



Spring 2024

A message from the Section President

Dear Water Quality Section (WQS) Members:

My name is Jonathan Leiman, and I work in the Maryland Department of the Environment's Water Quality Modeling Division in Baltimore. I would like to use this space in the newsletter to simply reiterate my goals as the WQS President for my term from 2023–2025:

1) clearly define the WQS's deliverables, and thereby what value the WQS provides to its members;

2) develop a WQS symposium for the AFS meeting in San Antonio August 10–14, 2025 that encourages collaboration between fisheries scientists and Clean Water Act/Safe Drinking Water Act professionals, and encourages students to participate who are seeking a career in these sectors;

3) enumerate challenges that WQS members are facing professionally, either technically or in their careers.

AFS as a whole and the WQS are at a crossroads with regard to many issues, and it is imperative that members contribute their input on the issues enumerated above. The WQS has great potential to grow in the coming years, and now is the time to sharpen our purpose and intent. If you are interested in planning/contributing to the symposium or just want to share ideas, please be in touch: jonathan.leiman@maryland.gov.

All the best for a wonderful spring,

Jonathan

2024 AFS Meeting in Honolulu, HI

The [2024 Meeting](#) will be here before you know it! This year's meeting is being held September 15–19 and the [Call for Abstracts](#) is out with a deadline of **April 26th**.

Symposia

The WQS is sponsoring two symposia at the annual meeting: [Fire Effects on Surface Waters](#) and [Valuing Fish Populations, Habitat, and Water Quality within Social-Ecological Systems](#). Both of these symposia are currently accepting abstracts. Please check out these symposia as well as [Toxic Waters: Investigating the Physiological Impacts of Pollutants on Aquatic Life](#) and the other [Sessions](#) planned for Honolulu.

Section Business Meeting

The Section will hold its business meeting, during the Annual AFS meeting in Honolulu, HI and virtually (likely on September 16th or 17th). The meeting information and agenda will be sent to Section members through the listserv and posted on the [Website](#).

Water Quality Section Student Poster Award

As in past years, the Section will give an award to the best water quality-related student poster at the 2024 Annual Meeting. The winner will receive a \$100 check and a free one-year membership to the Water Quality Section. Students, please submit your poster abstracts and professors, please encourage your students to present a poster at the meeting!

Water Quality Mission Statement

As previously indicated through the listserv, the Section is in the process of refining the Section's mission statement with the intent of making it more obvious, encouraging actionable goals, and expanding exposure to our membership's professional activities. The [Current Mission Statement](#) can be found on the right-hand side of the Section website.

The draft WQS mission statement is: "The American Fisheries Society Water Quality Section is intended to be the leading forum for fisheries-based water quality science through

the delivery of symposia, applied science research, and ongoing career guidance." If you would like to comment on the draft statement, please do so by the end of April at: <https://form.jotform.com/240844274527157>.

AFS-FHS Summer Seminar Series

The AFS-FHS Summer Seminar Series is back for 2024! Since 2020, graduate students and early career professionals have used this virtual seminar series to network and share their work. This series provides an opportunity for young AFS-FHS scientists to showcase their efforts. The seminars are free and open to the public - please forward these announcements to your networks. The seminar calendar and Zoom access information will be available mid-April. Previous year's presentations have been archived here:

<http://z.umn.edu/fishhealthseminar>.

If you are interested in viewing or presenting, please check out the links below:

[Lab Signup – Reserve your spot](#)
[AFS-FHS Student Seminar Series Listserv](#)
[Seminar calendar and Zoom access information](#)

If you have any questions, please don't hesitate to contact the folks listed below:

Matt Griffin (matt.griffin@msstate.edu)
Megan Shavali (shavali1@msu.edu)
Nick Phelps (phelp083@umn.edu)

Fulbright Brazil Scholar Program 2025–2026

Applications are not being accepted for the Fulbright Brazil Scholar Program at: <https://fulbright.org.br/awards-for-us-citizens/all-disciplines-award/>. If you would like some assistance with applying, please reach out to Bob Hughes at hughes.bob@amnisopes.com.

Water Quality Section Officers

This time next year the Section Excom will be sending out information for officer elections. It is never too soon to be thinking about throwing your (or someone else's) name into the hat! If you might be interested in running for office or

know of someone who is perfect for a position on the Excom, please [Reach Out](#) to any of the current officers. We are more than happy to talk!

2024 AFS Officer Election -- Please Vote Now!

You may recognize the headline above. It was the subject of an email AFS sent to membership in late March. Don't forget to vote!

Special Issue 'Lentic vs. Lotic: Biodiversity Research in Regulated Rivers'

Consider submitting a paper to this Special issue in Water, Biology and Security. Research related to water quality effects of regulation are welcome. The issue closes 12/31/2024.

www.keaipublishing.com/en/journals/water-biology-and-security/call-for-papers/lentic-versus-lotic-biodiversity-research-in-regulated-rivers/

Water News

New study indicates importance of water quality for brook trout population trends

Brook trout are an iconic species of ecological, economic, and cultural importance in eastern North America. They're also considered an environmental indicator species given their reliance on cold, clean water. A [paper recently published](#) in Transactions of the American Fisheries Society revealed significant changes in brook trout abundance over recent decades in Shenandoah National Park and indicated the importance of temperature and water quality for the observed changes. The study included data from 94 sites collected over 27 years (1996-2022). The study concluded that adult brook trout abundance has decreased by 50% or more in approximately 70% of streams across the park over the study period, with warmer sites exhibiting the fastest declines in abundance. However, large watersheds on poorly buffered bedrock exhibited significant gains in abundance over time, suggesting some recovery from acid deposition due to improvements in air quality. This research indicates the importance

of water temperature and acid sensitivity in regulating coldwater fish population dynamics.

Than Hitt, USGS
nhitt@usgs.gov

Groundwater Protection and the Courts
<https://www.nytimes.com/2024/02/29/climate/groundwater-aquifer-depletion-courts.html>

Recent Member Publications

A complete [Up-to-Date List](#) can be found on the Section website.

Callisto, M., D. M. Castro, M. S. Linares, L. K. Carvalho, J. E. Barbosa, and R. M. Hughes. 2023. Which metrics drive macroinvertebrate drift in neotropical sky island streams?. *Water Biology and Security* 2(1):100077.

Childress, E. S., D. E. Demarest, J. E. B. Wofford, N. P. Hitt, and B. H. Letcher. 2024. Strong variation in brook trout trends across geology, elevation, and stream size in Shenandoah National Park. *Transactions of the American Fisheries Society* 153:250–263.

Hughes, R. M., R. C. Gardner, P. D. Shirey, S. M. P. Sulliván, S. A. R. Colvin, and D. B. Winters. 2023. Waters of the United States: an urgent call for action by fisheries and aquatic science professionals. *Fisheries* 48:465-468.

Jager, H. I., K. Manning, J. N. Welch, F. Corsi, A. Miara, H. S. Yoon, R. A. McManamay, S. Kao, P. C. Kusnierz, S. Gangrade. Indicators of thermal alteration in US waters reveal patterns of climate risk at the energy-water nexus. *Ecological Indicators* 159(2024):111755.

Kusnierz, P. C., K. A. Bouwens, and A. L. Ransom. 2024. Predicting the likelihood of gas bubble trauma in fishes exposed to elevated total dissolved gas in the lower Clark Fork River, Idaho. *Transactions of the American Fisheries Society* 153(1):39–54.

Ruaro, R., E. A. Gubiani, and R. M. Hughes. 2024. Omernik’s ecoregion framework: a legacy for understanding regional patterns in attainable

resource quality. *Environmental Management* 73:354–364.

In Closing

Happy spring everyone! We hope your field seasons and summer vacations are ones to remember!

Paul Kusnierz
Past-President, Water Quality Section, AFS
pkusnierz@alumni.nmu.edu

Henriette Jager
Communications Officer, Water Quality Section, AFS
myjgoo@gmail.com

www.facebook.com/AFS-Water-Quality-Section-369954383031160/
<https://waterquality.fisheries.org/>