

November 2023

SETAC Chesapeake-Potomac Regional Chapter
FALL NEWSLETTER

SETAC North America 44th Annual Meeting
November 12th -16th, 2023
Louisville, Kentucky



Inside this issue ↓

- **President's Podium**
- **Board Member Spotlight**
- **Spring Meeting Recap & Winners**
- **Career Opportunities**
- **... and more!**



Contributed by Tyler Frankel

Mission Statement

Serving the Chesapeake-Potomac Region (Maryland, DC, Virginia, and West Virginia), our chapter of SETAC North America (SNA) provides a professional forum for individuals from private industry, academia, and government agencies who are engaged in the study, analysis and solutions for environmental problems, management, and regulation of natural resources, and/or research and development. We facilitate networking and educational opportunities for scientific professionals, mentoring and career guidance for students, and environmental education and outreach for the public.



KEEP IN TOUCH WITH CPRC SETAC



CPRC Leadership and Committees:

Officers

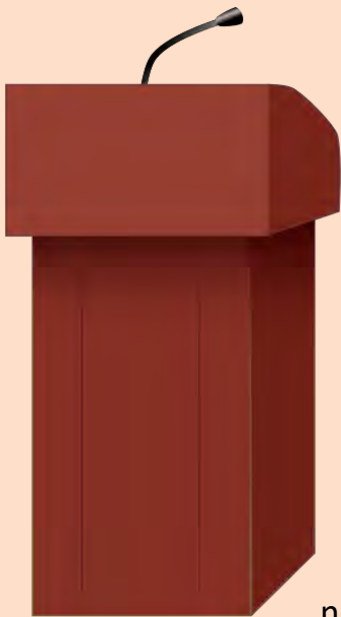
President	Meredith Bohannon, U.S. Army Public Health	president.cprc.setac@gmail.com
Vice President	Connie Mitchell, Health and Environmental Sciences Institute	vice.president.cprc.setac@gmail.com
Past President	Guangbin Li, University of Maryland, College Park	gli2019@umd.edu
Treasurer	Nathan Sell, American Cleaning Institute	treasurer.cprc.setac@gmail.com
Secretary	Thomas Bean, FMC at the Stine Research Center	cprc.setac@gmail.com

Board Members

2022 – 2024	Andrew East, U.S. Army Public Health Center	andrew.g.east.civ@health.mil
2021 – 2023	Ben Burruss, Trinity Consultants	Ben.Burruss@safebridge.com
2021 – 2023	Rachel Blatnick, US EPA	Blatnick.Rachel@epa.gov
2022 – 2024	Jada Damond, Student Representative, University of Maryland, Baltimore County	damond1@umbc.edu
2023 – 2025	Joseph Pitula, University of Maryland Eastern Shore	jspitula@umes.edu
2020 – 2024	Tyler Frankel, University of Mary Washington	tfrankel@umw.edu

Web Presence (<https://cprcsetac.wildapricot.org/>)

Website	Jada Damond, University of Maryland Baltimore County	website.cprc.setac@gmail.com
Social Media	Jada Damond, University of Maryland, Baltimore County	socialmedia.cprc.setac@gmail.com
Newsletter Editor	Sabine Malik, University of Maryland, College Park	newsletter.cprc.setac@gmail.com
Assistant Editors	Michael Quinn, Andrew East, Nathalie Lombard	



PRESIDENT'S PODIUM

Dear CPRC
Members,

Welcome to fall!
Turning over a new
season reminds me
that CPRC is also
turning a new page.
As we establish our
new footing following

recovery after the pandemic, we take the time to reflect on a successful spring meeting at Eurofins, welcome new board members, and plan both a CPRC get-together at the SETAC North America meeting as well as next year's annual spring meeting. CPRC's mission remains forefront on our minds: to bring together scientists from academia, government, and industry in the Chesapeake area who are tackling our most difficult environmental challenges, searching for and proposing new solutions to them, and bringing up the next generation of scientists to lead the charge. Everything that CPRC does works toward supporting these aims.

To that end, we had a wonderfully successful joint annual meeting with the Hudson-Delaware Chapter (HDC) at Eurofins on the Eastern Shore, MD in April. This

provided lots of opportunities for professional and student scientists to come together to discuss their toxicological research. During that time the two chapters combined their resources to reward 8 students for their presentations with cash prizes and provide 3 of those students with a substantial award to attend the SETAC North America conference this month.

I also want to welcome two new members to the Board of Directors and Executive Committee. Our new Vice President is Connie Mitchell, who works at the Health and Environmental Sciences Institute (HESI). And we have a new Director for academia, Dr. Joseph Pitula, who is a professor of Parasitology and Molecular Biology in the Department of Natural Science at the University of Maryland Eastern Shore (UMES). Both of these individuals bring their breadth of scientific experience and their interest in engaging the scientific community to help further CPRC's goals. Thank you Connie and Joe for your contribution to the CPRC community!

CPRC also wants to hear from members who will be attending the SETAC North America meeting in Louisville this month! We'll be hosting a general meeting on

Wednesday November 15th at 5:30pm, followed by a happy hour at Down One Bourbon Bar at 6:30pm, roughly a five-minute walk from the convention center. Come find out what CPRC is up to these days and stay to hang out with friends!

Lastly, we are gearing up for our annual spring meeting at the Institute for Marine and Environmental Technology in downtown Baltimore on Monday, April 8th, 2024! We look forward to an exciting one-day scientific program followed by a tour

and reception at the National Aquarium (admission and reception are included in the conference registration fee). Abstract submission will open in early 2024, be on the lookout for an email as we approach that time.

CPRC is, above all else, about bringing scientists together in a common goal of learning and problem-solving, and we love hearing from our members who are working towards that goal! Please feel free to reach out to me directly or to cprc.setac@gmail.com with general comments or questions. Keep on science-ing!



Meredith Bohannon
CPRC President

WELCOME NEW MEMBERS OF CPRC LEADERSHIP!



**Connie Mitchell, Vice President,
Health and Environmental
Sciences Institute**



**Joe Pitula, Board Member,
University of Maryland Eastern
Shore (UMES)**



2023 SETAC CPRC OUTSTANDING SERVICE

AWARD:

JADA DAMOND



We are thrilled to share a fantastic news with all of you. In recognition of Jada Damond's remarkable dedication and unwavering commitment to CPRC-SETAC, Jada has been honored with the prestigious **2023 BOD Outstanding Service Award**.



Jada is currently serving as Student Representative of CPRC Board of Directors. She has been involved with the regional and continental chapters of SETAC since she was an undergraduate student, serving as the SETAC North America Student Advisory Committee (NASAC) Outreach Blog Chair since February 2020 and serving on the CPRC event planning committee since March 2021. Since Jada was elected as the Board member, her commitment to excellence has been unwavering. She has invested countless hours, leveraging her expertise and drawing on her extensive network to bring the new CPRC platform to life. It is her remarkable foresight, strategic planning, and tireless efforts that have propelled the platform development project forward, giving trainings

to others and inspiring them to join in their pursuit of innovation and positive change. What sets Jada apart is her unwavering passion for addressing a critical need in engaging CPRC members. She has carefully designed the platform to bridge existing gaps and provide a seamless experience for our members and other users, creating an inclusive and accessible environment that empowers individuals and organizations to get *“opportunities for scientific professionals, mentoring and career guidance for students, and environmental education and outreach for the public”*. The impact of Jada's work extends far beyond the immediate scope of the CPRC website.

This award serves as a tribute to Jada's outstanding service and as a symbol of gratitude for the profound impact she has had on CPRC and the communities we support. It stands as a testament to her tireless efforts and the positive change she has brought to our cause.

Once again, congratulations to Jada Damond for her outstanding service and this well-deserved recognition.

Warm regards,

CPRC BOD

CHESAPEAKE BAY HEALTH SHOWING SIGNIFICANT IMPROVEMENT OVER TIME

June 6, 2023

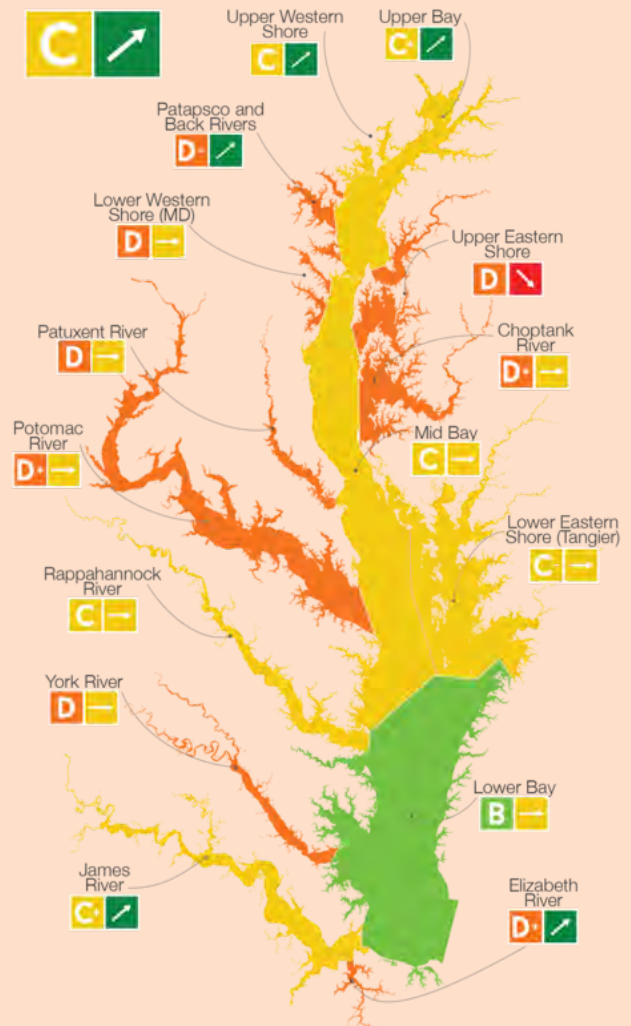
Reprinted from the University of Maryland Center for Environmental Science with permission.

New Environmental Justice Index shows strong disparities

The overall health of the Chesapeake Bay is showing significantly improving trends over time, but some regions still score poorly, reported the [University of Maryland Center for Environmental Science](#) (UMCES) in its annual Chesapeake Bay and Watershed Report Card released today. Similar to 2021, the overall Chesapeake Bay received a C grade.

“While the trajectory of improvements, particularly concerning nutrients in the Bay, is in the right direction, we need to pick up the pace of restoration so that we can hit our nutrient reduction targets in the future and ensure our resilience to climate change,” said [Peter Goodwin](#), president of the University of Maryland Center for Environmental Science.

The overall Bay health score has increased by six points in the past two years, an encouraging sign in the recovery of the Bay.



Of the seven indicators, there were improvements in water clarity, nitrogen, phosphorus, and aquatic grasses. Although conditions in the bay overall are improving, many bay tributaries still have poor scores with a concerning trend of poor scores in the Eastern Shore watersheds.

“A clean Bay supports a healthy economy and a healthy environment. That’s why we’ve fought so hard to protect and restore this national treasure, and this progress shows that the historic federal investments are making a real difference. While this is a positive step forward, we know that we

still have much work ahead to ensure a healthy Bay for today and generations to come,” said U.S. Senator [Chris Van Hollen](#) of Maryland.

Watershed health was scored in three categories—Ecological, Societal, and Economic health. In 2022, Ecological scored a B-, Societal scored a C, and Economic scored a C. Overall, the ecological, social, and economic conditions on the Eastern Shore of Maryland and Virginia are worse than other regions across all three categories. This helps explain the poor Bay scores for the Eastern Shore tributaries.

This year is the first time an integrated environmental justice index has been included in the report card. Environmental Justice is about creating a healthy and equitable society in the Chesapeake Bay watershed. The Environmental Justice Index developed by the Centers for Disease Control and Prevention and Agency for Toxic Substances Disease Registry, in partnership with the Department of Health and Human Services’ Office of Environmental Justice, includes social vulnerability, environmental burden, and health vulnerability indicators. Overall, there are strong disparities in different areas of the watershed. Cities and rural areas tend to experience higher relative impacts, and more suburban areas tend to experience lower relative impacts.

“The addition of the Environmental Justice Index provides a more holistic perspective of Chesapeake Bay and watershed health than has previously been available,” said [Bill Dennison](#), Vice President for Science Application at the University of Maryland Center for Environmental Science. “This holistic approach will make sure the report card is relevant to *all* communities in the Chesapeake watershed. We need to have healthy communities to ensure that we achieve a healthy Chesapeake Bay. Addressing environmental justice is critical to ensure that restoration enhances long-term sustainability of the Chesapeake Bay watershed in an equitable way.”



The Environmental Justice Index characterizes the cumulative impacts and patterns of environmental injustice across

the watershed. The index considers social factors such as poverty, race, ethnicity, and pre-existing health conditions, which can increase these impacts. The Environmental Justice Index was not included in the calculations for the 2022 Watershed Health score, pending additional input from bay communities.

The University of Maryland Center for Environmental Science's [Integration and Application Network](#) produces the annual report card, which is the most comprehensive assessment of the Chesapeake Bay and its waterways. The report card uses extensive data and analysis in partnership with the National Fish and Wildlife Foundation (NFWF), the Chesapeake Bay Program, academic institutions, and watershed jurisdictions. For more information about the 2022 Chesapeake Bay Watershed Report Card including region-specific data, visit chesapeakebay.ecoreportcard.org.



BOARD MEMBER SPOTLIGHT

Connie Mitchell

Connie Mitchell, MS Environmental Toxicology
Senior Scientific Program Manager
Health and Environmental Sciences Institute



Area of Interest: Implementing new approach methodologies (NAM) and alternative approaches for the improvement of chemical risk assessment, for both human health and ecotoxicology.

Hello everyone! I am Connie Mitchell. I am thrilled to be CPRC's Vice President for 2023 and 2024. I have been a member of SETAC since 2020. I had the pleasure to serve on the Program Committee for the SETAC North America Annual Meeting that took place in Pittsburgh in November 2022. I'm excited to get to know the members of the CPRC and work with you all for the next couple of years in this role.

I joined the Health and Environmental Sciences Institute or HESI in January 2020. HESI is a scientific non-profit organization whose mission is to collaboratively identify and help to resolve global health and environmental challenges. As a Senior Scientific Program Manager, I provide

scientific, strategic, and management support to collaborative scientific committees involving academic, government, nonprofit, and private sector scientists. I manage the Next Generation Ecological Risk Assessment Committee (Eco-Risk). This committee has a number of projects all related to improving risk assessment for chemicals (industrial chemicals, pesticides, and pharmaceuticals) for the protection of ecological health. Part of this work involves better understanding current in vivo tests that are required based on regulatory needs (e.g., the amphibian metamorphosis assay). This also includes working on collaborative teams to develop, adapt, and understand new approach methods. Projects range from developing an in vitro assay for bird bioaccumulation and transformation, to using read-across and grouping approaches for data-poor chemicals. I really enjoy my work at HESI as

I get to work on a different topics with leading experts in the fields. I also manage projects in the human health space, related to applying new approach methods to botanicals as complex mixtures and using 'omic data in risk assessment.



I grew up in Frederick, Maryland. I received my B.S. in biochemistry (with minors in physics and history) from West Virginia University in Morgantown, WV. I originally planned to become a pharmacist, but I was lucky enough to get to be an undergraduate research assistant in the lab of Dr.

Johnathan Boyd, a toxicologist. I had never heard of toxicology until then and found the work really fascinating. It was like “here is biology gone wrong”. I switched from pre-pharmacy to biochemistry, planning to go to graduate school for toxicology. I also was fortunate to work for ~1 year at CDC’s NIOSH in a nanoparticle toxicology lab under Dr. Linda Sargent.

After my time in Morgantown, I moved to beautiful Riverside, California for my graduate studies for my M.S. in environmental toxicology at UC Riverside. I worked under Dr. David Volz in a laboratory that used zebrafish embryos to understand the mechanisms of toxicity of environmental chemicals. I worked on TPHP, a flame retardant and plasticizer that has since been prioritized by the US EPA for potential health effects. I enjoyed working with the model because it was possible to get both phenotypic and mechanistic data from a whole organism on the order of days. I loved my time in Riverside and had a great relationship with my other lab members. However, I knew I didn’t want to remain in the laboratory or academia and began to explore my options.

Once I completed my M.S., I moved back to the east coast and worked as an ORISE Fellow at the US EPA at headquarters in Washington, DC. It was really interesting to get to be at a federal agency and be out of

the laboratory. I worked in the Safer Choice Branch, which is a voluntary labeling program of products (like soaps and detergents). Instead of labeling a chemical “toxic”, this work labeled products that were “safer”, with every ingredient being reviewed by a toxicologist. Prior to joining HESI, I was at the EPA for about one year.

Outside of my work life, I am a very passionate fiber artist. I love to crochet – I have an ever-growing yarn collection and have made countless shirts, bags, stuffed animals, hats, and scarfs. I am a cardio-fan too – I like to run (my favorite race distance

is a half marathon). I really enjoy hiking or just going for walks around my neighborhood. I’m learning to love cycling too. I have an incredible husband that I love to travel the world with and explore new cities. We got to go to Mexico City this year for vacation and saw the ~2000 year-old pyramids of Teotihuacan. I also like watching sports, especially Formula One and the Premier League.

Thank you for reading my Spotlight! I’m looking forward to getting to know CPRC members. Please feel free to reach out to me if you have questions.

The *Society of Environmental Toxicology and Chemistry* 2nd Annual
Hudson-Delaware & Chesapeake-Potomac Regional Chapter
Joint Spring Meeting

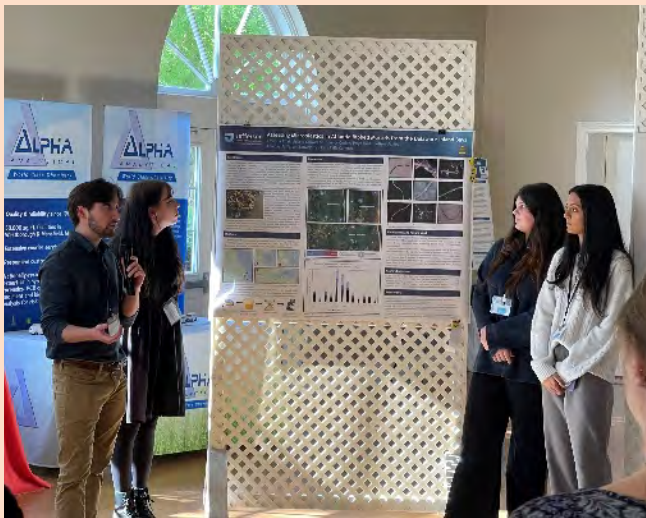


April 17-18, 2023 | Easton, MD



The Chesapeake-Potomac and Hudson-Delaware Regional Chapters of SETAC held a joint annual meeting on Monday and Tuesday, April 17th and 18th, 2023 at the Easton Elks Lodge on Maryland's Eastern Shore in Easton. The meeting was hosted by Eurofins Agrosience Services who also provided significant sponsorship which enabled us to once again provide free registration for students. The Chapters welcomed 65 registrants from academia, industry, and government for the in-person meeting. The two-day event featured platform presentations from students and environmental toxicology professionals including several from industry, as well as a tour of the Eurofins lab (two tours each day), a keynote address, and a short course.

On Monday, CPRC President Guangbin Li and HDC President Linda Logan opened the conference, followed by Eurofins General Manager Yagnesh Patel welcoming the chapters to the facility. A brief update on SETAC activities was presented by CPRC Vice President Meredith Bohannon. Presentations opened with four students representing three universities presenting their undergraduate and graduate research, followed by a short course by Dr. Cathy Liu from the University of Maryland Eastern Shore Extension on “Sustainable Safe Seafood from Sea to Plate”. The keynote address was given by Dr. Scott Lynn from the U.S. Environmental Protection Agency, discussing “Rebuilding the U.S. EPA Endocrine Disruptor Screening Program.”



A poster session highlighting the work of nine students and two professionals rounded out the first day of the meeting, which included rapid fire presentations from all student poster presenters. This was a very lively event and all student presenters, both platform and poster, are commended for their enthusiasm and engagement throughout the conference. The announcement of student presentation awards followed, during which it was decided that eight students (instead of

the target for six), merited a financial award. Those winners were Owen Bradley (Thomas Jefferson University, PA), Marriah Ellington (University of Maryland – Baltimore County), Sabine Malik (University of Maryland – College Park), Camila Proano (University of Maryland – Baltimore County), Anthony Sigman-Lowery (University of Delaware), Talia Tanner (University of Mary Washington, VA), Elizabeth Tyler (University of Mary Washington, VA), and Carolyn Willmore (University of Mary Washington, VA). The top three winners were also eligible to receive a registration waiver for the SETAC North America November meeting in Louisville. Based on the abstracts submitted for the national meeting, the three awards went to Sabine

Malik from the University of Maryland, Anthony Sigman-Lowery from the University of Delaware, and Owen Bradley from Jefferson University. In addition, six students received \$100 in travel funds for attending the joint spring meeting.

The first day ended with a catered dinner and evening of networking at the Elks Lodge.

Tuesday opened with a Eurofins tour as well as a Rails-to-Trails walk in the vicinity of the Elks Lodge, followed by five presentations by CPRC professionals, four of them from industry highlighting capabilities for measuring and remediating contaminated land, and one presentation from academia on original scientific research.

The meeting was made possible due to many generous donations from our meeting sponsors, including our host Eurofins as well as FMC, Exponent, Exxon Mobil, The ELM group, TerraPhase, WSP, Normandeau Associates, Integral Consulting, Inc., Wellington Laboratories, TetraTech, Environmental & Turf Services Inc., Aqua Survey, Inc., Alpha Analytical, and Pace Analytical Services. The two chapters would also like to thank the many volunteers who donated their time to help make the meeting a success.



Spring CPRC-
HDC Joint
Meeting Award
Winners



1st Place Platform: Anthony Sigman-Lowery, University of Delaware, HDC –
“Estimating the n-Octanol-Water Partitioning Coefficients of Novel Brominated Flame Retardants by Reversed-Phase High Performance Liquid Chromatography”

1st Place Platform: Talia Tanner, University of Mary Washington, CPRC –
“Assessing the bioaccumulation and impacts of three coal ash- associated trace metals on the viability, locomotor behavior, and embryonic development of the freshwater snail *Planorbella duryi*”

2nd Place Platform: Carolyn Willmore, University of Mary Washington, CPRC –
“Assessing fish species richness and the presence and concentration of trace

metals in surface water, sediments, aquatic plants, and fish adjacent to a Virginia coal ash repository”

3rd place platform: Camila Proano, University of Maryland Baltimore County, CPRC – “Managing Problematic Bacteria During Food Waste Storage for Anaerobic Digestion with Free Nitrous Acid Application”

1st place poster: Sabine Malik, University of Maryland College Park, CPRC – “Quantifying Reproductive Impact in Urban Rivers Using Sperm Quality in *Fundulus heteroclitus*”

2nd place poster: Marriah Ellington, CPRC – “Improving transformation efficiency, recovery efficiency, and throughput for total oxidizable precursor analysis of PFAS in soil”

2nd place poster: Elizabeth Tyler, University of Mary Washington, CPRC – “The Presence, Distribution, and Concentration of Trace Metals in the Potomac River Near a Coal-Burning Repository”

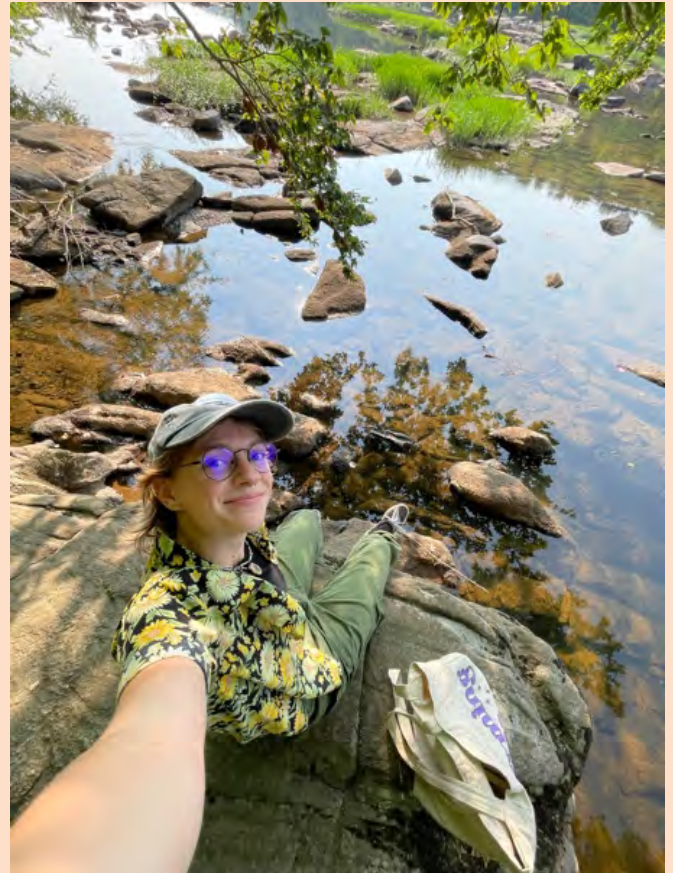
3rd place poster: Owen Bradley, Thomas Jefferson University, HDC – “Quantifying Suspended Microplastics in the Water Column with the Urbanized Patapsco River, Maryland”

STUDENT RESEARCH HIGHLIGHT

Hello, my name is Talia Tanner. I am currently pursuing my Master's in Environmental Science at Towson University. I first became involved in SETAC (CPRC) while I was working on my Bachelors of Environmental Science at the University of Mary Washington (UMW). During my junior year, my academic advisor Dr. Tyler Frankel invited me to conduct a research project under his guidance, and I had the privilege to conduct my own research project. I then went on to present the results of this project at the SETAC NA 2022 and CPRC Spring 2023 meetings.

During my time at UMW, I worked on a project examining the potential impacts of coal ash-related trace metal contamination on aquatic ecosystems. Though I helped with many aspects of the larger project including collecting samples in the field and helping process and analyze samples in the lab, I primarily worked on trace metal exposure assays using the freshwater Seminole ramshorn snail (*Planorbella duryi*).

My work aimed to examine the effects of environmentally relevant concentrations of three coal ash related trace elements (lead, arsenic, and cadmium) on the viability, locomotor behavior and embryonic development of *P. duryi*. Adult and embryonic snails were exposed to a treatment range of 0, 0.01, 0.1, 1, and 10



mg/L of arsenic, lead, and cadmium in separate exposures to determine the impacts of each trace element individually. Adults were exposed using a static replacement exposure for a 7 day period where locomotor behavior was assessed on day 1 and day 7 of the exposure. Additionally, viability of adults was checked every 24 hours during the 7 day period. Freshly laid embryos were exposed in a static exposure for a 10 day period during which the developmental stage was noted every 24 hours.

Embryos exposed to lead and cadmium experienced developmental delays which increased in severity with increasing concentration. Almost every embryo in the 1 and 10 mg/L treatments failed to progress past the initial stage of development, and many showed signs of mortality and decay in those same treatments. Arsenic told a different story with embryos developing slightly faster than controls, though not without developmental defects.

Mortality in adults exposed to the highest treatment (10 mg/L) of lead and cadmium was observed as early as day 1 with 100% mortality by day 7. Adults in 1 mg/L cadmium and lead experienced 100% mortality by day 7. Additionally, adults in the 0.1 mg/L cadmium treatment experienced 66.7% mortality by day 7. During the 7 day arsenic exposure, no adult mortality was observed.

Snails in the lowest treatment (0.01 mg/L) cadmium treatment showed significantly higher average speed compared to other treatments. Additionally, snails in the 0.1 mg/L lead treatment showed

significantly increased acceleration compared to the other treatments. Snails exposed to arsenic experienced no significant differences between treatments. This increased acceleration and average speed in cadmium and lead could indicate an avoidance behavior at sublethal concentrations.

Based on adult and embryonic results, cadmium appears slightly more toxic compared to lead, which indicates that cadmium should be of more concern when considering this species. Additionally, embryonic snails are more sensitive to lead and cadmium compared to adults which could make them a good environmental health indicator. The negative impacts to both embryonic development and adult viability suggest concerning impacts to *P. duryi* populations living near trace metal sources such as coal ash repositories. It is important to note, however, that these effects extend beyond coal ash as there are many additional sources of trace metal contamination globally.



UPCOMING EVENTS

Join us at the national meeting in Louisville, Kentucky from November 12th through 16th! Be on the lookout for daily CPRC emails highlighting member talks.



CPRC General Meeting at SETAC:

Wednesday, November 15th, 5:30pm, in L016 in the convention center

CPRC Happy Hour at SETAC:



Wednesday, November 15th, 6:30pm, at Down One Bourbon Bar (a five minute walk from the convention center!)



Congratulations to our fall meeting student travel awardees! We look forward to hearing about your research in Louisville!

Katharine Kinter, UMCP, "Microtox Bioluminescence Assay Sensitivity to Metals Toxicity in Full Strength Marine Water: Implications for Monitoring Anthropogenic Impacts in the Marine Environment"

Megan Gaesser, Virginia Tech, "Unintended Consequences of Stream Restoration: Iron Ecotoxicity in Regenerative Streamwater Conveyance Systems"

Liam Odean, Towson University, "Ecotoxicity of Fluorine-Free Foams to Brown Anoles (*Anolis sagrei*)"

Michella Salvitti, UMES, "PFAS in the Chesapeake Bay and Maryland Coastal Bays"

Spring 2024 CPRC Meeting

SAVE THE DATE!

Join us on 8 April 2024 at the Institute of Marine and Environmental Technology in Baltimore, MD for the 2024 Spring Meeting.

This will be a one-day event, which includes:

- A tour of the IMET facility
- Registration includes tickets to the National Aquarium
- Catered dinner at the dolphin or jellyfish viewing areas



CAREER CORNER

JOB POSTINGS

The Career Hub page on our website was established for CPRC members to share job listings in environmental-related fields. Forums are created for government, non-profit/NGOs, academia, and industry. If you know of any opportunities, we encourage you to post them in the Career Hub! Click the link [here](#) to check it out!

SETAC Career center: <https://careers.setac.org/jobseeker/search/results/>

EVENTS:

11/02/2023:

Conservation Efforts for Managing Populations of Threatened and Endangered Species

Archived here: <https://serdp-estcp.org/events/pastevents>

This SERDP and ESTCP webinar focuses on DoD-funded research efforts to improve management approaches of threatened and endangered species. Specifically, investigators will discuss recommendations for cross-jurisdictional management of Venus flytrap populations and the use of remotely sensed data and light-level geolocator technology to inform off-post landscape-scale conservation planning for the golden-cheeked warbler.

Speakers:

William Morris, Ph.D., Duke University

Allison Louthan, Ph.D., Kansas State University

Ashley Long, Ph.D., Louisiana State University

John Macey, U.S. Army

11/15/23:

Understanding BioGeoChemical Conditions for Effective Removal of Soluble Heavy Metals and Degradation of Chlorinated VOCs

Register here: <https://register.gotowebinar.com/register/3588295114287713375>

Microbial Insights offers webinars focused on analytical methods and remedial practices related to environmental biotic processes.

11/16/2023:

Enhanced Sensing for Detailed Surveys in Very Shallow Water

This SERDP and ESTCP webinar focuses on DoD-funded research efforts to identify reliable techniques for detailed survey of unexploded ordnance (UXO) at underwater remediation sites less than five meters deep. Specifically, the investigator will cover the development of the novel Sediment Volume Search Sonar (SVSS) sensor system which can conduct detailed acoustic surveys in shallow water.

Speaker:

Daniel Brown, Ph.D., The Pennsylvania State University

12/07/2023:

Forensic Methods for PFAS Source Tracking and Allocation

This SERDP and ESTCP webinar focuses on DoD-funded research efforts to develop forensic methods for PFAS source tracking and allocation. Specifically, investigators will talk about the development of an open-source database infrastructure for the storage and management of analytical data, the identification of product- and source-specific marker compounds, and the development of analytical methods exportable to more widely available lower-resolution mass spectrometers.

Speakers:

Benjamin Place, Ph.D., National Institute of Standards & Technology, Department of Commerce

Jens Blotevogel, Ph.D., CSIRO

PROFESSIONAL DEVELOPMENT:

Strategic Environmental Research and Development Program/Environmental Security Technology Certification Program (SERDP/ESTCP): <https://www.serdp-estcp.org/events>

American College of Toxicology: <https://www.actox.org/education/toxchats-podcasts.asp>

The ACT podcast program, ToxChats©, reports on cutting-edge news in toxicological research from around the globe. The podcasts feature interviews with experts and a review of the

current advances. Tune into the podcast using an internet connection to learn about breakthroughs and regulatory developments in toxicological research and more.

Available Podcasts:

- Artificial Intelligence (AI) Use in Toxicology
- Moving from Minion to Manager
- Toxicology Salary Survey
- Shining a Light on the Science and Strategy of Phototoxicity Assessments
- In Vitro and Alternative Models for Regulatory Submission
- Biomarkers
- Microbiome

ACT Courses

- Toxicology for Pharmaceutical and Regulatory Scientists
April 8–12, 2024
- Pathology for Nonpathologists
May 6–8, 2024
- Advanced Comprehensive Toxicology
July 28–August 2, 2024

U.S. Environmental Protection Agency; Exposure Assessment Tutorials:

<https://www.epa.gov/expobox/exposure-assessment-tutorials>

Risk Assessment Training and Experience (RATE) Modules:

The Risk Assessment Training and Experience (RATE) Program modules were developed to cover scientific subject matter and methodologies considered to be essential knowledge and skills for EPA's Integrated Risk Information System (IRIS) Chemical Managers and risk assessors within and outside of the Agency.

Topics:

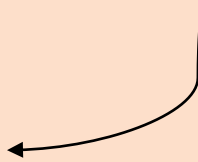
General Concepts of Exposure Assessment
Approaches for Quantifying Exposure
Developing Exposure Scenarios and Calculating Dose
Fate and Transport
Monitoring and Modeling Strategies
Obtaining and Using Exposure Factor Data
Assessing Uncertainty and Variability in the Context of Exposure Assessment
Interpreting Biomonitoring Data and Using Pharmacokinetic Models in Exposure Assessment



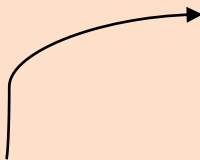
SUMMER ACTIVITIES



Quin Zabel and Kate Kinter (UMDCP) get ready for their first time electrofishing



Sabine Malik (UMDCP), Lance Yonkos (UMDCP), and Tyler Frankel (UMW) visiting Patterson Falls after finishing field work!

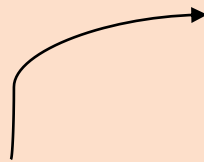




Sabine Malik and Kate Kinter (UMDCP) seining in the Anacostia River

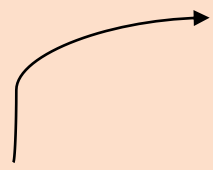


Tyler Frankel and Summer Orledge (UMW) sampling in Chincoteague/Assateague

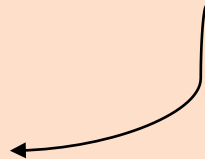




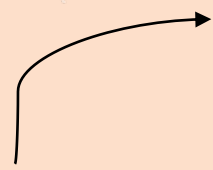
Mckenzie Broker (left) and Rachel Pence (right) from the Stormwater Division of Public Works Department of Roanoke City



Yu Ting (left) and Nathalie Lombard (right) from UMBC retrieving passive samplers deployed in the Roanoke River (VA).



Team (Yu Ting, Nathalie Lombard, Mckenzie Broker, and Rachel Pence) enjoying ice cream from a local shop after work was complete!

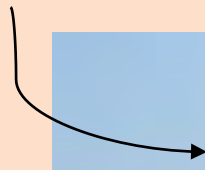




Alicia Murphy and Summer Orledge (UMW) sampling by kayak in the James River near the Bremono Bluff powerplant



Tyler Frankel (UMW) pulling his boat after getting stuck at low tide!



Summer Orledge (UMW) holding a huge snakehead from Quantico creek!





CPRC SETAC MEMBERSHIP



SETAC: The Society of Environmental Toxicology and Chemistry is an independent, nonprofit professional society that provides a forum for individuals and institutions engaged in the study of environmental issues, management and conservation of natural resources, environmental education, and environmental research and development.

CPRC: The Chesapeake and Potomac Regional Chapter of SETAC is a nonprofit organization started in the year 1983. CPRC's mission is to promote the exchange of information among environmental scientists in the Mid-Atlantic States.

Note: you do not have to be a SETAC member to be a member of CPRC.

There are two ways to join/renew:

- 1) Preferred Method: SETAC North America (SNA) ([LINK](#)). SNA will send us your contact information so we can add you to our chapter mailing list. You do not have to be an SNA member to use this option.
- 2) PayPal CPRC ([LINK](#)). Credit cards accepted, no PayPal account needed. Enter appropriate fee amount (\$5 student, \$15 professional). Please note that it is easier for us to track your membership when you join via the SNA site (option 1 above).

Membership renewals occur every December. If you have any difficulty with your membership application or payment, please contact Nathan Sell (treasurer.cprc.setac@gmail.com).



Want to get more involved?

The seasons are in transition, and so are we! CPRC is soon holding elections for:

- Vice President
- Secretary
- Treasurer
- Directors (academia and industry)
- Student representative
- Social media coordinator



Please reach out to cprc.setac@gmail.com for more information and/or to nominate yourself!

CPRC SETAC SPONSORSHIP OPPORTUNITIES

To learn more about sponsorship, visit [our website!](#)

If you have any questions regarding sponsorship or payment, please contact CPRC Treasurer Nathan Sell (treasurer.cprc.setac@gmail.com) or (cprc.setac@gmail.com).

Benefit	Primary Producer (\$250 a year) ^A	Secondary Producer (\$500 a year) ^A	Keystone Sponsor (\$1,000+/year) ^A
Complimentary Spring Meeting registration ^B		1	2
Table and poster display space at a CPRC annual meeting (if requested)			✓
Logo appears in CPRC newsletter and meeting documents. Logo and link posted on CPRC website ^C	2 years ^C	3 years ^C	5 years ^C
Advertising in newsletter	Half page	Full page	Full page
Advertising in Spring Meeting program		Half Page	Full Page

^A Sponsorship Tier is determined by the total amount given on an annual basis.

^B Complimentary Spring Meeting Registrations are granted on an annual basis according to the sponsorship tier with the recommendation that they are to be used within a year.

^C Length of time during which the logo appears in the newsletter, meeting documents, and website is a benefit only and does NOT represent a commitment to provide sponsorship money on an annual basis.

CPRC SETAC SPONSORS: **Keystone**



Integral Consulting Inc. is a national science and engineering firm providing multidisciplinary services in the fields of health, environment, technology, and sustainability.



We are currently seeking highly motivated individuals for the following positions to support our growing environmental practice on the East Coast:

- Senior-level Toxicologist
- Junior- and Mid-level Toxicologists/Human Health Risk Assessors
- Senior-level Ecological Risk Assessor
- Junior- and Mid-level Ecological Risk Assessors
- Mid-, Senior-, and Principal-level Engineers
- Mid- and Senior-level Geologists
- Mid-, Senior-, and Principal-level Hydrogeologists



Why work for Integral?

Technically Stimulating

Every day, our staff is involved in a diverse range of projects for a variety of clients—applying skills and making recommendations that lead to positive change.

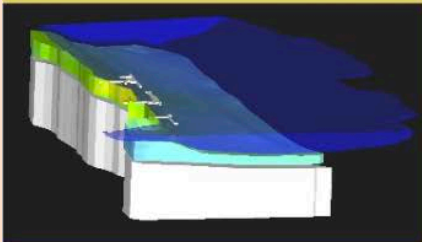
Unique Collaboration

The Integral name reflects our very purpose: To gather teams of professionals with distinctly different yet complementary skills, and to apply their integrated knowledge and perspective in ways that surpass our clients' expectations.

Supportive Environment

Outstanding benefits include company-subsidized medical, dental, and vision plans, company-paid life and short- and long-term disability insurance, a 401(k) plan and company match, flexible spending accounts (cafeteria plan), health club reimbursement of \$20 per month, and vacation/sick leave.

For more information, please visit our web site at www.integral-corp.com/careers



Health ■ Environment ■ Technology ■ Sustainability

www.integral-corp.com



CPRC SETAC SPONSORS: **Keystone**



*Reference Standards for PCBs, PCDDs,
PCDFs, PFCs, BFRs and more*

*Certified to ISO 9001:2015,
ISO/IEC 17025:2005, and ISO 17034:2016*

www.well-labs.com



CPRC SETAC SPONSORS: **Keystone**




agroscience services

CPRC SETAC SPONSORS: **Keystone**



CPRC SETAC SPONSORS: Secondary Producers

Whether you need the scientific explanation for the cause of an event, or you are charting a course for the future, Exponent can give you the knowledge to make informed, intelligent decisions.



Exponent is a global engineering and scientific consulting firm specializing in the investigation, analysis, and prevention of accidents and failures, as well as third-party support for issues related to products, process, health, and the environment.

www.exponent.com | 888.656.EXPO

Exponent[®]

When you need to know