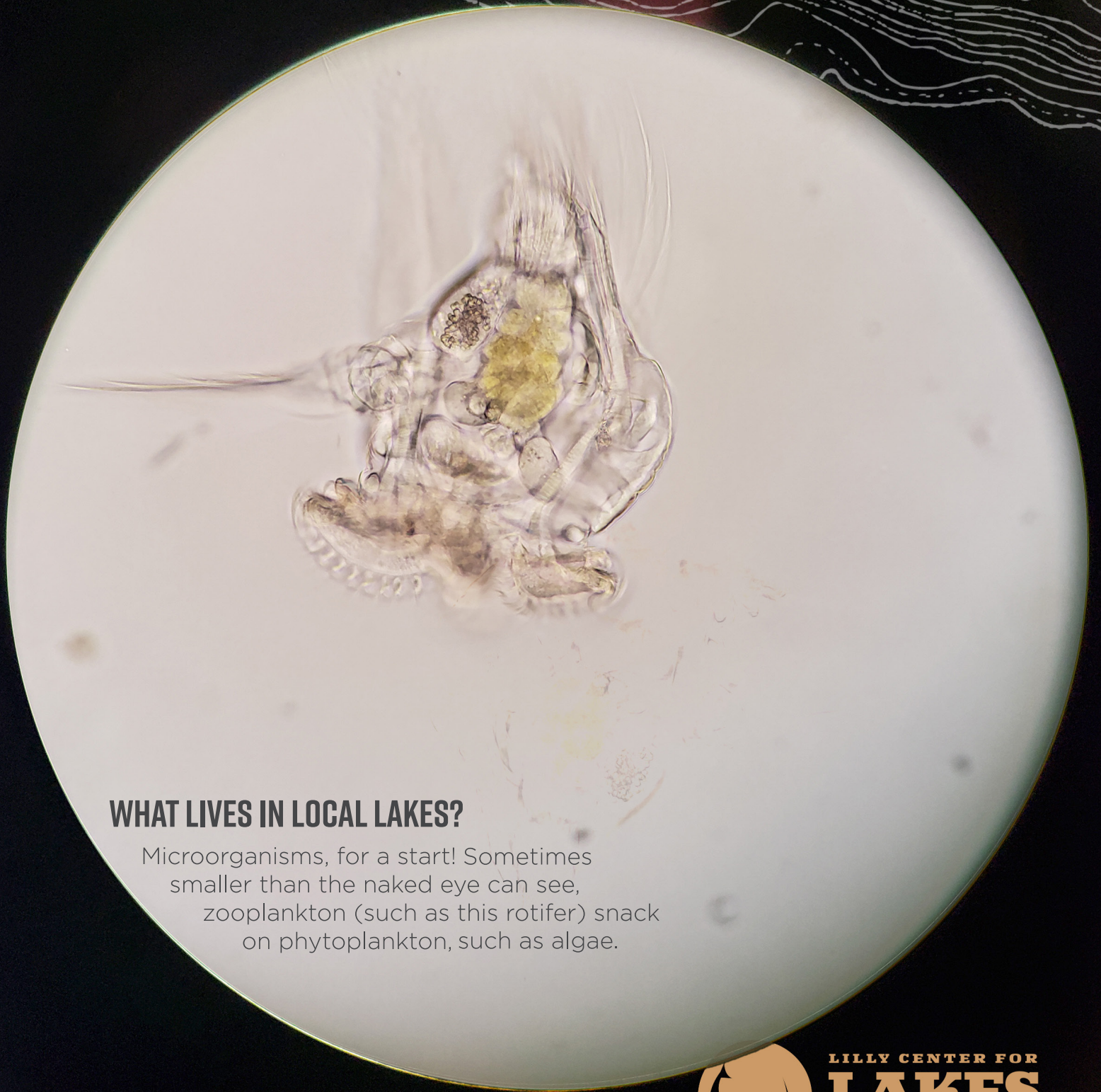


HEADWATERS

A core publication of the Lilly Center for Lakes & Streams | Summer 2021

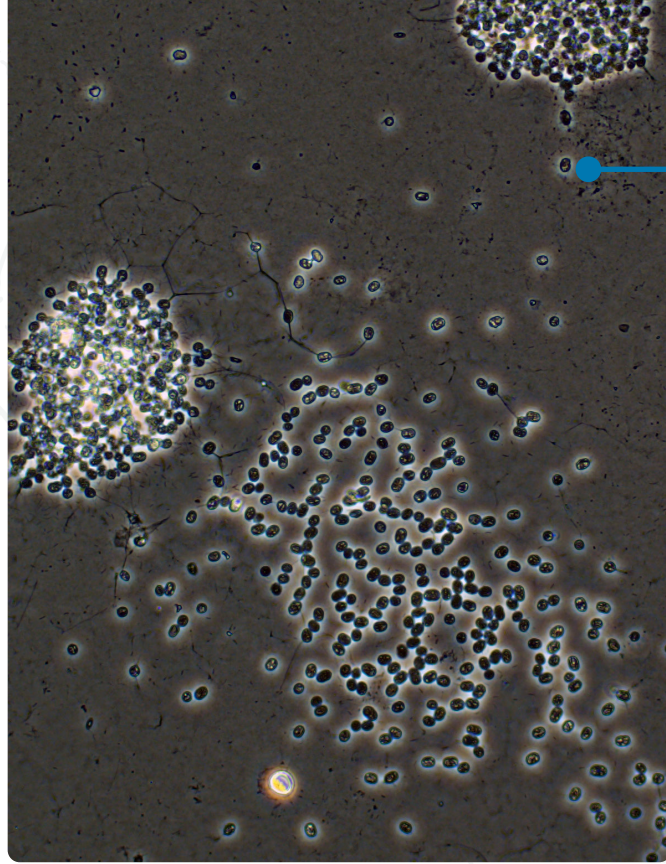


WHAT LIVES IN LOCAL LAKES?

Microorganisms, for a start! Sometimes smaller than the naked eye can see, zooplankton (such as this rotifer) snack on phytoplankton, such as algae.



LILLY CENTER FOR
**LAKES
& STREAMS**



MICROCYSTIN, UNDER A MICROSCOPE.

Supported by the K21 Health Foundation, we sample 14 lakes and seven public beaches every week from June-August, and 12 streams biweekly year-round! (You may have been on our weekly toxin update list this summer.)

How can microcystin impact dogs?

The water samples we take are processed and analyzed for microcystin, a toxin produced by blue-green algae, pictured on the left. If ingested or left on the skin for too long, microcystin can cause health problems for people.

It's especially dangerous for animals, such as dogs.

When dogs jump into a lake, their fur gets soaked with water. They also tend to lap up the water. After getting out, dogs often lick themselves. This movement irritates the blue-green algae cells, which then burst and can release microcystin.

Not all blue-green algae produce microcystin, but because there's always a chance, we recommend keeping pets away from water that has high levels of microcystin or a visible bloom. •

[Learn to identify blue-green algae: lakes.grace.edu](https://lakes.grace.edu)

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Left: Each story in *Your Lake, Your Story* includes an original sketch, created by Scott Holladay.

Bottom: The Williams enjoy Winona Lake year-round and are often out on the water in winter as well as summer. Even the family dog, Zoomer, comes out to play.

The Williams Family Generations on Winona

By Abby Logan, public relations specialist. Excerpt taken from *Your Lake, Your Story: Winona Lake*, a Lilly Center publication. Download the full book at lakes.grace.edu/ylys

On summer nights, when Winona Lake is calm, one of the best views is the moon rising over the water. “It’s like nothing else,” said Chandler Williams. “So peaceful.”

Chandler and his family currently live on the west side of the lake and own the family home that was once the Winona Lake clubhouse. In the early 1900s, the Williams’ properties backed up to an eight-hole golf course, but the green has been

long-since replaced by residential properties.

Winona Lake appeals to nearly everyone who visits. Drawn by the community (their Fourth of July celebrations are enjoyed by the whole neighborhood) and year-round lake activities, the Williams family has spent four generations on the shoreline.

Multiple generations of the Williams family support the

Lilly Center, too. The family has volunteered with Lilly Center research and education as well as offered insights and assistance with marketing and communication efforts.

In the next 100 years, Chandler’s vision for the lake is clear. “We want the lake to be as clean or cleaner than it is today,” he said. •

Flip to the back cover to see more pictures.



These are the people your gifts impact.

The Lilly Center is donor-funded and student-powered!

Other than our seven full-time staff, we employ as many as 30 students every year. These students study a branch of science or education — and generally love the outdoors.

While they work at the Lilly Center, they take on big projects, learn important personal and professional skills, and engage

with the community as researchers and educators.

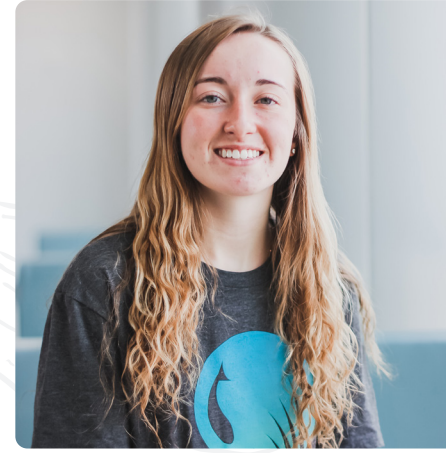
We couldn't do what we do without them! When you support our students through scholarships or fellowships, you enable them to become wise, aware, well-trained leaders. You also enable us to carry out our mission more effectively.

Give today: lakes.grace.edu/give



Ensure your lake legacy.

Join the Lilly Center Legacy Society by making a gift through a bequest. Talk to Dr. Nate Bosch or Amy Bloemendaal about how you can join the Founders Circle and become part of an initial group of 20 individuals or families, today: 574.372.5100, ext. 6445 | bloemea@grace.edu



DELANEY SANDBAKKEN

Delaney studies environmental biology and chemistry. She works on the aquarium team, which gives her a better understanding of fish and how to maintain an aquarium. So far, her favorite class has been Dr. Bosch's environmental science course. Delaney plans to go on to veterinary school after graduating from Grace.



CARTER SCHUH

Carter is studying environmental science, archaeology and worship arts. He currently works on the research team, which will help give him a head start in the field of environmental science. In the future, Carter hopes to get a job in research, so he can further understand the natural world and the impact we have on it.



LILY RAINWATER

Lily is studying environmental science and communications. While on the research team last fall, she learned how to sample and monitor streams. In her classes, she gained complementary experiences analyzing local forests and wetlands. Lily plans to use her skills to help with native landscaping (and to inspire others.)



MAKAYLA SANDBAKKEN

Makayla studies environmental science and behavioral science. She believes that her time at Grace will help her enter her ideal career field and provide her with the skills she needs to succeed. After graduation, Makayla hopes to find a job that allows her to work with animals while helping maintain a healthy environment.



LINDSEY ROBINSON

Lindsey studies environmental science, sustainable agriculture and chemistry. While working on the research team, Lindsey has learned how to effectively communicate ideas, analyze her work and how to be patient when trying to identify algae species while in the Lilly Center's lab. Lindsey hopes to pursue a career in conservation after college.



LYNDY HEIGN

Lyndy is studying environmental science, French and chemistry. She works on the research team, sampling and doing lab work. Lyndy has found that real-world experiences at the Lilly Center provide an excellent base for the future. She would like to go on to graduate school and eventually work on the policy side of environmental science.



Continued from page two. Top left, going clockwise:

Fourth of July is celebrated by the entire neighborhood on the west side of Winona Lake, affectionately called “The ‘Hood.’”

Very sadly, Noah Williams (middle) passed away in 2017. His younger brother, Reuben (bottom right) has continued to enjoy the lake much the same way they did together.

“Williams Wet & Wild” is a family tubing tradition, featuring fast whipping and big waves.



MEET JED.

Jed is the newest Lilly Center staff member, but he’s no stranger to the team! Jed is a 2019 Grace College graduate and a former member of the Lilly Center research team. He worked at Element Labs in Fort Wayne after graduation, but he decided to return to the Lilly Center as a full-time staff member in 2021. Among other tasks, Jed helps run the research lab, guides the student research team and monitors quality control processes. As a life-long learner, Jed 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.



LIKE WHAT WE’RE DOING?

We like you, too! You can give and get involved by visiting our website: lakes.grace.edu.