CPRC SETAC NEWSLETTER SPRING 2021

"Last Summer" by Mandar Bokare

APRIL 2021

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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 and 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.

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CPRC LEADERSHIP AND COMMITTEES

Officers

President	Nathalie Lombard, University of Maryland Baltimore County	president.cprc.setac@gmail.com
Vice President	Guangbin Li, University of Maryland College Park	vice.president.cprc.setac@gmail.com
Past President	Jennifer Flippin, Tetra Tech	Jennifer.Flippin@tetratech.com
Treasurer	Nathan Sell, American Cleaning Institute	treasurer.cprc.setac@gmail.com
Secretary	James Sanders, US Environmental Protection Agency	cprc.setac@gmail.com

Board Members

2021 – 2023	Ben Burruss, SafeBridge Regulatory & Life Sciences Group, a division of Trinity Consultants	BBurruss@toxregserv.com
2021 – 2023	Rachel Eberius, US EPA	reberius@gmail.com
2019 – 2021	Sarah Lanasa, Student Representative, Towson University	slanas1@students.towson.edu
2019 – 2021	Michael Quinn , U.S. Army Public Health Center's Health Effects Division (HEF).	michael.j.quinn104.civ@mail.mil
2020 – 2022	Tyler Frankel, University of Mary Washington	tfrankel@umw.edu
2020 – 2022	Upal Ghosh, University of Maryland Baltimore County	ughosh@umbc.edu

Web Presence (cprcsetac.wordpress.com)

Website Manager	Benjamin L Burruss, Trinity Consultants	website.cprc.setac@gmail.com
Social Media	Sarah Lanasa, Towson University	cprc.social.media@gmail.com
Newsletter Editor	Mandar Bokare, University of Maryland Baltimore County	newsletter.cprc.setac@gmail.com
Assistant Editors	Scott Lynn, U.S. Environmental Protection Agency/ Nathalie Lombard, University of Maryland Baltimore County	

PRESIDENT'S PODIUM

Outgoing President, Jennifer Flippin, shares her thoughts on her time as CPRC president

Hello CPRC SETAC Members,

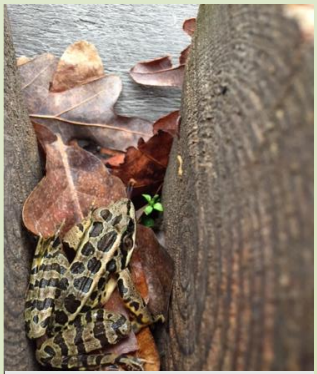
Wildflowers and ramps. It's spring in WV!

Happy Spring! Hope you and your families are staying well and finding patience with your career and life in what has turned out to be a challenging year for many. I quickly embraced the sunshine and cheerier weather of the season. The leaves, spring flowers, and ramps (*Allium tricoccum,* a celebrated wild onion of West Virginia) are starting to come out in the mountains and creek valleys. The rain is feeding the Potomac headwaters, and I am looking forward to kayaking my local rivers again. A few weekends ago I returned to Davis, WV, the location of our 2019 spring meeting, and enjoyed another hike out to Pase Point and the overlook into Blackwater Canyon. Some of you may have joined us there for the pre-meeting social hike in 2019.

Box turtles will be out soon. Watch for them on roads and if you can safely help them cross, move them in the direction they are headed.

The upcoming Spring Meeting will mark our second ever virtual meeting and the transition of officers. Thank you to everyone who participated in and provided feedback following our virtual meeting in September. We used your ideas to shape the upcoming event. We assembled a schedule of great presentations and posters, so be sure to sign up and attend if you have not already done so!

As I rotate to Past-President, I welcome Nathalie Lombard and Guangbin Li as your new President and Vice President! Their enthusiasm and dedication to the chapter are already apparent, and I am excited for the leadership they will provide. Many thanks to our outgoing board members, Scott Lynn and Jamie Suski, and treasurer, Meredith Bohannon. A special thanks to Scott who has fearlessly led the communications committee for more years than I can recall and has been a force in managing our website and helping with behind-the-scenes tasks that keep our chapter swimming along.



Pickerel frog and other amphibians are back out and singing!

Welcome Rachel Eberius and Ben Burruss who will serve as board members, and Nathan Sell, our new treasurer. Ben previously served as chapter President and Rachel was a former newsletter editor and active member of the communications committee. I appreciate all the volunteers and sponsors who help keep our chapter moving forward. We could not do it without you! If you are interested in becoming more active with our chapter, please reach out to Nathalie or Guangbin because there are many opportunities to volunteer. I look forward to working with potential sponsors in the upcoming year. Because of your past generosity, we have been able to support many of our students (the next

PRESIDENT'S PODIUM

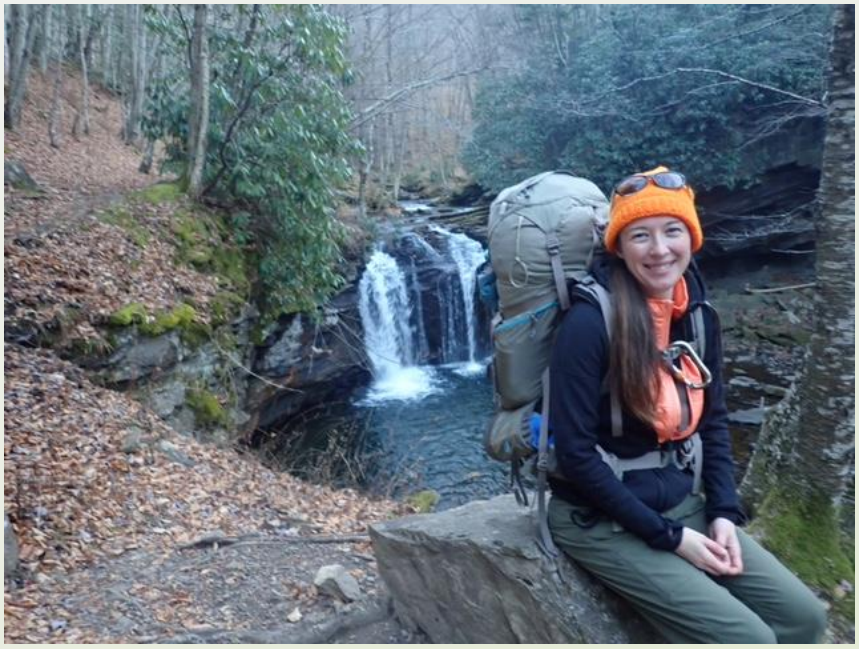
generation of scientists!) and help them defray the costs associated with meeting travel.

I really enjoyed the opportunity to serve as chapter president over the last two years! I came to my first meeting in 2004 as an undergrad at West Virginia University, which means by now, my CPRC SETAC involvement is old enough to drive a car and almost old enough to vote. I am grateful for the colleagues and friendships that have developed over the years. I look forward to staying involved with the chapter.

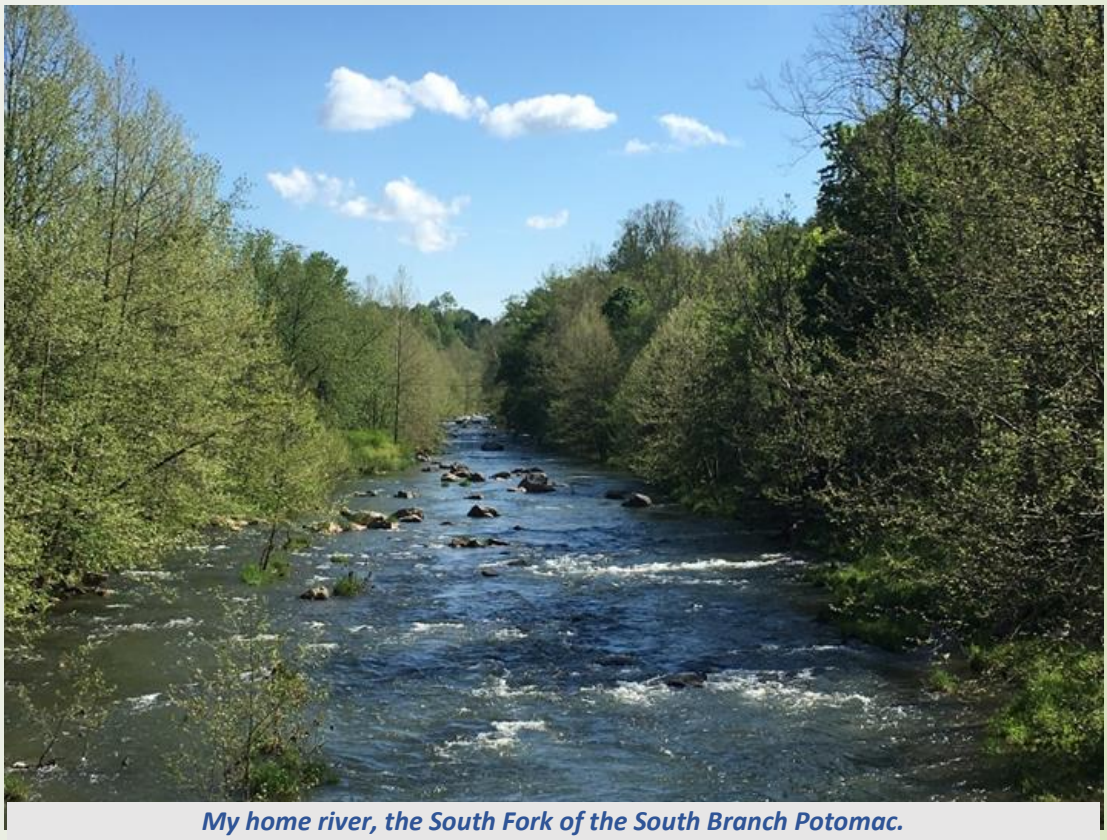
Stay well, go out and get some fresh air, and we hope to see you soon!

Jennifer Flippin

CPRC SETAC President 2019-2021



Seneca Creek at Spruce Knob, WV



My home river, the South Fork of the South Branch Potomac.

PRESIDENT'S PODIUM

Incoming President, Nathalie Lombard, shares her vision for CPRC SETAC

Dear CPRC SETAC Members,

As I begin my term as President of CPRC SETAC, I would like to acknowledge all the volunteers working for our chapter to keep it alive during the best and more challenging times. First of all, I would like to thank Jennifer Flippin for the amazing job she has done over the past few years, first as a Board Member, then as Vice President and now as President, totaling already six years of leadership at CPRC.

Last year, Jennifer stepped up and agreed to remain president for an additional year and is now transitioning to the role of Past President. We are so grateful for all the hard work Jennifer has done for the chapter, from improving communications and promoting student activities, to improving connections between CPRC members out to the most remote locations of our region. On a personal note, I am very thankful for all of the support she has provided me during my transition to the role of Vice President.

To keep CPRC active, a full team of board members and volunteers continue to dedicate their free time organizing events, promoting them, and increasing engagement and participation. The three committees in charge of all our activities are the Events Planning Committee (EPC), the Communication Committee (CC), and the Membership Committee (MC). None of this would be possible without all who have participated in these committees. To help contextualize their efforts, here is a figure of the 2020-2021 contributors.

From left to right, top to bottom, per Committee. ***In the Board of Directors:*** *Nathalie Lombard, Jennifer Flippin, Ben Burruss, James Sanders, Meredith Bohannon, Michael Quinn, Jamie Suski, Scott Lynn, Upal Ghosh, Tyler Frankel, Sarah Lanasa.* ***New faces in the Events Committee:*** *Darci Ferrer, Paula Henry, Jada Damond, Hilda Fadaei, Devrim Kaya.* ***New faces in the Communication Committee:*** *Daniel Furst, Mandar Bokare.*

PRESIDENT'S PODIUM

Many, many thanks to Darci Ferrer. Darci is a former VP, president, and past-president of CPRC (2015-2018) who also stepped up last year to work on the Annual Spring Meeting, accepted to co-chair the EPC, and helped me get acquainted with my new role. As a board member, Scott Lynn's term is ending and I would like to mention that he was instrumental in all aspects of communications, as well as being full of amazing ideas, such as the CPRC SETAC branded masks. If you are wearing one right now, you have him to thank! Similarly, Treasurer, Meredith Bohannon, did an amazing work with the CPRC accounts and prepared a "how to" guide for our next treasurer. Jamie Suski is also rotating from her position on the Board. Jamie has helped to organize social events in Baltimore and engaged in outreach to students at Towson University. Lastly, Ben Burruss, the past president for two years in a row, is ending his past-presidency term and leaving us with several accomplishments - the creation of the membership committee, generous travel awards for student competitions thanks to his engagement with sponsors, and an increase in membership.

I feel grateful I had the opportunity to work with all of these amazing people and to learn from all of them. I am delighted that Ben Burruss is staying with us as a board member, and I am looking forward to working with our new board members, starting with Guangbin Li our new VP, Rachel Eberius our newest board member, and Nathan Sell our new treasurer.

New adventures await us in 2021, starting with the Annual Spring Meeting to be held virtually through CPRC's Zoom account, financed partially through the generous contribution of your membership fees. This year's virtual meeting will feature a happy hour, a mentor/mentee activity, poster and platform presentations, a best student presentation contest, and coffee/networking breaks. You will also learn more on the picture's backstory chosen to advertise the meeting. We are also preparing a virtual introduction to regulations course in the summer of 2021 and you can contribute by telling us which regulations interest you the most during our Spring Meeting, so make sure to attend! As we get closer to the Fall, we will keep you informed as to whether we will be able to hold our annual Fall/Winter Dinner in person or virtually. Our theme for this year remains *adaptability*! So, stay tuned and I hope to see you all at our Spring Meeting!

Sincerely,

Nathalie Lombard

CPRC President 2021-2022

NEW VICE PRESIDENT

GUANGBIN LI

University of Maryland College Park

Dr. Guangbin Li is an Assistant Professor at Department of Civil and Environmental Engineering at University of Maryland (UMD), College Park. Prior to joining UMD, he was a Research Assistant Professor at the Department of Chemical and Environmental Engineering of the University of Arizona. His research interests include sustainable biological water/wastewater treatment, nutrient removal/recovery, (Bio)transformation and fate of hazardous contaminants, microbial toxicity, and bioreactors. He holds a PhD and a MS degree in environmental engineering from the University of Arizona, and MS and Bachelor degrees in environmental engineering from the Harbin Engineering University, in Harbin, China. Current research topics conducted by Dr. Li and his research team in N.E.S. Lab (Nutrient, Energy, and Smart) include the nutrient removal and recovery from wastewater, enhancement of anaerobic digestion for alternative wastes, and the remediation of emerging organic contaminants including nitroaromatic and polyfluorinated (PFCs) compounds. He has (co)lead and served in various lab- and pilot-scale projects funded by federal and non-federal agencies across the U.S. He has actively served as the committee member for multiple conference, agencies, and organizations, such as Engineering & Biomedical Sciences Program Advisory Committee in Montgomery County, MD, Journal of Archaea, Journal of Microbial & Biochemical Technology, and WEF Nutrient Symposium, as well as served as reviewer for many foundations (i.e., EPA, Delaware Sea Grant) and renowned peer-review journals (e.g., *Environmental Science & Technology*, *Water Research*, *Chemosphere*, *Water Environmental Research*, *Journal of Hazardous Materials*, *and the Science of the Total Environmental*). He has also received numerous awards including among others “the Faculty-Student Research Award” from UMD, “Nancy Turner Honorary Scholarship” from the Southern Arizona Environmental Management Society (SAEMS), the 1st place scholarship of the Arizona Water Association, an “Honorary Award” from the Arizona Association of Environmental Professionals (AZAEP) and the “Graduate Student Fellowship” by the Water Sustainability Program (WSP).

NEW TREASURER

NATHAN SELL

American Cleaning Institute

Nathan Sell is the Director of Regulatory Science at the American Cleaning Institute (ACI), the trade association representing the U.S. cleaning products industry. In this role Mr. Sell is responsible for the development and management of research strategies related to the safety of cleaning product ingredients and engagement with stakeholders. Prior to joining ACI, Mr. Sell worked at the U.S. Environmental Protection Agency (EPA), starting in the Office of Water, later transitioning to the Office of Pesticide Programs and finally the Office of Science Coordination and Policy. Mr. Sell holds a Master's in Environmental Studies with a concentration in Environmental Sustainability from the University of Pennsylvania. Mr. Sell also holds a B.S. in Biology from Trinity College (Hartford, CT) where he conducted research on migratory and residential bird species in Connecticut. Mr. Sell was born and raised in the U.S. Virgin Islands, where he first was inspired to pursue a career in the sciences.

NEW BOARD MEMBERS

BEN BURRUSS

SafeBridge Regulatory & Life Sciences Group, a division of Trinity Consultants

Mr. Burruss is a Senior Consultant in the SafeBridge Regulatory & Life Sciences Group, a division of Trinity Consultants, where he is responsible for monitoring and auditing ecotoxicology, environmental fate, physical-chemical properties, product chemistry, and analytical method validation studies, in addition to assisting with the preparation of health/environmental risk assessments and regulatory submissions for biocides, cosmetic ingredients, food packaging materials and other specialty chemicals. Mr. Burruss holds an MS degree in Environmental Science from the University of Virginia and a BS degree in Chemistry from the University of Mary Washington. Mr. Burruss has been an active member of SETAC since 2014 and the CPRC since 2015 serving a variety of roles. Mr. Burruss has been a member of multiple committees in the Chapter, served as Vice President, President and Past President, and is the Chapter's current website manager. Mr. Burruss aspires to continue his involvement with CPRC as a Board Member to provide opportunities for professionals and students to achieve their professional and academic aspirations within the field of environmental toxicology and chemistry.

NEW BOARD MEMBERS

RACHEL EBERIUS

US EPA

Rachel Eberius has been a Chemical Review Manager in the Pesticide Reevaluation Division (PRD) of the US EPA's Office of Pesticide Programs (OPP) for 11 months. Prior to joining EPA in 2020, she worked for Smithers, a contract research organization, and was a study director for avian toxicity tests with agrochemicals to support registrations with the OECD and EPA. Prior to her time at Smithers, Rachel worked as a contractor at the US Geological Survey and assisted with avian toxicological research involving both noenicitinoids and rodenticides. Rachel completed a bachelor's degree in biology and master's degree in environmental science at the University of Maryland. Her graduate research focused on spatial and temporal trends of legacy organochlorine compounds in the Great Lakes region using bald eagle nestlings. While completing her graduate degree, Rachel served on the CPRC Communication's committee and was the editor of the bi-annual newsletter.

NEW MEMBERS IN COMMUNICATIONS COMMITTEE

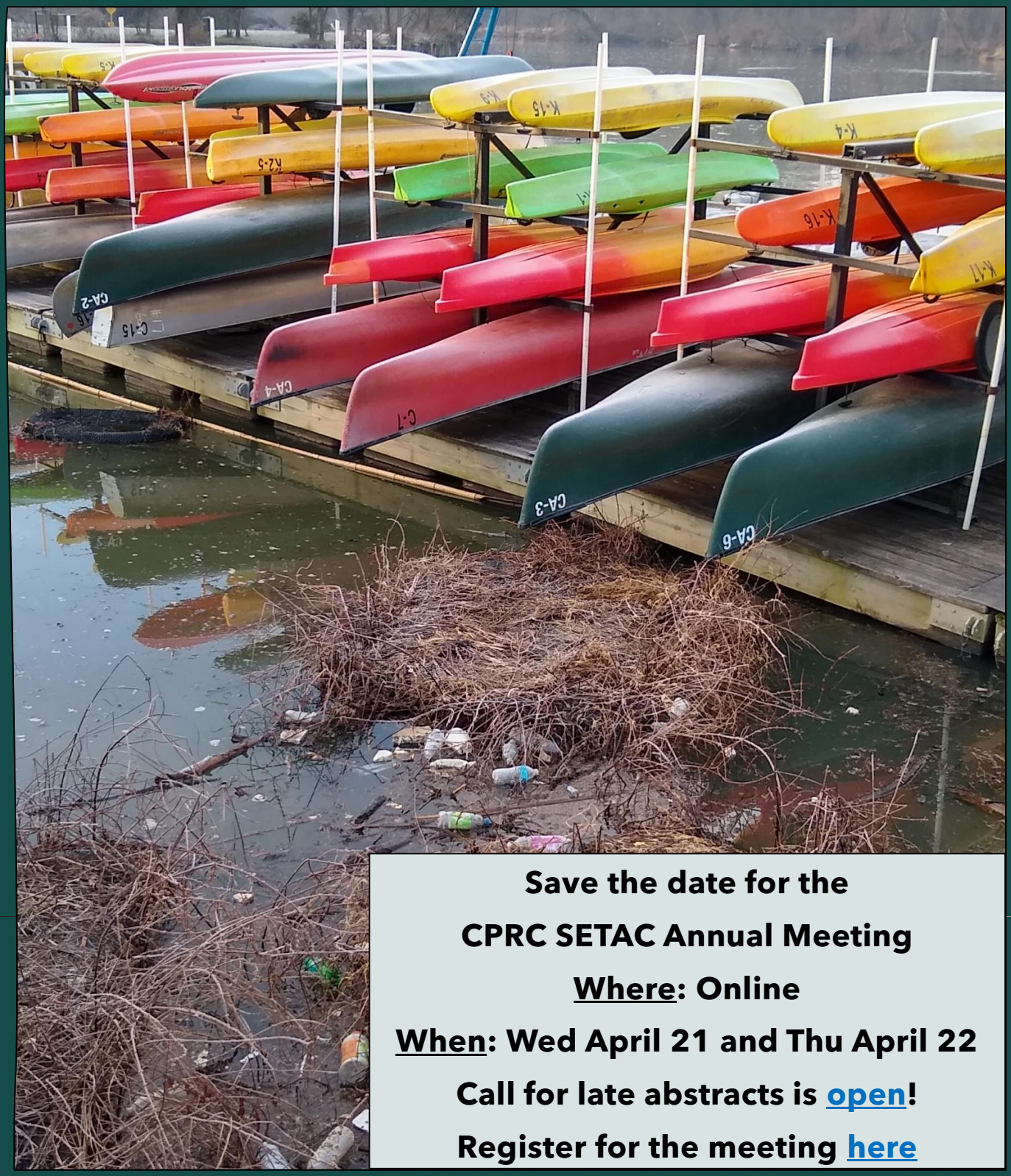
MANDAR BOKARE

University of Maryland, Baltimore County

Newsletter Editor

Mandar is a final-year PhD candidate in Environmental Engineering at University of Maryland, Baltimore County (UMBC). His current research applies passive sampling techniques to quantify and model the fate-transport and bioaccumulation of hydrophobic organic contaminants and application of these models to predict effectiveness of remediation strategies. Mandar holds a bachelor's degree in Chemical Engineering from National Institute of Technology Nagpur (India) and a master's degree in Environment and Sustainable Technology from the University of Manchester (England). Before joining UMBC, he worked as a Project Assistant at the National Environmental Engineering Research Institute (NEERI) in India, working on several research areas such as CO_2 capture and separation, hydrogen storage and delivery, and constructed wetlands for wastewater treatment.

CPRC SETAC Annual Spring Meeting 2021



Save the date for the

CPRC SETAC Annual Meeting

Where: Online

When: Wed April 21 and Thu April 22

Call for late abstracts is open!

Register for the meeting here

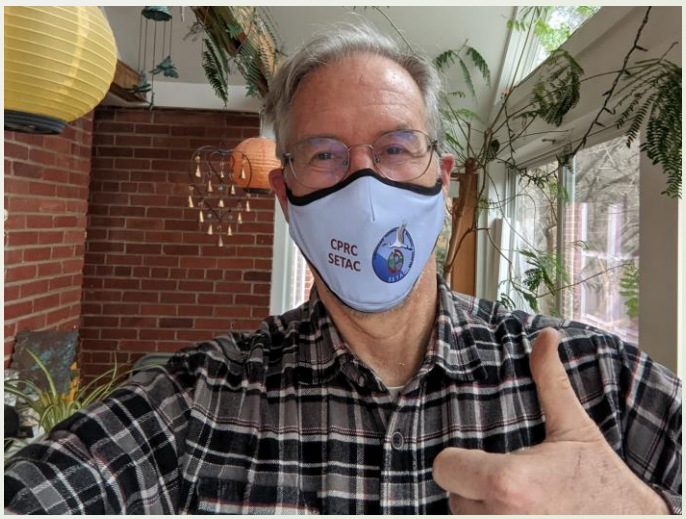
Bladensburg Waterfront, D.C.

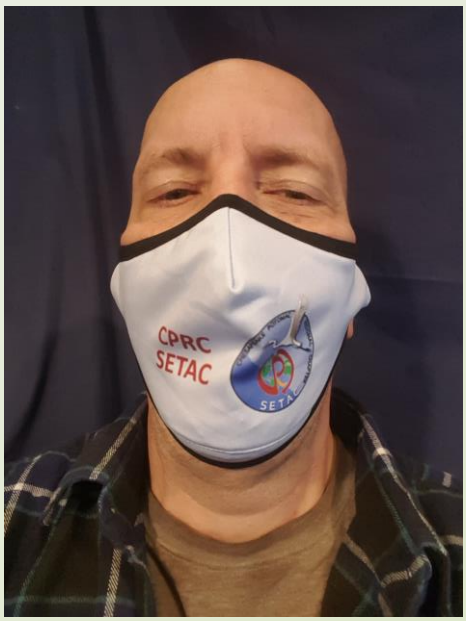
Visit CPRC SETAC website and enter your email address on the right side of the home page to receive updates about this event and other CPRC SETAC sponsored activities.

CPRC SETAC FACE MASKS

Click Here to Order!

CPRC
SETAC





Clockwise from bottom left: Nathalie Lombard, James Laurenson, and Scott Lynn model CPRC SETAC Face masks!

2020 CPRC SETAC "Travel" Awards

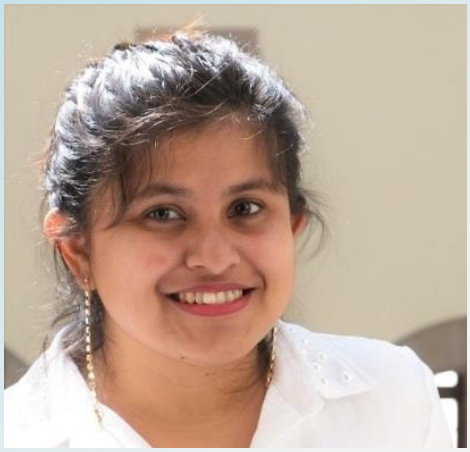
Name: Sarah Lanasa
University: Towson University
Department: Environmental Science
Type of Degree: MS
Award: SciCon2 Registration

Presentation: Poster
Session: Late Breaking: Aquatic Toxicology, Ecology and Stress Response
Title: Are "Safeners" safe? Effects of Herbicide Actives, "Inert" Safeners and Commercial Formulations on Population Growth and Size of non-Target Algae

Sarah is a second-year graduate student expecting to complete her master's degree in environmental science May 2021 at Towson University in Maryland. Her research primarily focuses on the toxicity of herbicides and other formulation components on green algae, as well as incorporating analytical techniques into traditional ecotoxicology testing. Sarah aims to pursue a Ph.D after graduation and, eventually, a career in academia where she will teach and continue ecotoxicology research.

Abstract: Chloroacetanilide is a group of herbicides with increasing use worldwide. They are used to control grass weeds that affect important crops such as corn, soybean and cotton. Acetochlor and S-metolachlor are the most common chloroacetanilide herbicides used. When applied, acetochlor and S-metolachlor are frequently paired with a "safener" which prevents the crop from being affected by the herbicide. Safeners are considered inert and, therefore, are not regulated or tested for toxicity. While the ecological toxicity of acetochlor and S-metolachlor have been well-studied safeners, however, have not. Runoff from agriculture fields has led to measurable concentrations of safeners in nearby freshwater systems. There is a lack of information needed to assess the potential risk safeners may pose to organisms in freshwater systems. The safeners we focused on where benoxacor (commonly paired with S-metolachlor), dichlormid and AD-67 (commonly paired with acetochlor). We conducted a series of 72-hour algae toxicity tests separately with the three safeners to find the EC50 (the effective concentration causing 50% growth inhibition) on a non-target algae, *Raphidocelis subcapitata*. AD-67 was the most toxic followed by benoxacor, and dichlormid showed toxicity only at high concentrations. ED50 values for all safeners tested were far above environmentally relevant levels. However, a difference in size of algae cells was observed during the toxicity tests. Images of algae were captured at the 72-hour timepoint and analyzed using ImageJ software to measure the total area of each cell. We found a size increase from the controls for each safener at concentrations lower than the EC50 value in all safeners tested, with the exception of benoxacor. Algal cell size was increased in all concentrations of AD-67, some of which are approaching environmental relevance. The changes seen in cell area suggest a potentially more sensitive endpoint than what is seen in standard toxicity tests. We are exploring the commonness and significance of the observed increases in algal cell size. Also, we are designing studies to determine if increases in algae cell size impacts *Daphnia magna* and algae dynamics. Results of these studies may lead to and improved understanding of the potential ecological effects of safeners.

2020 CPRC SETAC "Travel" Awards



Name: Oindrila Ghosh
University: University of Maryland Baltimore County
Department: Environmental Engineering
Type of Degree: PhD
Award: SciCon2 Registration

Presentation: Platform Presentation
Session: Passive Sampling: Innovations in Passive Sampling Across Environmental Compartments
Title: What Does Time-Integration Really Mean for Passive Sampling?

Oindrila is a Ph.D. candidate at the University of Maryland Baltimore County. Oindrila has a Bachelor of Science degree in Chemistry from the University of Delhi, India and a Master of Science degree in Environmental Sciences from Nalanda University, India. Oindrila is passionate about understanding the science of fate and transport, monitoring and remediation of organic contaminants in environmental media through research and outreach. She is particularly interested in research using mass transfer modelling to optimize passive sampling of hydrophobic organic chemicals that exist in the dissolved phase of various environmental media like surface water or sediment porewater

Abstract: The effect of temporal variation of water concentrations of hydrophobic organic contaminants (HOCs) with events like stormflow or industrial runoff on the time weighted average water concentration is important for ecological exposure assessment. How well polymeric passive sampler concentrations represent the time-averaged concentration over an entire deployment period, is the key topic of investigation in this study. A first order and a one-dimensional Fickian diffusion model (solved using a finite difference numerical approach) were used to simulate the uptake and loss kinetics of PCB molecules in a polyethylene (PE) sheet from water. Several conditions of ambient concentration of polychlorinated biphenyl (PCB) molecules, sampler characteristics and molecular properties were simulated. For each of these simulations, the PRC corrected mass of uptake into the PE is converted to ambient water concentration and compared with the actual time averaged water concentration calculated over a period of 90 days with 1000 ng/L in no storm and 100 ng/L in storm condition respectively. Some preliminary results from the diffusion model show us that when the sampler is retrieved at the end of the deployment period, after a 1day storm on the 80th and 87th day, the passive sampler induced freely dissolved concentration of PCB 37 in the overlying water is 2% and 5% less than the actual time-averaged concentration (990ng/L), respectively. A storm-induced concentration drop on the 45th day that lasts for 10 days instead of 1day results in a drop to 900ng/L. The time scale of 'time-averaging' in passive sampling is a strong function of compound hydrophobicity. This was confirmed by how the effect of the storm is embedded in the prediction of the freely dissolved concentration of higher homolog groups like PCB 128, which matches the time averaged concentration. Lower congeners like PCB 15 and 37 recover from the history of the storm with the predicted water concentrations 11% and 8% higher than the actual time averaged concentration, respectively. The first order model agreed well with the diffusion model in terms of the trend of concentration gained or lost from passive samplers as an effect of fluctuation in ambient concentration.

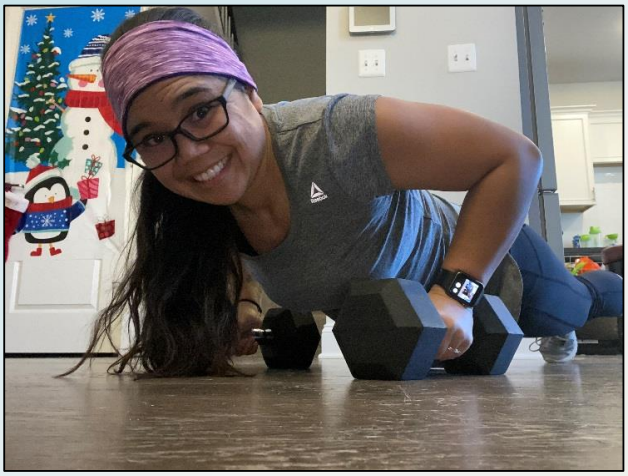
CAREER CORNER

Hi, my name is Taryn Brown, a US Army Veteran. I worked as a contractor for the Oak Ridge Institute for Science and Education for Army Public Health Center's Directorate of Toxicology while being a mother to my son and two dogs, a wife to a US Army Soldier, and a student working towards my Health Science Laboratory Technology Degree during the COVID Pandemic. And like many others, the changes brought by COVID made juggling my life a lot more challenging. Before the pandemic, my day would usually start around 0500. My husband or I would drop our toddler off at day care in the morning and head to work. At work, I would focus on all the demands the various studies and projects required. And after work, I drove to the local library to complete my schoolwork before heading home to spend the remaining time with my family. The days felt long and, at times, exhausting, but very rewarding.

But once the COVID Pandemic began, daycare for my child was no longer available, and I was forced to telework majority of the time. This was one of the hardest challenges to overcome, working from home with a toddler and two dogs. My husband, who was an Active Duty Soldier, was identified as essential personnel and was required to work onsite. Even when he was at home, he kept getting calls and tasks for his work. Other than the safety of my family, I worried a lot about how I can continue to be productive and support my job from home with a toddler. I needed to step out of my comfort zone from the hands-on laboratory work I'd normally do as a technician. I started reviewing and editing toxicity reports and began to author some of my own. I had little to no experience in this kind of work, and the focus that was required of me to learn it was difficult to maintain while my son was constantly needing my attention from getting dressed, to eating, to being held and everything in between.

I never realized, until a few months into the pandemic, that working from home and limiting my active lifestyle made me depressed. I used to be able to play volleyball, go to work out classes and walk around with friends for exercise and my mental health. I no longer had the time nor opportunity for this; I started gaining weight, lacked energy and was depressed. I forced myself to get out of bed knowing my family needed me and I have to continue working to help pay for the bills. I did not know why I was feeling this way, and what made it worse, I did not know how to verbalize how I was feeling to my husband.

CAREER CORNER



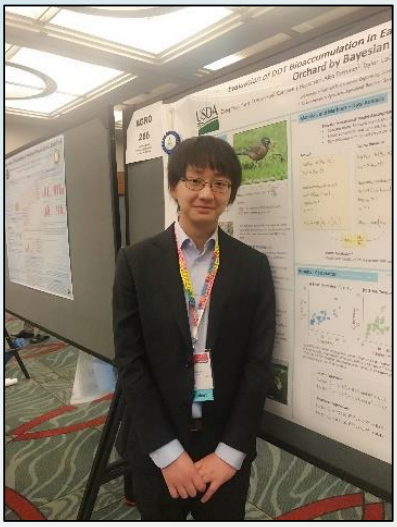
I took everything one day at a time and, slowly, this new routine became the norm. My anxiety to be productive at work slowly decreased; I learned more how to review and edit documents through the support of my peers. Though, my husband was essential personnel that worked onsite, we managed to find time for me to get out of the house and go perform laboratory work. Getting out of the house was helping. But the weight I gained was still bothering me a lot. Fortunately, I was able to find a small workout group during the pandemic that adhered to social distancing. I was able to work out once again and lose weight. I was healthier physically and mentally because of this.

At home, my son was experiencing adjustment problems as well. He used to have daycare to focus his energy on, but now he was using that same energy to get my attention. As time passed, as I was learning to overcome my challenges, and my son started to learn and adapt as well. He was able to play more by himself while I worked. We found things to do outside that he could get excited about. We would walk a lot around the neighborhood and go to a coworker's farm to see animals, where he was able to chase and catch baby chicks, play with the pigs in the mud, and feed and ride a calf.

Although faced with many difficulties during the COVID pandemic, there were many positive outcomes as well. I was fortunate to be able keep my job and spend every waking moment with my son watching him grow. And now that I am transitioning from an ORISE contractor position to a civilian one, my son is also transitioning back into daycare. I have been given the opportunity to show my department that I am capable of more than just hands on laboratory work, which will help me grow in my new position. I was also given the opportunity to teach zoom workout classes and share the story of my weight loss journey, which helped others with their journey to living a healthier lifestyle. Hard work, patience, and the support of others was absolutely essential to adjusting to the new "normal." Who knows what new changes and challenges this next year will bring – right now, I am ready for anything.

INTERNATIONAL STUDENTS' PERSPECTIVE

There are some unique challenges and opportunities with being an international student in the US. In this issue of the newsletter, we look at two members of CPRC SETAC, and their journey of growth since they came here.



Name: Zijiang Yang
Current position/degree: PhD
University: University of Maryland

1) How many years have you spent in the US as an international student?
Seven years.

2) What have been some of the challenging aspects of adapting to a new life in a new country?
The main challenge for me is transportation. It is very inconvenient if I cannot drive here. Although there is school shuttle for commuting, it is inconvenient to go to supermarket or other places. So, at first year, I have to learn how to drive and try to get driver's license.

3) Did you face any challenges with transitioning to a new or different academic and research culture?
Yes. Since the communication language is English, I had to get familiar with the terminologies in English. For example, it took me lots of time to read (English) papers, and it makes it hard to finish reading assignment from the professors.

4) If so, how did you overcome these challenges?
I spent extra time reading English papers and textbooks in my field. As time going, the reading ability was enhanced, and I can read papers faster.

5) With a busy academic and research schedule, how often do you get to visit home?
Every 2 or 3 years.

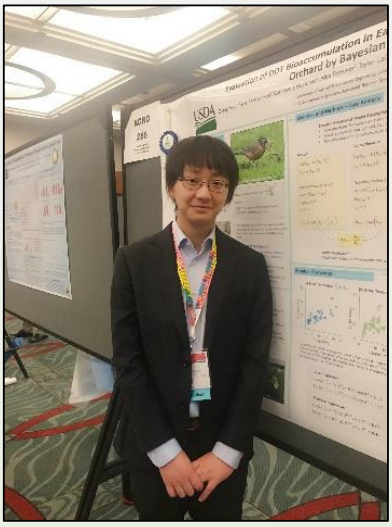
6) What are the most uniquely American things that you appreciate the most?
I think US is pretty open and inclusive, so I can not only meet American friends but also friends from other countries.

7) Are there any aspect of your home country or your life back home that you miss the most? If so, how do you make up for these aspects in the US?

My parents and my friends. We are having video calls periodically. In addition, during pandemic, my friends and I start holding a Zoom meeting every week, and during the meeting we can share stories and academic information.

INTERNATIONAL STUDENTS' PERSPECTIVE

8) Can you highlight/give examples of (professional/personal)



aspects that you have learned or improved upon through your experience as an international student in the US? For eg. Any new technical or soft skill sets that you have picked up on; any areas of personal growth etc.

Since I have chance to meet with new friends from many other countries with difference background and culture, I have become more open-minded. It makes me more willing to understand the things that I used to refuse to understand.

9) Do you have any advice that you would like to share with other international students who are new to the US or those who are planning to start their studies in the US?

I think the most important thing is to enhance the ability of speaking and listening in English. When you have a good ability to communicate, then you can make more friends and have more chances for communication --- which will in turn enhance the ability of speaking and listening.

10) Any resources of useful information for international students that you know of (or have used) and would like to share with other international students

A website that shares discount information: https://www.dealmoon.com/en

INTERNATIONAL STUDENTS' PERSPECTIVE

Name: Oindrila Ghosh
Current position/degree: Ph.D. Student
University: University of Maryland Baltimore County (UMBC)

1) How many years have you spent in the US as an international student?

I came to the US in the Fall of 2017. I spent my first year in Texas, where I was a PhD student at Texas A&M University. I then took a transfer to UMBC as a direct admit to the Ph.D. program in the Chemical, Biochemical and Environmental Engineering Department and have been working with Dr. Upal Ghosh since the Fall of 2018. In all, I have been in the US for 4 years.

2) What have been some of the challenging aspects of adapting to a new life in a new country? Did you face any challenges with transitioning to a new or different academic and research culture? If so, how did you overcome these challenges?

At TAMU, I was in an interdisciplinary program and the transition from a classical style of education in India to an interdisciplinary curriculum was a breath of fresh air. But there were other complications. I was assigned an advisor from the Department of Geography, who did not have the funds to accommodate me at the time. Hence, I was encouraged to gain research experience at Texas Water Resources Institute with another advisor in charge of a funded project. The whole situation of accountability was very complex for me to start with.

With the absence of any conveyance of my own, I had to manage my time between TWRI office and attending classes in the main campus 3 miles away and using the shuttle service to travel within the campus. It was the first time I was starting to get paid in my career and figuring out the payroll papers took me two straight months, leading to me getting paid quite late. This and the ending of the tenure of the project made me lose out about three months of payment. In the meantime, I had to borrow money from my parents and that was an added pressure of guilt. All this was coupled with cooking my own meals for the first time, staying oceans away from my family, filing taxes at the end of the year, and then an ugly episode of me being annoyingly gullible to fall into the trap of scam calls and almost lose $4000!

At the end of my first year, I decided to take a transfer to UMBC because: firstly, the research done at the Ghosh Lab was more suited to my interests and expertise and secondly, my boyfriend was doing his Ph.D. at UMBC and I did not have any local guardian or emergency contact other than him in the US. I had realized by then that doing this journey would be difficult without a proper support system.

INTERNATIONAL STUDENTS' PERSPECTIVE

3) Can you highlight/give examples of (professional/personal) aspects that you have learned or improved upon through your experience as an international student in the US? For e.g. Any new technical or soft skill sets that you have picked up on, any areas of personal growth etc.

Switching to a more application-based research project at the Ghosh Lab at UMBC made me feel more confident about myself. I realized that being flexible about your work does not always mean compromising your comfort zone and that finding balance between these two was the key.

The first year in the US had taken a massive toll on my confidence and I found it very difficult to initiate conversations. I thought the issues I was facing at work or in life were unique. Gradually, I realized the importance of staying well-informed about the work happening around you. Spending about 10% of your time outside the lab, in the corridors, in the lunchrooms or coffee, helps you develop a network, know about problems others might be facing in their research, share any ideas that you might have to solve them (it is totally okay if you don't have any) and tell them about your experiences. This can come in handy while coping with all the obstacles that one might frequently face during a PhD. Also, striking the right balance between 'small talk' and the real 'work talk' and how to diffuse from one to another is key to good professional behavior.

4) What are the most uniquely American things that you appreciate the most? Are there any aspect of your home country or your life back home that you miss the most? If so, how do you make up for these aspects in the US?

I have always been a very indoors person, always most comfortable inside my home and with my family. So, it is only natural that I miss home and family quite a lot. Over the last four years I have visited them twice, not more than two weeks at a time. But the one thing that I have not missed is the politeness of the people around me. Even on a busy day, I have been greeted in the most American way with a 'Hello, how are you doing?'. It took me some time to realize that people are not looking for an honest answer, but it does lift your mood and can be a nice conversation starter. I have been amazed by the innumerable options at the grocery stores; eggs, bread, cheese, butter, oil, onions, potatoes, you name it!

India was once a British colony and the English I learnt as a kid was British English. I love how extra letters are so easily dropped off in the American English; makes your life so much easier! However, I have never really understood the obsession of people flying with their pets. I still like keeping my Indian tradition of carrying a big jute or cloth bag to carry my grocery and keep a cloth to wipe surfaces in the kitchen that I wash every week.

INTERNATIONAL STUDENTS' PERSPECTIVE

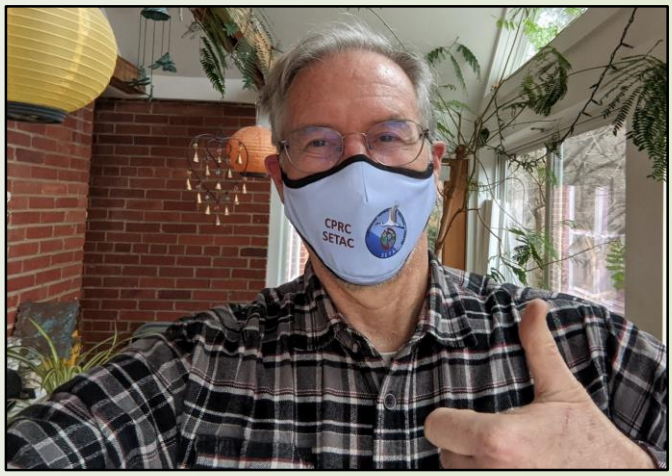
5) Do you have any advice that you would like to share with other international students who are new to the US or those who are planning to start their studies in the US?

You left your country to venture into a new life. It is a big change. Take things slow. Do not rush into expecting too much out of yourselves. Being able to survive one day without doing anything substantial is not a day of failure. The aim is to live with yourself at the end of the day. You are only accountable to yourself. If you are satisfied with the amount of work you are putting into something, that means a lot. That does not essentially mean you would be satisfied with what you achieved in the process of putting that much effort. Not being satisfied is only a thirst for perfection and it will only make you a more striving person to keep that thirst alive. Developing a hobby, taking enough breaks to unwind will keep you motivated to go to work with a fresh mind the next morning. For me it is painting. Take advice from the right people, people who have gone through similar situations as you.

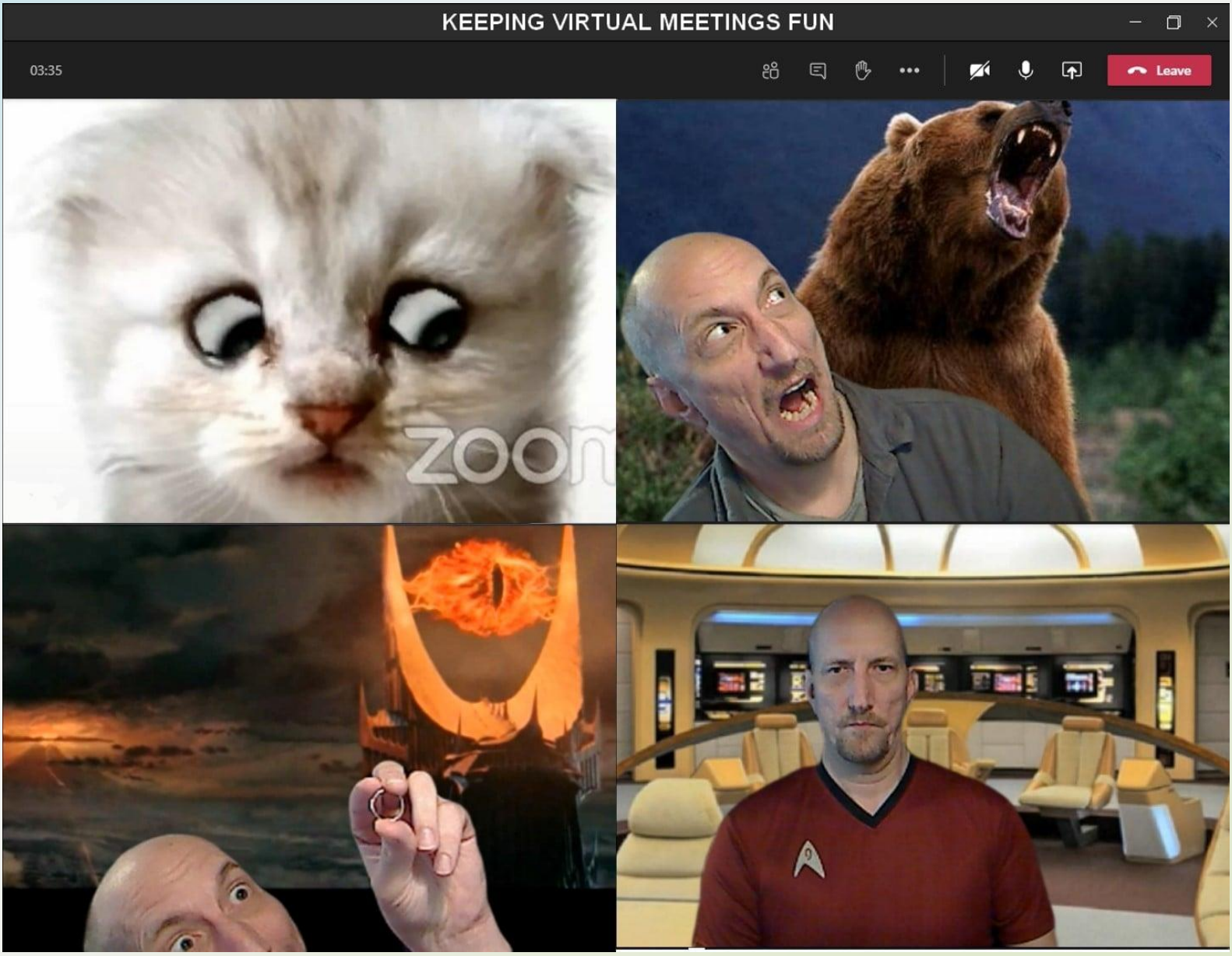
VIRTUAL HAPPY HOUR

By Sarah Lanasa (Towson University)

CPRC hosted a Regional Chapter Mixer during SETAC North America SciCon2, and more recently a virtual Happy Hour January 21st, 2021. The Regional Chapter Mixer brought new and familiar faces to the virtual platform. We love seeing SETAC members support and get involved in our local chapter. Hopefully, we'll see everyone again, at more events. The January happy hour also brought members together to have pleasant discussions. The main discussion topic was the recent presidential inauguration, that occurred just one day prior to the Happy Hour. Members shared how this recent change in administration might affect them in their different sectors. It was interesting to hear academics, government, and industry colleagues share their thoughts on this recent change. There was also a random drawing to win a CPRC-SETAC sponsored mask, Jim was the victorious recipient. Jim shared pictures of himself sporting the mask while he distributed milkweed seeds in the Potomac. Thank you to everyone who joined our virtual social events and we hope to see you all again soon!



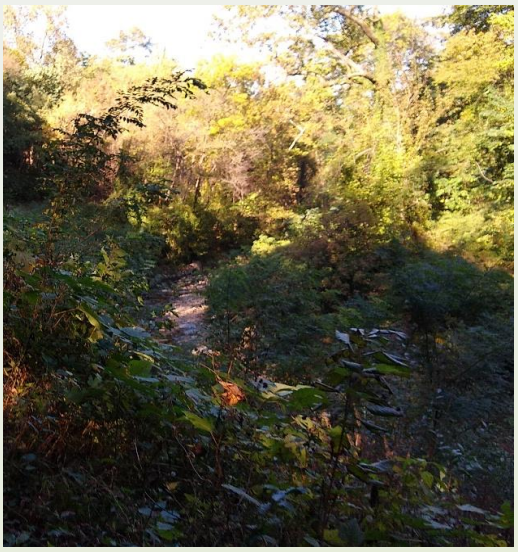
COVID IMPACTS: TELEWORK TRICKS

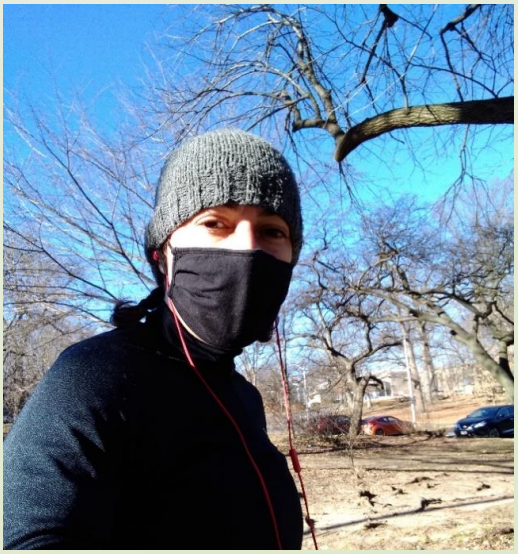


CPRC Board of Directors member, Scott Lynn, with his preferred Zoom backgrounds and filters, for keeping virtual meetings entertaining !!

COVID IMPACTS: KEEPING ACTIVE AND MAINTAINING SANITY

Going for a little exercise in my neighborhood





Incoming CPRC president, Nathalie Lombard, shares her preferred methods for relieving stress !

FUN WINTER ACTIVITIES

Charles Village under snow (Nathalie Lombard, UMBC)

The Trumpeter Swan was visiting our area this winter. It is the largest swan in the world and competes with the California Condor as the largest bird in the US. It is quite rare and was hunted to near extinction in the 19th century with numbers dwindling to <100, but has made a comeback, thanks to the conservation efforts.

Trumpeter Swan Oxbow Lake, AA County, MD. (Picture Credits: Upal Ghosh, UMBC)

These birds are so large and bulky that they need 100 yards of runway on water for their lumbering takeoff! Next to the swan you can see the wood duck (prettiest of all ducks) hanging around trying to pick off morsels as the swan is uprooting roots and vegetation in the shallow waters.

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 non-profit 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 three 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 (option1 above).

3) Snail Mail: Check and money orders accepted. Please include your name, affiliation and address with your payment.

SETAC-CPRC P.O. Box 2728
Brooklyn, MD 21225
Attn: Meredith Bohannon, Treasurer

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

CPRC SETAC Sponsorship Form

An electronic version of this form can be completed at:

https://goo.gl/forms/La1Lwvb21Gv58wus1

STEP ONE: CONTACT INFORMATION

Organization Mailing Address

City/State/Postal Code/Country

Sponsor Contact Phone Fax

Email

STEP TWO: SELECT SPONSORSHIP ACTIVITIES

Please select below the CPRC activities you would like to support as a sponsor. You are encouraged to select more than one CPRC activity to sponsor. The following CPRC activities available for sponsorship will be granted on a "first come, first served" basis and can be reserved in advance of the event. The additional sponsorship benefits are granted to sponsors according to the 3-tier sponsorship scheme (shown at the end) which is determined by the total of the sponsorship activity.

SPONSORSHIP ACTIVITY / TYPE	AMT	QTY AVAILABLE	QTY SELECTED	SUBTOTAL
STUDENT AWARDS and TRAVEL SUPPORT				
Annual Spring Meeting Student Awards (1st, 2nd, & 3rd place) for best poster or platform presentation	$250	2		
Student Travel Award to SETAC NA	$500	Unlimited		
Virtual Poster Contest Student Awards	$250	1		
Annual Spring Meeting Travel Support for one student (includes short course, meeting registration, overnight	$250	Unlimited		
Autumn / Winter Dinner Travel Support for four students	$250	1		
CPRC EVENTS				
Poster Social / Coffee Break at the Annual Spring Meeting	$250	2		
Student-Mentor Luncheon during the Annual Spring Meeting	$500	1		
CPRC Pub Night / Evening Social at SETAC NA meeting	$1,000	1		
Annual Autumn / Winter Dinner Event with Guest Speaker	$500	1		
			TOTAL DUE $	

STEP THREE: PAYMENT INFORMATION

Please submit a completed copy of this form and a check (payable to "CPRC SETAC") to the following address:

CPRC SETAC Treasurer
PO Box 2728
Brooklyn, MD 21225
Attn: Meredith Bohannon

If you have any difficulty with your sponsorship payment, or have any questions, please contact CPRC Treasurer Meredith Bohannon (treasurer.cprc.setac@gmail.com) or (cprc.setac@gmail.com).

CPRC SETAC Sponsorship Form

ADDITIONAL SPONSORSHIP BENEFITS BY TIER[A]

Benefit	Primary Producer ($250/year) [A]	Secondary Producer ($500/year) [A]	Keystone Sponsor ($1000+/year) [A]
Complimentary Spring Meeting Registration(s)[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

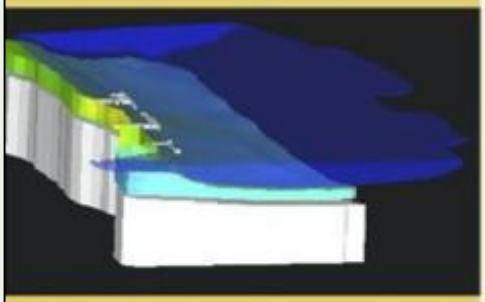
[A] Sponsorship Tier is determined by the total amount given on an annual basis from **STEP TWO**.

[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.

integral consulting inc.

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 th lead to positive change.

Unique Collaboration

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

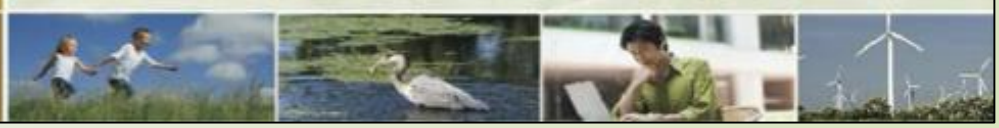
Supportive Environment

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



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