143rd Annual Meeting Wrap Up: Thank You Little Rock

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143rd Annual Meeting Wrap Up: Thank You Little Rock

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Fisheries professionals gathered at the 143rd Annual Meeting of the American Fisheries Society in Little Rock, Arkansas, which was hosted by the American Fisheries Society (AFS) Arkansas Chapter in partnership with the Arkansas Fish and Game Commission; they managed to conjure absolute feasts at the social events that ranged from barbeque to Cajun gumbo, deep-fried catfish, and hushpuppies. We reunited with colleagues and attended scientific sessions led by some of the world’s top fisheries biologists and professionals. Despite the heat, attendees ranged freely throughout a vibrant revitalized downtown that provided many opportunities for dining, shopping, and socializing.

The meeting theme was “Preparing for the Challenges Ahead,” and that idea achieved saturation within minutes of Pamela Mace’s plenary about future needs for fisheries professionals and Kelly Millenbah’s insightful talk about generational differences in the workplace; those presentations were the focus of many hallway discussions and were referenced frequently in the 30-odd symposia, most of which had at least one presentation that was geared toward looking ahead. Our new meeting format of shorter talks and longer breaks is still being discussed, but it seems to have some merit. There was a less-rushed environment and there were good discussions between the presentations.

The symposia offered an opportunity for audiences to learn current thinking on important ideas directly from some of the world’s leading experts on those subjects. They were not just random assemblages; they were invariably organized in a way that facilitates synthesis of knowledge or ideas. Sadly, this was a year when many AFS members experienced restrictions on travel and could not attend, so we present symposium summaries as a way to showcase the efforts of our organizers, to encourage development of new symposia for the 2014 meeting in Québec City, and to inform members who could not attend Little Rock about the important themes that emerged there.

The Little Rock meeting culminated in a unique farewell social held at the William Clinton Presidential Library, where haute southern and French Canadian cuisine collided head-on to celebrate both Arkansas hospitality and our journey to Québec City in 2014. The hypnotic psycho-delta rhythmic music of Tyrannosaurus Chicken turned the normally formal and staid Presidential Grand Hall into an absolute rave with tables and chairs pushed back to make space for a dance floor that became filled to capacity.

The official motto of Québec is “Je me souviens” (I remember), but it also has meaning as we think about our gracious and generous hosts in Arkansas and plan ahead for our journey to Québec City in 2014.
Plenary Talk—
Dr. Pamela Mace

Only a thought-provoking, challenging presentation encourages people to continue discussing a plenary session long after the session concludes. Dr. Pamela Mace, the principal advisor for fisheries science at the New Zealand Ministry for Primary Industries, delivered one of those stimulating pieces with her presentation of “Preparing for the Challenges Ahead: What Types of Fisheries Professionals Will Be Needed?” Dr. Mace presented a “scenarios analysis” to represent alternative worlds that help us think about what the future might look like and stimulate imagination and creativity about the long-term future of fisheries.

Two contrasting scenarios—one in which “money rules” and the other where “sustainability is paramount”—challenged the audience to reflect on personal values and to consider the effects of scientific and management decision making. Dr. Mace applied the results of the analysis to examine how fisheries would look in each of the extreme scenarios and then compared similarities and differences between developed nations (e.g., the United States and New Zealand) and developing nations. In the “money rules” scenario, fisheries would likely become depleted and overexploited, much of the oceans would become privatized, oil and gas mining would take precedence over fisheries, national and international regulations would be relaxed or ignored, and unreported, illegal fishing would be commonplace.

In the “sustainability is paramount” scenario, fisheries regulations would be strictly enforced, scientists would be highly respected, habitat restoration could be a growth industry, bottom trawling and dredging would be banned, and most fish species would be protected by national and international agreements. Dr. Mace used examples of management strategies from the United States and New Zealand that have been successful in reducing overcapacity and overfishing but suggested that there has been increased pressure on all marine resources, which has resulted in higher exploitation and lower abundance of fish stocks and degraded habitat quality. Though these worlds seem to be at odds and would require opposite management strategies, some key similarities exist. Both the money rules and the sustainability is paramount scenarios must consider the impacts of ocean acidification, climate change, and increased competition for space and utilization of marine resources. Dr. Mace posed a broad question: “What skills are required to ensure the right balance between utilization and sustainability of our ocean resources?”

Paramount in importance, according to Dr. Mace, is training in quantitative skills for fisheries scientists. She encouraged universities to offer, and students to take advantage of, courses on population dynamics, multivariate statistics, sampling theory, stock assessment, and risk analysis. She proposed double, triple, and quadruple majors in fisheries science, law, economics, and management. She suggested that the future of fisheries science will require multilingual capability, negotiation expertise, and enhanced communication skills. Although Dr. Mace’s call to arms for increased education and training seems daunting, she was confident that there is an optimistic future for global fisheries if we can strike the right balance between research, education, and communication to foster common understanding, goals, and values.

Dr. Mace posed a challenging question to the members of AFS, along with researchers, managers, and industry stakeholders around the world: How can we combine objective science with rational management in order to avoid falling into the “money rules” or “sustainability is paramount” extremes? Her presentation was discussed, dissected, or disagreed with for the remainder of the meeting, indicating that the challenge she posed is vital for the future of fisheries.

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Plenary Talk—
Dr. Kelly F. Millenbah

Though I have seen many insightful and thought-provoking plenary talks, I don’t think I’ve ever seen a plenary that permeated a whole meeting more than Dr. Kelly F. Millenbah’s at the 2013 American Fisheries Society Annual Meeting in Little Rock, Arkansas. Dr. Millenbah, the Associate Dean and Director for Academic and Student Affairs in the College of Agriculture and Natural Resources at Michigan State University, spoke on “Education in the Era of Millennials: Implications for Future Fisheries Professionals and Conservation,” which fit very well with the conference theme: “Preparing for the Challenges Ahead.”

Dr. Millenbah contended that, as a profession, we can be more prepared for the challenges that face fisheries if we take into account certain characteristics of the Millenial generation—my generation—which is just entering the workforce. The Millennials, she suggested, are optimistic and realistic, good at multitasking, tech savvy, globally and socially conscious, and team oriented. This generation wants to make a difference.

In fisheries, we will face many difficult challenges, many
of which were topics of sessions and contributed papers at the conference. As seems typical of my generation, I tend to think of these challenges as opportunities and find it reassuring to think that through collaboration and tenacity, we’ll be able to improve fisheries resources for future conservation and use. Like a puzzle, we just need to figure out how all the pieces fit together!

Dr. Millenbah’s talk was the talk of the conference. Her discussion was brought up in many sessions I attended. How does this relate to the future? How can we train the next generation to address these issues? Personally, I find it so exciting to see the forward outlook of these questions. As a profession, we are really preparing for the challenges ahead!

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A Big Tent: Building a Stronger Society and Workforce Through Professional Diversity

The Equal Opportunities Section (EOS) hosted a half-day symposium, which was one of three events hosted by the EOS during the 2013 meeting! The symposium highlighted the work of students matriculating at minority serving institutions (MSIs) and professionals from underrepresented groups. The symposium also highlighted the work of white students and professionals—including white males—who conduct research or are involved with diversity efforts at MSIs. Student presentations covered a variety of disciplines including human dimensions and policy; fish physiology and ecology; and population dynamics and fishery management implications. Fisheries professionals presented on the work they do in direct support of diversity efforts at MSIs. Student presentations covered a variety of disciplines including human dimensions and policy; fish physiology and ecology; and population dynamics and fishery management implications. Fisheries professionals presented on the work they do in direct support of diversity efforts at MSIs.

The first presenter spoke about his work with the Reach-up Program, a participatory aquatic science program geared towards introducing middle school students from underrepresented populations to aquatic science through school curriculum and outdoor field experiences. Emphasis is also placed on introducing students to various career paths across the aquatic sciences. Another presentation focused on the National Cooperative Fisheries Scholars Program, an undergraduate program geared towards increasing the number of ethnic and racial minorities in environmental sciences and fisheries and wildlife management. The presenter pointed out that the program success rates are high and program participants are competitive, yet challenges to entering the fisheries profession remain. Another symposium contributor asserted that proactively initiating dialogue with underrepresented groups is essential for producing better resource management outcomes. The speaker also provided highlights on successes over the past 20 years and identified improvements that would help increase recruitment and retention of women and ethnic minorities.

There was a common theme across the presentations given by fisheries professionals: diversity initiatives to increase minority participation in STEM have been successful but we still have a long way to go and a lot more work to do! At the conclusion of the symposium, the presenters answered tough questions and offered insights on how to address persistent diversity disparities and improve upon current diversity efforts to help the fisheries profession and AFS become a true reflection of the demographic landscape in our country.

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AFS/SEA Grant Best Student Presentation

The 2013 AFS Annual Meeting marked the sixth year of the AFS/Sea Grant Best Student Presentation and Poster Symposia. In total, there were 16 oral and two poster presentations. Student representation extended from the Pacific to Atlantic coasts and included more than 15 different academic institutions. Topics ranged from the use of stable isotope analysis to examine trophic partitioning of crayfish to the use of Bayesian methods for the estimation of freshwater mussel growth. Finfish topics included examination of growth patterns and lipid content of Rockfish (Sebastes spp.) to the spatial and temporal interaction between anglers and various targeted fish species in Florida. This year I was awarded the Best Student Presentation for my presentation titled “Finding Death: The Relationship between Energy and Iteroparity in Steelhead Trout.” The Best Student Poster was awarded to Nicholas Sievert from the University of Missouri for his poster titled “A Vulnerability Assessment for Missouri Stream Fish Species: Development and Evaluation.” The two winners will receive a plaque and $450, which will be presented at the 144th Annual American Fisheries Society Meeting in Québec City, Canada, in 2014. The AFS/Sea Grant Best Student Presentation and Poster Symposium is designed to support 20 finalists for both oral and poster presentations, neither of which was exceeded this year. Understandably many students will often opt to present in symposia that fall within the scope of their own research interests at the Annual Meetings or do not wish to deal with the additional requirement of submitting an extended abstract. For this reason, advisors are also strongly encouraged to support and urge their students to enter in the Best Student Presentation and Poster Symposium or to participate as judges.

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Scientists taking a look at young salmon and their habitat by conducting snorkel surveys. Photo credit: NOAA.
Applying Genetic Principles and Technologies to the Management and Conservation of Fishery and Aquatic Resources

The two-day symposium sponsored by the Genetics Section examined a diversity of molecular approaches as they relate to the conservation and management of fishes and other aquatic resources. Many of the 31 presentations touched upon contemporary but pervasive management issues, such as habitat connectivity, invasive species, maintenance of genetic rescue, effects of stocking or overfishing, and the clarification of taxonomic relationships. Others addressed topics more evolutionary in nature, such as gauging adaptive divergences and estimating parallel evolution. The importance of molecular data in addressing these problems and providing clear management guidance was amplified repeatedly.

The symposium highlighted a diversity of techniques, including those newly established such as sandwich hybridization assay as a means for rapidly and affordably identifying planktonic fishes and restriction site associated DNA sequencing for acquisition of genomic data from next generation sequencing pipelines as a means of addressing population-level phenomena. The audience quickly perceived that rapidly advancing technologies and ever-decreasing costs facilitate not only acquisition of genomic data but their translation into the adaptive management of our most pressing environmental issues. This was particularly well represented by J. Lamer in his presentation on hybridization among invasivive Asian Carp in the Illinois River and by J. Puritz on the population structure of, and connectivity among, overfished Red Snapper in the Gulf of Mexico.

However, more established molecular genetic techniques (i.e., microsatellite DNA fragment analysis; mitochondrial/nuclear DNA sequencing) were also apparent and underscored the considerable (and ongoing) importance of these techniques in yielding solid, well-evaluated data that consistently promote realistic management decisions. For example, over a dozen talks highlighted application of microsatellites in detecting gene flow as it relates to habitat connectivity, population structure, stock assessment, supplementation programs, and the collapse of populations due to overfishing. Several others employed both mitochondrial DNA and microsatellite analyses to delimit species, promote genetic monitoring, and define evolutionary significant and management units. Single-gene nuclear DNA sequencing was employed to survey reproductive success and detect introgressive hybridization.

Symposium participants continually underscored the tremendous importance of molecular genetic approaches in conserving and adaptively managing fishes and aquatic resources. Emerging technologies are transforming the field and provide new, exciting avenues but also prepare us as well for emerging challenges, whether of an anthropogenic nature or natural responses to an ever-changing environment.

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Biology, Ecology, and Management of Muskellunge and Northern Pike: New Science to Meet Current and Future Challenges

The objectives of this symposium—focusing on the biology, ecology, and management of Muskellunge and Northern Pike—were to present current research, identify research needs, advance sustainable management in a changing environment, and stimulate collaboration among researchers. The symposium attracted presenters from seven states, Canada, and the United Kingdom.

Two keynote presentations were given, one on the variability of habitats used by spawning Muskellunge and one on current threats and challenges to Muskellunge and Northern Pike populations of the Great Lakes. Thirteen contributed presentations described research on (1) critical spawning and nursery habitats; (2) distribution and movements of adult Muskellunge and Northern Pike, including responses to habitat change and restoration; (3) selective mortality caused by angling, winterkill events, and viral hemorrhagic septicemia; (4) the effects of climate change on Northern Pike diets and the metabolism of four esocids; (5) genetic approaches for identifying spatially distinct reproductive groups of Muskellunge, guiding reintroduction programs, and determining the contribution of stocked fish to current populations; and (6) escapement of stocked Muskellunge from reservoirs. Following these presentations, a panel answered questions from the audience and provided commentary on potential future directions of esocid research and management.

Although some waters currently provide exceptional angling opportunities for Muskellunge and Northern Pike, many populations in their historical range have been extirpated or rely on stocking. Throughout the symposium, degradation and loss of spawning and rearing habitat were identified as the leading
causes of population declines for Muskellunge and Northern Pike. Esocid populations face additional threats from biological invasions and climate change—conducting research on Muskellunge and Northern Pike in an ever-changing environment poses a substantial challenge to understanding the basic needs of these species.

Although habitat loss, biological invasions, and climate change will continue as human populations grow, rapid advances in research technologies such as telemetry, genetic markers, and videography provide exciting opportunities for enhancing the science and management of Muskellunge and Northern Pike.

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Black Bass Diversity: Multidisciplinary Science for Conservation

Black bass species support some of the most popular recreational fisheries in the United States. To date, nine species of black bass have been described, including the well-known Largemouth Bass, Smallmouth Bass, and Spotted Bass. Interestingly, six other black basses are endemic to drainages of the Southeastern United States—the Shoal Bass, Redeye Bass, Alabama Bass, Florida Bass, Suwannee Bass, and Guadalupe Bass. Because these species occupy relatively narrow native ranges and face a suite of potential threats, the Southern Division’s Black Bass Conservation Committee organized the Black Bass Diversity Symposium.

The symposium brought together professionals from across the country, contributing over 65 oral and poster presentations in four sessions that covered biology, ecology, and life history requirements; habitat restoration and management; conservation genetics; and fish populations, fisheries, and human dimensions. Presenters delivered updated accounts of several undescribed species such as Bartram’s Bass, Choctaw Bass, and Cuatro Ciénegas Bass. Audiences left with a better understanding of the challenges these fish face as well as advancements being made to manage populations, restore habitats, and conserve genetic integrity of black bass species.

Timely interest and support is growing for all black bass species, and working together is necessary to ensure the long-term conservation of these unique species for the enjoyment of future generations. The symposium was part of the larger Native Black Bass Initiative, which strives to implement watershed-scale approaches to conservation of endemic black bass and other native fishes in the Southern United States. Multiple partners are currently focusing their efforts on Guadalupe Bass, Shoal Bass, and Redeye Bass conservation.

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Presenters delivered updated accounts of several undescribed species such as Bartram’s Bass, Choctaw Bass, and Cuatro Ciénegas Bass.

Centrarchid Conservation, Ecology, and Management

The ultimate goal of the “Centrarchid Conservation, Ecology, and Management” symposium—sponsored by the Centrarchid Technical Committee of the North Central Division—was to provide a comprehensive view of recent advancements in the conservation, ecology, and management of centrarchid fishes. Time slots during the formal symposium were filled with seven presentations, and an additional six posters were presented during the Trade Show and Poster Social. The symposium provided the opportunity for undergraduate students, graduate students, and professionals to come together from various locales to discuss basic ecology and life history, applied management, and human dimension aspects of centrarchid-related research. The diversity of research presented during the symposium was reflective of the diversity of centrarchid fishes. Presenters represented...
a broad spatial scale and included researchers from Louisiana, South Carolina, Oklahoma, Missouri, Iowa, Nebraska, and Wisconsin. Oral presentation and poster topics included feeding ecology, age and growth, early life history, interspecific interactions following stocking of Largemouth Bass, resource partitioning among centrarchid fishes and potential competitors, bioaccumulation of contaminants in centrarchid fishes, the influence of angler harvest on centrarchid population dynamics, and the influence of environmental variables on centrarchid population dynamics. All presentations were well attended and were followed by fruitful discussions. Based on these discussions, we believe that bringing researchers together in this format aided in identifying research commonalities and stimulated further research to provide insight on remaining uncertainties. Feedback from symposium presenters and attendees was overall very positive and the Centrarchid Technical Committee plans to continually sponsor centrarchid-related research symposia during future Annual Meetings.

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Conservation Strategies for Freshwater Mollusks

The Freshwater Mollusk Conservation Society’s symposium reinforced the freshwater mollusk–fish connection and presented a better understanding of the relationship between freshwater mollusks and fishes. Our talks advocated the conservation of freshwater mollusk resources, served as a conduit for information about freshwater mollusks, endorsed science-based management of freshwater mollusks, and promoted and facilitated education and awareness about freshwater mollusks and their function in freshwater ecosystems. The title of talks included the following:

• “Ecosystem Services Provided by Freshwater Mussels,” by Dr. Caryn Vaughn (University of Oklahoma and Past-President of the Freshwater Mollusk Conservation Society)
• “Modeling Habitat Suitability for Threatened Mussel Species in East Texas Rivers,” by Dr. Lance Williams (University of Texas at Tyler)
• “How Flood Disturbance Structures the Spatial Pattern of Mussel Beds and Salmon Spawning Redds in a Large River,” by Dr. Christine May (James Madison University)
• “Does Scale Matter? A Multi-Scale Investigation of Unionid Species Assemblage and Microhabitat Parameter Relationships within and among Great Lakes Tributaries,” by Jennifer Bergner (Central Michigan University)
• “What Is the Role of Habitat, Life History and Host Fish in Determining Distributions of Louisiana Mussels?” by Dr. Kenneth Brown (Louisiana State University)
• “Integrative Conservation Biology of European Freshwater Mussels: The Importance of Fish Hosts, Stream Substratum Properties and Population Genetics,” by Dr. Juergen Geist (Technische Universität München)

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Culture, Biology, and Management of Asian Carps in North America

During the Annual Meeting in Little Rock, the Introduced Fish Section and the Fish Culture Section co-sponsored a symposium highlighting the vast array of research surrounding Asian Carps. The symposium, entitled “Culture, Biology, and Management of Asian Carps (AC) in North America” en-
compassed the multi-faceted research occurring in the U.S. and Canada. The symposium, organized by Duane Chapman (U.S. Geological Survey [USGS]), Jesse Trushenski (Southern Illinois University-Carbondale [SIUC]), and the SIUC Student Subunit was highly attended. Designed as a forum for those working on all sides of carp issues, symposium topics ranged from AC behavior and control to AC marketing potential. Attendees learned that the public perception of AC as a food fish was higher than first believed, and many people would be willing to try and purchase AC (Secchi; SIUC). In addition, John Bowzer (SIUC) shared an alternative to human consumption of carp by showing that AC fish meal was highly digestible and suitable for aquafeed production.

Multiple papers documenting the Triploid Grass Carp Certification Program opened Day 2. Robert Glennon (J.M. Malone and Son, Inc.) gave an overview of the program, while Scott Stuewe (HDR Engineering) presented the results of an independent assessment program. Tatiana Garcia (University of Illinois Urbana-Champaign [UIUC]) shared the recently developed Fluvial Egg Drift Simulator (FluEgg) and discussed examples of AC egg drift for areas where spawning may occur. In addition, a variety of methods were suggested to control these fish including commercial fishing (Glover; SIUC), alteration movement with seismic water guns (Kocovsky; USGS), and use of chemical stimuli (pheromones) to attract AC to specific areas (Calfee; USGS). Results of commercial fishing in the Illinois River showed lower relative abundance, fewer large fish, and skewed sex ratios. Seismic water guns were shown to deter fish from moving into an area, whereas pheromones were used as a successful attractant.

A number of presenters highlighted AC movement and the potentially negative community-level effects of AC. The presence of AC was linked to declines of native fishes in Missouri (Phelps; Missouri Department of Conservation), competition with Gizzard Shad in South Dakota (Hayer; South Dakota State University), and competition with Bluegill in Illinois (Nelson; UIUC). Finally, spawning movements of AC was shown to correspond to elevated river flow in both the Illinois (Brey; SIUC) and Wabash Rivers (Coulter; Purdue). Overall, this symposium brought together researchers working on all aspects of AC issues and acted as an excellent environment in which to learn about the control of and potential uses for these fish.

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Dealing With Bycatch

This symposium revealed great progress by the fisheries research and management communities to mitigate non-target catch, beginning with a presentation about the National Marine Fisheries Service’s efforts to identify bycatch levels and trends in U.S. fisheries through the production of a National Bycatch Report. This was followed by presentations on conservation engineering research in the West Coast groundfish trawl fisheries, on Dungeness crab bycatch mortality rate estimation for crab and groundfish trawl fisheries, and on NOAA’s Bycatch Reduction Engineering Program (BREP), including an announcement of projects that will be funded by this program in the 2013–2014 fiscal year. There were seven papers pertaining to conservation engineering and trawl gear: presentations on (1) efforts to exclude rockfish using a flexible sorting grid in the West Coast Pacific Hake fishery; (2) turtle excluder device (TED) bar spacing in the U.S. shrimp trawl fishery; (3) sea turtle bycatch reduction through the use of a “topless” trawl; (4) experimental trials to reduce bycatch by modifying the trawl mesh in demersal finfish fisheries in the Falkland Islands; and winter flounder bycatch reduction through the use of (5) escape “windows” along the groundgear, (6) a 12-inch drop chain sweep, and (7) a large mesh belly panel. Bycatch reduction and gear selectivity were also discussed in presentations on the role of set-depth in buoy gear selectivity; the use of “tiedowns” on sink gillnets to reduce Atlantic Sturgeon bycatch; and the possibility of using hook-size regulation to reduce bycatch of undersized reef fishes in Gulf of Mexico recreational fisheries.

Also presented was research on Yellowtail Flounder bycatch in the U.S. sea scallop fishery, including gear modifications and the initiation of a collaborative bycatch avoidance program to help fishermen avoid bycatch “hot spots.” In addition, a presentation was given on silky shark bycatch in the central Pacific Ocean.
Ocean commercial purse seine fishery, with respect to stress and injuries sustained during the capture process and immediate and postrelease mortality. The symposium provided an opportunity for researchers to present bycatch reduction research in a variety of fisheries with a range of fishing gears. The papers revealed advancement and innovation in bycatch mitigation.

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Fishery Resources and Environment of the Mississippi and Yangtze (Chanjiang) River Basins: Common Challenges and Shared Perspectives

Colleagues from both the Mississippi and Yangtze (Changjiang) River Basins organized the first international joint symposium on fishery resources and environment in the two basins. Twenty-seven Chinese delegates from eight institutions and universities attended the meeting. The United States was represented by 12 institutions and universities. The symposium covered a full day and included 18 paired oral presentations and 22 poster presentations. It was the biggest international symposium on aquatic sciences and environment between the United States and China, and between North America and Asia, based on the number and diversity of attended institutions and universities from both basins. These presentations covered (1) an overall comparative analysis (e.g., geology, land use, hydrology) of the two basins; (2) fisheries (commercial, recreational, and subsistence) and shellfisheries (mollusks and crustaceans); (3) endangered and invasive species (e.g., paddlefish, sturgeon, carp); (4) climate change, land use change, hydraulic/hydrologic modification impacts on aquatic ecosystems; (5) floodplains; and (6) river and watershed restorations in upper, middle, and lower subbasins of each river, respectively. After the oral presentations, 29 delegates from both basins joined the panel discussion.

It was the biggest international symposium on aquatic sciences and environment between the United States and China, and between North America and Asia.

As part of the conference, colleagues in the Mississippi Basin organized two field trips for the Chinese delegates: the Mississippi River Delta agriculture conservation and stream restoration projects and habitat restoration and navigation projects on the Mississippi River main channel. Common interests and benefits generated from the symposium include (1) management of Asian Carp; (2) conservation of endangered aquatic species; (3) management of commercial and recreational fishery resources; (4) idea sharing on hydrologic and hydraulic issues, water diversions, and water scarcity; (5) management of floodplain resources; (6) minimization of gulf hypoxia; and (7) collaborations on habitat and watershed restoration plans.

The panel also made the following future plans: (1) publish a book based on selected papers from the symposium with the AFS; (2) make symposium presentations available to interested colleagues with certain limitations through the Lower Mississippi River Conservation Committee website (www.lmrcc.org); (3) plan for the second Mississippi–Yangtze River Basins Symposium scheduled for summer 2015 in China; (4) plan a future symposium series that will rotate between the two basins every 2 years with future Mississippi-based symposia to be held jointly with corresponding AFS Annual Meetings; and (5) form a Mississippi–Yangtze Symposium/Network Standing Committee to coordinate future collaborations such as joint research projects, visiting students/scholars, publications, and other scientific outreach programs.

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Guidance and Advances in the Use and Application of Bioelectrical Impedance Analysis to Fish Management and Ecology

A number of individuals working with a relatively young technique, bioelectrical impedance analysis (BIA), organized a half-day symposium. The symposium addressed the current status and methods used in this technology as a nonlethal means to assess fish health as it related to fat content and overall condition. Numerous applications were presented wherein accurate and field-expedient estimates could open new doors in research and management. The focus of the symposium, however, was to answer the questions: Does it work? How does it work? and How do you use it?

The presenters showcased models for at least six species that BIA has been demonstrated to predict fat content with $R^2$ values above 0.70, and some even above 0.80. A few of these models were made before current advances in the protocol for technology application. In further model development, many investigators struggled to understand exactly what the technology was measuring. One presentation precisely explained the physics behind how the device can estimate total body composition. By understanding how the technology works, further advances have been made in improving the technique in which BIA is applied. Other presentations provided explanations on optimal sampling size for model development, improving accuracy with
proper probe placement, and correcting for sources of variance that can hinder a user’s results. A particularly important take-home note regarding those who had successful models and those whose models were unsatisfactory was that in the latter sample sizes under 60 and a condition range less than 30% gave inadequate results. A second germane point affecting results was the impact of temperature. Many who attempted to apply BIA in the field without properly controlling for temperature had difficulty in getting good estimates.

Along with these important lessons addressed during the symposium came a few smaller, but exciting, results that show promise for future advancement of BIA. For instance, one presentation showed the possibility of applying models across taxonomically similar species to work as a surrogate for endangered species. Three other presentations showed the future potential of BIA with small fish commonly used in toxicological and genetic studies. New tools and technology that could improve accuracy were also showcased. Ultimately, attendees were shown the history, use, advancement, application, and current status of BIA technology in fisheries science and management.

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Hatcheries and Management of Aquatic Resources (HaMAR)

A good price for and promotion of their products [cultured fish] were of paramount concern in the early years [of AFS].

With the passage of time and growing realization that stocking and restrictive regulation were ineffective, fisheries workers began to search for new answers. [...] The focus of fisheries management broadened from the previous narrow fixation on fish culture to more appropriate, ecologically oriented programs. [...] Unfortunately ... the baby was thrown out with the bath water.

The arc of the fish culture pendulum has come full swing: from early consideration as a universal fisheries management panacea through a transitional period of questioning and disrepute, to final recognition as an indispensable tool when appropriately integrated with other equally essential fisheries management protocols.

These quotes are from Fish Culture in Fisheries Management (Stroud 1986), a proceedings book published by the Fish Culture Section and the Fisheries Management Section. They illustrate the changing role of cultured fish in aquatic resource management, as well as the Society’s changing views on fish culture, from our founding in 1870 as the American Fish Culturists’ Association to the present day. This evolution occurred as a result of decades-long introspection and analysis, punctuated by forums coordinated by the AFS to collectively discuss the issues of the day related to hatcheries and hatchery-origin fish in natural resources management. Previous forums addressed concerns such as the value of hatcheries as management tools and how to optimize the ability of hatcheries to support management objectives.

The AFS once again reengaged its membership in this context, forming the Hatcheries and Management of Aquatic Resources (HaMAR) committee that hosted an eponymous fact-finding symposium at the Annual Meeting in Little Rock. Underwritten by the Fish Culture, Introduced Fishes, and Fisheries Management Sections and organized with help from the Fish Habitat, Fish Health, Fisheries Administration, Genetics, Marine Fisheries, Physiology, and Water Quality Sections, the symposium featured topics related to each of these disciplines and others such as tribal trust responsibilities and human dimensions. Over three days, attendees enjoyed one top-notch paper after another, as well as thought-provoking question-and-answer and discussion during the breaks. “There were nothing but great presentations and healthy exchanges during the three long days of talks at this latest AFS symposium on fisheries enhancement,” said one HaMAR participant. “I, for one, plan to start attending AFS meetings again because of this, as that’s the fisheries science environment that is needed as a forum. I’m really excited by what I experienced at AFS.”

The HaMAR committee is now working to distill the Little Rock symposium and a sister symposium held earlier this year at the triennial AQUACULTURE conference into concise, contemporary guidance regarding hatcheries and hatchery-origin fish.

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North American Freshwater Fish Diversity: Conservation and Management of Mysterious and Lesser Known Species

This symposium was an effort to draw attention to the need to conserve the myriad of noncommercial and nongame fish species. The vast majority of the 3,875 freshwater and marine species listed in the AFS’s *Common and Scientific Names of Fishes from the United States, Canada, and Mexico*, seventh edition (2013), are species that are not commercially or recreationally important. Given that these species are often overlooked from a conservation perspective, this symposium provided a timely discussion of the issues surrounding the need to protect these lesser known species and the diversity that they represent.

Eighteen engaging and informative presentations were delivered in the session, highlighting the need to include these lesser known species in conservation and fisheries education. The papers presented were themselves diverse, mirroring the wide range of taxa in North America.

The symposium began with an update by Nick Mandrak on the recent work of the AFS-ASIH Names Committee to catalogue North American fish diversity. Following the introductory talk, presentations were given on a wide variety of species. The session continued with talks about the difficulties in classifying sucker species and parasitic and nonfeeding lamprey species pairs. Then a talk was given on the management role of “living fossil” species, such as gars, sturgeons, and paddlefish. A presentation was given on the evolution of male nuptial coloration in darters and the early morning session concluded with an argument for the protection of Canadian fish species at the edge of their range.

The late-morning talks included a discussion of the diversity in small, subarctic lakes, and conservation of Great Lakes migratory fishes, with an account of what Missouri has lost in no longer employing a state ichthyologist. There was also a discussion on Alligator Gar stocking density and a presentation on tracking of Arapaima in Guyana.

The afternoon discussions included one on the ecology and distribution of Silver Chub in Lake Erie and one on mortality of Stonecats and sampling juvenile Burbot. The symposium concluded with discussions of the distribution and natural history of two darter species.

This symposium successfully engaged both speakers and the audience alike in lively discussions about the role of lesser known species, an important step in recognizing the importance of these mysterious fishes.

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Piloting Big Rivers for the Challenges Ahead

The American Institute of Fisheries Research Biologists (AIFRB) convened a symposium entitled “Piloting Big Rivers for the Challenges Ahead.” Like pilots guiding vessels through dangerous or congested waters with their detailed knowledge of local waterways, the goal was to bring together experts working on big river systems in various disciplines and discuss issues unique to these ecosystems. Disciplines included hydrography, water chemistry, engineering, and biology. Together we could bridge the gaps between disciplines and prepare for the challenges ahead.

The symposium opened with two keynote speakers: Dr. Robert B. Jacobson from the U.S. Geological Survey (USGS) Columbia Environmental Research Center and Dr. William Richardson from the USGS Upper Midwest Environmental Sciences Center. Dr. Jacobson set the stage by describing the flow and form of large rivers. He spoke about the alterations that large rivers have undergone as well as current restoration projects underway. He noted that large-river restoration science in the 21st century has been greatly enhanced but that challenges remain in linking physical habitat to ecological, population, and community dynamics. Dr. Richardson moved from the physical environment of large rivers to the chemical by describing nutrient fluxes in and out of rivers, especially nitrogen and its role for fish. Whereas big river systems are major conduits for nutrients from land to the ocean, their flood plain connections provide excellent locations for N removal. So although climate change and increasing demands for corn-derived ethanol will likely increase the rate of N delivery into downstream waters leading to increased eutrophication, maintenance of flood plain connectivity may ameliorate these impacts.

Lesley de Souza holding onto a radio-tagged arapaima. Photo credit: Carlson Haynes.

Pacific Lamprey. Photo credit: Gary Susac, ODFW.
Other topics from the symposium included restoration projects, biological concerns, and invasive species. Restoration projects were highlighted by Dr. Kathryn McCann’s presentation on challenges facing restoration projects on the Upper Mississippi. Past-President of the AIFRB, Dr. Richard Beamish, Headlined the biological presentations with a talk focusing on the Fraser River acting as a safe passage for lamprey, a major predator on Pacific Salmon and Herring. The symposium closed with two excellent talks centered on invasive species by Dr. Duane Chapman, who leads the Asian Carp research program for the USGS, and Dr. Daniel Hasselman from the University of California Santa Cruz. Overall the symposium was successful at bringing together experts from their respective fields and generating discussion about the challenges ahead for big river systems.

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Population Productivity Drivers and Spatial Scale: A Case Study with Red Drum

Symposium organizers moderated 18 presentations on factors driving Red Drum (Sciaenops ocellatus) population productivity over space and time, concluding with a comprehensive discussion framing the findings within the context of future management directives. Scientists representing nearly all states within the species’ range (Virginia to Texas) provided data and dialogue through field research, laboratory experiments, genetic advances, modeling, and stock enhancement initiatives. The federally mandated moratorium prohibiting commercial harvest in the late 1980s provided 2 decades for studies to be conducted on undisturbed adult populations. Southwest Florida studies 10 and 20 years after the closure reflect rebuilding of the spawning population through significant increases in aggregation sightings, size, age, and fecundity. Moratorium effects are also evident in the age composition of fishery-independent catches off the coast of Alabama with low mortality of fish age 6 and above. Older fish were caught in the more northern states along with sex ratios skewed more toward females in South Carolina. Connectivity across states lines (Virginia to North Carolina) was demonstrated with pop-up satellite archival tags (PSAT) and acoustic data in southwest Florida revealed connectivity between neighboring estuaries. In Texas, spawning aggregation adults are predominately produced from nurseries in the same region or in close proximity, suggesting natal homing to specific estuarine corridors. Regional correlations of age-0 fish within North Carolina were strongest for adjacent areas, and the North Carolina statewide index was not correlated with indices from other states, suggesting that recruitment control factors operate at a scale of 10 to hundreds of kilometers.

Habitat, diet, competition, density dependence, and winter temperature were all important considerations in productivity. Habitat use in acoustically tagged North Carolina fish was highly context dependent. In Texas, although seagrass was valuable to new recruits, in areas without it, intertidal marsh played a similar role. Diet in Red Drum from the Carolinas differed and was linked to prey habitat availability. Laboratory studies in Texas indicated that maternal and larval diet affected larval performance and presumably survivorship. Models based on North Carolina juvenile fisheries independent monitoring (FIM) data indicated potential for density-dependent negative feedback loops to affect population growth. Additional effects of interspecies competition in Louisiana were explored through an IBM evaluating the importance of refuge habitat and reproductive timing (i.e., time and number of batches). North Carolina laboratory experiments coupled with modeling also demonstrated how reproductive timing, initial settlement habitat, and winter cold fronts could affect population productivity.

Management considerations for Red Drum include evaluating the efficacy of stock enhancement and the need for data on adult population age distributions and population size. Genetic research holds promise to improve our understanding of population abundance and the appropriate spatial scale for effective management.

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Reservoir Fisheries Habitat Restoration: New Life for an Aging Resource

The societal value of reservoirs—that is, flood control, hydropower, water supply, irrigation, and recreation—makes for a strong argument that reservoirs are the preeminent feature on the aquatic landscape. Aside from the economic benefits of other uses, 84% of freshwater angling pressure (exclusive of the Great Lakes; 23 million anglers) occurs in reservoirs and lakes with an annual economic benefit of $22.8 billion. The median age of reservoirs in the United States is roughly 60 years. New reservoir construction has been nearly at a standstill for the past decade. Declining habitat quality associated with these aging reservoirs threatens this valuable recreational and economic resource. The Reservoir Fisheries Habitat Partnership (RFHP) is tasked with developing partnerships at the local, state, and regional levels to address these habitat issues. To highlight the issues, the RFHP, the Missouri Department of Conservation, and the Aquatic Habitat Section of the AFS sponsored a full-day symposium to highlight the results of a national assessment of reservoir habitat quality, discuss efforts to establish best management practices for specific impairments on a regional scale, outline partnering efforts, highlight state fisheries programs aimed at reservoir habitat restoration, and detail specific habitat restoration projects that serve as a model for future habitat restoration efforts.
The assessment contained data from over 1,300 reservoirs nationwide and detailed regional similarities and differences in reservoir habitat impairments. Data from the assessment were used to help prioritize habitat restoration efforts by the U.S. Army Corps of Engineers on reservoirs in the Southwest Division. Two presentations were given on efforts by state fisheries management agencies in Arkansas and Oklahoma to secure water releases to maintain valuable tailwater fisheries. Given the multijurisdictional nature of reservoir management, the RFHP and the Friends of Reservoirs Foundation are building a network of concerned reservoir users to raise funds for and provide public support for reservoir fisheries habitat restoration efforts.

The vast majority of reservoir habitat restoration efforts are funded by and conducted by state fisheries management agencies. Examples of how dedicated funding for these efforts was secured by the Iowa Department of Natural Resources and Nebraska Game Fish and Parks were presented. Projects detailing best management practices from Arkansas, Florida, Kentucky, Missouri, and New Mexico were presented. The RFHP will continue to build on the efforts presented at the symposium to facilitate more and technically sound reservoir habitat restoration efforts.

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Use of Fishery-Independent Surveys in Stock Assessment

The main objective of this symposium was to make progress in identifying optimal survey and analytical approaches for maximizing fishery-independent (FI) data utility in support of stock assessments. Two keynote speakers (former National Marine Fisheries Service Chief Scientist and National Marine Fisheries Service Chief Stock Assessment Scientist Rick Metehot) (1) gave examples of FI surveys from multiple regions, (2) discussed the utility of FI data to stock assessments, (3) discussed the development of advanced sampling technologies to improve survey efficiency and output, and (4) identified methods of improving the utility of FI data to assessments, including developing techniques to generate true population estimates, as opposed to relative indices of abundance. Other presentations in the symposium focused on a broad range of survey techniques (e.g., trawl, longline, gill net, trap, and video), regions (Caribbean; U.S. East, Gulf, and West coasts; Great Lakes), techniques to determine gear efficiencies (catchability), optimizing survey effort, and analytical approaches (e.g., delta general linear models, occupancy models, and caveats for using the Akaike information criterion in determining year effects in models). Symposium participants gained insight into multiple approaches to improve the utility of survey data.

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Using Social Media to Improve Communication in the Fisheries Profession and Engage the Public

The use of online social media to communicate scientific information is growing, and many are interested in how these new tools can be used in fisheries science. Among the host of outstanding research presented at the recent AFS meeting in Little Rock, the Fisheries Information and Technology Section hosted a symposium dedicated to sharing ideas on how fisheries scientists can use social networking sites (e.g., blogs, Facebook, and Twitter) to better communicate with the public. In this article, I summarize some major take-home points for those who could not attend this standing-room-only symposium.

A diversity of topics was presented throughout the day. Several presenters spoke about how fisheries scientists can use blogs to increase readership of their peer-reviewed research. A few of these blogs highlighted included Beach Chair Scientist, Science Sushi, and The Fisheries Blog. One discussion showed that Twitter is not only an excellent platform for spreading fisheries news and research but that it also can be used by employers and job seekers in the fisheries profession. Another presentation was given on a recent survey on social media use within the AFS; the survey was designed to help improve communication within the AFS. Two success stories were given about how state management agencies use social media to increase public involvement and fishing license sales.

Before lunch, President Bob Hughes led a discussion on how the AFS can use social media to improve fundraising and increase membership. One emergent point was that advertisement opportunities in online media can be more flexible and better tailored to users than printed media. Most participants also agreed that social media can be used to increase student
membership in the AFS. Another topic of interest involved coupling the AFS’s technical and nontechnical communication channels. Many scientific societies run blogs about their journals. This can increase readership by disseminating the Society’s peer-reviewed research to a wider audience.

The symposium was capped off with a panel discussion on the future use of social media in the fisheries profession. Major topics of the panel discussion included promoting civil discourse among users, transparency and authenticity, and guidelines for AFS units looking to get the most out of online social networking tools.

More details on the social media symposium can be found in the September 23rd post of The Fisheries Blog (TheFisheriesBlog.com).

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Ladies Night

For the first time, the Equal Opportunities Section (EOS) and the Student Subsection of the Education Section partnered to host “Ladies’ Night.” The brainchild of EOS President Lonnie Gonsalves, Ladies’ Night was designed to honor the contribution of women to the AFS and to share these achievements with our youngest members in a relaxed and fun environment. The event was held during the Student Social at the Museum of Discovery in a format that allowed student members to learn, interact, and build lasting professional relationships with these women. The sections highlighted founding women of the AFS, including Emmeline Moore (first female AFS president), J. Frances Allen (second woman to attend an AFS meeting), Roger Arliner Young (first African American woman to receive a doctorate in zoology), and Rachel Carson (served as editor-in-chief for the U.S. Fish and Wildlife Service before writing Silent Spring). Current members, including Gwen White (U.S. Fish and Wildlife Service), Barbara Knuth (Cornell), Usha Varanasi (National Oceanic and Atmospheric Administration, retired), Phaedra Budy (Utah State), and the late Jacqueline (Jaci) Savino (U.S. Geological Survey) were also honored for their contributions to the field of fisheries.

Six women were able to attend the event and share some words of wisdom with the students. Mary Fabrizio (Virginia Institute of Marine Science), Donna Parrish (Vermont), and Christine Moffit (Idaho) were the night’s top honorees. All three women have served the Society from the local to the national level, including a term (or upcoming term) as Society president. Their contributions have also gone beyond the Society into the larger scientific community by mentoring students, publishing dozens of peer-reviewed articles, and serving their institutions. During the event, these women spoke about the value of “seeing someone like you” and encouraged students, especially women, to continue to work hard and stay active in the Society.

In addition to the honorees of the past and present, three “rising stars” were identified. Rising stars were women identified by the EOS as individuals already extremely active within the AFS and successful in their careers. These honorees included Jesse Trushenski (Southern Illinois University-Carbondale), Shannon Brewer (Oklahoma), and Jessica Mistak (Michigan Department of Natural Resources). All those in attendance deemed the event a success. This event became as much about showcasing the value of membership to attendees as it was about highlighting the achievements of our female AFS members. More about this event can be found on the EOS website and on their new Facebook page.

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Current Research on Impacts of Unconventional Oil and Gas Extraction on Freshwaters

Recovery of unconventional oil and gas (UOG) from areas such as shale plays has increased due to increasing global energy demands as well as technological advances in drilling and hydrological fracturing. Currently more than 40% of the
world’s recoverable energy comes from UOG sources, and as demand continues to increase, so will infrastructure development throughout the major shale basins in the United States and the world. The development of shale basins for UOG resources has the potential to negatively influence freshwater ecosystems throughout the landscape. During this symposium, speakers focused on two main aspects of current research: (1) landscape-scale impacts on ground- and surface waters and (2) the use of biological indicators to assess various impacts of UOG development on streams. Landscape studies addressed localized depletion of surface waters due to drilling and fracturing practices, contamination of surface waters from improper storage and disposal of flowback waters, erosion of sediments into streams from construction associated with infrastructure development, noise pollution from construction practices to nearby freshwater ecosystems, and a survey of community well water quality within the Fayetteville shale play. Biological indicators included algal biomass and whole-stream gross primary production as indicators of best management practices, macroinvertebrate communities as an indicator of increased trace elements associated with elevated road and construction activities, and fish community assemblages as an indicator of altered habitat and water quality associated with development of infrastructure. Researchers from different regions came together to assess impacts of UOG on freshwater ecosystems as a start to understand how environmental context could alter impacts. This session was organized and moderated by Sally Entrekin from the University of Central Arkansas in Conway, Arkansas; Steve Filipek from the Arkansas Game and Fish Commission; and Michelle Evans-White from the University of Arkansas in Fayetteville, Arkansas.

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**Ecosystems Connections: Watershed Health, Anadromous Species, and Ocean Production**

Using varying approaches, methodologies, and perspectives, presenters explored different facets of riverine-to-ocean linkages via anadromous fishes. Presenters identified alosines and salmonids as primary contributors to the transport of nutrients between different ecosystems, with evidence supporting region-specific and anthropogenically induced shifts in both directions. The role of anadromous forage fishes as major players in trophic interactions with economically valuable marine stocks and avian and terrestrial predators was also emphasized.

Large-scale data use and modeling was presented as a tool to evaluate the economic value of forage fishes and their predators and the dramatic impacts that overfishing of the former could have on the latter. Models depicting anthropogenic disturbance effects with biotic and abiotic factors demonstrated the value of incorporating landscape- and regional-scale data for informing management. Predatory demand of the recovered Atlantic Coast Striped Bass (*Morone saxatilis*) was evaluated using a bioenergetics approach, uncovering exploitation of economically important prey. Bioenergetics modeling was utilized to evaluate delay as a factor contributing to migration failure of iteroparous American Shad (*Alosa sapidissima*) in the Connecticut River, with implications for a subsequent net increase in marine nutrients. The growing abundance of American Shad on the West Coast of North America was presented as potential compensation for diminished influx of marine nutrients resulting from declines in returning adult Pacific salmon (*Oncorhynchus* spp.). The assignment of high marine mortality of salmon popularly used for prediction of adult returns was challenged by evidence for substantial in-river mortality of out-migrating smolts. Avian predation and the loss of necessary habitat were emphasized as primary sources of mortality. The role of disease and potential compounding effects of stress were presented as yet another source of migration failure or mortality at all life stages of most fishes but often unrecognized except in catastrophic cases.

The importance of historic data, especially for alosines, was demonstrated not only for ecological temporal comparisons but also to gauge stakeholder incentives for alosine restoration efforts and cultural importance. Key characteristics of alosines were outlined as reasons for their value, even in regions that may have since lost historic River Herring runs. Indeed, the importance of River Herring on the Eastern seaboard was estimated to rival that of Pacific Salmon on the West Coast. A need for “societal reprioritization” was stressed, dependent on the strong cultural ties of communities to these species. Successful restoration of essential habitat by eliciting public support and resulting in satisfied parties was identified as a priority.

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The Annual Meeting Spawning Run
First Fish or Last Fish, Fitness Doesn’t Care

The AFS is plum full of unique characters who also happen to possess great character. These genuine, caring, and oftentimes odd fisheries professionals are the lifeblood of our Society. The personal and professional relationships spawned from AFS involvement are among the Society’s greatest benefits. Such benefits are increasing more rapidly nowadays. The continued infusion of social media into our daily lives has decreased the geographic obstacle to building stronger personal bonds. As a result, we now know much more about the personal lives of more of our colleagues than ever before.

I enjoy getting to know better the unique and like-minded fisheries professionals of our Society on a personal level. I guess I’m “new school” for fisheries in this respect—I am an extrovert. In fact, my mother always said I’ve never met a stranger. Funny thing is that both communication and relationships are two-way streets. Never meeting a stranger also means never being a stranger.

In general, I feel as though I am an open book. I don’t hide how I feel; I’m a pretty emotionally honest fellow. One thing that I haven’t talked about much that has always bothered me is my weight. I’m a big guy and probably am always going to be a big guy. However, that doesn’t mean I can’t be a healthy big guy.

I thought I was doing pretty well managing my weight, but over the past several years life hurled some additional challenges my way. My family and I focused our efforts on beating back these trials and financially surviving. We did it, but it was an all-consuming effort and, in the process, my health took a back seat.

As the additional trials began to subside I began searching, working, trying to find a way to get back to a healthy weight while balancing the other aspects of life. However, I wasn’t doing very well and was growing increasingly concerned about my health. I shared my concerns with my wife and as a result I made this Facebook post on May 14, 2013.

Not to surprise anyone but I have a weight problem, I’ve battled it most of my life, won some battles and lost some others. I’m certainly tired of it and my beautiful wife Vanessa Onyskow-Lang has suggested having a goal to work for like I did in wrestling. Something I have wanted to do for a while is participate in the “Spawning Run” 5K at the annual American Fisheries Society meeting. So that’s my goal, that on Sept. 11 in Little Rock I take a break from the meeting and go do the Spawning Run. That’s less than 4 months and I’m going for it. I’m not the only fish scientist on here that could use such a goal and is going to be at Little Rock, so who wants to join me?

The response was overwhelming and in short order this post received 73 likes and 58 comments. Good old Don Jackson wasn’t lying when he said the AFS is a “very human Society.” We greatly care about one another and this sort of support is a testament to that fact.

The encouragement was exciting and scary. I put my goal out there, and as I am a man of my word, I now had to actually do it—Oh, crap! I met with my doctor, changed some eating habits, started on the “Couch to 5K” workout plan (on my elliptical) and good things started happening.

Not all who were going to support me were going to make the meeting but nevertheless they showed their support in their own way and started their own journey to better health. Knowing that I didn’t want to let these people down was a huge motivator, and seeing that my courage of putting something very personal “out there” had inspired others to make healthier decisions was most rewarding.

Two colleagues/friends really went the extra mile. Drs. Jesse Trushenski and Steve McMullin committed to walking with me. How supportive to know that I wouldn’t be the only one in the back of the Spawning Run pack. The thought of being in the back, well behind, with people waiting on me to finish so they could close down the event, had almost prevented me from attempting the run. Having Steve and Jesse walking next to me removed that issue entirely.

So how much weight did I lose? What was our time? Well, it really doesn’t matter. I am indeed healthier, my friends are healthier, and we’re going to keep getting healthier. It wasn’t a race to us. It was a symbol of friendship and the strong personal relationships that involvement in the AFS facilitates.

In Québec we’ll be going for two Spawning Runs in a row. I know I’m not the only fisheries professional with a higher W than necessary, so consider this your personal invitation to join the back of the pack. Don’t feel nervous, it doesn’t matter if we’ve never met, because, remember, I’ve never met a stranger. You are truly welcome to join.

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AFS is plum full of unique characters who also happen to possess great character.