



College of Letters & Science
UNIVERSITY OF WISCONSIN-MADISON



Trout Lake Station News

News for Alumni and Friends of the Center for Limnology

Summer 2024



Trout Lake Station launches into its 100th year of leading limnology *Photo: Danny Szydlowski*



Photo: Riley Steinbrenner, Undergraduate Outreach Intern, Summer 2017



This year, Trout Lake Station (TLS) [celebrates its 100-year anniversary](#), or what we like to call its LimnoCentennial! For a century now, the identity of TLS has been forged by hundreds of amazing people, the relationships they build with this beautiful place and each other, and the journeys their time at Trout Lake set them on through life. From the 100 year connection of the Juday family, to the individual graduate students who are now

inspiring leaders in the field of limnology, we have captured only a few of these stories in this newsletter. We hope to learn and share more throughout this milestone year!

My own journey in lake research started at TLS. I was an undergraduate at Lawrence University when Bart DeStasio first introduced me and my aquatic science class to some of the lakes TLS studies in the Northwoods area. During this trip, I was introduced to Mary Lake, a 3 acre, 67 ft deep lake. With dark, deep waters and a ruler straight deer browse line starkly evident on the trees encircling the shore, this unusual lake with traits so different from many of the surrounding lakes captured my curiosity.

Intrigued, I applied for a summer internship in 1996 under the mentorship of Bart and then TLS director, Tom Frost. My job was to run an instrument that measured the size and abundance of algal particles. I sat in a darkened room for hours staring at the

mercury-filled machine and clicked a purge valve every time that the very narrow opening clogged (which averaged 4-5 times per /minute!). Needless to say, it wasn't the 'work' from that first summer that drove my motivation to return in 1997 and to build a career in the field; it was the connections.

My hours in a darkened lab over the two summers were balanced with joining graduate students to head out on the water to help on a variety of projects. It was an invaluable experience thanks to the eagerness folks had to share their knowledge and the time I had to immerse myself and soak it all up.

The respect I developed for field work and field stations stayed with me. I have now taught or conducted fieldwork at more than 20 different field stations. I learned that each station has its own identity steeped in history, the surrounding environments, and the people.

Trout Lake Station is special. The intimate, water-centered research and training led by young people who put the time and energy to commit and immerse themselves each summer remains the backbone of all we do. Groundbreaking research, young leaders, and lasting connections are core to the identity of Trout Lake Station.

As we look toward the next 100 years, I hope that we can maintain and expand these types of experiences for generations to come.

[Gretchen Gerrish](#), Director, Trout Lake Station
ggerrish@wisc.edu

University of Wisconsin-Madison Center for Limnology



Center for Limnology
University of Wisconsin-Madison

Trout Lake Station
3110 Trout Lake Station Dr.
Boulder Junction, WI 54512

Hasler Laboratory of Limnology
680 N. Park Street
Madison, WI 53706



Trout Lake Station News

Living Legacies at Trout Lake Station by Gretchen Gerrish



Three generations of the Juday family gather to hear from summer interns at Trout Lake Station. The Undergraduate Fellow's program was initiated with a gift from Tug Juday.

When [Chancey Juday](#) co-founded Trout Lake Station (TLS) in 1925, it was the beginning of a connection to the waters of the Northwoods that was both professional and personal. Those connections have endured across a century of research and across families - as many descendants of important leaders from the Station's history continue to be connected to our work.

Juday's nephew, Eugene Thurston "Tug" Juday, carried on his uncle's legacy. To this day, Tug's children, grandchildren, and great grandchildren remain connected to the research, scientists, and students at TLS.

Pat and Dave Juday, Tug's daughter and son, remember the strong sense of responsibility

that both Tug and their mother, Jean, instilled in them to care for the environment. Their time in the Northwoods involved disconnecting from everything else, long walks in the forest, and many adventures on Anderson Lake with parents, siblings, children, and now grandchildren.

Both Pat and Dave continue to support the water-centered research and training of students at the Center for Limnology (CFL). Dave continues to push the Center and its research station on Trout Lake to 'get out there and be more visible' and actively promotes recognition and connections with regional partners.

The family says they are "humbled" to be a part of this now 100-year legacy and continue to see the amazing work being done and appreciate the approachable scientists and students on station, as well as the work we do to share our knowledge. There is "a sense of awe and pride that E.A. Birge and Chancey Juday recognized the importance of this region and the science they were building that long ago," Pat says.

Arthur 'Fritz' Hasler is another living descendent of an important CFL and TLS leader. His father, [Arthur D. Hasler](#), reinvigorated the CFL and TLS after World War II and brought a new approach to Wisconsin lake research. Like many ecologists of the time, Hasler moved beyond taking samples and measurements and pursued an experimental approach, initiating some of the first whole-lake nutrient experiments on Peter and Paul Lakes in Land-O-Lakes and conducting extensive lab-based fish behavioral work on Lake Michigan salmonids.

Art was instrumental in securing funding from the National Science Foundation to move the center of operation to the southern shoreline of Trout Lake and build the limnology lab. Hasler conducted ground-breaking research, including the work that led to the understanding of how salmon



Tim Asplund (left), Fritz Hasler, and Ty Krajewski looking at Fritz Hasler's book *The way Home, A Photo Biography of Arthur Davis Hasler*. Photo by Carol Warden

find their way "home" to their natal springs when they spawn.

Fritz has captured the rich story of Art Hasler's international limnological journey in his pictorial biography *A Way Home: A Photo Biography of Arthur Davis Hasler* which includes many images of him with his large family who were often with him on the shores of Trout Lake.



Celebrating 100 Years of Building Careers - and Community - at Trout Lake Station by Adam Hinterthuer

When Chancey Juday and E.A Birge first began conducting research on northern Wisconsin lakes in 1925, they couldn't have known that their decision to base their efforts at Trout Lake would create the legacy that it did. But, earlier this summer, more than 120 Trout Lake Station (TLS) alumni gathered in the Boulder Junction Community Center to [celebrate a century of limnology in the Northwoods](#).

Several generations of "Trout Lakers" - as folks who have spent a summer on station are affectionately called - came from as far away as Ireland and Canada. There were retirees on hand to reflect on long, distinguished careers and young, early career undergraduates up north for their first summer experience.

Despite these differences, the group shared a bond. No matter when they had been "on Station," they all had similar memories of a summer field season - baking in the hot sun in aluminum boats, swatting at mosquitoes, braving rain and winds to collect data, squinting into microscopes to identify plankton, and spending downtime with chilly lake swims and evening campfires on the shores of Trout Lake.

For one hundred years, TLS has imprinted itself on the students and scientists who spend time at its modest "campus" on the south shore of its namesake lake. We asked some of these alumni to share their stories and experiences. (Read more [CFL history](#) online.)



Edward A. Birge (left) and Chancey Juday at Trout Lake Station, 1930



Linden Taylor & Carol Warden dredge for spiny water flea tails.

Linden Taylor (Summers on Station 2017-2018, 2022)

"Trout Lake Station is a special place that I always look forward to visiting again in any season. The people I worked alongside have inspired me to take a path of understanding plant ecology and encouraging appreciation for, and commitment to, protecting natural ecosystems. These experiences helped prepare me for my graduate research and work at UW-Madison teaching and mentoring students."

Linden is a PhD candidate at the UW-Madison in the Dept. of Botany, where she studies plant ecology, an interest she developed surveying aquatic plant communities with Susan Knight and Carol Warden during the summers of 2017 and 2018. Linden returned to TLS in 2022 as a crew lead working with Noah Lottig on the [North Temperate Lakes Long Term Ecological Research](#) (NTL LTER) Regional Lakes Survey.

Shelley Arnott (Summers on station 1993-1998)

"I loved living in the little cabins, although coming back to the cabin from the parking lot when it was dark was a challenge! I have great memories of early morning fishing in a canoe on Trout Lake. I never caught anything (except once) but it was wonderful to be out in the early morning with the mist coming off the water. Something I still think about quite often."

[Shelley](#) was a PhD student with Tom Frost and John Magnuson from 1993-1998. She was involved on many projects, including lake surveys to assess



Shelly Arnott (front right) with her cohort of peers upstairs in the Juday house (late 1990's).

the relationship between fish community structure, zooplankton and phytoplankton abundance and nutrient limitation and in-the-field experiments at Little Rock Lake. She keeps in touch with a number of her fellow Trout Lakers via weekly Zoom calls and an annual in-person meet up.

John Lyons (Summers on station 1980-1984)

"Trout Lake was an amazing experience and completely determined the course of my professional career, which was spent as a fisheries research scientist and supervisor for the WI DNR. The station was much smaller then, and before the advent of the internet and cell phones, much more isolated from Madison and the rest of the world. This insularity I think fostered a particularly strong sense of community among the folks at the station. For better or worse, everybody knew everybody else pretty well by the end of the summer and did lots of activities together."

John Lyons worked at TLS from 1980-1984, studying increasing acidity in lakes and its impacts on yellow perch and the effects of walleye predation on fish community structure in Sparkling Lake. He was also involved in the very first fish surveys for the LTER project that kicked off in the early 80s.



As a Ph.D student working at TLS in 1983, John Lyons received the "broken prop" award along with visiting scientist Liao Gouzhang.

Lifetime Achievement Awards

No organization makes it to 100 years without the help of some truly extraordinary people. That's why, as part of Trout Lake Station's LimnoCentennial celebration, current station scientists decided to celebrate the "lifetime achievements" of some of the retired researchers who made the last few decades memorable.

Here are the winners and the award announcements written by their colleagues:

The Root of Knowledge (by Gretchen Gerrish)



Whether perennially steadfast, deeply set, or expanding through all depths of the water column, [Susan Knight](#) receives the Root of Knowledge award for her continuous efforts, regardless of staunch resistance by many, to promote and instill the love and intrigue of aquatic plants into as many scientists as possible.

If you have ever had the privilege of riding along with Susan in a boat doing rake surveys or collecting aquatic plants, then you are the lucky few who have first-hand participated in the enthusiastic and ever inspiring tutelage of Susan in her true element!

If you have ever been looking for something at TLS: equipment, a nearby lake, a reference paper, or just a listening ear and Susan Knight readily jumped in to help, you know!

The Root of Knowledge award not only recognizes Susan's passionate expansion of plant knowledge but also acknowledges her continuous leadership and supportive presence at TLS. Since 1981, Susan has worked with the WI Dept. of Natural Resources (WI DNR) and UW-Madison in both lead and support positions as she drove initiatives and trained many people in her humble, engaged, and extremely generous ways. She has impacted generations of researchers and students that have passed through TLS, and keeps us rooted in the local community and moral responsibilities of our research.

Continued on Page 6

The Ice King (by Noah Lottig)

As we celebrate 100 amazing years of Trout Lake Station (TLS), we have a very special award to present to someone who has literally put the 'cool' in cool science - a true legend in the world of limnology, the man who knows more about ice than any of us have ever slipped on - [John Magnuson!](#)

Even in his younger days, John took a large and long visionary approach to his work and thinking with *The Invisible Present*, which has been cited over 600 times. In total, John's professional works have been cited almost 26,000 times, and his seminal work on long-term ice trends nearly 1,600 times. Beyond his contributions to science, one of the best gifts to all of us is the initiation and development of the Long Term Ecological Research (LTER) program here in Wisconsin and at TLS.

John has shown us how ice can tell stories about ourselves, our climate, and our planet. He spent decades teaching us that the freeze and thaw of our lakes isn't just a seasonal cycle, but a window into the health of our environment.

While acknowledging John as the Ice King, we can't overlook his warm heart. Over the years, John has worked with generations of graduate students and built connections that have endured. He and his wife Norma were always hosting meals and gatherings for his students and the Center for Limnology community. They welcomed folks into their homes and lives as family, not just work colleagues.

It is our absolute pleasure to crown John as the 'Ice King' - a fun and frosty title that is a tribute to his incredible contributions to understanding the icy secrets of our lakes and rivers.

Lifetime Broken Prop Achievement Award (by Carol Warden)

Much like the old adage that there's a fine line between genius and insanity, there's also a fine line between being a MacGyver and a MacGruber. One Trout Lake alum rode this line better than anyone else.

Colleagues working with this individual have experienced first-hand the flooding of boats, the failing of gear, the breaking of propellers. To be fair, there have also been plenty of first-hand accounts of this person saving them in the field with some MacGyvered repair using a paper clip or ballpoint pen.

This individual shows up on the annual Broken Prop Awards board a whopping four times throughout his TLS tenure, twice as much as anyone else. And at least one of these incidents was literally because of a broken prop. Yes, even with more than 30 years of familiarity with Trout Lake and her rockbars, he struck one during macrophyte surveys in 2013 and sheared one of the three propellers clean off.



This person once told me, "Carol, your job is to teach people how to be scientists." I realized, without a doubt, that this includes teaching people how to be resourceful in any circumstance. Field work is unpredictable and challenging and often requires extraordinary innovation.

For thirty-five years, no one was more creative with field gear than **Tim Meinke**. For all his MacGyvering and MacGrubering, we offer the Lifetime Broken Prop Achievement Award to thank him for teaching us all what is possible with a paperclip and a ballpoint pen.



Connecting the Past and the Future: A New TLS Student Reflects on the LimnoCentennial by Audrey Hoey-Kummerow

From May 31st to June 2nd this summer, I had the incredible opportunity to attend the “[LimnoCentennial](#)” celebration at Trout Lake Station (TLS) as we marked 100 years of limnological research in the Northwoods. As the science communication intern, it was exciting to see our hard work planning the event come to life. But the experience also offered a unique window into the past, present, and future of TLS and was a chance to connect with many generations of Trout Lakers and hear their stories.

One of the highlights for me was meeting Pat Juday and hearing stories about Art Hasler from his son, Arthur ‘Fritz’ Hasler. Both the “Hasler” and “Juday” names are legendary in the field of limnology, and their family connections to the station are still deeply rooted. Hearing them talk about the early days of research was fascinating.

Also compelling were the stories of Tim Kratz, former TLS director, and [John Magnuson](#), former Center for Limnology director and professor emeritus. I came across their names a lot while learning about the history of the station, and it was exciting to realize that I was working and living in the same place where so many accomplished scientists had conducted research fundamental to what we know about our lakes.



Susan Knight leads a group of LimnoCentennial attendees on a bog walk. Photo: A. Hoey-Kummerow

One of my most memorable experiences was the Bog Walk with [Susan Knight](#). Despite the rain, I was excited to venture into a bog for the first time. Susan’s extensive experience was evident as she guided us through this unique ecosystem. We conducted pH tests and examined the many organisms that inhabit the bog, from sphagnum moss to carnivorous plants. It was a hands-on learning experience that deepened my appreciation for these fascinating environments.

Other attendees were able to connect with places that hold special meaning to many Trout Lakers past and present. One group visited the historic site of the original TLS near the Trout Lake State Forestry Headquarters with John Magnuson. Though not much remains of the original camp, John knew exactly where they were going. He pointed out the sites of the original cabin and camp areas and even discovered the old camp road, thoroughly impressing his tour group when they popped out of the forest onto the road that appeared seemingly out of nowhere.

Throughout the weekend, I felt the sense of continuity and change that defines TLS. Listening to the older generation’s stories gave me a respect for the station’s history and the foundational research conducted here. At the same time, engaging with my peers and hearing about their current and future projects filled me with excitement for the future of limnology. Beyond the formal presentations and tours, it was a weekend of shared meals, bonfires, and recreation. Whether we were playing volleyball, boating on Trout Lake, or simply enjoying a meal together, the sense of community was palpable and I feel incredibly fortunate to be part of it.

The stories, knowledge, and experiences shared as we celebrated 100 years enriched my understanding of limnology and deepened my connection to TLS. I look forward to contributing to this legacy and witnessing the continued evolution of our research and community. Here’s to another century of discovery, innovation, and collaboration at TLS as we continue building a community that spans time and connects us all to this special place and to those who came before us.



Susan Knight helps Paul Rasmussen and Jim Lorman read their pH tests during a bog walk. The test displays the difference in acidity between the bog and the neighboring lake. Over the past 40 years, we estimate that Susan has hosted ~4000+ folks to visit this iconic northwoods wetland habitat.

Moira McCarthy, Tim Kratz, and Jimmy Sustachek welcome the day by offering asemaa to attendees in a ritual lead by Lac du Flambeau tribal elder Tinker Schuman. Over 140 attendees joined for morning talks at the Boulder Junction Community Center.



Alexander Karatayev, Mike Sierzen, Yvonne Vadeboncoeur, Lyubov Burlakova, Hannah Rudstam, Lars Rudstam, David Schnieder, and Bart DeStasio enjoy dinner and each other's company.

Attendees socialize by the lake after the rain clears and the sun gets ready to set.



Lars Rudstam joins past Trout Lakers to train the new generation in a Scandinavian toast to kick off dinner. Skål!



Brian Weidel, Stuart Jones, Olaf Jensen, and Gretchen Hanson reunite. Sharing fish stories from the early 2000s this crew continues to guide fish and ecosystem research globally and locally.

Shelly Arnott, Beth Sanderson, Tara (Reed) Woolpy, John Magnuson, Kathy Webster, Janet Fischer. This group of powerhouse women first connected during their graduate work at the Center for Limnology in the 1990s. Across continents and time zones their friendships have persisted through annual retreats and weekly Zoom calls offering support during their lifetimes of limnology!



Trout Lake Station Welcomes Our New “Wisconsin Idea” Lakes Limnologist

by Adam Hinterthuer



This fall, Katie Hein, who spent more than a decade as the WI DNR’s Lake Monitoring Technical Lead, will be joining our staff at Trout Lake Station (TLS) as the first-ever “Wisconsin Idea” limnologist. The role was written with a mandate to “engage with communities [in order] to facilitate research on topics directly relevant to stakeholders and lake management within the Northwoods region.”

Katie will maintain strong collaborations with the WI DNR and expand our connections with tribal partners and regional lake groups as well as help mentor the 40 or so graduate and undergraduate students who spend their summers at the Station. Katie is very excited to head north for this new opportunity and took some time to answer our questions:

Tell us a little about your aquatic background.

I grew up in Cross Plains, WI and spent a lot of time on Lost Land Lake (east of Hayward) where my family’s cottage is. My family spent a lot of time on the water, and I think that is largely responsible for the career path I chose. I got started in Limnology as an undergrad at UW-Madison and even spent some summers doing fieldwork at TLS, so it is a special place to me. I went on to get my PhD in aquatic ecology at Utah State University studying streams in Puerto Rico, and then spent four years studying fish and climate change in Swedish lakes.

What excites you about this new position?

One thing I realized in my career before working at the WI DNR was that even though I tried to do applied research, I just wasn’t at the table where decisions were being made and wasn’t able to ... influence policy and decisions. At the WI DNR, I learned that I really enjoy being tasked with a problem or a question that needs answers rather than coming up with my own questions. I always have lots of questions, but it felt more useful to be working on questions that would be directly used for decision making. This new position is a blend of both worlds. I really love doing science and I have really enjoyed building relationships with people who care about and work on water. This position represents a lovely marriage between science and the people and landscape we are trying to serve.

What are some areas of research you’re already hoping to pursue?

I would like to develop a framework for considering how different types of lakes are vulnerable to climate change and how one could tailor adaptation strategies to individual lakes. We have also been studying aquatic plant communities in Wisconsin and are now starting to work on understanding what specific aspects of aquatic plants provide good habitat for fish. This is especially important as we try to shift the mindset from nuisance weeds to beneficial aquatic plants.

I am also interested in learning more and contributing to research and management actions to sustain wild rice. The Great Lakes Indian Fish and Wildlife Commission has identified wild rice as one of the most vulnerable beings to climate change. In the spirit of the Wisconsin Idea, I look forward to meeting with a lot of different groups when I first start my job to find out what questions they have.

Are you excited to be exchanging your southern Wisconsin lifestyle for a northern one?

My husband and I love the wild places. We look forward to having wilderness out our back door. We lived in Arctic Sweden for 4 years and could literally walk into the mountains and never be found again. We are excited to explore the American Legion State Forest, the Porcupine Mountains, and mighty Lake Superior on our sailboat. We love cross-country skiing, downhill skiing, and ice skating on lakes. I can’t wait to road bike on the great trail system and maybe learn to mountain bike. And I can’t wait to swim and paddle on clearwater lakes and listen to the loons! We already feel welcomed by the community in the north. Since moving back to Wisconsin, we were always trying to find time to escape to the north, so it will be nice to just call it home.

Navigating Tomorrow's Waters: Research Outbuilding Paves the Way for Year-Round Scientific Advancements by Amber Mrnak

This year, Trout Lake Station (TLS) is embarking on an exciting new venture to help ensure we're ready for the next 100 years of freshwater research. While it may not sound like a big deal to an outside observer, we will soon be breaking ground on a new 3,600 square-foot Winterized Research Outbuilding. This heated workshop will boast spaces for year-round research, outreach and maintenance that will be critical in advancing our capacity for research and collaboration in all seasons.

TLS research scientist, [Noah Lottig](#), is excited to use the future winter workshop for a program he fondly refers to as "Buoys for the People." Lottig and a team of technological experts and freshwater researchers at the Center for Limnology and TLS has spent the last few years dreaming up a program to create affordable buoys for data collection on our lakes.

The goal, Lottig explains, "is to increase the accessibility of high frequency monitoring and data collection for not only researchers and graduate students, but also members of the public." Current scientific buoy systems come with a hefty price tag in the range of \$60,000 to \$110,000. The "Buoys for the People" program aims to create and share designs for buoys in the range of \$5,000, making them substantially more affordable and accessible. Not only would this make buoys more available to wider groups of researchers, communities and lake associations but, Lottig says, the long-term dream is to also make the data these buoys generate more accessible by utilizing a cyber infrastructure that would let everyone share data and make it available to a broader community of scientists, boaters, lakefront homeowners and anyone else interest in our lakes.

Lottig hopes his project will help show the promise of the new building and inspire others to use the space. Its design won't just allow for new buoy builds and dynamic spaces for classes, researchers, and collaborative initiatives, it will cater to the diverse needs of research groups by providing essential storage space for field gear, year-round access for servicing boats and trailers and just allow TLS users to interact in a space that, unlike the building it's replacing, will be warm year-round!

We can't wait to see what kinds of research, training, and outreach our new building will facilitate!



Welcome Tom Swedberg by Amber Mrnak



Jonathan Lytle (left) and Tom Swedberg (right) on Trout Lake Station dock

Tom Swedberg joined the TLS staff in June 2024 as the newest Facilities Technician. He is teaming up with Jonathan Lytle to take care of the facilities at TLS and to keep the Station running smoothly!

We are happy to welcome Tom into our community here at TLS. Tom brings with him years of experience with resort and property management and has been active in the northwoods for many years. He has enjoyed coaching youth sports with his kids and enjoys working with people in this beautiful place.

"I am excited about my new position at Trout Lake Station. I'm looking forward to working with the staff and students on the shore of beautiful Trout Lake!"
-Tom Swedberg

We hope you have a chance to meet Tom on your next visit to TLS.

Trout Lake Station - limnology.wisc.edu/trout-lake-station-welcome/
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Trout Lake Station
Center for Limnology
University of Wisconsin-Madison
3110 Trout Lake Station Dr.
Boulder Junction, WI 54512

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WANT TO SUPPORT TROUT LAKE STATION?

Give to the Trout Lake Station Fund. Donations to the fund will go directly to TLS to help improve our facilities and support our mission of freshwater research, undergraduate training, and public outreach.

Individual donors make a BIG difference by funding summer internships, innovative Northwoods research projects and more.

Please consider making a gift to Trout Lake Station.

CFL and TLS support webpage:
limnology.wisc.edu/support

or contact

Gretchen Gerrish at
ggerrish@wisc.edu (608-890-4763)

or

Jake Vander Zanden at
mjvanderzand@wisc.edu (608-262-3014)

Aquatica Reflections on Wisconsin Lakes Traveling Art Exhibit



'Plant Surveys with Andre, Geoffrey, and Jared' by Cameo Boyle



'Escanaba in Pastel' by Sophia Sperduto

Aquatica
Reflections on Wisconsin Lakes
Art and Science Exhibit Schedule

MAY 1 - JUNE 1	BOULDER JUNCTION PUBLIC LIBRARY Boulder Junction, WI
	NORTHERN GREAT LAKES VISITOR CENTER Ashland, WI
AUGUST 15 - OCTOBER 26	ART START Rhinelander, WI

FOR MORE INFO, VISIT
www.drawingwater.weebly.com

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