

UNDERCURRENTS

January 2016

The Newsletter of the Michigan Chapter of the American Fisheries Society



President's Message ~ Brian Roth

Greetings members of the Michigan Chapter of AFS!

As a professor at MSU, I am involved in the world of fish and fisheries on a daily basis, either through teaching, research, or outreach. It is through teaching undergraduate and graduate students and outreach that I recognize the importance of the work we do as MI-AFS members around the state. When I teach, I often browse field guides that help ID fishes from our state. These books often come with maps that demonstrate the distribution of each species across the state. I often wonder how the authors can be so sure about those distributions. As president of Michigan AFS, I now see how these distribution maps are possible: it takes a state-wide community of professional scientists, managers, and students working in concert to put all the pieces together into a coherent picture.



One role of Michigan AFS should be to unify the fisheries community from across the state, similar to those distribution maps. Our chapter does this through several mechanisms including annual meetings, student subunits, continuing education opportunities, the MIAFS listserv, the MIAFS YouTube channel, and (of course) our annual newsletter. As president of MIAFS, I was quite honestly humbled by the dedication our members have towards these products, and the processes that create them. Prior to the year, I was excited to engage with the students, agency personnel, and other academics that comprise the MIAFS membership. That opportunity was realized, and I am grateful for the opportunity!

As incoming president, I wanted to emphasize two goals: I wanted to expand our Continuing Education program, and to continue our current efforts to engage with student chapters at our Colleges and Universities. As it turns out, these goals were self-fulfilling. Our Continuing Education Chair, Dan Traynor, already was doing a fantastic job on this front. He did let me "help" him organize two workshops (Non-gamefish ID and Larval ID) in our teaching laboratory at MSU this past spring. Thanks Dan! Continuing Education is important for the society for two reasons. First, it allows professionals and students to explore new or emerging topics that interest them, and receive training or lessons from folks that are experts on the topic. Second, Continuing Ed workshops help raise funds for other aspects of the society, including awards (Hazzard, Leonard, Grayling, Student Travel, etc.) the Chapter gives to deserving members. I highly encourage all MIAFS members to enroll in these continuing education workshops, and to suggest ways we can serve the membership better in this manner.

Our student subunits are some of our most enthusiastic members. Lake Superior State University and Michigan State University are very logical places to have these subunits, and hopefully in the future we will be able to add subunits from other Michigan universities that sustain active fisheries programs. As president, I engaged subunit leadership within the Executive Committee to ensure their voices were heard. It is clear that both student subunits are working hard to have vibrant membership and increase both knowledge and experience in fisheries science. For those of us whose student days are somewhere in the past, I highly encourage you to help engage these subunits. They are looking for experience, and many are willing to volunteer to gain that experience. These students are our future colleagues and collaborators. Let's support them the best we can.

In conclusion, I am extremely grateful for this opportunity as president. As Dr. Roseman takes over as president, I know our chapter is in good hands. Our work as MIAFS members will continue to increase in importance as natural resources in the state that pertain to fish are continuously threatened. As a consequence, I hope that MIAFS will continue to serve as a beacon of unity in the fisheries community.

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From the President-Elect ~ Ed Roseman

Dear Colleagues,

I am very excited to serve as our Chapter's president in 2016 and work with our talented membership to promote our profession. I feel honored to contribute to the Michigan's fisheries legacy and history in this manner and take on the leadership responsibilities that come with this office. Please know I am always available to discuss Chapter issues, fisheries topics, and integrate your advice and comments for the improvement of our Chapter, so do not hesitate to call or email.

2016 will begin with our annual Chapter meeting held in conjunction with the 76th Midwest Fish and Wildlife Conference (MFWFC) in Grand Rapids from January 24-27, 2016. As part of the MFWFC, MIAFS is sponsoring a symposium titled "Legends and Legacies of Michigan's Fishery Research and Management Heritage" and also conducting our Chapter business meeting Tuesday afternoon. Robin DeBruyne helped organize the symposium and we have a full day of presentations scheduled that feature descriptions of the histories that make Michigan the epicenter for fisheries science in the Great Lakes, and beyond. These include highlights of unique capabilities and contributions, invaluable long-term datasets, partnerships, leadership, and commitments to our fisheries resources.

I have been asked a few times about where the inspiration for the theme of the 2016 Chapter meeting came from and the answer is the front seat of a pick-up truck during a conversation with my dear friend and colleague, Jim Boase from US Fish and Wildlife Service. The discussion we were having involved the benefits of our fish spawning reef restoration work in the St. Clair and Detroit rivers, and how we were creating a scientific legacy and functional habitat for the benefit of future generations. This conversation inspired some introspection about my personal legacy, but also prompted me to think about our collective legacy as fisheries scientists and apply that to developing the theme for the 2016 meeting. Legacies are what we leave behind as the inheritance of future generations. This may include scholarly productivity, data sets, management decisions, mentorship of young professionals and students, leadership, and our professional service. You may often hear the phrase "leadership occurs at all levels." I believe that contributions to our fisheries legacy, whether individual or collective, also occur at all levels of the scientific process and administrative hierarchy. Our rich legacy is the product of effective training, communication, partnerships, leadership, and opportunities.

One more Jim Boase story-at a recent Lake Huron Technical Committee meeting, Jim and I were discussing some recent retirements from the group when we realized that we are now "the old guys." That may sound funny, but we also realized that along with our steely gray hair and sage wisdom comes the challenge of a new and higher level of responsibility to not only set good examples, but also to provide professional opportunities for the next generation. This is what I'd like to challenge our membership in 2016 and beyond, to provide opportunities for professional growth, and to take advantage of opportunities presented to you.

An example opportunity that many of us can provide is field work assistance involving our student membership and stakeholders. I give partial credit to Brian Roth for this idea. As part of my presidency, I offer to work with our student Chapter leaders, university professors, outreach coordinators, and agency staff to help develop a network of opportunities for students and other young professionals to join agency and university field crews to gain exposure and experience in fisheries field and laboratory techniques. These opportunities can also be applied to communication and outreach programs.

Lastly, I want to commend Dan Traynor and our Chapter for the legacy of continuing education. Continuing education opportunities offered by the Chapter continue to provide cutting-edge educational courses that are responsive to the needs of our members. Dan has an open invitation to our membership to help foresee what training may be needed in the near future and what expertise you may be able to contribute.

In closing, I thank you all again for the opportunity to serve the Chapter. Michigan's fisheries are unparalleled in their variety and quality, as are the opportunities and greatness of our Chapter. Thanks to the service and involvement of its membership, we continue our role as leaders in the fisheries profession. As incoming president of our Chapter, I am very fortunate to inherit the legacy of so many wonderful Chapter leaders and I look forward to working with our executive team and all of our members in 2016.





MICHIGAN CHAPTER AMERICAN FISHERIES SOCIETY

Treasurer's Report for All Accounts
through January 8, 2016

BALANCE FORWARD December 1, 2014

Checking	\$13,765.43
Savings	\$5.00
CD's	\$0.00
Petty Cash	\$15.47
TOTAL BALANCE	\$13,785.90

INCOME

AFS Dues Rebate	\$1,338.00
Continuing Education	\$6,894.55
Donations to MIAFS	\$0.00
Membership dues, meeting fees	\$1,322.62
Interest Savings	\$0.00
TOTAL INCOME	\$9,555.17

EXPENSES

Awards, Scholarships, Travel Grants	\$1,685.00
Bank Charges	\$1.00
Meeting Costs	\$6,320.25
Donations	\$150.00
Continuing Education	\$1,457.02
Postage/Office Supplies/Printing Fees	\$31.78
TOTAL EXPENSES	\$9,645.05

TOTAL CASH FLOW -**\$89.88**

Jan Fenske Memorial Award

Previous Balance	\$2,500.00
Awards	\$250.00
BALANCE	\$2,250.00

BALANCE December 1, 2014

Checking	\$5,666.55
Savings	\$8,013.00
CD's	\$0.00
Petty Cash	\$16.47
TOTAL BALANCE	\$13,696.02

December 18, 2015

President Brian Roth
Michigan Chapter of the American Fisheries
Society

President Roth,

This letter is to confirm that William Keiper, Secretary-Treasurer of the Michigan Chapter of the American Fisheries Society, has provided me with all of the chapter's financial records for 2015. I cross-referenced all checks written, electronic withdraws made, and deposit receipts against his financial-tracking spreadsheet and bank statements. The time period covered was from the last audit report completed for 2014 by former Audit Committee Chair Troy Zorn, through December 11, 2015. I find the Secretary-Treasurer's records to be complete and accurate.

Please accept this document as the official audit report for the 2015 Treasurer's Report. For any comments regarding this audit, please feel free to contact me. William's record-keeping and quick response to my request for additional documentation made for a smooth audit of Michigan Chapter AFS's financial records.

Respectfully,

David C. Caroffino
Audit Committee Chair
caroffinod@michigan.gov

Fisheries Biologist
Charlevoix Fisheries Research Station
96 Grant Street
Charlevoix, MI 49720





2016 Annual Meeting Announcement and Call for Presentations

The Michigan Chapter of the American Fisheries Society (MIAFS) is holding its annual meeting and conference in conjunction with the 76th Annual Midwest Fish and Wildlife Conference (MWFWC) in Grand Rapids, Michigan from January 24-27, 2016. As part of the MWFWC, MIAFS is sponsoring a symposium titled "Legends and Legacies of Michigan's Fishery Research and Management Heritage" which will serve as a venue for our annual chapter meeting presentations, as well as showcase the rich and diverse history of fisheries research and management in the Great Lakes state. A key aspect to this symposium will be featured presentations on the roles, accomplishments, and perspectives of the various state, federal, and tribal fisheries agencies and research universities in Michigan.

The Chapter's business meeting is scheduled for 5:00 pm on Tuesday the 26th, following the symposium.

The Michigan Chapter will also have a booth during the trade show, so please stop by and catch up on Chapter activities and to buy an attractive commemorative t-shirt!



2014 Business Meeting Notes



The meeting notes from the 2014 AFS Business Meeting are now available on our web page, at

<http://michigan.fisheries.org/past-meetings/>

Hard copies will also be distributed at our upcoming 2016 Chapter Business Meeting during the Midwest Fish & Wildlife Conference.

2015 Membership Update

Currently, the Michigan Chapter of the American Fisheries Society consists of 257 active members, including 47 new members who joined or rejoined in 2015. Of our membership, 245 are also members of the Parent Society.

New Michigan AFS members in 2015:

Marcy Wilmes, Cameron Goble, Kelley Smith, Kevin Kapuscinski, William Fetzer, Dana Castle, Jacob Bowman, Louise Chavarie, John Powell, Doug Larson, Martin Simonson, Ryan Sprague, Malloreay Smith, Andrya Whitten, Elizabeth Gulotty, Emily Dean, Greg Byford, Devin Lang, John Taylor, Erin Jarvie, John Buszkiewicz, Megan Shavallier, Thomas Dowling, Barry Weldon, Tomena Scholze, Brandon Gerig, Erin Walaszczyk, Topio Knutson, Alexander Jensen, Heather Dziedzic, Patricia Armenio, Clifford Pattinson, Jamin Wieringa, James Osga, Skye Fissette, Sussanna LaGory, Alexander Maguffee, John Milan, Fatimat Adebisi, Nicole Thompson, Arthur Cooper, Greg Chorak, Dave Peterson, Nicholas Gezon, Ryan Andrews, Chris Christiansen, and Ryan Holem.

Membership Committee Chair, Kelley Smith



Continuing Education Update

The Michigan Chapter of the American Fisheries Society hosted four continuing education workshops in 2015. The first workshop, Statistical Aspects of Sampling Freshwater Fish Populations and Habitats, was held in conjunction with the Chapter's annual meeting in Bay City on January 19th. The workshop was instructed by Dr. Daniel Hayes from Michigan State University and drew 12 participants. The second two workshops were held back to back at MSU on March 10th and 11th. The first, Introduction to Larval Fish Sampling, Identification, and Taxonomy, was instructed by Dr. Nancy Auer from Michigan Technological University, Dr. Dave June from University of Michigan, Ed Roseman and Stacey Ireland from the United States Geological Survey, and Steve Hensler from the United States Fish and Wildlife Service. The following day we held an Identification of Nongame Fish Species workshop instructed by Kevin Wehrly and Brad Utrup from the Michigan Department of Natural Resources. Both workshops attracted their maximum attendance of 25 participants. Three months later, on June 25th and 26th, the Michigan Chapter hosted its fourth workshop of the year, Introduction to Database Design and Management. This workshop was also held at MSU and was instructed by Dr. Daniel Hayes from MSU and Tracy Kolb from the Michigan DNR. Twelve students attended.

The Continuing Education Committee also planned a freshwater mussel identification workshop for September 15th and 16th in Lansing. Unfortunately the course was cancelled due to a low number of registrations. We do however plan to reschedule the course for the summer of 2016 with Dr. David Zanatta, Dr. Daelyn Woolnough, and Amanda Chambers from Central Michigan University instructing.

The Continuing Education Committee plans to have another busy year in 2016. Along with the rescheduled freshwater mussel workshop we will also be hosting an Introduction to Sampling and Identification of Freshwater Fish Eggs and Larvae workshop in conjunction with the Midwest Fish and Wildlife Conference in Grand Rapids. The workshop will be held on January 24th with instruction by Amy George and Stacey Ireland from the USGS and Jeremy Pritt from the Ohio DNR. We also plan to hold another nongame fish identification course and one or two additional courses with subjects yet to be determined. As always, if you have ideas for courses you would like to see offered or are interested in teaching a course please contact Dan Traynor at tray-nord@michigan.gov. Suggestions for future courses are always appreciated!





MUSKIES INC



Second NOTICE & CALL FOR PAPERS



Hugh C. Becker Muskie Symposium

March 13-15, 2016 - - Minnetonka, MN

Sponsored by MUSKIES, INC. and the

Esocid Technical Committee, North Central Division - AFS

Plan now to attend and present at the Hugh C. Becker Muskie Symposium, to be held March 13 – March 15, 2016, in Minnetonka, Minnesota. Muskellunge researchers, resource managers, and anglers from across North America will gather for three days of technical presentations, poster sessions, panel discussions, and great socials! This symposium will commemorate the 50th Anniversary of Muskies, Inc.!

Venue: Presentations and socials will be held at the **Sheridan Minneapolis West, Minnetonka, MN**; double occupancy rooms are \$89. Early registration for the meeting will be available 10/15/2015–2/16/2016. There will be a reduced fee for students. Check Muskiesinc.org for information on arrangements and to register for the meeting.

PRESENTERS!! Lodging and Registration Fees waived for presenters!! The proceedings will be published as a peer-reviewed Special Publication with AFS.

Submit Abstracts for Presentations and Posters to the Program Technical Committee, c/o:

Dr. Derek Crane, Coastal Carolina University: dcrane@coastal.edu

Deadline for submission of ABSTRACTS is December 31, 2015.

See you in the Twin Cities!



Sheridan Minneapolis West
12201 Riverdale Drive
Minnetonka, MN 55305
(952) 593-0000

MIAFS Webpage Report

The MIAFS webpage has been redesigned and will now be hosted on the parent society servers under the url – <http://michigan.fisheries.org/> Update your bookmarks!! The new page is built on the free Wordpress platform which allows access from anywhere and does not require coding experience to update or edit. The parent society will be better able to provide technical support with this new platform.

Current Webpage Activity

During the past two years MIAFS website had nearly 8,000 unique page views (unique IP addresses). Approximately 90% the website activity focuses on the 9 areas highlighted in Table 1 with most activity focused around the annual meeting and the Fenske award. Of the site visits from other pages, over 90% come from Facebook. Take home message - The MIAFS facebook page is working well to get the word out, much better than the news and announcements page on the MIAFS website.

Table 1. Website activity by topic during November 1, 2013 – October 31, 2015.

Topic Area	Page Views	Percent Page Views
Upcoming Annual Meeting	2,649	34%
Home Page	2,405	31%
Fenske Award	1,023	13%
Student Awards	414	5%
Continuing Education	377	5%
Other Awards - (Hazzard, Leonard, Grayling)	312	4%
Past Meetings	280	4%
News and Announcements	203	3%
Membership	138	2%

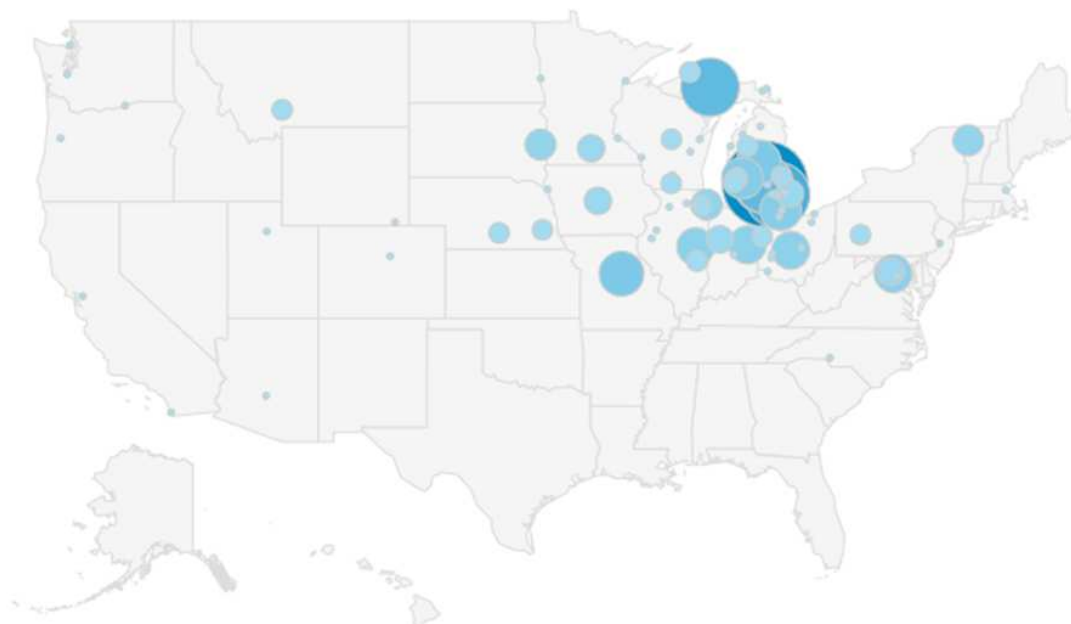


Figure 1. Where MIAFS webpage users are located.



2015 MIAFS Chapter Award Winners

Albert S. Hazzard Award

To recognize excellence in student research in fisheries or aquatic biology at a college or university in Michigan. The award is named in honor of Dr. Albert S. Hazzard (1901-1979). **There were no nominations in 2015. The Awards Committee makes a special request for faculty of the various colleges and universities in Michigan to please consider students who have recently completed thesis or dissertation work for nominations. One has to believe that in any given year there are numerous potential candidates producing quality research at these respective institutions.**

Justin W. Leonard Award

To recognize outstanding professional competence and achievement of a professional employed in the field of fisheries or aquatic biology in Michigan. The name of the award is in honor of Dr. Justin W. Leonard (1909-1975), Professor of Natural Resources and Zoology, University of Michigan. **The recipient of the 2015 Justin W. Leonard Award was Dr. Nancy Auer, Professor of Biological Sciences at Michigan Technological University.**

Grayling Award

To recognize outstanding contribution(s) to Michigan's fishery related resources, to Michigan's fishery profession, or to the Michigan Chapter by a person, industry, agency, or organization.

There were no nominations in 2015.

MIAFS President Certificate of Appreciation

Patrick Hanchin received a Certificate of Appreciation from the American Fisheries Society for his service as President of the Michigan Chapter of the American Fisheries Society.

Student Travel Grants

Travel grants awarded to student members during the past year:

- 2015 MIAFS Student travel grant was awarded to **Joe Nohner of Michigan State University.**
- 2015 Midwest Fish and Wildlife Conference travel grant was awarded to **Travis Ellens of Grand Valley State University.**

The Awards Committee thanks **Trevor Dunn of Lake Superior State University** for heading up this program in 2015.

Best Student Paper, Poster Display – MIAFS 2015 Chapter Meeting

- Addie Dutton's talk explored changes in rainbow trout diets after the 2012 Duck Lake fire that consumed 25,000-plus acres.
- Tori Roznowski's poster talked about how caddis fly larvae – a major food source for fish - select different colors of background sand to avoid predators.

Lake Superior State University students **Addie Dutton**, left, and **Tori Roznowski** bettered other undergraduate and graduate students from across the state to take, respectively, best oral presentation and best poster honors during the American Fisheries Society (AFS) Michigan chapter's annual meeting.

Photo courtesy of LSSU/John Shibley





Janice Lee Fenske Memorial Award

The purpose of the Janice Lee Fenske Memorial Award is to recognize undergraduate and graduate students for their achievements in the fields of fisheries or wildlife management and encourage their participation in professional societies and conferences. Since 2005, an annual award ceremony has been held during the Midwest Fish and Wildlife Conference. The 2015 recipient for Fisheries was **Rebecca Blundell from Michigan State University**. The 2016 award ceremony will take place in Grand Rapids, Michigan on January 25th.

The award ceremony will recognize 25 student finalists from approximately 20 different universities and 10 states. Two students- one majoring in fisheries management and one majoring in wildlife management- will be individually recognized for their achievements with a \$500 scholarship award and plaque. *Because the names of the award winners remain a secret until the award ceremony, additional information announcing the winners will be sent out by email after January 25th.*

Special thanks go to the following individuals from the Michigan Chapter of AFS and The Wildlife Society, and the Midwest Fish and Wildlife Conference Student Subcommittee who helped select the student finalists and award winners: Robin DeBruyne, Patrick Ertel, Tamara Lipsey, Dan O'Keefe, Tami Pattison, Mark Tonello, Jay Wesley, and David Williams.

This award is made possible through organizational and financial contributions from:

- 2016 Midwest Steering Committee
- American Fisheries Society- North Central Division and Michigan Chapter
- The Wildlife Society- Michigan Chapter



Jessica Mistak, Chair

Call for 2016 MIAFS Chapter Awards– Start thinking about it NOW!

For a number of years now, we have awards that receive **NO NOMINATIONS!** This is absurd– we have over 250 active Chapter members out there who are doing great things every single day.

Nominate a student, friend, or colleague for one of the MIAFS Chapter Awards. Follow the hyperlinks below to view the eligibility criteria and to find how what is required to nominate someone!

Albert S. Hazzard Award (http://www.fisheriessociety.org/miafs/ahazz_award.html)

Justin W. Leonard Award (http://www.fisheriessociety.org/miafs/jleo_award.html)

The Grayling Award (http://www.fisheriessociety.org/miafs/gray_award.html)



Lake Superior State University Fisheries and Wildlife Club

From Lake State, we do have some exciting events coming up, and we have had a few good outings this fall as well.

Firstly, we are conducting a raffle (with possible silent auction) in conjunction with MSU and MI AFS at the upcoming Midwest Fish and Wildlife Conference. Also, we will have a total of 25 undergraduate students attending this conference, with 11 of them presenting Senior Thesis projects in the form of a poster and/or talk.

This past Fall, we held workshops in conjunction with Lake State's renowned Aquatic Research Laboratory to demonstrate how to use common field sampling equipment such as gill nets, fyke nets, and beach seines in sampling waters around the region. One in particular was the collection and egg-take of broodstock Atlantic Salmon for the Aquatic Lab directly from the St. Mary's River, in which is our club's most popular activity in the Fall and possibly the entire year. Here our members contribute directly to the health and well-being of future Atlantic Salmon stock that is to be released into the St. Mary's.

We also further provided outreach into the Sault Ste. Marie community by putting on our annual Whitefish Dinner, our largest event on the campus of LSSU. The dinner, which is open to the public, featured about 80 attendees and a successful silent auction to raise proceeds for club revenue. This revenue is then used to fund state and national conferences and events, such as the Midwest conference.

This spring semester, we plan on conducting more field workshops, including ones dealing with electro-shocking, identification (lab and field), and any other common sampling equipment that would be possible to handle in our region's weather conditions throughout the semester. We also plan on holding "Meet and Greet" style events with professionals from the field with our students, sharing critical knowledge for our undergraduate careers and beyond. We also plan on conducting a group sampling outing with MSU next semester, to help members from each chapter connect with others in the field and share sampling knowledge that can be beneficial for the future.

Clifford Quinn Pattinson

President, Fisheries and Wildlife Club of Lake Superior State University



2015 North Central Division Meeting: Awards

At the 2015 NCD Meeting held in Indianapolis, MIAFS took home two of the four annual awards the Division gives out for 2014!

Best Communications Awards

This award is given to the North Central Division Chapter that has developed the most efficient, useful, and attractive newsletter and website to disseminate information to its members.

The **Michigan Chapter of AFS** was the recipient of the award for 2014 based on steps taken to improve the website, listserv, and the newsletter over the past three years.

Most Active Student Subunit Award

This award is given to the North Central Division student subunit that has carried out the most active program in developing interest among undergraduate and graduate students in fisheries science and fulfilling the mission of the American Fisheries Society.

Faculty and students representing **LSSU's Fish and Wildlife Club** were in Indianapolis to accept the AFS North Central Division's Most Active Student Subunit Award for 2014, an honor that they have received seven out of the last eight years!



Congratulations Chapter Members!

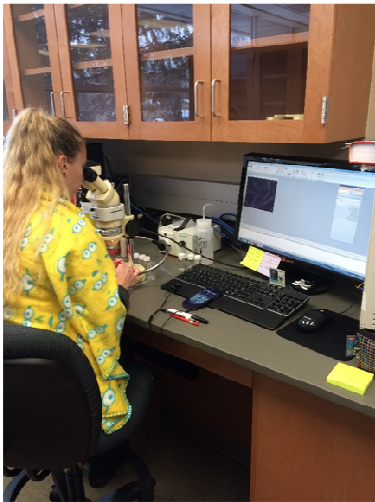
Identifying species-level fish indicators of dam influences in Michigan, Wisconsin, and Minnesota

Dams are a pervasive human alteration to streams of the upper Midwest and the nation as a whole, yet their influences on fish assemblages across large geographic regions is poorly understood. In a recently published study, Arthur Cooper (MSU), Dana Infante (MSU), Kevin Wehrly (MDNR), Lizhu Wang (International Joint Commission), and Travis Brenden (MSU) identified fish species indicators that are sensitive to effects of stream network fragmentation by large dams in Michigan, Wisconsin, and Minnesota. Fish community data from more than 2000 sites along with 14 stream network fragmentation measures were evaluated. Among identified fish indicators, those with consistent negative responses to fragmentation were predominately cold- and coolwater lotic species, whereas those positively associated with dams tended to be warmwater, large river, and/or lentic species. These results suggest that dams have widespread influences across the study region, including thermal effects below dams and upstream influences from impoundments formed above dams. Further evaluation of fish indicators showed greater upstream-oriented dam influences in headwaters than rivers. In addition, the relative influence of dams compared to other anthropogenic stressor sources (urbanization, agriculture, roads, etc.) was greater for fish indicators in coldwater streams than warmwater streams. With an increasing number of dam removals being conducted and a rising interest in stream restoration activities associated with dams, studies such as this can suggest which species will be most sensitive to dam removals and inform management actions.

For a copy of the study, contact Arthur Cooper (coopera6@msu.edu)

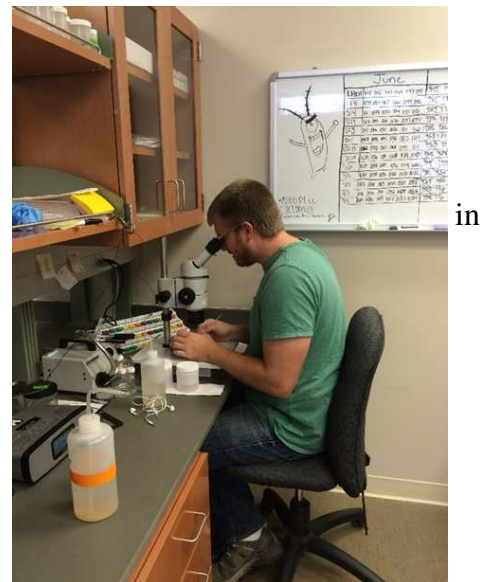
Newly Renovated Laboratory Opens at USGS Great Lakes Science Center

The anticipated opening of the newly renovated laboratories at the USGS Great Lakes Science Center in Ann Arbor, Michigan occurred in late August. The new laboratories were a much needed improvement to the old laboratory conditions which had not been updated for decades. Included in the new laboratory wing are renovated spaces for benthic and zooplankton ecology, early life history projects, fish age analyses, and state-of-the-art genetics laboratory. The Life History Laboratory has seven stations with microscopes and digital imaging software and six stations for sample picking and processing. There are also many new offices to provide desk space for technicians and researchers. These laboratory improvements complement the earlier renovation of the wetlab at the GLSC. The new wetlab has multiple egg incubation systems, multiple sizes of experimental tanks, and a filtration system that permits all water to be on a closed water system to conserve water. There is also a designated set of tanks for containment and research on invasive aquatic species. During the eleven month construction period in the north wing, there were multiple collaborators we would like to thank for loaning temporary office and laboratory space: the Michigan Department of Natural Resources, NOAA Great Lakes Environmental Laboratory, and USEPA National Vehicle and Fuel Emissions Laboratory. Have a research idea and looking to collaborate? Contact a USGS Great Lakes Science Center scientist!



Left: Technician Stacy Provo using our image analysis set-up to identify larval fish collected from the St. Clair-Detroit River System.

Below: Two of the sample picking stations in the Life History Laboratory.



Above: Technician Kevin Keeler identifying zooplankton in the new Community Ecology Lab. Beware of the cyclopoids!

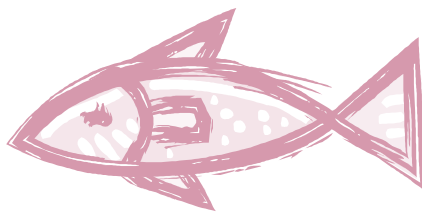
Michigan AFS Newsletter Fenske Update

Andrew Carlson

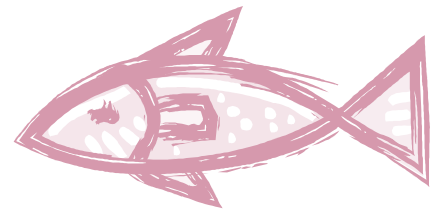
Ph.D. Student, Michigan State University

I am grateful to be a 2015-2016 recipient of the Janice Lee Fenske Excellence in Fisheries Management Fellowship. The Fellowship honors Janice Fenske, the first female biologist in the Fisheries Division of the Michigan Department of Natural Resources, known for her passion for natural resource conservation and compassion for everyone she interacted with. Since 2007, the Fellowship has provided deserving graduate students in the Department of Fisheries and Wildlife at Michigan State University with financial assistance for completing research projects and developing successful careers in fisheries management. In a rich mentoring experience, fellowship recipients collaborate with a university mentor and a professional from a state or federal fisheries management agency to complete a project with practical implications for the agency.

In collaboration with Dr. Troy Zorn (Research Biologist, Michigan DNR) and Dr. William Taylor (Distinguished Professor, Michigan State University), I am analyzing results of the 2015 Inland Trout Angler Survey and assisting Michigan DNR fisheries managers in developing a statewide management plan for inland populations of brook trout, brown trout, and rainbow trout. Michigan is blessed with abundant, diverse aquatic resources. Resident anglers, numbering more than 1.7 million, invested \$2.4 billion on angling and angling-related activities in 2011. In addition, some 347,000 non-resident anglers spent \$326 million, helping support 37,989 jobs throughout the state. With important implications for trout conservation and public engagement, an inland trout management plan is a high priority for the Michigan DNR and an excellent professional development opportunity for me. Thus far, I have presented results from the Inland Trout Angler Survey at the Michigan DNR Coldwater Resources Steering Committee meeting and the Michigan DNR Fisheries Division Trout Committee meeting. I am thoroughly enjoying this outstanding opportunity and look forward to the Fellowship as it continues.



VOTE!!!



Just a reminder that the upcoming election for president is now occurring! Voting will be done electronically and the link for the voting will be sent out by ListServ email by President Roth, or you can follow the link below. Voting opened on January 6th and will remain open until January 19th, and at least 25 members must vote to establish a quorum. Installation of the new officer will happen at the January Chapter meeting.

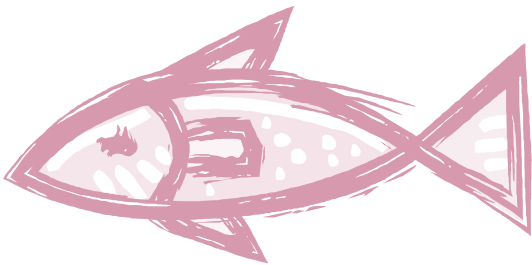
<https://www.surveymonkey.com/r/TDYR79B>

2016 Election: Presidential Candidates

Robin DeBruyne

I am a post-doctoral research associate at the USGS Great Lakes Science Center in Ann Arbor, working with Dr. Edward Roseman. I graduated from Central Michigan University in 2004 with a B.S. in Biology – Natural Resources. My Master’s degree was also from Central Michigan University (2006), where I examined growth and relative abundance of lake whitefish in Lake Michigan. For my doctoral research, I was at the Cornell Biological Field Station and investigated the response of walleye and yellow perch to the removal of cormorants in Oneida Lake, New York; I graduated with a Ph.D. in Fisheries and Aquatic Sciences in 2014. I have been working as a fisheries field and laboratory technician in various laboratories since the beginning of my academic career, as well as being involved in the American Fisheries Society at the Chapter, Section, and Parent-Society levels.

If elected to serve as President-Elect for the Michigan Chapter of AFS, I will aim to increase membership and participation in our chapter while maintaining the high level of services the Michigan Chapter members have come to expect. This will be accomplished through a variety of ways, including reaching out to potential new members (e.g., student clubs not officially designated as a subunit) and furthering our excellent track record of providing relevant continuing education courses to our membership. I am also open to suggestions from our membership regarding ways to improve services and communication. With regard to communication, I would like to increase our digital presence in our social media and YouTube outlets to highlight what our members and students are doing across the Great Lakes State, while continuing to use and grow our great newsletter. Thank you for your consideration and I look forward to seeing you at the meeting in Grand Rapids.



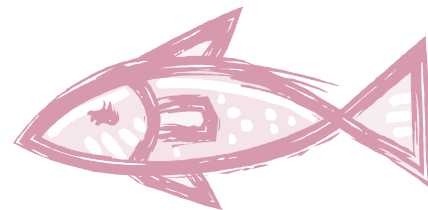
2016 Election: Presidential Candidates (Con't.)

Heather Dawson

I am an assistant professor at University of Michigan-Flint where we have a growing Wildlife Biology Program. I teach courses in fish ecology and management, wildlife ecology and management, evolution and adaptation, and ecological pests. Prior to joining the faculty at UM-Flint I worked as a fishery biologist for five years with the U.S. Fish and Wildlife Service at the Marquette Biological Station managing sea lamprey. I earned my Ph.D. at Michigan State University's Quantitative Fisheries Center in 2007, and my dissertation research investigated how the recruitment dynamics of sea lamprey limits the effectiveness of control methods targeting adult sea lamprey. I was the recipient of the Michigan AFS 2008 Albert S. Hazzard Award for my dissertation research. I earned my M.S. at Eastern Michigan University in 2003, and my thesis research examined the effectiveness of bubble and electric barriers in limiting the movement of Eurasian ruffe. My undergraduate work was completed at University of Michigan. Since 2003, the ultimate purpose of my research has been to improve the management of invasive Great Lakes sea lamprey. I have published several peer-reviewed manuscripts on this topic. I have mentored several graduate students and undergraduate students in fisheries research who have been coauthors or first authors on peer-reviewed manuscripts, and several of them have presented their research at national and international fisheries meetings.

I have been to several American Fisheries Society meetings, and am currently the chair of the Centrarchid Technical Committee for Michigan AFS. I moved into an assistant professor position six years ago, as I value the ability to be a teacher and mentor to students. I would like to be able to increase the support of students through our chapter through mentorship programs and communicating information relevant to students seeking employment in fisheries. I know that continuing education is very important to our members for career development and better fisheries management, so I would like to be able to increase those opportunities. I have collaborated

with many fisheries professionals across several agencies and universities in the course of my research. Through these connections, I would hope to expand the continuing education offerings of the chapter.





National Assessment of River Habitats Completed

Wesley Daniel, Dana Infante, Ralph Tingley, Arthur Cooper, and Kyle Herreman, researchers from Michigan State University and the Michigan Department of Natural Resources (MDNR), have recently completed the 2015 National Inland Assessment of Fish Habitats for rivers of the United States in support of the National Fish Habitat Partnership (NFHP), a voluntary initiative working to protect, restore, and enhance the Nation's fish and aquatic communities through partnerships from across the country. NFHP's Science and Data Committee, co-chaired by Gary Whelan of MDNR, provided guidance on the assessment, and results are currently being shared with stakeholders from throughout the United States. The 2015 assessment was generated by characterizing responses of stream fishes to a variety of human disturbances to rivers including urban and agricultural land uses, mining activities in watersheds, and dams. Results will help managers and decision makers identify healthy and degraded stream habitats in a consistent and comparable manner across the United States and identify key disturbance factors to rivers on a reach by reach basis. An electronic report, data used for assessment, and assessment results will be available in spring of 2016 at the following site: <http://ecosystems.usgs.gov/fishhabitat/>.

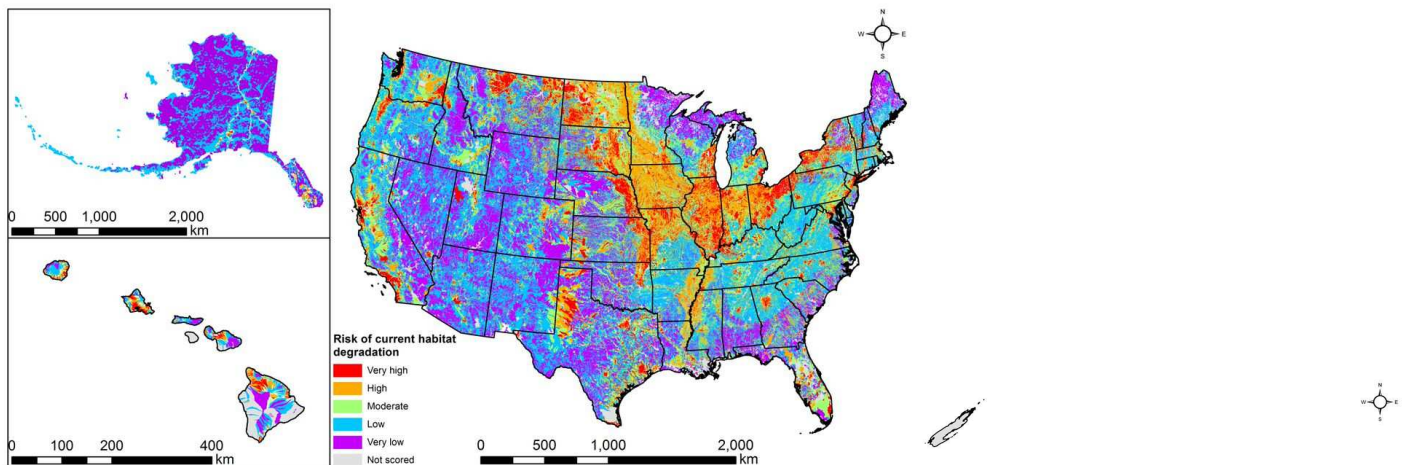
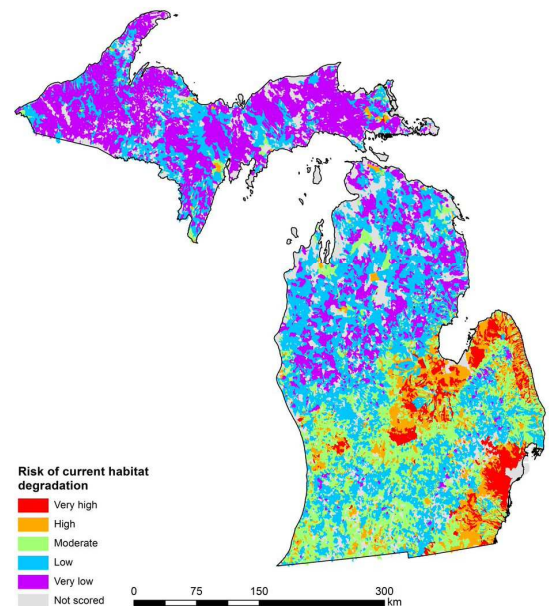


Figure A. 2015 national assessment results for stream habitats of the conterminous United States, Alaska, and Hawaii. Colors indicate relative degree of habitat degradation.

Figure B. 2015 results for stream habitats of Michigan.



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Need to know something about the Chapter?

Check out the MIAFS website at:
<http://www.fisheries.org/units/miafs/>

This newsletter is published annually by the Michigan Chapter of the American Fisheries Society Editor Heather Hettinger. Comments, suggestions, and submissions should be directed to hettingerh@michigan.gov



Not a member?

Know someone who should be a member?

Being an active member of the Michigan Chapter of the American Fisheries Society will provide many opportunities to advance your growth as a fisheries professional and allow you to have a bigger impact on in the future of Michigan's fisheries. Our newsletter, email listserv, and the ability to network and connect with other fisheries professionals from local governments, academia, fish culture, the private sector, and even other states will keep you current with all of the latest techniques and issues.

You do not have to join the parent society to be a Michigan Chapter member and the annual \$10.00 membership fee is a great bargain.!

To become a member and pay dues visit the membership page:

http://www.fisheriessociety.org/miafs/afs_joinus.html

The Michigan Chapter of the American Fisheries Society is a professional organization interested in maintaining high standards for the fisheries profession and ensuring conservation of Michigan's aquatic resources. The Michigan Chapter was founded in 1973 as part of the North Central Division of AFS and currently represents over 430 members.