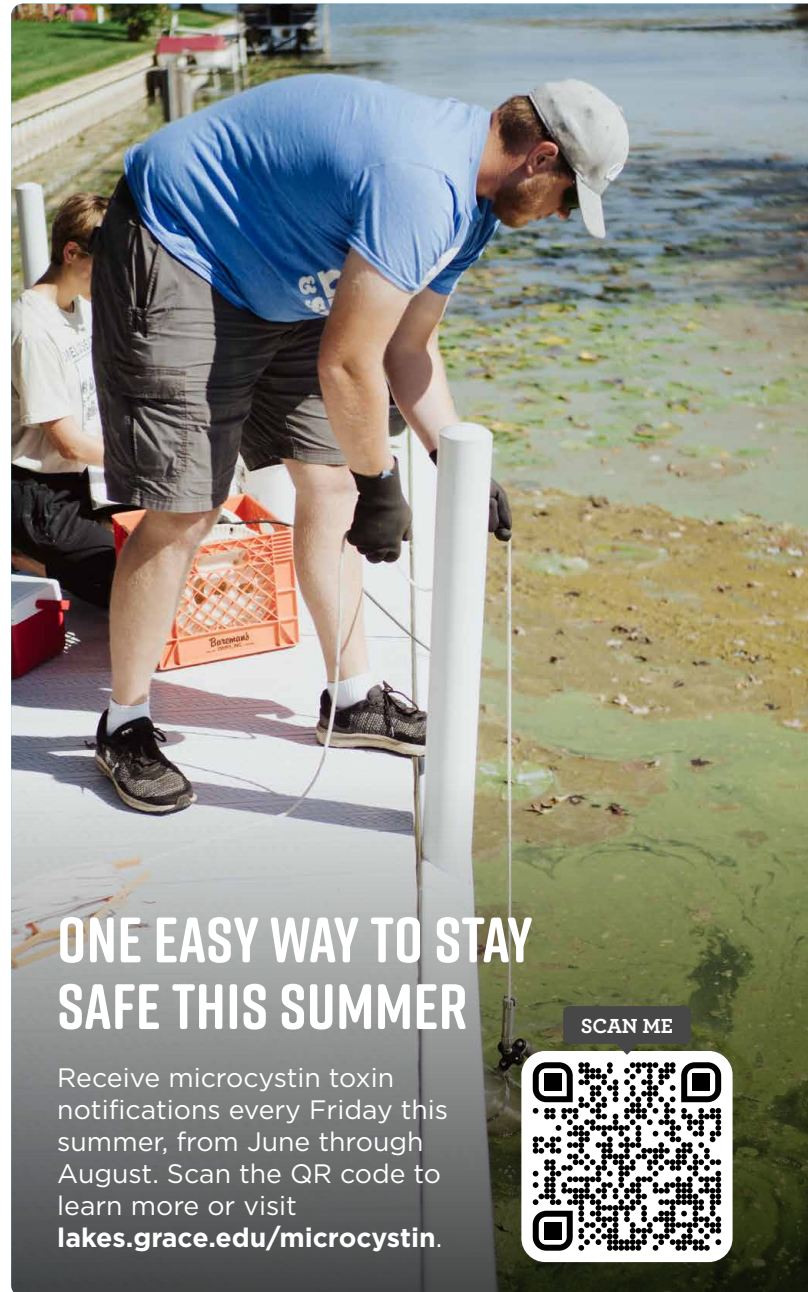
# \$122 million

*if an average sustained increase of 12 inches of water clarity is achieved across 14 lakes.*

SCAN ME




Learn more about the surprising impact water clarity could have on home values by scanning the QR code or visiting **[lakes.grace.edu/water-clarity-surprising-impact-on-your-home-value/](https://lakes.grace.edu/water-clarity-surprising-impact-on-your-home-value/)**



## ONE EASY WAY TO STAY SAFE THIS SUMMER

Receive microcystin toxin notifications every Friday this summer, from June through August. Scan the QR code to learn more or visit **[lakes.grace.edu/microcystin](https://lakes.grace.edu/microcystin)**.

SCAN ME



## MEET JED HARVEY

Jed guides the field research team and maintains the network of 15 streams sensors in Kosciusko County. He helped install one more this spring near Pike Lake!

Jed is a life-long learner and enjoys the outdoors as much as the indoors. He frequently takes deep dives into topics

like the world of microorganisms or the inner workings of quantum physics. This year, Jed celebrates three years on staff at the Lilly Center (though Jed also spent four years as a student employee at the Lilly Center). •

**Congratulations on reaching this milestone, Jed!**

