



NEWSLETTER

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OPA MISSION

"The Okoboji Protective Association is dedicated to preserving and enhancing the ecological health of West Okoboji Lake and the entire Great Lakes watershed."

OUR GOALS

- Preventing invasive species
- Preserving and protecting the wetlands in the Iowa Great Lakes watersheds
- Participating in the control of lake developments to prevent environmental threats
- Promoting sustainable urban and agricultural development that won't upset the delicate ecological balance of the lakes and watershed
- Informing the community of any concerns and actions that must be taken to act on those ecological concerns

FROM THE PRESIDENT'S DESK

Dear OPA Friends and Members,

This summer we made an impact on the water quality of West Okoboji and the greater Iowa Great Lakes watershed because of support from our friends and members. OPA has been working to protect this beautiful lake for over 118 years, due to support from people like you. **Thank you for your past support of OPA.**

The summer of 2023 flew by because we had so much fun in such a beautiful spot! OPA helped celebrate another batch of **century cottages** around West Lake. It's getting fun to see the history of this special area come to life! We also organized another **exceptional educational fair at the Blue Water Festival** in August. We featured students from Lakeside Lab doing research on our lake and surrounding ecosystem at our annual meeting; if you missed their presentations in August, please come next year, I learned a lot! We also passed out over **1,000 reusable trash bags** designed for boats to keep litter out of our lakes.

I feel so blessed to be able to enjoy our beautiful lakes, and I know you do too! However, to keep Okoboji beautiful, we need your help. This summer the DNR reported their efforts to eradicate the invasive aquatic plant, Eurasian Milfoil from our lakes chain was effective where treated this spring, but unfortunately, they **found Eurasian Milfoil in West Lake Okoboji in August**. Because West Lake is an Iowa Outstanding Water Body, there are more stringent restrictions for invasive species management. OPA will need to continue to closely collaborate with the DNR to support their efforts to manage and hopefully eradicate invasive species.

This summer, OPA provided funding to the local DNR to support necessary continued **maintenance of the electric fish barrier** keeping invasive Asian carp out of our lakes. The barrier was innovative when installed over ten years ago and now needs repairs. We must keep this barrier working every day to maintain the important ecological balance of our lakes.

A strong OPA is essential to keep Okoboji healthy, clean, and beautiful - will you help us? The fight against invasive species will continue to be a challenge and we need to fight both Eurasian milfoil and Asian carp head-on. **Please consider a donation to support the Okoboji Protective Association's important work this year. Together we can make a difference!**

You may mail a donation to OPA at PO Box 242, Okoboji, IA 51355 or donate online at OkobojiProtectiveAssociation.org. Thank you for supporting one of Iowa's oldest conservation organizations.

Sincerely,



Kate Mendenhall
President, OPA

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MAINTENACE HELP FOR THE ELECTRIC FISH BARRIER

By Steve Weisman, OPA Publicity

The electric fish barrier to keep Asian carp from entering the Iowa Great Lakes through the Lower Gar Lake outlet has been in place and operational for the past 11 years. Over that time, it has done its job in keeping Asian carp from entering the Iowa Great Lakes, as they make their way up the Little Sioux River during high water situations. During those 11 years, the Iowa DNR has taken care of the utility bills and day to day maintenance. However, now there are some big items that need to be taken care of. Before we investigate this and what's being done, let's look at what the electric fish barrier has meant to the Iowa Great Lakes

A call to arms

The bottom line? It's meant everything, and here's why! In August of 2011, DNR fisheries biologists were collecting data on fish when they came across two bighead carp between 14-16 inches in length, the first that had ever been documented on the Iowa Great Lakes. It was a warning for sure, because in March of 2012, commercial anglers collected 88 big head and 55 silver carp during a seine haul at the East Okoboji Narrows. Two silver carp were also collected in Big Spirit Lake. According to DNR Fisheries Biologist Mike Hawkins, the fish had most likely entered the Iowa Great Lakes as they worked their way up the Little Sioux River and over the Lower Gar outlet during the flood of 2011. Hawkins says, "They are a long-lived fish that can live 35 years or greater, and grow to tremendous sizes, 40 to 50 pounds is not unusual."

It is important to know that reproduction of Asian carp appears to be confined to large rivers, including the Mississippi, Missouri and the Illinois. The fish spawn in the river channel, and the eggs have to remain in the drift for approximately 30 days before they hatch. They also need a high-water event, which is their cue to spawn. However, the fear of thousands of Asian carp just waiting for a high-water event to enter the lakes created great concern across the area.

The fear of what the invasive carp could do led to a massive effort to close the gate. The \$1 million cost for the barrier became a 10-month project that was a locally driven partnership among the cities, county, lake associations, water safety council, private organizations, and the Iowa and Minnesota Departments of Natural Resources. It's certainly worked because during high water times, according to Hawkins, "Thousands of Asian carp will stage below the outlet waiting to get in." There has been no sign of any passing into the Iowa Great Lakes.

The electric fish barrier consists of eight electrodes attached to the vertical wing walls on the Iowa Great Lakes dam on Lower Gar Lake. The electrodes are span the 165 foot dam and create an electric field in the water 21 feet wide. All of the control systems that run and power this protective barrier are housed in a climate controlled building.

The barrier operates on pulsed DC current. This produces an electric field that increases in intensity the further fish tries to swim upstream. Hawkins explains, "The fish experience an increasing electrical field that interferes with their muscles and nervous system," Hawkins explains. "They can't swim, and the water current pushes them back downstream." If there is a power outage, a backup generator run by propane will take over so that the barrier continues to function.

Current upgrades

The first upgrade came late this spring when the heating/cooling unit began to fail. The Okoboji Protective Association (OPA) stepped up to fund the replacement of the heating/cooling equipment, through a \$5000 grant received from the Iowa Great Lakes Chamber of Commerce as part of the Walleye Weekend proceeds. Without the replacement and inconsistent temperature levels, the entire system would crash. Hawkins notes, "The new unit is incredible. It is so quiet and efficient. It should work well for all seasons."



Mike Hawkins points to the new heating/cooling unit purchased by the OPA. Photo by Steve Weisman



Mike Hawkins holds the new computer system upgrade purchased by the IGLFC. Photo by Steve Weisman

The second upgrade was paid for by the Iowa Great Lakes Fishing Club (IGLFC). The IGLFC paid for a new computer system for the barrier. This computer does everything from controlling all the electronics to providing 24/7 monitoring. Hawkins says, "The computer even sends updates out to staff every day. It also monitors water levels and can automatically adjust power levels as the water depth changes. A digital camera provides a 24/7 surveillance of the barrier and also allows researchers to monitor fish behavior. Video is stored for up to 30 days and can be transferred to storage drives for later analysis."

Hawkins expressed his thanks. "The support of the OPA and the IGLFC is another example of how well partners work together in the Iowa Great Lakes. We've worked with both of these organizations on some critical projects, and they continue to step up to help protect the lakes."

INVASIVE SPECIES UPDATE IN THE IOWA GREAT LAKES

By Mike Hawkins, District Fisheries Biologist, Iowa DNR

We've been living with aquatic and terrestrial invasive species for most of Iowa's history. Since the first introductions of common carp in our waters and the spread of reed canary grass on our shorelines and wetlands, the list of invaders has been constantly growing. Although many of these species come from across the ocean, they don't have to be from another continent to cause a problem. To be considered invasive, they simply need to be a plant or animal brought in from somewhere else that causes significant disruption in the ecosystem.

Until the mid 2000s, the Iowa Great Lakes had been fairly free of invaders. The common carp was introduced in the late 1800s and curly-leaf pondweed sometime in the late 1940s or early 50s, but that was about it. However, things have changed in a big way since then. Bighead and Silver Carp, Zebra mussels, Eurasian Watermilfoil, and Brittle Naiad have all arrived in just the last 10 years. These invaders are successful because they can find an opening in the ecosystem or out-compete native species. These plants and animals have also left their diseases and predators at home. In short, there's nothing to control them, at least not initially.

Unfortunate arrival

The arrival of these species has been unfortunate. Water quality and habitat in the Iowa Great Lakes has been improving after decades of conservation efforts. However, this hard-earned success has been largely overshadowed by these invaders. Not only can these species severely disrupt the ecosystem and the native plants and animals that have been taking advantage of the improved conditions, their arrival causes a shift in priorities for conservation professionals and communities. In short, invasive species education, control, monitoring, and sampling efforts all have to ramp up taking precious resources away from other conservation efforts.

Most recently, Eurasian watermilfoil and brittle naiad, two aggressive plant species, have been discovered in the Iowa Great Lakes. Eurasian watermilfoil was first discovered in the East Okoboji Lake Chain in August of 2022. Upon discovery, the community and Iowa DNR quickly moved forward with a plan to eradicate the plant during the following fall/winter/spring with a slow acting herbicide. This plan seems to have been successful. After extensive monitoring, the plant was not found on the East Okoboji Chain in 2023.

However, Eurasian Watermilfoil did pop up again in the canal systems on West Okoboji Lake in 2023. The community again came together around a quick strike plan to treat these 19 acres of canals. This time a next generation, fast acting herbicide was used. This product specifically targets Eurasian watermilfoil and has little or no impact on other native plants. No treatment had to be performed on the main lake.

Early indications are that the treatment worked. Eurasian watermilfoil plants were killed nearly immediately, and intense monitoring and surveillance will continue next summer and through the coming years. Additional spot treatments may be necessary if the plant resurfaces. In the meantime, some of the efforts will be shifted to the Brittle Naiad plants found in the Triboji Lagoon. This plant is not susceptible to the same herbicides used for Eurasian watermilfoil so other tactics will be used. This plant produces seeds that can stay viable for many years. Eradication of this plant is not feasible, so a monitoring and control strategy is being developed.

Electric fish barriers to block bighead and silver carp, new drinking water intakes to avoid zebra mussel fouling, surveillance and herbicide applications for invasive plants are all part of our new normal in the fight against invasive species.

If all that weren't bad enough, we are threatened with many more potential invaders (see the table at the top of page 5). Many of these species could have severe impacts on the Iowa Great Lakes and we have to remain focused on improving prevention and treatment strategies. However, we can't forget that the other conservation efforts on our lakes and their watersheds are just as important. Wetland restorations, shoreline erosion protection, agricultural and residential nutrient and soil management, and water quality protection make our lakes more resilient to the inevitable arrival of some of these plants and animals.

This will be an all-hands-on deck fight for the future of our lakes. Fighting invasive species while continuing to work on other conservation work is a huge task. None of us can do all of this alone. It will require lake users, local communities, conservation organizations and government agencies working together to make sure the lakes are protected and as healthy as we can make them. My sincere thanks go out to the Okoboji Protective Association for being a leader and great partner in these efforts. Keep up the great work!



Treatment for Eurasian watermilfoil took place in the canals on August 20

Species	Type	Introduced in North America	Found in Iowa	Found in Okoboji Lakes	Threat Level
Common Carp	Fish	1830	1872	Unknown	High
Curly-leaf Pondweed	Aquatic plant	1860	1944	1955	High
Yellow Bass	Fish	Native	Native	2002	Medium to High
Silver (jumping) Carp	Fish	1975	1986	2011	High
Bighead carp	Fish	1975	1986	2011	High
Zebra Mussel	Mollusk	1988	1992	2012	High
Gizzard Shad	Fish	Native	Native	2017	Low to Medium
Eurasian Watermilfoil	Aquatic plant	1880	1993	2022	High
Brittle Naiad	Aquatic plant	1932	2000	2023	High
Parrot Feather	Aquatic plant	1890	2017		High
Hydrilla	Aquatic plant	1952	1971 (eradicated)		High
Brazilian Waterweed	Aquatic plant	1893	2017		High
Common Water-Hyacinth	Aquatic plant	1884	2019		High
Starry Stonewort	Aquatic plant	1978			High
Rusty Crayfish	Crustacean	Native	1978		Medium
Northern Snakehead	Fish	2000			High
White Perch	Fish	1950	1996		High
Chinese Mystery Snail	Mollusk	1911	1973		Low
Asian Clam	Mollusk	1937	1974		High

WORKING TO PROTECT AND IMPROVE MILLERS BAY

By Deborah Lanners, The Millers Bay Conservancy

The Millers Bay Conservancy, a 501(c)(3) non-profit corporation, was formed in 2021 to protect and improve Millers Bay's ecosystem, recreation, fishing, and wildlife. We have a very active "working board" of eight volunteer directors, and no paid staff. We've been characterized as "small but mighty"!

For the past 12 months, since the discovery of Eurasian watermilfoil in the four East Okoboji lakes, we have carried out a public awareness campaign to try to prevent Eurasian watermilfoil in Millers Bay and West Lake Okoboji. Efforts include the following:

- a video produced by Blink Marketing (watch at millersbayconservancy.com/news);
- a KUOO interview, replayed throughout the summer (listen at millersbayconservancy.com/news); and
- full-page color PSAs in summer editions of *Okoboji* (see nwestiowa.com/okoboji_magazine/, July edition, p. 54).

In early August, Eurasian watermilfoil was found on Millers Bay's doorstep – throughout the Millers Bay **canals**. If Millers Bay **itself** gets Eurasian watermilfoil – shallow western Millers Bay is particularly susceptible due to anchor drag disturbances and high boat traffic – then other vulnerable spots in West Okoboji would be at risk.

Preventing the spread of Eurasian watermilfoil still remains our best hope. Please share our public awareness resources with friends, neighbors, marinas, boat rentals, lakefront businesses, and public officeholders to help us "spread the word, not the weed".

Looking ahead to 2024 and beyond, The Millers Bay Conservancy hopes to launch additional initiatives to protect and improve Millers Bay, such as:

- reducing **anchor drag** on shallow western Millers Bay's lakebed, which creates ecologically disturbed areas for aquatic invasive species to take hold;
- promoting Millers Bay's no-wake zone for the **paddlesports**, which "go easy" on our natural resources; and
- increasing **safety for children swimming** off of anchored boats in the crowded no-wake zone **amid boat traffic**.

See www.millersbayconservancy.com to learn more about us and how to support our work.



(photo by David Thoreson) Significant anchor drag increases Millers Bay's susceptibility to aquatic invasive species. This photo shows "boat to boat" anchoring on a busy weekend, one of the concerns for members of the Millers Bay Conservancy.

INHF UPDATE

By Joe Jayjack, INHF Communications Director

Iowa Natural Heritage Foundation is a private nonprofit land trust that works statewide to protect and restore Iowa's land, water and wildlife. The organization has partnered with donors, volunteers and public agencies to permanently protect thousands of acres around the Iowa Great Lakes.

INHF has worked hand-in-hand with OPA and other protective associations around the lakes to create new public parks, trails and wildlife areas that improve water quality and offer more opportunities for outdoor recreation. We're proud to continue those partnerships, and we're excited to introduce a new chair to our statewide board that has a long connection to the Iowa Great Lakes.

INHF welcomes new chair

Iowa Natural Heritage Foundation (INHF) welcomes a new chair to its board of directors. Greg Grupp of Spirit Lake steps into the position after serving on the INHF board for the last 10 years, most recently as 1st Vice Chair and chair of the Development Committee.

INHF is a private nonprofit land trust that works statewide to protect and restore Iowa's land, water and wildlife. The organization has partnered with donors, volunteers and public agencies to permanently protect thousands of acres around the Iowa Great Lakes.

Grupp grew up in Mason City, gaining an appreciation for nature at a young age while fishing, hunting and camping with his father and working on his grandfather's farm. He worked as a banker in Sioux City, where he also served as the director of the Siouxland Chamber of Commerce and on the Woodbury County Conservation board.

Grupp moved to Spirit Lake after retiring, where he enjoys helping to steward INHF-owned properties such as Green Pastures near West Okoboji Lake and the Narrows Preserve near East Okoboji Lake. He takes special joy in introducing people to these special places.

"I'm excited to get to work even more closely with Greg as chair over the next two years. He has already been an amazing ambassador for INHF and our mission for years, and his leadership, passion and vision will serve us well as chair," said INHF President Joe McGovern.

Grupp replaces John Fisher, who served as chair from 2021-2023 and will remain on the board.

Restoration work beginning at the Narrows Preserve

Habitat restoration work at the Narrows Preserve, which is just north of Elinor Bedell State Park on East Okoboji Lake, is beginning this fall. INHF is focused on returning The Narrows Preserve to a more natural historical state, creating critical, contiguous habitat for grassland birds and other species using a thoughtful approach and informed strategies.

Restoration activities will include tree removal, shoreline and prairie restoration, control of invasive plant species and restoring the natural slope of the hillside. This will require some heavy machinery on the site this fall and at times through the winter.

Goals for the management and restoration work at the Narrows Preserve include:

- Restore sensitive prairie and oak savanna ecosystems
- Protect and improve shoreline
- Increase native plant and animal diversity
- Establish contiguous habitat with adjacent Spring Run Complex Wildlife Management Area

There will be times when the preserve is closed for safety reasons during this restoration process. INHF will post signage when there are closures.

Learn more at www.inhf.org/TheNarrowsPreserve.



(photo courtesy INHF) The OPA board and its members played a big role in protecting the Narrows.

PHOSPHORUS ROLE IN POOR WATER QUALITY

By John H. Wills, Project Coordinator

Phosphorus is an essential nutrient for all life, but too much of it can have a devastating impact on water quality. When phosphorus levels in a water body are too high, it can lead to a process called eutrophication. Eutrophication is the overgrowth of blue green algae and other aquatic plants, which can deplete oxygen levels in the water and make it uninhabitable for fish and other aquatic life.

Phosphorus can enter water bodies from a variety of sources, including agricultural runoff, sewage treatment plant effluent, and industrial wastewater. Agricultural runoff is a particularly significant source of phosphorus pollution, as phosphorus is used extensively in fertilizers. When fertilizers are applied to fields, they can wash off into nearby streams and rivers during a rain event.

Once phosphorus enters a water body, it can be difficult to remove. Phosphorus can bind to soil particles and settle at the bottom of the water body, where it can be released back into the water column under certain conditions. Phosphorus can also be taken up by algae and other aquatic plants, which can then be eaten by fish and other aquatic animals. When these animals die and decompose, the phosphorus is released back into the water body.

Eutrophication can have several negative impacts on water quality. Algae blooms can block sunlight from reaching underwater plants, which can lead to the death of these plants. Algae blooms can also produce toxins that can harm fish and other aquatic life. These algae blooms are also called harmful algal blooms (HAB's). Additionally, when algae die and decompose, they consume oxygen from the water. This can lead to oxygen depletion, which can kill fish and other aquatic animals.

Eutrophication can also have a negative impact on human health. When algae blooms produce toxins, these toxins can contaminate drinking water supplies and cause health problems such as nausea, vomiting, and diarrhea. Additionally, eutrophication can make swimming and other recreational activities unsafe.

There are a few things that can be done to reduce phosphorus pollution and prevent eutrophication. One important step is to reduce the use of phosphorus fertilizers in agriculture. Farmers can use best management practices such as buffer strips and cover crops to reduce fertilizer runoff. Sewage treatment plants can also be upgraded to remove more phosphorus from wastewater.

In addition to reducing phosphorus pollution, it is also important to manage water bodies in a way that reduces the risk of eutrophication. This may involve measures such as dredging to remove phosphorus-rich sediments from the bottom of water bodies and managing aquatic plant growth.

Examples of the Impact of Phosphorus Pollution on Water Quality

A famous example of the impact of phosphorus pollution on water quality is Lake Erie. Lake Erie is one of the Great Lakes, and it is located on the border between the United States and Canada. In the past, Lake Erie was severely polluted with phosphorus from agricultural runoff and sewage treatment plant effluent.

Eutrophication caused by phosphorus pollution led to a number of problems in Lake Erie, including algae blooms, oxygen depletion, and the decline of fish and other aquatic life. In the 1960s and 1970s, Lake Erie was known as a "dead lake" because of the severe oxygen depletion.

However, significant efforts have been made to reduce phosphorus pollution in Lake Erie, and the lake has recovered significantly. Today, Lake Erie is a popular destination for fishing, swimming, and other recreational activities.

Conclusion

Phosphorus pollution is a major threat to water quality around the world. Eutrophication caused by phosphorus pollution can have several negative impacts on water quality, including algae blooms, oxygen depletion, and the decline of fish and other aquatic life.

There are a number of things that can be done to reduce phosphorus pollution and prevent eutrophication. These include reducing the use of phosphorus fertilizers in agriculture, upgrading sewage treatment plants to remove more phosphorus from wastewater, and managing water bodies in a way that reduces the risk of eutrophication.



2023 OKOBOJI BLUE WATER FESTIVAL HITS A HOME RUN

By Steve Weisman, OPA Publicity



(photo by Steve Weisman)
The sidewalk comes alive with Chalkstock artwork.

Against the backdrop of the beautiful waters of West Lake Okoboji, a bright sunny sky and a gentle northwest breeze, the 8th annual Okoboji Blue Water Festival held on Saturday, August 12 at Preservation Plaza continued to provide the general public with both a celebration of clean water efforts and challenges to continue to address clean water issues. Beginning with the Chalkstock sidewalk art early in the morning and ending with the incredible concert in the evening with A. J. Croce and headliner, Elle King, the day was jam-packed with clean water opportunities for all in attendance.

Exhibitor's Row

Festival goers meandered through the winding sidewalk stopping to visit with different clean water organizations, gathering clean water information and in some cases joining organizations to help with their clean water efforts. According to Kate Mendenhall, president of the Okoboji Protective Association (OPA), which had one of the over 30 exhibitor booths, "Saturday's Blue Water Festival was a huge success! The day was gorgeous, and we had a tremendous diversity

of exhibitors educating about clean water. The OPA booth signed up a lot of new members and handed out all the boat trash bags we brought to give to folks to help keep litter out of our beautiful lakes. A big thanks to Greg Drees and Julie Peterson for all their work to organize the festival and to the Spirit Lake High School volleyball team for lending their muscles to help us set up and break down exhibitor booths."



(photo by Steve Weisman)
Visitors had the opportunity to visit with a wide range of clean water experts lined up along Exhibitor's Row.

Kids and Family Activities

Across the sidewalk from the Exhibitor's Row was the area for Kids and Family Activities. Talk about action! Kids were everywhere, everywhere and having a great time: learning about clean water, getting their faces painted, doing artwork on their own special T-shirt, listening to stories and jumping on the huge inflatable! Beginning at 10 a.m., it was pretty much nonstop until 2 p.m. Whew!



(photo by Steve Weisman)
Getting the facial artwork just right!

Fishing Seminar

Traveling walleye professional angler, Chase Parsons shared several key fishing presentations with over 200 in attendance. Throughout the seminar, Parsons entertained specific questions from the audience. After a quick hour, Parsons invited people to come over to the Iowa Great Lakes Fishing Club booth to talk more fishing, and according to

Parsons, "We had lots of people stop by right up until they began tearing down the booths at 2:30." After the day's events, Chase texted me saying, "Thanks, Steve! I enjoyed the day. I'd come back anytime!" A future story will share some of his top tactics.



(photo by Steve Weisman)
Chase Parsons holds a rod to explain his point.

Clean Water Panel

These four clean water panelists, used their diverse backgrounds to share their views on water quality:

- Mike Hawkins, Iowa DNR Fisheries Biologist at the Spirit Lake Hatchery.
- Dr. Thomas Isenhardt, professor at Iowa State University in Natural Resource Ecology and Management.
- Rosie Roberts, conservation agronomist with the Iowa Soybean Association.
- Jennifer Terry, project manager for the Source Water Research Assessment in Polk County.



(photo by Steve Weisman) Mike Hawkins (R), clean water panelist shares a point as the rest of the panel listens.

As they answered a series of questions, and some of them tough and controversial to an extent, they all agreed that NOW is the time to make a true difference in water quality. They also believe that people need to educate themselves, share their passion for clean water, tell their stories, and finally, if they truly want change, to get their message out to their legislators.

(continued on next page)

Moderator Joe McGovern ended the discussion with this. "It is our duty to educate ourselves and to learn more. When it comes to clean water, we can never give up!" More details will come in a future story.

Keynote Speaker

The Okoboji Protective Association (OPA) sponsored the keynote speaker, Jon Bowermaster, a world-renowned writer, filmmaker and adventurer, and a six-time grantee of the National Geographic Expeditions Council. Throughout his speech, Bowermaster shared that his "beat" as a writer has become the four corners of the world. It really comes down to the fact that "everything in the world is water related." He also noted, "Most people who become involved in a clean water issue become accidental environmentalists. They never planned to get involved until the issue came near to them."

As I let those words sink in, I thought of us here are the Iowa Great Lakes. The issues we have right now have helped many of us to become accidental environmentalists!

Following the keynote address, OPA president Kate Mendenhall reflected, "The keynote from Jon Bowermaster was inspiring and reminded us that we are connected globally in our work to improve water quality."



*(photo by Steve Weisman)
Jon Bowermaster,
keynote speaker, shares
environmental stories from
his visits to the four corners
of the world.*



(photo by Steve Weisman) A beautiful sunset over West Lake Okoboji set the mood for the Elle King concert.

A break

Yes, after all of this, we needed the time to rejuvenate and get ready for the music that was to come...and by 4 p.m., concert goers began to appear and set up their "lawn chair" camps. This continued all the way until Elle King took the stage..

Master pianist, songwriter and singer

What else can you say about A. J. Croce. For over an hour he had the crowd going with his incredible instrumental and vocal talent, sharing his own songs and those of his father, Jim.

Worth the wait

The headliner...Elle King, and, yes, there were Elle King fans from the stage all the way east up past the Big Tent. It was a free concert, so no head counts, but no doubt, thousands of people were in attendance, definitely one of the largest outdoor concerts ever. King most certainly rocked the Green Space and even brought up a group of youngsters to help her with a special song. Many people I visited with noted how well she interacted with the crowd before and during the concert. And, of course, the fireworks display was astonishing and lit up the sky.



(photo by Marcy Sander) Elle King wows the audience!



(photo by Mary Beardsley) Fireworks following the Elle King concert.

Following the long and eventful day, co-chair Greg Drees was both tired and ecstatic. "One of the trademarks of the festival is to end the daylong water quality activities with a celebratory big-name concert. Elle King carried on that tradition. King's musical style is so diverse, and it was certainly on full display tonight. It was an awesome end to an awesome day!"

Thanks to all

According to Drees and co-chair Julie Peterson, the 8th annual Okoboji Blue Water Festival was a truly spectacular day. Drees reflected on the day. "It was a special day all based around our clean water theme. We thank all the people who came to be part of the largest clean water event in the state of Iowa. From the presenters to the exhibitors, to the volunteers and the many sponsors, none of this

could have happened without all of you! We thank you so much, and we can't wait until 2024!"

TERRY WILTS AWARDED ACE CORY CONSERVATION AWARD

By Steve Weisman, OPA Publicity

Terry Wilts received the Ace Cory Conservation Award at the annual Okoboji Protective Association's annual meeting on Saturday, August 12. The award was presented by OPA board member, Mary Skopec and Executive Director of the Iowa Lakes Laboratory.

The inscription on the plaque reads... To Terry Wilts: For being TENACIOUS in protecting and improving the Iowa Great Lakes. Terry acts as the "go to person" in curly leaf pondweed control and more recently led the efforts against Eurasian Watermilfoil. Terry is an active person in water quality efforts and someone that people all over the region respect and look up to.

Skopec shared the nominating committee's thoughts on their selection. "When considering possible choices for the 2023 award, there is no one more deserving of this honor than Terry Wilts, a man that embodies all the qualities of Ace Cory. As a board member of the East Okoboji Lakes Improvement Corporation (EOLIC), Terry has been instrumental in helping combat aquatic invasive species in the Iowa Great Lakes. His efforts created a collaborative team that developed an approach that helped homeowners maintain the use of the lakes while also protecting local drinking water sources and the environment. A gifted communicator and leader, Terry's ability to listen proactively, while searching for solutions builds strong bonds within our community to tackle the challenges facing the long-term protection of the Iowa Great Lakes."

In accepting the award, Wilts reflected on its significance. "I am honored, and quite frankly humbled to receive the Ace Cory Conservation Award. I never got to meet Ace Cory, but his vision and foresight in setting up the Water Quality Commission in this community has left a lasting legacy. My heartfelt thanks to all of you for this award."

John Wills, who is coordinator of the Dickinson County Clear Water Alliance, spoke highly of his conservation efforts. "Terry is one of the hardest working people I know, and when he gets ahold of something that is important to him, he is like a bulldog that won't let go. He is a true champion for East Lake Okoboji and all of the Iowa Great Lakes."

Over the past several years, Wilts, who is the secretary of the East Okoboji Lakes Improvement Corporation, has been a frontline leader in the fight against aquatic invasive species. He's also been a part of several important watershed projects that include wetland restorations, land acquisitions and urban conservation practices. Wilts has also worked hard to build relationships with other partners and gain support for these projects.

Mike Hawkins, Iowa DNR Fisheries Biologist, says, "I can't think of a person more deserving of the Ace Cory Conservation Award. The best part of my job is getting to work with some pretty amazing individuals and conservation groups. Many of these people volunteer their time and talents to help protect and manage Iowa's natural resources. The most effective of these people put the time in to understand the complex issues, they figure out quickly how to use their talents to make a difference, and they're willing to do the toughest parts of the job without hesitation or reward. Terry Wilts checks all these boxes."

Hawkins appreciates the advocacy that Wilts displays for the Iowa Great Lakes and his actions as a frontline leader in the fight against aquatic invasive species. "Terry works tirelessly and is the type of person that will go door to door if he needs to, never shies away from controversy or debate, and is always asking the right questions and doing the hard work. Terry doesn't do this work for recognition or because it's easy. He selflessly gives his time and talent because it's the right thing to do. Protecting Iowa's Great Lakes is a monumental task, and we're fortunate to have individuals like Terry working to keep them great."

About the award

Wilts is the most recent recipient of the Ace Cory Conservation Award, which has been bestowed annually since 2006 by the Okoboji Protective Association to an individual whose work in the Iowa Great Lakes area, voluntary or professional, reflects the principles of the late Ace Cory, one of the region's pioneer environmentalists.

Ace Cory was one of the leaders in the late 1990's to seek a steady stream of money to fund clean water projects in Dickinson County. He was instrumental in the formation of the Dickinson County Water Quality Commission, the first and only organization of its kind in Iowa.



(photo by Steve Weisman) Terry Wilts shares his thoughts about being named the 2023 Ace Cory Conservation Award.

2013 - 2023: A DECADE OF DECLINING WATER QUALITY IN IOWA

By Alica Vasto, Water Program Director, Iowa Environmental Council

In late May, the Iowa Environmental Council (IEC), launched a new website (decliningdecade.org) to mark the tenth anniversary of the state's taxpayer-funded nutrient reduction strategy (NRS). We created the site to counter the narrative being pushed by agricultural businesses and organizations that say progress on the NRS is going great and Iowa is taking appropriate action to address nutrient pollution. These groups were very involved in the crafting of the voluntary approach to fertilizer pollution in the NRS, and they are heavily invested in its status quo implementation.

There are many examples of local initiatives and farmers that are doing the right things: putting conservation practices on the ground and sharing their stories with others to encourage further adoption.

However, focusing on individual stories alone – without shining light on the **systemic failures** of the voluntary approach and the continuous erosion of state leadership's support for water quality – circumvents the conversation about policy solutions we need to make actual progress on nutrient pollution reduction.

Without regulating **fertilizer and manure application** and requiring **basic standards of care**, we will never reduce nitrogen and phosphorus pollution anywhere close to what is necessary to protect drinking water here in Iowa or reduce the Gulf hypoxic zone.

Here is what we know:

- Every scenario in which we reach the 45% nutrient reduction goal of the NRS requires *every farmer in Iowa* to apply nitrogen fertilizer and manure at rates appropriate for plant uptake, not at rates leading to excess that will leach or runoff into streams and lakes. The original science assessment for the NRS found that applying at this rate (Maximum Return to Nitrogen or MRTN) shows the greatest potential for nitrate reduction.
- The average rate of commercial nitrogen applied to corn following soybeans was 174.8 lbs/acre for 2017-2021. For continuous corn, the average was 202.3 lbs/acre.¹
- With current prices, MRTN is 147 lbs/acre for corn following soybeans and 191 lbs/acre for corn following corn.² That's 27.8 lbs/acre and 11.3 lbs/acre less than current average rates, respectively, and doesn't even include manure application.
- Even considering the recent **Polk County 'batch and build' initiative**, which was able to install 136 bioreactors and saturated buffers from 2021 to 2022,³ 1,200 bioreactors and saturated buffers need to be installed *every year* across Iowa to reach NRS goals in 100 years.
- An estimated 14 million of 24 million cropped acres in Iowa are drained by tile, representing an 11 percent increase from 2012 to 2017.⁴ The NRS does not account for increasing efficiency of nitrate and dissolved phosphorus export from fields due to tile drainage, and there is no accounting of this countervailing data in NRS progress tracking or measurements.

There are more than 23 million hogs in Iowa at any time, more than seven times the state's human population.⁵ Each hog produces 8 to 10 times more fecal matter than a human.⁶ None of the nutrient contributions of livestock production and manure is addressed by the policies or recommendations of the NRS.

Until we are able to transform how we address fertilizer pollution through policy and regulation, the NRS will be no more than a cover for 'business-as-usual' conventional agriculture. We invite you to visit decliningdecade.org to view IEC publications, fact sheets, news stories, and blog posts, as well as external reports and articles, all in one place, to get a more complete picture of Iowa's fertilizer pollution crisis.

References:

1. https://www.iowanrec.org/_files/ugd/c03d34_ed7a91982a3f4f5ab2acf1fb4cfac61b.pdf
2. Calculated with anhydrous at \$0.63/lb and corn at \$6.04/bu
3. <https://www.agriculture.com/crops/conservation/batch-and-build-strategy-makes-conservation-more-convenient-in-central-iowa>
4. USDA National Agricultural Statistics Service, 2017 Census of Agriculture. Complete data available at www.nass.usda.gov/AgCensus at Iowa 18, 41.
5. https://www.nass.usda.gov/Statistics_by_State/Iowa/Publications/Livestock_Report/2022/IA-Hogs-09-22.pdf
6. <https://www.pbsnc.org/blogs/science/exporting-poop-for-profit-could-help-farmers-and-the-environment/#:~:text=In%20fact%2C%20hogs%20leave%20behind,times%20more%20poop%20than%20humans>

BOWERMASTER PROVIDES WORLD VIEW TO CLEAN WATER

By Steve Weisman, OPA Publicity

Sometimes, we attend events that offer a wide range of topics that make us pause and reflect. One of those for me was at last August's Okoboji Blue Water Festival (OBWF), where Jon Bowermaster provided the keynote speech. In speaking of Bowermaster, OBWF organizer Greg Drees had this to say. "Jon brings to the Festival audience his knowledge of the relationship between man and the seas gleamed from his countless ocean expeditions. A graduate of Drake University and a past visitor to Okoboji, he has significant ties to Iowa. His environmental background is incredible!"

The round of applause from those in attendance and the way audience stayed around to visit about his presentation and to visit personally with him, proved that Drees knew what he was talking about. Using his over 46 years as a journalist and then as a filmmaker and adventurer, Bowermaster shared his experiences from his journeys to every continent in the world by focusing on the relationship between humans and nature. At the same time, he made sure to connect with the audience on a wide range of environmental issues.

By 2015, Bowermaster had been in 40+ countries and as he reflected, "My beat has become the four corners of the world." However, as a 30-year resident of the Hudson Valley in New York State, Bowermaster added, "Unfortunately, I knew more about places in the world than I did about my own backyard." Known as America's First River, he began focusing toward issues of the Hudson River. It was a sad past, so sad that by the early to mid-1900s incredible pollution issues came to the Hudson River brought on by factories, urban runoff, agricultural runoff and sewage issues just to name a few. It was to the point that the river was pretty much void of life. Many people called it dead. Bowermaster shared the environmental issues that caused this, but at the same time shared the positives going on over the past several years, "I've begun to see hope on the Hudson River. In 2023, I'm fairly optimistic."

Riverkeeper, a non-profit environmental group, has led the efforts, and according to Bowermaster there are now over 300 Riverkeeper organizations throughout the world. In 2019, Bowermaster produced a short film entitled "A Living River," which documents the efforts by Riverkeeper, the DEC and others to restore life in the Hudson River.

Bowermaster acknowledged that there are environmental issues all over. Thus, the reason that Drees brought Bowermaster to the OBWF. Wherever he goes to look at environmental issues, he finds what he calls, "accidental environmentalists. They never planned to get involved in environmental issues, that is until it came to their area." Such a simple statement, yet one that is so incredibly accurate. For instance, things that happen out of our Iowa Great lakes area, we often note how sad those situations are, and we hope that things work out for them! It is only when the issue comes to us, in our community that we become active, as Bowermaster pointed out, "accidental environmentalists."

Drees later reflected on the keynote address. "To me, Jon's speech about his journeys and his environmental experiences brought everything home to us right here in the Iowa Great Lakes. Yes, we are making strides in our clean water efforts, but we have so far to go. As Becky Thoreson, emcee for the evening concert said, 'it truly takes a village.' That is certainly the truth. Hopefully, we can keep Bowermaster's message alive and become **'purposeful and intentional environmentalists.'**"

WINTER SAFETY TIPS

By Joe Yarkosky, Iowa DNR State Conservation Officer

With winter knocking on our door, ice fishing is right around the corner as well. Each year, we see thousands of anglers come to the Iowa Great Lakes. Ice fishing is a great way for a family to get out of the house and spend time outdoors. We are spoiled here in the Iowa Great Lakes to have many lakes and areas to explore and fish.

First off, remember that Iowans 16 years of age and older need to have an Iowa fishing license. Next, make sure to have your gear in check and in good working order. Finally, it's always to a good idea to take a quick refresher on ice safety. To begin, the number one rule is that no ice is 100 percent safe. We get a lot of calls from the people asking the same question: "Is the ice safe?" This is an impossible question for us to answer and ice safety comes down to personal responsibility.

Typically charts show: under 2" of ice you should not walk, 4" of ice is good for ice fishing/walking, 5" for ATV or snowmobile, 8-12" for a car/small pickup, and 12-15" for a medium pickup. It is also noted that these recommended thicknesses are for solid/clear ice.

A good investment for going out on the ice is a spud bar. A spud bar is a solid metal bar with a chiseled end that you can use to test the ice in front of you. If the spud bar goes through, better turn around.

Other good investments are ice awls, which are basically picks that you can use to pull yourself up onto the ice if you happen to fall in. I recommend attaching these to the front of your jacket so they can be easily reached. Both

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spud bars and ice awls don't have to be purchased either if you are handy and want to make your own.

Other good things to remember:

- Look for changes in the color on the ice. This will vary in thickness and strength. Also be aware of seams and heaves in the ice. These areas can have thin/weak ice and sometimes open water.
- Avoid bridges and areas of high current.
- Wear appropriate clothing to stay warm. Float coats are an excellent way to keep you both warm and safe.
- Tell people where you are going. Better yet, bring someone with you to enjoy the time with, especially a youngster.
- A long rope can always be handy. If someone falls in next to you, you can use it to help them out.
- Keep your phone handy and dry. If an emergency does happen somewhere on the lake, we like to get trained emergency personnel on scene as quickly as possible.

Wishing everyone a safe and happy winter. As always, please practice **Leave No Trace** and leave our lakes in better shape than we found them. Finally, don't hesitate to contact your local State Conservation Officer with any questions!

WINTER FUN AT IOWA LAKESIDE LABORATORY

By Ashley Scheve, Iowa Lakeside Laboratory Education Coordinator

As our trees lose their leaves and snowflakes begin to fall, everyone in our community seems to have their own opinions about approaching winter. Some people love to stay indoors cuddled up by a fire, while others want to explore the great outdoors and play in snow! No matter what category you fall into, there are fun activities happening at Lakeside this winter you won't want to miss out on!

Maybe playing in the snow isn't your favorite pastime, but do you know a child who loves to go sledding, build snow forts and explore our winter landscape? What better way to encourage their love of the outdoors in all seasons than to sign them up for one of our winter camps! Lakeside Lab is partnering with ISU Extension and Outreach Dickinson County this February and March to offer camps for students on their days off from school, as well as homeschool students. These camps will focus on promoting an appreciation and love of the outdoors. Campers will get to participate in fun winter activities such as snowshoeing and sledding, as well as some warmer activities such as crafts while drinking hot cocoa.

Lakeside Lab is also excited to participate in the Winter Games weekend with another Soup 'n Slide event! This event will take place on January 28th and is free to the public, although free will donations are always appreciated. We will have homemade soup, delicious desserts, hot chocolate, and crafts inside, and sledding and snowshoeing outside. We love having people out to Lakeside during our off season with the opportunity to catch up with community members at this event. Be sure to bring a sled and an appetite!

Lakeside Lab in partnership with Dickinson County Conservation Board, Clay County Conservation Board and ISU Extension hosted our first ever Women in Nature Day (WIND) this past spring. We are excited to bring another **WIND** opportunity to our community February 10th in Clay County! This event is geared toward women 18+ as a way to discover new outdoor recreation skills, build a nature-loving community and experience our winter natural landscapes. We will be offering exciting winter opportunities such as ice fishing, snowshoeing, cross country skiing and more! Keep an eye on our website and Facebook page for more details as the date gets closer.

As a reminder, the trails at Lakeside are always open to the public, even in the winter months! If you would like to try your hand (or should we say feet) at snowshoeing, we have equipment you can borrow as well! Just call our office beforehand to set up a time to check out a pair of snowshoes. Our big hill by the dining hall is also open to the public to go sledding as long as there is snow on the ground.

We hope the winter chill and snowy weather doesn't stop you or your family from enjoying the great outdoors this winter!



Youngsters enjoy a winter camp at Lakeside Lab!



Sledding is an activity for adults and youngsters at Lakeside Lab!

S.A.L.T. PATROL SERVES THE TRAILS

By Erin Reed, DCTB Executive Director



Seniors and Lawmen Together (S.A.L.T.) is a group of volunteers that patrols the Iowa Great Lakes Trails from April through October. The volunteers ride donated Polaris ATVs from the north end of the trail around Big Spirit Lake to the south end at Milford, along the west side of West Lake Okoboji and the expanding rail trail Tatanka Ska Trace. A typical summer will see the S.A.L.T. team log over 6,000 miles while watching over the safety of the many bikers, joggers, rollerbladers and walkers that utilize the trail system. Each volunteer is trained and certified to operate the ATVs, and they carry a cell phone and radio to report emergencies or problems to the Communications Center. They also inform the DCTB Executive Director of any maintenance issues such as downed tree branches or pavement deficiencies.

Aside from emergencies, the trail patrol provides daily removal of trash and debris as well as assistance to trail users with information, water and ice cream cone certificates for children that are wearing their helmets while biking. These volunteers provide a great service to the community, and we are grateful for their service. For information on joining the S.A.L.T. Patrol, please visit www.dickinsoncountytails.com/s-a-l-t-patrol/

Taking Care of the Trails

The Dickinson County Conservation Board (DCCB) maintenance crew, along with their other duties managing the county's parks and natural areas, provides general maintenance throughout our trails system. This work includes tree trimming, weed control, trail sweeping, power washing, mowing the trail shoulders and maintaining trailheads. They also manage sign replacements and minor surface repairs.

Brian Cuperus, DCCB Maintenance Foreman, together with Trails Manager Clay Pavelko, handle coordinating all the various jobs that are necessary each week, and as the system expands so does the workload. A major component of what they do during the summer is mowing over 45 miles of trail shoulders. Mowing is a full-time, 40 hours per week job that is handled by DCCB summer employees who rarely get a break from the mower unless it is raining. Cuperus said, "Trails are a lot of work to maintain, but it is rewarding to see the abundance of people using them." We could not agree more, and the DCTB is grateful for the partnership with Conservation that enables us to keep the trails safe and maintained.

Trails Talk Throwback

What was happening with the trails 17 years ago? Here are a couple of tidbits from some of the earliest trails talk columns by DCTB's first Executive Director, Steve Litts.

October 2006: *Contingent upon raising the necessary funds, your DCTB board members have endorsed the construction of a new trail segment that will run from N. Inner Drive, north, to 155th Street. This will be the north leg of a trail designed to allow a safer route around West Lake Okoboji. This trail segment will join two other trail construction projects already scheduled for next summer, Wahpeton and the completion of the Big Spirit Lake trail. If you haven't seen it yet, drive up around the west side of Big Spirit Lake and look at the trail work that has been done. We believe you'll like what your donations have created.*

November 2006: *Over last summer, DCTB conducted several maintenance projects on the trail; we have started a trail construction project on the west side of Big Spirit and worked towards bid preparation for the new trail at Wahpeton. We're planning a trail off Hwy. 86, (north from N. Inner Ln.), and we're discussing a trail coming around the city of West Okoboji. We're also collaborating with the Iowa Natural Heritage Foundation to design a trail on the Anglers Bay preserve. Has it been a busy year? You bet. But more importantly it's been a productive one and even more is on the drawing board.*



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A study of the county identified the need for 63 more miles of trails to connect existing trails, to connect lakes and nature areas, to connect with our neighboring counties - all at a cost of \$16M. Grant money for trails can be applied for and if awarded, we will only need \$1 of local money for every \$4 of trail cost. That's a very good return for our local dollars.

It is interesting to reflect on the projected cost of trail needs back in 2006. We can say the vision has grown and the funds needed have likely doubled. Moreover, while many of our grants require \$1 of local money for every \$4 in trail cost, or a 25% match, we usually bring 50-75% of the funding from local grants and donations due to how competitive the state and federal grant programs have become.

Likewise, it's amazing to look back at where we were 17 years ago and see how much development has occurred over the years. It is also a reminder of how long certain segments, such as the Anglers Bay Trail, take to get into development. Now that the Jones Pasture Trail is complete, we have started the design process for the Anglers Bay Trail. Depending on available funding, we hope to begin construction on this trail along the northeast side of Big Spirit Lake in a couple years.

As always, Happy Trails to You and Yours!

2023 – WHAT A YEAR

By Mary Skopec, Executive Director-Lakeside Laboratory

The year 2023 marked several milestones and anniversaries for Iowa Lakeside Laboratory. While the Lab was initially founded in 1909 on the shores of West Okoboji Lake by Dr. Thomas Macbride, there have been a few significant events that have shaped the mission of the Lab and our value to the Iowa Great Lakes Community.

The first significant milestone was the building of the Civilian Conservation Corps stone laboratories that dot the southern portion of the Lab property. The stone labs were completed 85 years ago (1938) and transformed Lakeside into a permanent biological field station for the State of Iowa. The new stone labs allowed students and researchers to have a dedicated space to conduct experiments, store specimens of regional flora and fauna and to take shelter from the weather for classes. The five stone laboratories are named after prominent biologists including Lakeside Founder Thomas H. Macbride, Bohumil Shimek, Louis Pammel, Joseph Hall Bodine, and Samuel Calvin. Today these stone laboratories are still used for classroom activities, artist and writer studios, research, and public events.

The next significant milestone in 2023 was the 60th anniversary of the Ecology and Systematics of Diatoms course. In the 60 years since that first class, more than 400 scientists have been trained in 17 countries around the world. Nearly every one of those scientists has a direct link back to Lakeside and West Okoboji. Lakeside Laboratory will be the 2024 host for the North American Diatom Symposium. Experts from around the world will travel to Lakeside to share their knowledge and new insights on these fascinating creatures. For a longer discussion of the relevance of diatoms and the special course, check out the Spring 2023 OPA Newsletter article.

The last, special anniversary of Lakeside Lab is the 25th anniversary for the Waitt Water Quality Laboratory. The Friends of Lakeside Laboratory formed with the purpose of supporting the functions of Lakeside and becoming a community resource for the dissemination of information and life-long education. Their first task was building the Waitt Laboratory, the first year-round classroom and research space on campus. The building was finished in 1998 and has become a game changer for Lakeside. Waitt contains the Bovbjerg Water Chemistry Laboratory, named for Richard Bovbjerg (Lakeside Director 1963-1989).

The State Hygienic Laboratory occupies the Bovbjerg Lab and tests water for a variety of regulatory programs and research projects, including the Cooperative Lake Area Monitoring Program (CLAMP). Waitt also houses two classrooms and the offices of Lakeside Lab's Executive Director, Education Coordinator, and the Friends of Lakeside. Waitt Lab is the education hub for K-12 classes, summer camps, Wild Wednesdays, and Coffee & Grounds volunteer activities. The building was named after Andrea and Norman Waitt, who were significant donors to the building fund.

As Lakeside moves into our next transformational phase, including the construction of new laboratory and housing spaces, we are ever mindful of the need to give back to the Iowa Great Lakes Community and support efforts to protect and improve this incredible area.

AUTHOR'S NOTE: We also mourn the recent passing of Judy Thoreson (June 18, 1935 to October 11, 2023). Judy was the first president of the Friends of Lakeside Laboratory and a pioneer in philanthropy in the Iowa Great Lakes. Generous with her time and using her passion for all things Okoboji, Judy was a true force of nature. Lakeside was fortunate beyond words to have known her guidance and still benefits from her vision for our future. She was a cherished friend, wise mentor, loving mother and doting grandmother. You will be greatly missed, Judy. May we all leave such an indelible mark on the world as your presence did!

WINTER READS SUGGESTIONS

By Jane Shuttleworth, Environmental Educator

When the lake freezes over, it's a good time to cozy up with a good book. This winter, we lake lovers are fortunate to have three recently published books on Iowa's environment to read. Written by Iowa experts committed to sharing their knowledge with the public, each book confronts difficult and controversial topics from climate change to the impacts of corporate agriculture on Iowa's water quality and challenges us to know more and do better by Iowa's environment.

Cornelia Mutel's newest book ***Tending Iowa's Land: Pathways to a Sustainable Future*** is intended as an introductory source book about Iowa's natural history and environmental changes and challenges for students and the public. In the last 200 years, she writes, "My home state morphed from a wildland that sustainably embraced thousands of kinds of interacting organisms into a much simplified and tightly managed landscape of cities, roads and farms... many of Iowa's finest features were lost in that transformation." A former senior science writer at the University of Iowa College of Engineering, Mutel was compelled to produce this book, and organized it into four sections: Soil, Water, Air and Life. She gathered researchers, scientists and farmers to submit essays on these subjects that combine science and storytelling to describe Iowa's major environmental problems as well as can-do solutions to fuel hope and feed activism towards a more sustainable future for Iowa.

By contrast, Neil Hamilton's ***The River Knows: How Water and Land Will Shape Our Future*** takes more of a legal and historical than scientific approach to Iowa's water quality challenges. Hamilton grew up on a farm, is a former director of the Agricultural Law Center at Drake University and is a Professor Emeritus of Law at Drake University. What makes his book unique and insightful is the voice of the river that he invents as the book's "co-author". When Hamilton describes the evolution of laws and policies governing the use of water, or landmark court cases that shape the implementation- or not - of Iowa's environmental laws, the river responds with its own perspective, often filling information gaps.

Last but not least is author Chris Jones' ***The Swine Republic: Struggles with the Truth about Agriculture and Water Quality***. Jones has a formidable knowledge base and career experience in all things water: he holds degrees in hydro science, analytical chemistry and biology and has held positions with the Iowa Soybean Association and the Des Moines Water Works. Most recently, he was a research scientist at the University of Iowa's College of Hydroscience and Engineering. While there, he published a colorful blog on agriculture and water quality in Iowa on his faculty webpage. When a group of Iowa legislators with ag industry ties met with university leaders asking them to take down his blog, Jones decided to take early retirement. Fortunately for us, he has used his retirement to step up his writing and public outreach. His ***Swine Republic*** book includes new and old essays from his blog, and he also publishes articles on Substack, an online news service. Jones has a witty talent for metaphor and a way of making scientific concepts and truckloads of data palatable and boiled down into stories we can all understand - ones that connect the ecological, political, and economic dots behind Iowa's water quality problems. One of my favorite examples is the essay "Iowa's Real Population" where he compares the waste produced by Iowa's livestock population to that produced by Iowa's human population. On average, livestock produce three to five times the waste of humans. He estimates the waste produced by Iowa's entire livestock population - hogs, beef and dairy cattle, laying chickens and turkeys - is equivalent to 134 million people compared to Iowa's actual human population of about 3 million. Human waste is treated in sewage facilities; livestock waste is land applied illuminating why the management of livestock waste is one of Iowa's most pressing environmental challenges, especially when it must be done during a very narrow window of time before or after harvest to avoid interference with crop production.

In closing, I have a few comments and a confession. First, I miss the voices of Iowa's indigenous people who certainly have much to contribute to discussions about resource sustainability. In the meantime, readers can turn to Robin Kimmerer's engaging book ***Braiding Sweetgrass*** for examples of how indigenous knowledge can contribute to scientific understanding and implementation of sustainability practices. I also miss a wider range of farmer's voices, including conventional ag types. Finally, I confess I have not finished any of these books, but the truth is I never will. I will keep re-reading them and keep them on my shelf as reference books. I wish every Iowan would!



CLEAN WATER PANEL SHARES SOUND ADVICE

By Steve Weisman, OPA Publicity

The mid-August Okoboji Blue Water Festival (OBWF) was both an opportunity to share the clean water successes occurring in the Iowa Great Lakes area, and the chance to educate people about all the work still needed because as Greg Drees, co-chair of the OBWF says, "We must all remember that our cherished way of life depends on clean water: healthy ecosystems provide wildlife habitat and places to fish, paddle, surf and swim. Our economy depends on clean water: manufacturing, farming, tourism, recreation, energy production and other economic sectors need clean water to function and flourish. People, wildlife and plants depend on clean water. Without clean water, life itself is impossible."

That was the purpose of the Clean Water Panel held under the Big Tent: ...to raise awareness of water quality issues not only here in the Iowa Great Lakes but across Iowa and beyond. The four panelists included clean water experts, each from totally different occupations all with the goal of improving water quality: Dr. Thomas Isenhardt, Rosie Roberts, Jennifer Terry and Mike Hawkins with Joe McGovern, president of the Iowa Natural Heritage Foundation, serving as moderator. These are key points each panelist made on their efforts in embracing clean water efforts.

Isenhardt, who is a professor at Iowa State University in Natural Resource and Ecology Management, has done extensive research in stream, riparian and watershed management. He noted experts have tracked the history of Iowa's change from prairie to a mostly row crop farm landscape. "Papers have been written since the 1950s about phosphorus and algae growth, so these challenges are not new." Through a wide range of research projects, Isenhardt works with farmers, landowners and other stakeholders both in Iowa and across the country to improve the understanding of the impacts of agriculture on water quality and to implement practices to improve water quality. The goal is to have research results translated into conservation practice standards which are implemented on private working lands. Isenhardt noted that although progress is being made, the process is a slow process. After all, it took hundreds of years to get us to this point.

Roberts has a bachelor's degree in Agronomy and Agriculture Communications from Iowa State University. As a conservation agronomist with the Iowa Soybean Association, Roberts says her work is hands-on, providing technical assistance to producers and serving as an in-house conservation expert to the partnering ag cooperative in her area. "In working with farmers, I try to look at both production and conservation in a positive way. It's really about building relationships with farmers/landowners about new conservation efforts that will help keep more soil on the fields and stop phosphorus from getting into our waterways, while at the same time offering cost share assistance." Roberts believes it is important to find common ground and share new conservation efforts that work. Working with multigenerational families can be a challenge.

Terry grew up on a dairy farm in northcentral Iowa, where she learned a passion for protecting Iowa's land and water. After graduating from law school, he served as Executive Director of the Iowa Environmental Council from 2017 – 2020 and is now project manager of Central Iowa Source Water Research Assessment (CISWRA), a water quality project for Polk County. She formerly oversaw public relations, government affairs, outreach and collaboration, and special projects for Des Moines Water Works, the utility that provides drinking water to the Des Moines metropolitan region including four counties and 600,000 customers. Terry focuses on building coalitions in the Raccoon River Watershed and advocating for clean water policies that reduce agricultural pollution. Terry notes, "Polk County has made a real commitment to water quality, improving water recreation, and protecting drinking water sources for the metro." CISWRA has brought together experienced research scientists from academic institutions and government agencies to analyze what science tells us about the quality of the Des Moines and Raccoon Rivers. There have been many studies and reports published about the Des Moines and Raccoon Rivers—the team of CISWRA scientists will summarize what data show us about water quality in the rivers, and then they will make recommendations about restoring and protecting the rivers. Terry feels that as Iowans "we need to build back what has been taken away. Municipalities, cities and the state need to partner with private industry to make truly significant clean water changes. 600,000 central Iowans depend on clean, safe water; the rivers are key to ensuring public health and infrastructure investments in the county."

As Iowa DNR District Fisheries Management Biologist, Hawkins has been a leader in fighting invasive species from entering the Iowa Great Lakes. From Asian carp to zebra mussels to curly leaf pondweed and most recently to Eurasian watermilfoil and brittle naiad...Hawkins and a special local community task force have fought a seemingly ongoing battle against invasives. Unfortunately, invasives don't get here on their own. They have all been brought in by humans. According to Hawkins, "Invasives totally change how we look at and manage our natural resources. Invasives can tip everything on its ear. We are fortunate to have partners working together that won't give up." Unfortunately, Hawkins sees this as an ongoing problem not only here but across the state. "Conservation efforts work; they are a long-term process."

(continued on next page)

Group thoughts:

In listening to the dialogue, several things stood out. The bottom line is all agreed that everybody has a role and a responsibility. Although so many things appear to be stacked against us in Iowa, none of the panelists are willing to give up.

As an educator Isenhardt notes, "Yes, there are issues, but I find the future is bright. Students today know what is out there and what is right." He believes they can make a difference.

Terry notes that building relationships is important. "Talk to people. We all need to tell our story; that's the greatest power we have. That can be tough and may not be fun, but the story needs to be told."

Roberts says, "We have lots of resources that we can use. There has never been a better time to do things because of those resources."

Hawkins believes education is extremely important. "Educate yourself. These things are complex, and support is a key to making improvements."

All did agree that the Iowa legislators need to be positive part of the solution. As Roberts says, "We need to tell the story of the importance of clean water."

McGovern ended the discussion by thanking the panelists for their honest answers and suggestions for making significant changes. "Educate yourself, tell the story, learn more and never give up." He added, "Talk to your legislators, and let them know your beliefs."

IN REMEMBRANCE... JUDY THORESON



Judy Thoreson passed away peacefully on October 11th due to an infection from a recent knee surgery. Judy was born on June 18th, 1935, in Algona, Iowa, to parents Eugene and Veda Murtagh. While she grew up and enjoyed her schooling in Algona, Judy relished her summers spent at her parent's Haywards Bay cottage on West Lake Okoboji.

Judy was a very talented racing sailor in her youth, and there was no doubt that all her time spent on the beautiful, blue waters of West Lake Okoboji helped her appreciate the need to protect the waters for future generations. Amongst her many firsts as a woman, Judy would go on to be the first female Commodore of the Okoboji Yacht Club in 1997. She was always a trailblazer and blew up many glass ceilings in her lifetime.

Judy was very active in many boards and causes in the Iowa Great Lakes. She was a committed conservationist and served as President of the Okoboji Protective Association (1989-90) and

was the first President of Friends of the Lakeside Laboratory (1994-96). Judy also worked diligently on the campaign to Save Arnolds Park Amusement Park. Protecting the waters and the family traditions in the Iowa Great Lakes were her lifelong passions along with her family including four children, eight grandchildren and three great-grandchildren.

Judy's father, Eugene Murtagh, also served as President of the OPA many decades ago. The work of the OPA has evolved over the years, but the commitment to water quality has never been higher. Judy was extremely proud of the organization and the leadership right up to the very end of her 88 years. She even attended the 2023 Okoboji Blue Water Festival. Judy also credited her work with many Iowa Great Lakes area organizations, including the OPA, for creating her forever friendships that she cherished so much.

Judy Thoreson lived every day to the fullest for all of her 88 years. Her generosity to her community, family and friends was a constant living example of the goodness one can do in the short time we all have on this earth. She leaves the world a better place for her life lived.

Services were held on Saturday, October 28 at the United Church of Christ in Algona under the direction of Oakcrest Funeral Services. A Celebration of Judy's Life will be held in June of 2024 at Okoboji.

Signed,

David Thoreson - proud son and board member of the Okoboji Protective Association

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