American Fisheries Society

Volume 37, Issue 2

September 2020

Mainstream

President's Message

Happy New North Central Division Year!

For those of you who have forgotten the timing of Executive Committee turnover for the North Central Division of the American Fisheries Society, officers "step up" at the AFS business meeting at the annual meeting. In an "ordinary" year, that would have happened in Columbus, Ohio the first week of September. But for 2020, we have thrown normal out the window! This year, officer changes occurred after the business meeting held during the Virtual Annual Meeting on September 22, 2020. Heather Hettinger rotated off the AFS-NCD Executive Committee, Jeff Kopaska moved from President to Past-President, Mark Fincel moved from Vice President to President-Elect, and I moved from President-Elect to President. Drew Holloway remains our Secretary-Treasurer this year. Thanks to Heather for her multiple years of service and good luck on the AFS Communication Committee! We are here to serve as your representatives, and we look forward to doing so over the next year.

For the rest of this column, I want to (1) describe some of my background so you can know more about me; (2) discuss the AFS Virtual Annual Meeting; and, (3) detail my priorities for NCD over the next year.

Inside this issue:

Editor:

Drew Holloway
Fisheries Biologist
Muncie Bureau of Water Quality
Muncie, IN 47304
(765) 747-4896
dholloway@msdeng.com

This newsletter is published twice a year. Deadlines for submission are April and September 1st. The views and opinions expressed herein and not necessarily those of NCD.

President's Message Continued Joe Conroy

Background.—I am originally from the west side of Cleveland and grew up about 10 miles from Lake Erie. I attended The Ohio State University and 10 years later had accumulated Bachelor of Science degrees in Biochemistry and Zoology and a Master of Science and a Doctorate in Evolution, Ecology, and Organismal Biology. My graduate work dealt primarily with nutrient regulation of phytoplankton communities in a linked river-drowned river mouth-nearshore system of Lake Erie. As an undergraduate, I assisted some other researchers working at state fish hatcheries and as a post-doctoral researcher I worked on developing a multivariate classification system for Ohio's reservoirs. This is my long-winded way of saying that I came to be a fisheries science and management in a non-traditional way.

Starting in 2010, I was hired by the Ohio Department of Natural Resources, Division of Wildlife as a fisheries biologist at the Inland Fisheries Research Unit. I became acting supervisor of the unit in April 2017 and was promoted to supervisor in February 2018. The office in which I work helps to coordinate statewide inland reservoir, rivers & streams, and Ohio River standardized sampling, coordinates externally funded research projects, and conducts our own research projects. We have interests in developing, validating, and applying standard methods to help freshwater fisheries agencies better understand what standard surveys tell managers and scientists about the sampled fish populations.

AFS Virtual Annual Meeting.—As many may know, I served as the Program Committee Chair first for the AFS meeting to be held in Columbus, Ohio. When that meeting transitioned to the Virtual Annual Meeting*, I continued as Program Committee Chair, assisted by colleagues from Ohio, the NCD, and across AFS. Certainly, the biggest challenge of the transition was the timeline. While ordinary planning for the program portion of a meeting might have up to 12 months or more, we had about 3 months. Add the new format, the new options, and making semi-blind decisions about what the best practices are for a virtual meeting, and you might imagine that this transition was a rather challenging situation. However, the AFS office staff—primarily Shawn Johnston and Steve Kambouris—rose to the challenge and have tirelessly worked to create a successful meeting. From the programmatic side, we have about 700 or more scientific presentations which will serve as a tremendous resource for fisheries professionals and students. One of the best aspects of the virtual approach and the use of pre-recorded presentations is that these presentations are viewable on-demand. You do not have to furiously move room to room, scurrying to make the next presentation. Rather, you can view *all* the meeting content on your time. One other feature of the meeting application software that I really appreciate is the suggestion of multiple presentations related to the one you are viewing. In previewing the meeting application, I was quite surprised by how interesting I found the suggestions offered. I wondered if I would have found those suggested, related presentations on my own.

I hope the meeting turns out well and is as interesting as I think it will be. If there are aspects that worked or didn't, please let me know.

Continued on next page...

President's Message Continued Joe Conroy

Priorities for NCD.—In my related President's blog (which can be found here: https://ncd.fisheries.org/), I define the role of NCD from my vantage point and what I've learned during my time associated with the NCD. [As an aside: I look forward to your feedback on what you consider the role of NCD.] In this column, then, I give you my priorities for the next year. Much of what I seek to do over the next year is to encourage and facilitate re-engagement of members with NCD and AFS. I have had a front-row seat for the past year or so and seen how your NCD officers, AFS officers, and AFS staff have worked to provide services and represent your interests. However, many of these actions rely on active and involved members. Over the next year, I seek re-engagement of Chapters in NCD activities, especially Technical Committees, and look forward to working with you on many activities.

To continue the discussion, please reach me by email @ joseph.conroy@dnr.ohio.gov.

*Footnote: I write this column from 34,000 feet on September 11, 2020 while traveling to fish the Rogue River, Oregon for Chinook Salmon just in advance of the Virtual Annual Meeting kickoff.

Sisters Rocks

Rogue River Valley—RM13ish

Seeking Presentation Proposals

Deadline to submit:
October 16, 2020

2021 VIRTUAL MIDWEST FISH & WILDLIFE CONFERENCE

Monday, February 1 - Wednesday, February 3, 2021

We're Going Virtual! Please Join Us!

Due to the ongoing COVID-19 crisis, the Midwest Association of Fish and Wildlife Agencies will hold its annual conference virtually. A virtual conference is the best way to engage, share and connect with our community during this challenging time. The annual conference is a key mechanism to advance our mission, and we hope that you will join us for an exciting and innovative virtual experience.

What will a Virtual Conference Look Like?

As we transition to an online event, we look forward to offering the same informative and timely content, and the unique opportunity for collaboration and connection with colleagues from across the region.

The virtual conference will include our regular offerings and opportunities for engagement, including Plenary Sessions, Awards Ceremony, Organized Symposia, On-Demand Oral Presentations, an e-Poster Gallery, and a virtual Trade Show!

The theme of the 2021 Midwest Fish and Wildlife Conference will be "**Fostering Diversity**". In addition to the work natural resource professionals do to encourage species diversity in the habitats they manage, it is critical that we also foster diversity in participation in the outdoors among the people we serve and who work in our professional ranks. Our plenary session will feature Carolyn Finney, author of Black Faces, White Spaces, a seminal work on the roots of gaps in outdoor participation between white people and other ethnicities. Other plenary speakers will describe programs being used to close some of those gaps both among different ethnicities and genders.

More information can be found here!

World's Leading Aquatic Scientific Societies Urgently Call for Cuts to Global Greenhouse Gas Emissions

Dire consequences for freshwater and marine resources without significant and fast action

Bethesda, MD (September 14, 2020) In an unprecedented statement released today, the American Fisheries Society (AFS) joined forces with 110 aquatic scientific societies representing more than 80,000 scientists across the world to sound a climate change alarm. The societies call for drastically curtailed global greenhouse gas emissions to avoid the worst impacts of man-made climate change to fish and aquatic ecosystems. Unless urgent action is taken to reduce emissions, scientists predict catastrophic impacts to commercial, recreational, and subsistence fisheries and human health and global economies.

"Swift and resolute action by governments and by individuals to reduce emissions is essential to halt irreversible impacts to freshwater and marine ecosystems, fish, and fisheries from climate change. We must act now to safeguard our drinking water, food supplies, and human health and well-being. These grim predictions for the world's aquatic ecosystems are not just theoretical. They are affecting us now and failure to act will imperil future generations," said American Fisheries Society President Scott Bonar.

Climate change is already altering marine and coastal ecosystems with significant implications for wild capture fisheries and marine economies. Projected increases in ocean temperature are expected to reduce the maximum catch potential in most areas in the U.S. Many harvested stocks will shift from one area to another, or even across international boundaries with implications for seafood supply, ports, and associated businesses. Loss of habitat from sea level rise will lead to declines in the vast majority of commercially and recreationally harvested marine finfish and shellfish that are dependent on estuaries and coastal systems for some stage of their life cycle. Increased carbon dioxide absorption is changing ocean chemistry, rendering some waters too acidic for marine organisms with calcium shells, such as oysters and clams, and threatening the base of the marine food web.

"Coral reefs are threatened globally by rising temperatures, ocean acidification, surface runoff, and pollution. Unless dramatic action is taken to reduce greenhouse gases and local environmental impacts, coral reefs as we know them will probably not exist by the end of this century," said Andréa Grottoli, President of the International Coral Reef Society.

Freshwater fish are especially threatened by the impacts of climate change. Forty percent of all in North America are today imperiled as a result of pollution, habitat loss, water withdrawals, and invasive species. Climate change coupled with these existing stressors will lead to significant declines in freshwater fish, with devastating consequences for cultural, recreational, and economic value of freshwater systems.

"Climate change is warming rivers, lakes, and streams throughout America, reducing habitat availability for freshwater fish, particularly coldwater species. Longer summers and warmer winters are reducing snowpack essential for maintaining blue ribbon trout fishing in the West. Anglers and the recreational tourism dependent businesses that depend on them will see drastic declines in the number of fish and days on the water," said AFS Executive Director Douglas J. Austen, Ph.D.

Continued on next page...

AFS World Climate Statement Continued

Across the globe, incomes, food security, and livelihoods of aquatic resource-dependent communities are already at risk. Climate change threatens food security by endangering fish, an essential source of protein for many across the globe.

"Fisheries provide a valuable protein depended on by billions of people, especially those in developing countries. Climate change is putting that key protein source at risk. The current trajectory of greenhouse gas emissions requires urgent attention to ensure the future of global fisheries," said Bronwyn Gillanders, President of the World Council of Fisheries Societies.

According to the Food and Agriculture Organization of the United Nations, fish accounts for 17% of animal protein consumed globally, fishing and aquaculture directly employ almost 60 million people, and global trade in fish products has reached US$152 billion per year, with 54% originating in developing countries.

"Aquaculture, both freshwater and marine, employs over 21 million people and in 2018 accounted for 46% of global fish and seafood production and 52% of fish and seafood for human consumption. The impacts of human-caused climate change on production systems threaten this vital source of income and food security," said Jimmy Avery, President of the World Aquaculture Society.

In addition to reductions in emissions, aggressive policies and programs are required to mitigate the effects of climate change to freshwater fish and to preserve habitat essential for resilience. If we are to avoid losing countless species that provide immeasurable benefits to society, we must also mitigate the impacts of climate change on fish and fisheries and plan for adaptation required to ensure the long-term health of our freshwater, coastal, and marine ecosystems and the many economies that depend upon them. Intact, healthy habitats can help to provide resilience for fish and store carbon.

"When healthy, aquatic ecosystems are important allies that capture carbon and reduce climate warming, but when damaged, they may let go of the large amounts of carbon they hold. We need to protect our healthy aquatic ecosystems to maintain their crucial storage of carbon to help reverse the effects of climate change," said Antonio Camacho, Chairperson of the European Federation for Freshwater Sciences.

Committee Reports

Membership Committee 2020 Report

Robert Workman—Advanced Ecological Management
dworkman@advancedecological.com

The membership of the North Central Division (NCD) is comprised of members of good standing from the following states and provinces: Alberta, Illinois, Indiana, Iowa, Kansas, Manitoba, Michigan, Minnesota, Missouri, Nunavut, Nebraska, North Dakota, Northwest Territories, Ohio, Ontario, Saskatchewan, South Dakota, and Wisconsin. The total membership of the North Central Division increased by a total of 63 members from 2019 to 2020. Regular membership increased by 10 members, and Retired membership increased by eight members from 2019 to 2020. Life memberships decreased by one member, Official members decreased a total of six members, and Student members decreased a total of 66 members from 2019 to 2020.

Province/State	Off.	Hon.	Life	Reg.	Retired	Stu.	Young Professional	Total Number
Alberta			6	23	1	8	3	41
Iowa			13	31	2	13	8	67
Illinois	1		12	45	12	37	29	136
Indiana			8	25	6	23	12	74
Kansas		1	3	25	2	12	10	53
Manitoba			1	14		4	3	22
Michigan			24	93	15	46	40	218
Minnesota	1		22	64	8	20	15	130
Missouri	1		14	38	7	17	15	92
North Dakota			3	3		4	4	14
Nebraska			4	9	3	15	4	35
Northwest Territories							1	1
Nunavut							1	1
Ohio	1		12	40	8	28	14	103
Ontario			10	77	8	55	26	176
South Dakota			2	18	5	3	5	33
Saskatchewan			1	10		1	1	13
Wisconsin			22	49	14	29	21	135
Total by Type	**4**	**1**	**157**	**564**	**91**	**315**	**212**	**1344**

Hon. – Honorary members
Off. – Official members (typically natural resource agencies)
Reg. – Regular members
Stu. – Student members
Young Professional – now referred to as Early Career members
Summary of members by location. Data source: AFS August 31, 2020.

Technical Committee Reports

Ictalurid—Catfish 2020

Ben Neely—Kansas Department of Wildlife, Parks, and Tourism
Ben.Neely@ks.gov

Back in February, the North-Central and Southern Divisions put on Catfish 2020: The Third International Catfish Symposium immediately preceding the Southern Division annual meeting in Little Rock, Arkansas. The meeting was well received with 198 attendees delivering 74 oral presentations and 17 poster presentations over the three-day symposium. Our AV committee recorded these presentations and recently completed editing. They represent the current status of management and research of catfishes at an international scale and are hosted on the YouTube channel linked below. Would you be willing to help us spread the word to AFS membership? I'm not sure of the best method of distribution, but perhaps emailing an email link or posting on social media platforms? We appreciate the help disseminating this valuable work. Please don't hesitate to contact me with any questions.

https://www.youtube.com/channel/UCHNt7ZV05DLWoe4qJO798Pw/videos

YouTube

Technical Committee Reports

Reservoirs

Rebecca Krogman-Iowa Department of Natural Resources
Rebecca.krogman@dnr.iowa.gov

Prepare your manuscripts for the next reservoir symposium! The technical committees of the NCD and SD are hosting a reservoir symposium in 2021 at AFS's Annual Meeting in Baltimore. This meeting is also the deadline for manuscript submission to be included in the proceedings, a special collection of papers in North American Journal of Fisheries Management.

Reservoirs are a major component of North America’s fisheries and outdoor recreation. The growth of recreational fishing dovetailed with the expansion of dams, which created publicly accessible water resources across the continent including in areas devoid of natural lakes. However, most reservoirs are now showing their age and the effects of rapid ecological succession, as well as deteriorating infrastructure, and fishery management has become more and more challenging. This collection of manuscripts will focus on the most significant issues and findings regarding science-based reservoir management. Expected topics include standardized sampling and assessment; reservoir aging and habitat management; human dimensions and economic/societal impact; escapement, entrainment, and other dam passage issues; and climate change. Where have we come from in the last 50 years, and where are we going in the next 50?

Don't miss this outstanding symposium and prepare your manuscript now!

Planning Committee: Rebecca Krogman, Joseph Conroy, Steve Sammons, Jeremy Risley, Sean Kinney, Michael Homer

Technical Committee Reports

Walleye

John Bruner—Department of Biological Science, University of Alberta
jbruner@ualberta.ca

26 presenting groups, representing 80 percid researchers, submitted video presentations for the AFS 150th Virtual Annual Meeting Symposium: *Biology, Management, and Culture of Walleye, Sauger, and Yellow Perch: Status and Needs*. This symposium was the second largest symposium of the AFS meeting. The 26 presentations total more than 7+ hours of Percid Pleasurable Programming and will be available to registrants of the AFS annual meeting for one year. 12 (48 co-authors) of the 26 presenting groups decided to submit their presentations as chapters for a Springer Fisheries Series book proposal to be edited by Dr. Robin DeBruyne, University of Toledo, and John Clay Bruner, University of Alberta.

The AFS Fish Habitat Section sponsored seven symposia in the virtual meeting and gave out 6 Student Travel Awards. Three student presenters in the symposium won AFS Fish Habitat Section Student Travel Awards: John Cannaday, Clemson University; Cathleen M. Doyle, The Ohio State University; and Collin J. Farrell, Colorado State University.

Another postdoc from the symposium was given
the AFS Emerging Leaders Mentorship Award: Dr. Corbin D. Hilling, Post-Doctoral Associate, Department of Environmental Sciences, University of Toledo.

One student presenter received the J. FRANCES ALLEN SCHOLARSHIP AWARD: L. Zoe Almeida, The Ohio State University.

One student (not part of this symposium but giving a talk on a percid of course) won the AFS Best Student Paper Award: Aaron Coons, Tennessee Tech University.

There is also a recording of the LIVE DISCUSSION SEPTEMBER 23, 2020 WEDNESDAY 3:15 pm to 5 pm EST based on the symposium mounted on the AFS 2020 Virtual Annual Meeting website for AFS registrants

Chapter Updates

Missouri Chapter American Fisheries Society

Eric Rahm—President
Eric_Rahm@hotmail.com

Thanks to the dedication of MOAFS Lifetime Member, Joe G. Dillard, all of the Missouri Chapter of the American Fisheries Society (MOAFS) records for its 56 years of existence have been transferred to the State Historical Society of Missouri (SHSMO) for safe keeping. A whopping 9.5 cubic feet, 6 computer discs, and 1 video cassette! Records of the organization include correspondence, minutes, conference materials, newsletters, reports, manuals, and miscellaneous material.

In addition, MOAFS members, Amanda Rosenberger, Emily Tracy-Smith and Joe G. Dillard recently published the history of MOAFS: "Still Hooked: Our First 50 Years, 1964-2014". If you are interested in purchasing a copy of that book $18.00 (includes cost for shipping) with the proceeds benefiting MOAFS please send a check and address for delivery to Joe G. Dillard at 3535 West Arbor Way, Columbia, MO 65203

Joe G. Dillard holding a copy of *Still Hooked: Our First 50 Years, 1964-2014* alongside the MOAFS documents being prepared for delivery to the State Historical Society of Missouri.

Joe G. Dillard delivering MOAFS documents to the State Historical Society of Missouri.

NCD News and Announcements

Confronting Present and Emerging Stressors in Rivers for Global Fisheries Conservation Symposium

Michael Moore PhD Candidate—University of Missouri
mjmhx5@mail.missouri.edu

North Central Division members, Dr. Jim Garvey, Dr. Elizabeth Marschall, and Michael Moore teamed up to organize a symposium at the AFS 2020 Virtual Meeting centered on the conservation challenges facing riverine ecosystems. Although the geographic scope of the symposium extended well outside the confines of the North Central Division to rivers and streams where elephants wallow in South Africa, or Taimen jump in Mongolia, the purpose was to synthesize experiences of biologists globally to develop new avenues for management and research.

The symposium consisted of 13 recorded presentations that are available online in the virtual meeting app. Many of the greatest stressors to lotic systems were featured in talks including: hydrologic alterations and fragmentation (3 talks, Hamel; Cordoleani et al.; Moore et al.;), invasive species (3 talks Coulter et al.; Lawrence et al.; Pegg et al.;), landscape scale stressors (2 talks, Infante et al.; Uphoff and McGinty), pollutants (2 talks, Durkalec; Rapp et al.;), and climate change (1 talk, Golden et al.). Two additional presentations focused on developing solutions to these issues. In one, Dr. Matthew Grabau et al. presented their work at the Fish and Wildlife Service to create "communities of practice" where case studies are compiled related to invasive species management and made available online so that managers can apply these lessons where they work. Finally, Dr. Martha Mather called on participants to dream a little bit more and develop "big, hairy, audacious goals" for fisheries conservation.

The symposium culminated in a live session, moderated by co-organizer Michael Moore, on September 23rd where over 35 attendees gathered to discuss lessons learned and future directions. The group agreed that issues could not be approached in isolation and that working across scales and jurisdictional boundaries was key. It was suggested that hierarchical structured decision frameworks such as Bayesian belief networks can achieve the dual goals of establishing long-term goals on socially contentious issues and directly linking the science to smaller management objectives which build toward these larger goals. Some suggested developing community partnerships oriented around culturally or economically important species. Realistically, we must also manage expectations to achieve best outcomes that fit within the template set by human dominated landscapes and novel biological communities.

A common theme of the discussion was scientific communication. We are very fortunate to be working with Audrey Holmes, a graduate student in Creative Writing at Southern Illinois University to develop a narrative that translates the major takeaways into a podcast. We intend to target both professional and general audiences. Although the annual meeting is in the rearview mirror, we hope that ongoing scientific communication will continue to broaden our "community of practice" to include not only scientists but all stakeholders who depend on the ecosystem services and recreational experiences provided by the world's flowing waters.

The participation of AFS members in the videotaped and live sessions, along with key convergent conclusions about research needs and future directions, illustrated the importance of this topic for researchers, managers, educators, and administrators within the fisheries profession

NCD News and Announcements

The first annual Sea Grant Great Lakes Aquaculture Day will be October 10, 2020. The virtual event will showcase the region's potential for fish and seafood production and host a culinary competition.
The event is free, open to the public and registration is required . Activities begin at 9:30 a.m. with our welcome and keynote speaker, and end at 5:30 p.m. Eastern time with a cooking challenge demonstration.

The event will feature a variety of panel discussions and presentations on aquaculture. Presentations will be targeted at a variety of audiences, from beginning and current farmers to consumers interested in learning more about preparing and cooking seafood.

The event is hosted by the Sea Grant Great Lakes Aquaculture Collaborative, which is a project of Sea Grant programs across the Great Lakes region working to share resources and promote best practices throughout the aquaculture industry.

The event finale will feature a cooking demonstration with Chef Jeff Igel, from the Wisconsin Technical College, followed by a cooking competition featuring three culinary students from the Great Lakes region. Each student will be required to use a key ingredient and local aquaculture products in their creation.

All event attendees will have opportunities to interact with other participants during the day and during breakout lunch gatherings.

The U.S. aquaculture industry has potential for growth, especially in the Great Lakes region where abundant inland freshwater resources have enabled a handful of state-based aquaculture operations to employ a local workforce and produce sustainable, healthy and tasty fish.

For more information about the Sea Grant Great Lakes Aquaculture Day 2020 event and registration visit greatlakesseagrant.com/aquaculture or contact Michigan Sea Grant Extension Educator Elliot Nelson, elliotne@msu.edu .

For information about the Sea Grant Great Lakes Aquaculture Collaborative contact Minnesota Sea Grant Extension Educator Amy Schrank.

Registration Link
Agenda and additional information at: https://greatlakesseagrant.com/aquaculture/

NCD News and Announcements

New Aquatic Ecologist at the University of North Dakota

Mark Kaemingk has recently joined the Department of Biology at the University of North Dakota (UND) as an Assistant Professor of Aquatic Ecology. Mark is looking forward to developing an undergraduate and graduate research program in aquatic ecology that will contribute to improving natural resource conservation and management. His integrated education and research program requires cross-disciplinary collaborations and novel approaches. Specifically, Mark enjoys understanding and sharing how cross-scale spatial and temporal processes interact to shape fish communities, anglers, and their environments. Mark is excited to form partnerships that will address current and future challenges within aquatic ecosystems.

Mark received his Ph.D. in Fisheries Sciences from South Dakota State University, M.S. in Conservation Biology from Central Michigan University, and B.S. in Wildlife and Fisheries Sciences from South Dakota State University. He then held a National Science Foundation Postdoctoral Fellowship in Biology, working in New Zealand at the Victoria University Coastal Ecology Laboratory. Prior to his current position at UND, Mark was a Research Assistant Professor within the School of Natural Resources and Nebraska Cooperative Fish and Wildlife Research Unit at the University of Nebraska-Lincoln.

Please contact him if you have questions about UND's Fisheries and Wildlife Biology program or are interested in collaboration opportunities.

Email: mark.kaemingk@und.edu
Twitter: @LabUNDerwater

NCD News and Announcements

Find us on: facebook

North Central Division of the American Fisheries Society

AMERICAN FISHERIES SOCIETY 151st ANNUAL MEETING 2021 Baltimore INVESTING IN PEOPLE, HABITAT, AND SCIENCE

We hope to see you there!
August 8-12, 2021

Upcoming NCD Meetings

2021
Virtual Meeting
(Minnesota)

2022
Des Moines, IA

Have something you want featured in an upcoming *Mainstream*?

Contact Drew Holloway
dholloway@msdeng.com