

ESPecially Noteworthy

An ESP Research Newsletter

Staff Spotlight...

Dr. Younsung Kim



A recent point of pride for me is my nomination for the 2023 David P. Baron Best Paper Award for my article titled "Integrated Market and Nonmarket Strategies: Empirical Evidence from the S&P 500 Firms' Climate Strategies", published in Business and Politics. In it, I explore how corporate carbon strategies impact US mandatory carbon policies, emphasizing the importance of the private sector's carbon-reducing technologies and policy support for climate mitigation. Though the development process was challenging, the rewards have been gratifying.



I'm also excited about receiving a USGS grant of \$225,000 for climate adaptation studies. This project involves students conducting systematic literature reviews and establishing databases, which practitioners and policymakers can leverage for species conservation and climate adaptation planning.

I'm proud when students share their successes with me. One student who recently took my EVPP 361 & 362 courses secured a substantial scholarship to Vermont Law School. This reminds me of the importance of my role as an educator and the Teaching Excellence Award I received in 2018.

Interview with Dr. Younsung Kim (continued)

What are your goals for the next year?

As the current Summer Chair and Undergraduate Program Director for the Environmental Science and Policy (ESP) department, my primary goal for the next year is to unlock the department's vast potential to educate future practitioners and scholars in our field. While the department has achieved much already, there's greater potential yet to be tapped into. Due to some instability in leadership, my focus will be on establishing a more stable foundation for our department.

In terms of my research, I aim to further delve into carbon management and corporations' Environmental, Social, & Governance strategies. I've noticed a significant increase in environmental activities within the private sector recently. Building upon the foundations of my paper published in Business and Politics, I intend to explore and underscore the private sector's growing role in environmental sustainability and climate change.

Learn more about Dr. Kim

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Photo: Dr. Kim at the 2023 Admissions Fair with Jason Motley and Keanah Turner

What advice do you have for ESP students?

This is a tough one! I encourage students to take advantage of the interdisciplinary nature of the Environmental Science and Policy (ESP) department. Combing science and policy to fully comprehend and address environmental issues is truly powerful. It's also essential to actively seek involvement in local or regional environmental and sustainability activities. Gaining practical experience through research, community outreach, and environmental planning is incredibly beneficial in today's world. Such hands-on learning will help you dive into your chosen career. For undergraduates, keep an eye out for the numerous extracurricular activities available both on and off campus. We're also fortunate to be located near Washington DC, which offers a wealth of internships and volunteering opportunities. Be proactive in pursuing these opportunities to prepare for a sustainable future. Lastly, I hope you have a fulfilling and productive summer!





If you didn't get your accomplishments in, don't worry, we can feature them next time. Please forward all your accomplishments to <u>Dr. Glaberman</u> and <u>Dr. Kim</u>. Not only grants and publications, but all wins.

Faculty Publications, Grants, Presentations, and Awards

- Mangukiya R, **Sklarew D**. 2023. Analyzing the three pillars of Sustainable Development Goals at subnational scales within the USA. World Development Sustainability 2:100058
- Akerlof KL, Loevenich J, Melena S, Lipsky CA. 2023. Behaviorally segmented audiences for managing sunscreen chemical pollution risk in protected coastal natural resource areas. Risk Analysis.
- Hertel SW, Stupavsky J, Alford K, Hicks HR, Heaton A, Katlein N, Hastings B, Stern A, Jett S, Wang AY, Wang B, Glaberman S, Chiari Y. 2023. Dominant attitudes and values towards wildlife and the environment in coastal Alabama. Conservation Science and Practice, e12957
- Sklarew J. Curriculum Impact Grant, focusing on Converging Sustainability, Social Justice, Systems Engineering, and Community Engagement (S3&C). She'll collaborate with Lead PI Shima Mohebbi from CEC/SEOR and Co-PI Judit Ungvari from ISE, along with Mason's Living Labs Initiative. The team will develop integrative courses for transdisciplinary collaboration among ESP and Systems Engineering undergraduates.
- Akerlof KL. Bridging Science and Policy in the States: A Study of Emerging Mechanisms to Train Scientists and Engineers. 4-VA Award (\$19,820). Collaboration with Virginia Tech.
- Jones RC. Using Taxonomic, Pigment and Molecular Analysis to Characterize Algal Blooms in the Shenandoah River. 4-VA Award. Collaboration with Old Dominion University.
- Valderrama D, Marco J, Valbuena N. 2023. Examining the Success of the Tilapia Industry in Huila, an Emerging Aquaculture Hub in the Colombian Southwest. NAAFE Forum 2023: Science and Governance for Sustainable Fisheries in a Changing Ocean, May 23–26. Woods Hole Oceanographic Institution and NOAA Northeast Fisheries Science Center.
- Sklarew D. Machine learning advances biodiversity conservation and coherence with the United Nations Sustainable Development Goals (UN SGGs). International Conference on Challenges and Prospects of Bioresource Conservation in Eastern Himalaya with special reference to UN SDGs, Gauhati U., Gawathati, Assam, India. Delivery was long after midnight in DC, in a session which also featured newly minted ESPP PhD Sudha B.
- Dr. Richard Groover has signed a contract with Springer Nature publishing company (Switzerland) to write the manuscript for his next book: How to win environmental victories. The book is expected by January 2024.

Faculty Publications, Grants, Presentations, and Awards (Continued)

- Blakeslee AMH, Pochtar DL, Fowler AE, Moore CS, Lee TS, Torchin ME, Miller AW, Ruiz GM,
 Tepolt CK (International Conference on Marine Bioinvasions, Baltimore, MD) Oral Presentation.
 The role of parasite introduction on host distribution and salinity response
- Fowler AE, Loonam G, Blakeslee AMH (International Conference on Marine Bioinvasions, Baltimore, MD) Poster Presentation. Field surveys and comparative parasitology of freshwater native and invasive snails in Virginia, USA
- Riipinen K, Puntila-Dodd R, Fowler AE, Vesakoski O, Jormalainen V (International Conference on Marine Bioinvasions, Baltimore, Maryland) Oral Presentation. Invasive mud crab Rhithropanopeus harrisii alters invertebrate community composition in the northern Baltic Sea



Events, Outreach, and Other Successes

- As part of an NEEF grant, Graduate student Daya Hall-Stratton and Dr. Amy Fowler visited Dr. Jess Doiron's classroom at Freedom High School in Woodbridge, VA to educate students about invasive species. Students collected size data on live Japanese mystery snails provided by Daya, dissected them to determine their sex, and counted embryos and live juveniles in female snails' brood sacs. The collected data was graphed to test the hypothesis that larger females would have higher numbers of embryos/juveniles. Dr. Doirion expressed gratitude for the engaging lesson and expressed a desire to collaborate further in the future.
- Dr. Richard Groover chaired the Centennial Committee arrangements for the Virginia Academy of Science. Over 125 people attended the noon banquet at the College of William & Mary. The Centennial meeting was a great success.
- Ryan McIntyre attended a 3-day Team Science Training funded by Virginia Sea Grant and hosted by UVA with experts in fisheries, wetland management, and coastal communities working together to learn more about how scientists can communicate across disciplines.

Graduate Student Accomplishments

- Sarah Mallette (ESP PhD) serves on the US Delegation for the Scientific Committee of the International Whaling Commission (IWC). Sarah served as rapporteur for the Conservation Management Plans sub-committee when the IWC Scientific Committee met from April 24th to May 8th. Sarah is developing Conservation Management Plans (CMPs) for multiple cetacean species.
- Katherine Saylor. 2023. "The moral of the story is...": telling your environmental research story to policymakers. Environmental Research Letters.
- Meaghan Caruso (ESP PhD) received GMU Summer Sustainability <u>Fellowship</u> to work with US
 Department of Transportation's Office of the Secretary to study interagency efforts to achieve the
 environmental outcomes of the Bipartisan Infrastructure Law.
- Zach Combs (ESP PhD) was awarded Provost's Doctoral Research Scholarships for the coming academic year.
- Darby Pochtar and Alexander Mott, GMU Provost Office's Summer 2023 Doctoral Research Fellowship, S8,000
- Alexander Mott, GMU Environmental Science and Policy Department Best PhD Dissertation award
- Sarah Greenberg, GMU Environmental Science and Policy Department Best Master's Thesis award
- Lauren Koban, GMU ESP Ave Tombes Award (best PhD dissertation combining science and policy)
- Tabitha King. Virginia Water Resources Research Center's Competitive Grants Program (\$9,977) and Virginia Association of Wetland Professional's Student Research Scholarship (\$500).
- Dianna Belman (ESP PhD) was selected to take part in the 2023 Meridian Diplomatic Skills Training Course, which teaches early career scientists soft skills such as communication, crisis management, and cross-cultural competencies required for a diplomacy career transition.





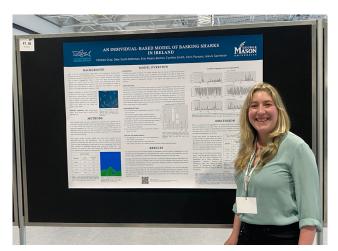
Sara Mallette (ESP PhD) studying whales in Oman. Studying humpbacks on the water (left) and a sperm whale skeleton (right)

Graduate Student Accomplishments (Continued)

- Allie Case (ESP MS) was invited to give her first guest lecture at Washington and Lee University.
- Chelsea Gray (ESP Phd) presented a talk and poster at the International Society for Ecological Modeling in Toronto. Her poster won second place. The talk was titled: Assessing Individual-Based Model use in Policy: Ensuring Your Model is Utilized. The poster was titled: An Individual-Based Model of Basking Sharks In Ireland. Dr. Cindy Smith was a co-author. Find more here.
- Lee TS, Fowler AE, Krueger-Hadfield SA, Blakeslee AMH (International Conference on Marine Bioinvasions, Baltimore, MD) Oral Presentation. Macroinvertebrate assemblages of a red, marine invasive macroalga along the US Eastern Seaboard
- Loonam G, Wolf A, Blakeslee AMH, Fowler AE, Keogh C (International Conference on Marine Bioinvasions, Baltimore, MD) Poster Presentation. Non-destructive indicators of trematode infection in Littorinidae hosts
- Gabriel CE, Schlenker LS, Fowler AE, Blakeslee AMH, Morley JW (International Conference on Marine Bioinvasions, Baltimore, MD) Poster Presentation. Prevalence and distribution of black gill disease in shrimp populations in Pamlico Sound estuaries
- Mott A, Krueger-Hadfield SA, Fowler AE, Blakeslee AMH (International Conference on Marine Bioinvasions, Baltimore, Maryland) Oral Presentation
- Greenberg SR, Pochtar DL, Blakeslee AMH, Hanley D, Fowler AE (International Conference on Marine Bioinvasions, Baltimore, MD) Oral Presentation. Is there a lesser of two evils? Castrating parasites of an estuarine crab host along a salinity gradient
- Pochtar DL, Blakeslee AMH, Tepolt CK, Ruiz G, Fowler AE (International Conference on Marine Bioinvasions, Baltimore, MD) Oral Presentation. How to avoid becoming a zombie: The coevolution of low salinity tolerance in white-fingered mud crabs with its castrating parasite



Allie Case (ESP MS) showing off a baleen plate as part of an invited guest lecture at Washington & Lee University



Chelsea Gray presents a poster and talk at the International Society for Ecological Modeling in Toronto