

Lota - Fisk



Gazette

OFFICIAL BIENNIAL NEWSLETTER FOR THE MINNESOTA CHAPTER OF THE AMERICAN FISHERIES SOCIETY

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Icy Harbor, Duluth. Photo by Sharon Mollerus (CC BY 2.0)

“The greatest good for the greatest number applies to the number within the womb of time, compared to which those now alive form but an insignificant fraction. Our duty to the whole, including the unborn generations, bids us restrain an unprincipled present-day minority from wasting the heritage of these unborn generations.” - Theodore Roosevelt

HAPPY NEW YEAR!

President's Message

by *Edie Evarts*, President, MNAFS

Hello everyone,

As you settle in for the winter, it is time to think about presenting at and attending our Annual Meeting in Wilmar from Feb 10-12, 2020. This will be a smaller meeting which presents a good opportunity to catch up with colleagues in a less busy setting. Craig Kelling has a great meeting planned with the theme of Leaving a Conservation Legacy. We have made some changes this year including student and professional continuing education opportunities, a midday business meeting to make attendance easier, and an "elevator talk" option geared towards students who have done some work on a project but are not at the final conclusions stage. As always, the call for papers and registration will be found on our MN AFS webpage and notice sent via the list serve.

One of the issues we will be discussing at the meeting is the use of lead tackle for fishing. This issue was originally brought to us by an outside group, but the ExCom has decided it is a good issue to carry to membership. It is likely this issue may come up in future legislative sessions, and I would like us to have a ready response. You'll find more information about lead concerns in this Lota-Fisk issue but I wanted to mention the range of actions we could consider and should discuss in February. Ideas are outlined below:

1. Educate our membership on toxicity of and alternatives to lead tackle.
2. Put out a Chapter policy statement or resolution.
 - a. Recognize the negative impacts of lead (this is done in the Parent Society policy).
 - b. Note the lack of progress in reducing lead tackle use.
 - c. Advocate for aquatic habitat health as conservationists - lead is a water quality issue as well as a waterbird problem.
 - d. Use and encourage the use of nontoxic fishing tackle.
 - e. Acknowledge concern for cost of alternatives or potential angling barriers they could create.
 - f. Advocate for nontoxic alternatives or new rules.
 - g. Other?



President Evarts in New Zealand. Photo provided by Edie Evarts (MN DNR).

3. Support future legislative change.

- a. Provide science content
- b. Offer option(s)
 - i. Lake specific regulations
 - ii. Size of lead restrictions sold and/or used
 - iii. Phased in approaches
 - iv. Turn in tackle programs (for cash)
 - v. Create or promote grant programs or partnerships for Minnesota agencies, schools, teachers, etc... to purchase non-lead alternatives.

Changing the subject now, I will say that I had a great experience at the Wildlife Society-American Fisheries Society Joint Meeting in Reno. The meeting had over 3,000 attendees and an overwhelming number of joint sessions with more than one plenary. I was able to attend two AFS meeting workshops for Unit leaders as well as the business meeting, which helped me gain more insight into AFS. To be discussed at our Chapter business meeting - a possible change to sending the President-Elect to the annual meeting to learn the ropes in advance? And lastly, a plug as requested by Scott Bonar, AFS President. He has made climate change awareness a central part of his mission and has asked membership to talk the facts, so I encourage you to talk to others about this in terms of how it can impact fishing and the waters they fish in.

Hope to see you all in Willmar! In the meantime, may you get some time out fishing!



Ice fishing in the BWCAW. Photo provided by Edie Evarts (MN DNR).

2020 Annual Meeting Update

by *Craig Kelling*, *President-Elect/Newsletter Editor, MNAFS*

Meeting Theme: **Leaving a Conservation Legacy**

The Minnesota Chapter of the American Fisheries Society is excited to host the 2020 annual meeting in Willmar, MN from February 10-12, 2020.

We have all heard the same story. “Fisheries conservation in Minnesota will continue to require increasingly creative solutions to more complex problems. At the same time, the conservation funding model supporting the work we do appears to be unsustainable.” Now more than ever, we need to develop a better-shared understanding of the bigger conservation picture and work to break down barriers across programs to ensure future success.



Robbins Island Regional Park Willmar, MN. Photo by Greg Gjerdingen (CC BY 2.0).

Presentations & Posters - This meeting will provide students and professionals with the opportunity to learn and present on the extraordinary fisheries research and management in Minnesota. In addition, the intent this year is to highlight conservation issues occurring in Minnesota that are of growing concern to natural resource scientists and managers across the world. The goal is to begin to develop a shared scientific understanding about these issues, including the implications of current and future environmental stressors. Submissions can encompass the broad diversity within fisheries, but should benefit a range of audiences that aim to advance the science of fisheries ecology, conservation, and management. Presentations that are consistent with the meeting theme are encouraged, in addition to our more standard topics. If you have suggestions or would like to assist in creating a specific symposium, please let us know (contact information below).

- Abstract Submission: <https://units.fisheries.org/mnafs/this-years-meetings/mn-afs-annual-meeting-abstract-submission/>
- Please consider submitting an abstract for a paper presentation, poster presentation, or both! In addition to our standard poster and 20-minute paper presentation abstracts, we will be accepting abstracts for shorter 10-minute paper presentations to allow an opportunity for those with incomplete projects or projects that may be in a proposal/design phase to present.
- Abstracts must be submitted by January 10, 2019.
- Notification of accepted abstracts and program time slots will be sent by January 17, 2019.
- If you have any questions please contact Patrick Schmalz (patrick.schmalz@state.mn.us) or Edie Evarts (eevarts.mnafs@yahoo.com).

Registration - As in recent years, we strongly encourage early registration for the annual meeting through the Chapter web site (payment via PayPal).

- Registration: <https://units.fisheries.org/mnafs/this-years-meetings/mn-afs-annual-meeting-registration/>
- Professional registration:
 - Full conference \$110.00
 - Tuesday only (no banquet) \$85.00
 - Wednesday \$75.00
- Student registration:
 - Full conference \$80.00
 - Tuesday only (no banquet) \$55.00
 - Wednesday only \$35.00
- The registration deadline is January 17, 2020.

Lodging - A block of rooms have been reserved at the Best Western Plus, Willmar, Minnesota https://www.bestwestern.com/en_US/book/hotels-in-willmar/best-western-plus-willmar/propertyCode.24139.html

- The rate will be \$89 per night. Make sure to mention the Minnesota Chapter of the American Fisheries Society to get the discounted room rate.
- The hotel indicated that they prefer we call them directly (320) 235-6060 to reserve rooms.
- The hotel will hold rooms for us through January 17, 2020.

Volunteering - If you are interested in volunteering, please check the volunteer box on the registration form or contact Kristan Maccaroni at whitepinetree@protonmail.com or Craig Kelling at Craig.Kelling@fws.gov. This year we will need volunteers for the following:

- Paper Judges
- Poster Judges
- Session Moderators
- Student/Professional Panel Discussion – Panel Members
- Student Resume Building Workshop – Resume Reviewers

Awards – Please nominate yourself or someone you know who deserves to be recognized! Winners will be announced at our annual MN AFS meeting in Willmar in February 2020.

- Award of Excellence: Recognizes any individual who has made a remarkable contribution to MN AFS, shown exceptional dedication and skill in the advancement of fisheries science, and/or outstanding development of fisheries professionals through MN AFS.
- Dennis H. Schupp Award of Excellence: Given as special recognition to any individual who exemplifies the consummate natural resource/fisheries professional through exceptional dedication and skill during their career.

Please send your nomination with an explanation of why the person deserves this award to Jessie Koehle at jkoehle@cityofefagan.com. Thank you for your consideration!

Continuing Education – In an effort to boost continuing education opportunities for our students and professionals, this year's meeting will include the following continuing education events:

- Science Communication - guest speakers Kristi Marhon, Minnesota Public Radio; and Michael Winikoff , University of Minnesota.
- Student Resume Building
- Student Career Panel

COMMITTEE OPPORTUNITIES GALORE

Executive Committee Elections

by *Paul Glander*, Past President/Issues Committee Chair, MNAFS

Elections will be held for the following MN AFS Officer and Executive Committee positions:

- 2020 President (DNR)
- DNR Representative
- Open Representative

Voting will occur in advance of the 2020 annual meeting and announcement of the winners for each position will occur at the Annual Business Meeting. For more information, please contact our Nominations Committee Chair Paul Glander (pgafs2012@gmail.com).

VOTE NOW AT:

Keith Reeves: President - Elect

I am honored to be considered for the position of President Elect of the Minnesota Chapter of the American Fisheries Society (MN AFS). My fisheries career path began as a student at University of Wisconsin - Stevens Point, and continued at University of Missouri - Columbia where I earned a M.S. degree in fisheries and wildlife. Upon arriving in Missouri, in 1986, I became a student member of the national AFS. I signed on as a professional member when I arrived in Minnesota.

My Minnesota career began in 1990 as a fisheries specialist with the great folks at Aitkin. Our team worked on many smaller and mid-sized lakes in the county, as well as mighty lake Mille Lacs. I enjoyed talking fish and fishing with local sporting groups and lakeshore owners, as well as doing some fishing and canoeing on many of those same lakes and streams. In 1998, I transferred (i.e. I moved 2 doors down) to the 1837 Treaty office at Aitkin and served as a research biologist there. Some of my tasks included managing creel surveys on treaty-managed lakes, sampling the Walleye forage on Mille Lacs Lake, developing a small mesh vertical gill net (if you have had to use these nets, sorry about that), investigating Walleye hooking mortality, and helping with treaty management logistics. In 2012, I joined the superb crew at the Lake Superior Fisheries Office and am enjoying work on and near Lake Superior. That work has included sampling Lake Trout, leading the summer creel survey, and helping to develop the latest Lake Superior Fisheries Management Plan. Through the process of plan development, I have seen the value of including folks with various viewpoints. I have seen the fisheries profession from various viewpoints as well, having participated in local area management at offices with two very different focuses and as a researcher with regional and statewide responsibilities.

My involvement with MN AFS began early, and I have attended nearly all annual statewide meetings, several Midwest Fish and Wildlife Conferences, and national meetings at Pittsburgh, Madison, and St Paul. I presented my management and research findings at some of those meetings and served as an information booth chairperson for the 2012 national meeting at St. Paul. I have been a moderator, a paper and poster judge, and have served as the Awards Committee Chair for MN AFS from 2016 through 2019. The Awards program is now in the hands of a very capable developing leader for MN AFS. As one of several avenues of involvement, the awards process provides ample opportunity to watch other young professionals develop through presentations and interactions with other, more seasoned, professionals. I believe the state and regional meetings are the heartbeat of our Society and they provide ample chances to grow professionally and to be part of sustaining fisheries professionalism in Minnesota.

Throughout my career I have enjoyed learning and growing professionally in fisheries subjects as well as in other learning opportunities on topics such as Leading Without Authority, Continuous Improvement, and Setting Priorities. I encourage others to become involved in AFS activities as well to grow through participation and to help keep the profession strong. If elected, my focus will be on encouraging current members to remain engaged and non-members to join our Society, so that together we build on a strong tradition of nurturing professional development through our next annual meeting and beyond.



EXCOM President - Elect. Nominee Photo provided by Keith Reeves (MN DNR).

Casey Shoenebeck: DNR Representative

Greetings everyone,

I am the Sentinel Lakes Program Coordinator at the MN DNR. This unique, statewide, multidisciplinary, and long-term monitoring program documents and studies the changes occurring in lakes across the state at all trophic levels (to learn more about these changes, I would invite you to come see our presentations at this year's MN Chapter meeting). As a believer in professional service, I am running for the Executive Committee MN DNR representative position for the MN AFS.



EXCOM DNR Representative Nominee. Photo provided by Casey Shoenebeck (MN DNR).

I have been an AFS member since 2001 and have served in several elected and appointed positions for professional societies including serving as the President for the Nebraska AFS Chapter. In these positions, I have led and assisted in the planning of Chapter meetings and served on supporting committees for both state chapters and technical committees of the North Central Division. When I was attending school, I served in various roles for student subunits at Kansas State University and South Dakota State University. I also review manuscripts for several professional societies including AFS journals.

Thanks and I hope to be able to serve the MN chapter in a meaningful way as the DNR representative.

Nick Peterson: DNR Representative

Hello! My name is Nick Peterson and I am applying for the EXCOM - DNR Representative with the Minnesota Chapter of the American Fisheries Society. I am originally native to the great state of Iowa (Go Hawkeyes!) but, like many fisheries professionals, adopted a migratory life-history strategy and relocated to Minnesota to work for the Minnesota Department of Natural Resources. I have a Bachelor of Science degree in Wildlife and Fisheries Sciences from South Dakota State University (2009), and a Master of Science degree in Wildlife, Fisheries, and Aquaculture Sciences from Mississippi State University (2015).



EXCOM DNR Representative Nominee. Photo provided by Nick Peterson (MN DNR).

I have been a member of AFS since 2007 and was very involved throughout undergraduate and graduate school. I was a member of the Dakota Chapter of AFS from 2007-2009, Mississippi Chapter of AFS from 2009-2014, and have been a member of the Minnesota Chapter of AFS since 2015. I served many roles with the South Dakota State University and Mississippi State University Student Subunits (e.g., Vice-president, raffle coordinator, party planning committee chair, others), and regularly attended the state, division, and national AFS meetings to present

undergraduate and graduate research. I attend the Minnesota Chapter of AFS meetings whenever possible, and recently volunteered to assist student subunits with coordinating the 2020 Minnesota AFS meeting raffle fundraiser.

I believe my professional experiences and personality make me a good candidate for DNR Representative with the Minnesota Chapter of the American Fisheries Society. I have spent my entire professional career with the MN DNR, and have worked for Aitkin Area Fisheries (Mille Lacs Lake Specialist), Duluth Area Fisheries (Stream Specialist), and Lake Superior Fisheries (Migratory Fish Specialist- current job position). These jobs provided the opportunity to work on multiple 'big picture' and human dimensions related issues (e.g., Mille Lacs Walleye population changes, Lake Superior steelhead and Kamloops introgression and closure of the French River Coldwater Hatchery), and showed me how different fisheries plans and processes are developed among MNDNR fisheries area offices.

The mission of the MN DNR and the American Fisheries Society are analogous – to improve the conservation and sustainability of fishery resources and aquatic ecosystems by advancing fisheries and aquatic science and promoting the development of fisheries professionals. The American Fisheries Society and MN DNR have provided many opportunities to advance my growth as a fisheries professional and allowed me a greater voice in shaping the future of Minnesota fisheries. I would very much appreciate the opportunity to serve as the DNR Representative with the Minnesota Chapter in 2020.

Jessie Koehle: Open Representative

Jessie Koehle works for the City of Eagan's Public Works Department since 2007. As Water Resources Specialist, her main job duties relate to Eagan's Neighborhood Fisheries Program, which aligns with DNR's Fishing in the Neighborhood programs. Her duties include helping provide public access, teaching fishing clinics, surveying fish populations, and stocking fish. She also aerates lakes in winter, monitors surface water quality, assists with stormwater related activities, carries out the Fish Lake alum dosing fieldwork, organizes public education activities and events, and works with volunteers. Before joining Team Eagan, Jessie spent one year as a UMN St. Paul laboratory technician doing fisheries research. She received her M.S. Degree in 2006 from the University of Minnesota Conservation Biology (Fisheries and Aquatic Science) Program. Her research focused on temperature and dissolved oxygen requirements of Topeka shiners, with Dr. Ira Adelman as her major advisor. Before moving to Minnesota, Jessie received her B.S. in Biology in 2003 from Hope College in Holland, Michigan. Jessie's current professional interests include using outdoor education as impetus for environmental conservation, and promoting structural policy changes to increase racial equity in natural resources management from a public service lens.



EXCOM Open Representative Nominee. Photo provided by Jessie Koehle (City of Eagan).

Jessie has been a member of the National and Minnesota Chapter of the American Fisheries Society since 2003, received the best national student poster in Lake Placid in 2005, and will be the Awards Committee Chair for the Feb 2020 MN chapter meeting. Jessie would like MN AFS to help members communicate well both externally (among chapters and related organizations), and internally (between professional researchers, field-focused technicians, and students new to AFS). If elected to the MN AFS Executive Committee, Jessie hopes to bring a wide variety of perspectives and connections to the table, gained from her unique role working closely with suburban stakeholders for over a decade within local government.

Call for Discussion: Lead Fishing Tackle

by *Jessie Koehle*, Awards Committee, MNAFS

Our Chapter was recently asked to support a September 2019 petition that a group called the Friends of Minnesota Scientific and Natural Areas (FMSNA) submitted to the Minnesota DNR. That petition asked the agency to ban lead fishing tackle in Minnesota's common loon range, as well as all lead ammunition for hunting in Minnesota. Chapter President, Edie Evarts, sent an email message to Chapter membership on October 23rd concerning the request from FMSNA. At their meeting on October 28, the Chapter ExCom declined to support the petition. The ExCom action was based on a number of reasons including limited time available for discussion among Chapter members. The DNR Commissioner ultimately denied the petition (see dnr.state.mn.us/hunting/ammo/nts.html).

At their meeting in October 2019, the ExCom discussed ways to keep the conversation about lead fishing tackle going among Chapter members. It seems likely that this issue will continue to come up in the future, including at the State legislature. Other articles in this newsletter address facts about lead fishing tackle and potential actions that the Chapter could take in regard to the issue of restrictions on lead-based fishing tackle. The parent society of AFS already has a policy statement on [Lead in Sport Fishing Tackle](#), but it is possible that our Chapter would choose to craft its own Minnesota-specific statement as well. Please be thinking and reading about this topic and participate in discussions both on our email list-serv and at the next Chapter meeting in February 2020. Thanks for your engagement!



Sunset on the ice. Photo provided by Edie Evarts (MN DNR).

Lead Fishing Tackle Facts

by Paul Radomski, Research Scientist, MNDNR

1. Lead fishing tackle poisons children

- Small amounts of lead can affect children. **There is no safe level of lead exposure.** Children can get lead from fishing sinkers in their bodies when they:
 - Handle lead fishing tackle or boxes
 - Bite lead split shot
 - Accidentally ingest lead sinkers
- Toxic releases and transfers from tackle manufacturing facilities

2. Lead fishing tackle pollutes our lakes

- Minnesota walleye anglers have a very low rate of tackle loss
- In lakes with high angling effort, cumulative tackle loss translates into a large amount of lead deposition in lakes¹, estimated in metric tons of lead lost annually
- With soft acidic waters and mechanical agitation this lost lead can dissolve and become more biologically available

3. Lead fishing tackle poisons wildlife

- Ingestion of a single lead sinker or lead-headed jig is a lethal dose for a loon
- In Minnesota, lead poisoning from lead fishing tackle is responsible for 14% of the adult loon deaths
- In Minnesota, 100 to 200 adult loons die each year from lead fishing tackle. This loss is estimated to be about 2% of population
 - Population-level effects of lead fishing tackle on Minnesota loons are possible, as loons have a low reproductive rate and this additional mortality may contribute to the failure of the population to increase or a reduced population growth rate
 - Population-level effects of lead fishing tackle on loons has been demonstrated in New Hampshire²
 - There are precedents for implementing lead bans before population effects are evident as this does not discount environmental effects. For example, no population-level effect on ducks was determined before banning lead shot for waterfowl hunting. Dr. Frank Bellrose of the Illinois

¹ Radomski, P., T. Heinrich, T. Jones, P. Rivers, and P. Talmage. 2006. Estimates of tackle loss for five Minnesota walleye fisheries. *North American Journal of Fisheries Management* 26:206-212.

² Grade, T.J., M.A. Pokras, E.M. Laflamme, and H.S. Vogel. 2018. Population-level effects of lead fishing tackle on Common Loons. *The Journal of Wildlife Management* 82(1):155-164.

Natural History Survey determined that 2-3% of the waterfowl population was dying from lead poisoning, and this science led to the prohibition of lead shot for waterfowl hunting.

There are lead tackle alternatives, but voluntary use has resulted in only mild interest by anglers, manufacturers, or retailers so options are limited. Minnesota has a rich history of public education campaigns since at least 1999 from various organizations to educate anglers and promote use of lead tackle alternatives, yet most anglers still use lead tackle.

Existing Lead Regulations by State (approximate year enacted)

- **Maine:** the sale and use of lead sinkers and jigs weighing ≤ 1 oz is illegal and/or < 2.5 in long (2016 for sale & 2017 for use)
- **Massachusetts:** the use of any lead fishing sinkers and jigs weighing < 1 oz is illegal in freshwaters (2012)
- **New Hampshire:** the sale and use of lead fishing sinkers and jigs weighing ≤ 1 oz is illegal (2013; in 1998 this was the first state to ban the use of lead in some fishing tackle)
- **New York:** the sale of lead fishing sinkers weighing ≤ 0.5 oz is illegal (2004)
- **Vermont:** the sale and use of lead fishing sinkers weighing ≤ 0.5 oz is illegal (2007)
- **Washington:** the use of lead fishing tackle is illegal on 12 lakes in the state, which prohibits the use of lead weights and jigs that are ≤ 1.5 in long in the Washington lakes where loons breed and rear young; the law is intended to improve loon survival by keeping loons from being poisoned by ingesting small lead fishing gear lost by anglers (2011)

No state has enacted an outright ban on lead tackle.

AFS Policy Statement on Lead in Sport Fishing Tackle (adopted in 2012)

<https://fisheries.org/policy-media/policy-statements/>

The parent Society recognizes the toxicity of lead, notes that population-level effects of lead are not well-documented, and encourages more research and education to promote the use of non-lead fishing tackle.

INTERNSHIP OPPORTUNITIES

Grain of Salt

by *Edie Evarts and Craig Kelling*, President/President-Elect, MN AFS

Need experience to get that entry level job? Need an entry level job to get experience?

Now is the time to apply for MN DNR internships!

Application for Minnesota DNR internships opened on January 2 with a deadline of January 31. If you are enrolled in an academic program and would like to spend the season working for DNR Fisheries in Minnesota, now is the time to apply. Minnesota DNR offers a broad range of paid internships (below). However, I encourage you to reach out to any Area Fisheries Offices you are interested in and talk to staff to learn more about what interns do.

- Accounting
- Aquatic Invasive Species
- Facilities Management
- Automotive Technician
- Aquatic Plants
- Fish Habitat in Streams

- Fisheries Education
- Forestry Management
- Interpretive Naturalist
- Lake Habitat Restoration
- Land Survey
- MinnAqua
- Mississippi River Fish
- Mississippi River Vegetation
- Mussel Survey and Monitoring Diver
- Natural Resource Management
- Naturalist Corps
- Outreach and Information
- Park Operations
- Park Security
- Watercraft Inspector
- Waterfowl Banding
- Wildlife Management

Applications can be completed at the State of Minnesota job site: <https://mn.gov/mmb/careers/>.

- Enter "intern" in the Keywords field on the Job Search Page
- Select "Natural Resources Dept" in the "Agency" column on the left side of the page
- Choose the internship(s) you're interested in
- Click the apply button to submit your application materials

Here are some hints for applying:

- Have your transcripts ready in advance and make sure you have all of the required documents identified in the "how to Apply" section of the job posting. Applications with missing materials will not be considered.
- If you are interested in a specific Fisheries office, it can be helpful to contact that office. Every internship is a little different depending on the work area. A few questions for staff and a follow-up email that you are interested in working in that area can help get that spot.
- The selection committee reviews applicant qualifications, and then offers phone interviews to a selected pool of candidates. Do not be shy about repeating your accomplishments that you have listed in your resume. If you do not know an answer, tell the interviewer how you might figure it out.
- If you do not get a position, try again. There are more applicants than positions and the second time can be a charm.

So you landed an internship? How do you make it a valuable experience?

- Take full advantage of "orientation days" and ask a lot of questions.
- Meet regularly with your supervisor, set goals, and get feedback on your performance.
- Dress, write, speak, and BE PROFESSIONAL.
- Be observant. Work place culture changes from place to place so be sure to read all organizational material, policies and procedures, etc. If it's appropriate, ask to sit in on meetings or shadow other employees so you can learn the ins and outs of the work and how to conduct yourself.
- Field skills are important, but set aside time to improve both written and verbal communication skills
- Show up on time, when you are expected.
- Network, Network, Network. Focus on building relationships with everyone you meet. You never know who will be your future colleague or boss.
- Be easy to work with. Listen carefully and be respectful to team members. Practice compromising.
- Do not complain. Everyone has to do grunt work at some point in his or her career.
- Keep busy and make sure the work you complete is timely and quality.



- Ask your supervisor for a letter of recommendation when you leave.

Have fun and good luck!

SUB-UNIT HAPPENINGS

Student Sub-Unit Updates

By Christopher Rounds, Vice President, University of Minnesota-Twin Cities, AFS Student Sub-unit



UNIVERSITY OF MINNESOTA

We are currently organizing events for our undergraduates for the spring/winter of 2020. Currently we have been conducting numerous collection/aquarium tours. Our last field event was at Spoon lake in Maplewood in May. We introduced members to backpack electrofishing, boomshocking, and shoreline seining. We caught a nice array of game and nongame fish.



By *Kristina Rands*, President, Bemidji State University, AFS Student Sub-unit



BEMIDJI
STATE UNIVERSITY

We have had an eventful semester at Bemidji State University! Through out the semester we have expanded as a subunit by participating in both on and off campus activities. For homecoming, we had the opportunity to create a banner representing AFS, host an activity night with other organizations, and participated in a parade showcasing our Aquatic Biology Hard Water Research Lab. At the end of homecoming week we ended up winning second place in the spirit competition and \$250 was given to our club. With the money we won from homecoming, we decided to host an ice rod building class for students which will be taking place second semester. We also gained experience helping our local DNR office pull gill nets from Red Lake and Cass Lake. In late October, we helped the MN DNR – Bemidji pit tag Muskies that were placed in Plantagenet and a handful of other lakes. In November, we had the chance to take the subunit on a backpack electrofishing trip to the Turtle River. This gave students the ability to learn how to use the equipment and gain insight as to how much we can learn about an ecosystem through sampling. Lastly, a joint discussion with The Wildlife Society has been arranged on the current lead restrictions of fishing tackle and ammunition. We are in the midst of preparing for the upcoming conference in Wilmar and our Beaver Freeze Ice Fishing Tournament in January!



Backpack electrofishing Turtle River. Photo provided by Kristina Rands (Bemidji State University).

By *Noland Michels*, President, University of Minnesota - Duluth, AFS Student Sub-unit



UNIVERSITY OF MINNESOTA DULUTH

Driven to Discover™

This summer and fall, the University of Minnesota-Duluth Subunit members focused much of their time volunteering. A few members helped local middle and high school science teachers prepare some trips for their classes including water quality testing of the local tributaries by the school, population estimates from insect hatchings, and fish and amphibian diversity. Others aided the local agencies with annual sampling (gillnets, electrofishing, seining) to gain more experience in fisheries.



University of Minnesota- Duluth AFS Sub Unit. Photo provided by Noland Michels (University of Minnesota - Duluth).

Members also attended local talks hosted at Café Scientifique in the Twin Ports and the EPA, a gathering of scientists and citizens alike to learn about a wide variety of subjects as well as attending an invasive Rusty Crawfish boil hosted by Minnesota Sea Grant and Wildlife Forever. This fall, the subunit a member to attend the AFS/TWS Annual Meeting in Reno, NV, as well as sending a few more members, both undergraduate and graduate students, to other national conferences, mainly the Society for Integrative and Comparative Biology. Our annual beach clean-up along the shore of Lake Superior sponsored by Minnesota Sea Grant also happened in October, with the subunit removing three large bags full of garbage, but most of it coming from minuscule remnants of plastics, shredded throughout their time in Lake Superior. The UMN-Duluth subunit wants to thank the many organizations that have helped them throughout the 2019 year and looks forward to another productive year in 2020.

LEARNING FROM THOSE WITH EXPERIENCE

Member Spotlight

by *Kristan Maccaroni*, DNR Representative/Newsletter Co-Editor, MNAFS

This issue's member spotlight: Gary Barnard, Area Supervisor, Bemidji Area Fisheries, Minnesota Department of Natural Resources. Note: Gary has retired since the writing of this article (October 15, 2019). Wishing you a long and joyous retirement!

Where did you grow up and what got you into fisheries?

Grew up a farm kid in Southern MN and spent all my free time hunting, fishing, trapping, raising coon hounds and beagles. Ordered a cheap canvas kayak kit from the back of Outdoor Life Magazine and spent summers floating the Blue Earth River. Needed to find some outdoor occupation to continue to scratch the itch.

I've heard that before being the Area Supervisor at Bemidji, you managed the Waterville Fish Hatchery. How many years were you at Waterville, and what was it like to move from southern part of the state to the northern part?

Started out as a Fisheries Technician at Waterville in 1976, initially doing under ice seining for rough fish removal. At that time the Waterville hatchery consisted of a Walleye battery and fry tank, with most of the drainable ponds operated by Fisheries Research. Fisheries management phasing out of rough fish removal and fisheries research phasing out of drainable pond research provided a void to be filled and an excellent opportunity. The 18 years spent at Waterville expanding production programs for Catfish, Bass, Pike, Sturgeon, and Muskie were very enjoyable.

The transition from Southern MN to Bemidji was abrupt. The week before leaving Waterville I was doing a rotenone application to remove rough fish from a shallow lake in farm country, and was on Elk Lake in Itasca State Park surrounded by mature pines and eagles the following week. But, the transition from fish hatchery/production work to Area Fisheries Supervisor was even more of a jolt.

Having grown up in Southern MN and spending a significant part of my career there I have maintained a great appreciation for the Waterville area and the important fish management challenges unique to Southern MN. The perspective gained from having worked in extreme ends of the state, with very different management issues and priorities, was very useful when working on broad statewide projects like the Muskellunge Long Range Plan, Walleye Stocking Guide and Northern Pike Zone Regulations.

Bemidji is known for doing a whole lot of high quality work. How do you encourage your staff to give their best effort?

The best way to encourage your staff is by example. The time a Supervisor spends in the field working along with staff is invaluable by instilling the importance of the projects they are working on. Also, an approach to everyday Fisheries work that encourages constant evaluation and innovation helps keep staff more interested and engaged.

As a Supervisor, do you ever feel disconnected from the field? What do you do to maintain your connection to the resource?

It is easy to become disconnected and the ever expanding administrative workload has made it more challenging to stay connected. When a flood of email is demanding your attention to a bunch of mundane administrative tasks it is sometimes hard to remember who we are really working for. Remembering to prioritize fish management work first helps maintain that connection.

Reflecting on your career in fisheries, who is someone that you looked up to, and why?

Hard question because there are so many, but Denny Schupp, Jack Wingate, Bob Strand and Ron Payer, are first to come to mind. All were admirable leaders at the time, but what stands out is how their vision shaped some of our most successful programs today such as Large Lake Annual Monitoring, Muskellunge production and management, and the Fisheries Roundtable approach to public outreach.

With your retirement approaching, what sorts of things do you find coming to mind when you think about your career with fisheries?

What comes to mind is the variety of Fisheries activities I was fortunate to experience over an extended career with Fisheries, ranging from under ice rough fish removal to managing large lake fisheries.

What part of your work has brought you the most satisfaction?

The opportunity to actively engage in management direction and being able to affect the outcome of a number of important Fisheries management initiatives, such as Red Lake Walleye Restoration, Northern Pike Zone Regulations, Muskellunge production improvements. Those being the higher profile projects, this job has provided endless opportunities to evaluate and learn from Walleye wild fry estimates, Muskie population estimates, Special Regulation evaluations, innovative hatchery/production methods, lake survey and assessment, lake management planning, etc. that have kept this job interesting and satisfying.

WHAT'S NEXT?

Upcoming Events

by *Craig Kelling*, *President-Elect/Newsletter Editor, MNAFS*



AMERICAN FISHERIES SOCIETY

150th Annual Meeting

COLUMBUS, OHIO, AUG 30 - SEPT 3, 2020

LEARNING FROM THE PAST, MEETING CHALLENGES OF THE PRESENT, ADVANCING TO A SUSTAINABLE FUTURE

The Ohio Chapter invites you to attend the 150th Annual Meeting of the American Fisheries Society in Columbus, Ohio from August 30th to September 3rd, 2020. Come celebrate 150 years of fisheries ecology, conservation, and management with fisheries students and professionals from across the world. There will be special exhibits and activities that highlight the achievements from all those who have contributed to the AFS mission over the past century and a half. The city of Columbus is the perfect location to commemorate this occasion. Join us at one of the hundreds of restaurants or breweries within walking distance of the convention center or take a stroll down the Scioto Mile and enjoy one of the many parks along Ohio's longest river. From shows and sports to drinks and cuisine, Columbus has something fun and exciting for everyone. We look forward to seeing you there!

Submit your Symposium for the 150th AFS Annual Meeting!

Deadline: January 21, 2020

We are pleased to announce that the Call for Symposia for the 150th Annual Meeting of American Fisheries Society is now open.

We encourage submissions that will be of broad interest, as well as those organized around the meeting's "Past, Present, and Future" theme. However, we also recognize the importance of symposia that focus on particular topics, ecosystems, and geographic areas.

Proposals should include: (1) a title; (2) the symposium sponsor, if any; (3) the estimated duration and number of presentations; (4) special equipment needed, if any; (5) a description of the symposium format, if it will differ from traditional 20-minute time slots; (6) an abstract that describes the symposium (\leq 200 words); and, (6) a list of organizers and their contact information.

SYMPOSIA

Symposium proposal submission is now open.

Proposals for Symposia must be submitted by January 21, 2020.

Accepted Symposia proposals will be posted on the conference website on February 14, 2020.

If accepted, organizers must submit a complete list of confirmed presentations and titles by March 13, 2020.

Abstracts for Symposium oral presentations must be submitted by March 20, 2020.

CONTRIBUTED PAPERS AND POSTERS

Those who wish to present in Contributed Papers or Poster sessions at the 2020 AFS Annual Meeting are required to submit abstracts by March 20, 2020. This includes Student Presentations.

Confirmation of acceptance or refusal of abstracts will be communicated by April 17, 2020.

Student presentations will be considered for a “best presentation” award if the student fills out additional application paperwork available at <https://education.fisheries.org/awards/best-student-presentation-and-poster/>.

SYMPOSIUM: BIOLOGY, MANAGEMENT, AND CULTURE OF WALLEYE, SAUGER, AND YELLOW PERCH: STATUS AND NEEDS

Walleye, one of the most sought-after species of freshwater sport fishes in North America, and its “sister” species, the Sauger, have demonstrated appreciable declines in their numbers from their original populations since the beginning of the 20th century. Similarly, Yellow Perch, once the most commonly caught sport fish and an important commercial species in North America, have also shown declines. Yet, some western states and provinces are trying to extirpate Walleye and Yellow Perch where they have been introduced outside of their native range. The purpose of this one-day symposium is to present up-to-date information on the biology and management of Walleye, Sauger, and Yellow Perch, since the 2011 publication of the AFS book, *Biology, Management, and Culture of Walleye and Sauger*, the companion column in *Fisheries* that year (36[12]), *Future Research Needs of Walleye and Sauger*, and pertinent review papers in *Biology of Perch* (CRC Press, 2015). Presentations will include topics on systematics, genetics, physiology, ecology, population dynamics, culture, recent case histories, and management practices, which will be of interest to managers, researchers, and students who deal with these important species, particularly in light of habitat alterations, population shifts, and other biotic and abiotic factors related to a changing climate.

Organizer: John Clay Bruner *email:* jbruner@ualberta.ca

If you are interested in presenting a talk on Walleye, Sauger, or Yellow Perch at the American Fisheries Society’s 150th annual meeting in Columbus, Ohio, please contact John Bruner to be included in the symposium. Thank you.

Deadlines:

Accepted Symposia proposals will be posted on the conference website on **February 14, 2020**. If accepted, organizers must submit a complete list of confirmed presentations and titles by **March 13, 2020**. Abstracts for Symposium oral presentations must be submitted by **March 20, 2020**.



Adelaide, Australia, will host the premier international fisheries conference in 2020 bringing together research, industry, management and the latest technological advances in fisheries worldwide under the theme '**Sharing our oceans and rivers - a vision for the world's fisheries**'. Aiming to foster cooperation and engagement in commercial, recreational and indigenous fisheries, the World Fisheries Congress 2020 (WFC2020) will provide insightful presentations and inspiring forums on key developments needed to ensure future sustainable development of the world's oceans, lakes, estuaries and rivers.

Organizers of this major event are now seeking expressions of interest to lead innovative sessions, symposia, and education and training workshops. Chair WFC2020 Gavin Begg, who is also the Research Director of Aquatic Sciences at the South Australian Research and Development Institute (SARDI), said excitement for the congress was building.

"We're thrilled to have so many world leaders in fisheries science, management and industry converge in Australia at the same time," he said. "We are currently seeking expressions of interest for key components of the program, so if you have a key topic or theme you'd like to lead, get in now and register it. The program is shaping up to be very comprehensive, with something for every delegate to take away and learn from."

Help set the future directions for the world's fisheries and lead in these critical discussions by emailing your ideas or suggestions to conference@aomevents.com by 31 January 2019 (extended deadline).

Sponsors and exhibitors won't want to miss out either. Showcase your business on the world fisheries stage by sponsoring or exhibiting at WFC2020. With more than 1500 attendees; multiple networking events; maximum opportunity to engage with major purchasers of scientific, fishing and aquaculture equipment; and dedicated media coverage this event is much anticipated across the globe.

NALMS 2020

40th International Symposium for the North American Lake Management Society

Including special sessions on:

- shallow lakes
- harmful algal blooms
- carp management
- wild rice
- invasive species
- remote sensing
- tribal perspectives
- climate change
- integrated ecological management

November 16-20, 2020 | Marriott City Center | Minneapolis, MN

For more information, visit www.nalms.org or contact jbischoff@wenck.com, awilkinson@wenck.com or nancyschuldt@fdlrez.com.



NALMS at 40
Leveraging Experience to Manage
Diverse Lakes, Landscapes and People

The 40th annual meeting for the North American Lake Management Society will be held in Minneapolis November 16-20, 2020. Put it on your calendar now – this is another great opportunity to network and present your work (look for the call for abstracts in January 2020). For more information, visit www.nalms.org. or email Jessie Koehle at jkoehle@cityofeagan.com.

Committee Member Update

by *Edie Evarts*, *President, MNAFS*

Minnesota Chapter Standing Committees	
Arrangements	VACANT
Awards	Jessie Koehle, City of Eagan Water Resources
Communications	Hanna Kruckman, U.S. Fish and Wildlife Service
Issues	Paul Glander, Retired U.S. Fish and Wildlife Service
Long Range Planning	Jacquelyn Bacigalupi, MN DNR Fisheries
Membership	Joel Hoffman, U.S. Environmental Protection Agency
Nominations	Paul Glander, MN DNR Fisheries
Resolutions	Brian Nerbonne, MN DNR Fisheries
Students	Kristina Rands, Bemidji State University
Minnesota Chapter Perennial Special Committees	
Continuing Education	Heidi Rantala, MN DNR Fisheries
Fund-Raising	Jon Hansen, MN DNR Central Office
History	Brian Borkholder, Fond du Lac Resource Management
Past-Presidents	VACANT
Procedure Manual	VACANT
Scholarships	Jay Hatch, University of Minnesota – Twin Cities Mark Hove, University of Minnesota – Twin Cities
Science Fair	Brian Nerbonne, MN DNR Fisheries
Student Development	Jay Hatch, University of Minnesota – Twin Cities Patrick Schmalz, MN DNR Fisheries
Parent Society 150th	Paul Glander, Retired U.S. Fish and Wildlife Service Brian Borkholder, Fond du Lac Resource Management

Minnesota Chapter Special Appointments	
DNR Fishing Round Table Representative	Mark Hove, University of Minnesota
FWLA Delegates	Loren Miller, MN DNR, University of Minnesota – Twin Cities Jon Hansen, MN DNR Fisheries
MN Chapter TWS Representative	VACANT
North Central Division Technical Committees	
Centrarchid	Alisha Hallam, MN DNR Fisheries
Esocid	Mike Habrat, MN DNR Fisheries Nate Hodgins, MN DNR Fisheries
Ictalurid	Tony Sindt, MN DNR Fisheries
Rivers & Streams	Ann Kuitunen, MN DNR Fisheries
Salmonid	Don Schreiner, Retired MN DNR
Walleye	Dale Logsdon, MN DNR Fisheries
Student Sub-Unit Advisors	
Bemidji State University:	Andy Hafs, Bemidji State University
University of Minnesota Twin Cities:	Gretchen Hansen, University of Minnesota – Twin Cities
University of Minnesota Duluth:	Thomas Hrabik, University of Minnesota – Duluth
Student Sub-Unit Presidents	
Bemidji State University:	Kristina Rands, Bemidji State University
University of Minnesota Twin Cities:	Logan Neu, University of Minnesota – Twin Cities
University of Minnesota Duluth:	Noland Michels, University of Minnesota – Duluth
Newsletter Editors	
Editor	Craig Kelling, U.S. Fish and Wildlife Service
Co-Editor	Kristan Maccaroni, MN DNR Fisheries

Minnesota Chapter Executive Committee	
President:	Edie Evarts, MN DNR Fisheries
President - Elect:	Craig Kelling, U.S. Fish and Wildlife Service
Past President:	Paul Glander, Retired U.S. Fish and Wildlife Service
Secretary/Treasurer:	Calub Shavlik, MN DNR Fisheries
Federal Representative:	Hanna Kruckman, U.S. Fish and Wildlife Service
DNR Representative:	Kristan Maccaroni, MN DNR Fisheries
Academic Representative	Neal Mundahl, Winona State University
Open Representative:	Jay Hatch, University of Minnesota – Twin Cities



Winter morning hike. Photo taken by Courtney Celley, USFWS, Public Domain

See you out there!

Lota-Fisk Gazette is the official biannual newsletter of the Minnesota Chapter of the American Fisheries Society. Material in this newsletter may be reprinted from other AFS websites. Deadline for material for the next issue is July 1st 2020.