

**CURRICULUM VITAE (August, 2025)****Carys L. Mitchelmore, Professor.**

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**I. Professional Preparation:**

- 1997 Ph.D. Aquatic Toxicology (Biochemistry/Genetic foci). University of Birmingham, U.K and Plymouth Marine Laboratory, U.K.
- 1993 M.Sc. Applied Toxicology (Distinction and awarded GlaxoWellcome Fellowship). University of Portsmouth, U.K and GlaxoWellcome, Ware, U.K.
- 1992 B.Sc. (Honors; First Class). Biology (major areas, Marine Biology and Applied Ecology). University of Portsmouth, U.K.

**II. Professional Appointments:**

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|-----------------|-----------------------------------------------------------------------------------------------------------------|
| 07/2016-present | Professor, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science.           |
| 06/2023-08/2025 | Interim Director, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science.    |
| 07/2008-07/2016 | Associate professor, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science. |
| 04/2002-06/2008 | Assistant professor, Chesapeake Biological Laboratory, University of Maryland Center for Environmental Science. |
| 10/1999-04/2002 | Postdoctoral Research Associate, Dept. Zoology, Oregon State University. (Advisor: Dr. V. Weis)                 |
| 07/1998-09/1999 | Postdoctoral Research Associate, Research School of Biosciences, University of Kent, Canterbury, U.K.           |
| 04/1997-09/1998 | Higher Scientific Officer, Molecular Toxicology Program, Plymouth Marine Laboratory, U.K.                       |
| 09/1993-04/1997 | Postgraduate Researcher / Teaching Assistant, Dept. Biochemistry, University of Birmingham, U.K.                |
| 09/1992-09/1993 | Postgraduate Researcher, Dept. Immunotoxicology, GlaxoWellcome, U.K.                                            |

**III. Research:****A. Areas of professional expertise**

Marine biology and environmental health; with an emphasis on water quality and security, aquatic toxicology, physiology and biochemistry in an array of invertebrate and vertebrate, freshwater, estuarine and marine species. Research has been directed towards a broad

range of interdisciplinary questions with both applied and mechanistic (basic research) foci. I am particularly interested in the use and interpretation of science in policy and management decisions and the influence of the media and social science issues.

**Research portfolio;** includes chemical and toxicological investigations regarding water quality and security, the determination of exposure/exposure pathways, partitioning of chemicals in exposure media (i.e. dissolved versus particulate fractions), contaminant uptake, bioaccumulation and partitioning, retention and depuration in resident organisms, trophic transfer, routes of metabolism, mechanisms of action, ultimate fate and effects of pollutants in resident organisms. Species of focus include understudied and sensitive species such as corals (and other cnidarians) and reptiles. Pollutants studied include, crude oil, chemical dispersants, metals, endocrine disruptors, pesticides, flame retardants, phthalates, nanomaterials, invasive species, bacteria, microplastics, chlorinated/ brominated disinfection by-products and organic UV-filters (sunscreen components). Focus on understanding oxidative stress, antioxidant pathways and DNA damage in aquatic organisms and developing novel biomarkers and approaches to environmental monitoring. Investigating the risk bioaccumulation poses regarding consumption by higher trophic level organisms (including humans). Determining the mechanisms involved in the breakdown of cnidarian (including coral)-algal symbioses, including novel pathways and developing biomarkers that precede the bleaching event. Toxicity testing (standard acute and chronic tests, including WET tests) and their application and interpretation (including regulation and management activities, expert witness reports) and the development of various biomarkers at multiple levels and scales.

**Scientific application and integration;** Applied research topics have included collaborations with various agencies and companies focused on shipboard and laboratory trials of various ballast water technologies, determining efficacy and residual toxicity. Numerous investigations pertaining to Natural Resource Damage Assessments have been completed for NOAA with respect to understanding oil/dispersant partitioning in environmental matrices (dissolved / particulate (droplets)) and on the impacts of oil and/or dispersant to crabs and reptiles. Served on numerous scientific committees, expert working groups and advisory panels, including, National Academies of Sciences, Engineering and Medicine panels (2005, 2015), toxicological working groups for NOAA, NCEAS IEP, UNH CRRC and for the Deepwater Horizon NRDA effort. Peer-reviewer for chemical specific risk assessments and water quality benchmarks (Federal and State levels). Synthesized and prepared reports and been an expert witness for various court cases with respect to aquatic toxicity concerns, specifically those relating to toxicity tests. Provided scientific expertise to International and National agencies, the media and public. Given written and verbal testimony at various Federal and State House and Senate committees and local government summarizing environmental concerns for a variety of contaminants and implications to policy and management decisions.

## B. Peer-Reviewed Publications

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Web of Science Researcher ID: E-5278-2012

### 1. *Papers in Refereed Journals (>62);* with the following statistics (from 08/2025);

Web of Science/Publons: H-index 26, citations 2,995

Google scholar: H-index 35, citations 4,604 #; student advisee

- #Dorman, C., Giarikos, D.G., Hirons, A.C., Mitchelmore, C.L. and D. A. Renegar. 2025. Acute Toxicity of Arsenate and Arsenite in two scleractinian coral species: *Acropora cervicornis* and *Orbicella faveolata*. Toxiology Reports.
- Ratner B., Bean, T.G., Bejarano, A.C., Johnson, M.S., Kapustka, L., Krishnan, L., Leopold, A., Mitchelmore, C.L., Muir, D., Olsgard, M., Opeolu, B., Medina, M. G.O., Reed, a., Suter, G., Vigon, B., and Wronski, A. 2025. A Critical Perspective on the Society of Environmental Toxicology and Chemistry's Adherence to Founding Principles – Opportunities for the Future. Environmental Toxicology and Chemistry.
- Burns, E., Mitchelmore, C.L., Williams, J., Heyes, A., Gonsior, M. and I. Davies. 2025. Chronic toxicity of the UV filter Octocrylene to the sea urchin, *Arbacia punctulata*. Environmental Toxicology & Chemistry, 44, 8, 2186-2197. <https://doi.org/10.1093/etojnl/vgaf122>
- Boyd, A., Stewart, C.B., McCuaig, J.D., Martin, S., Legge A., Doty, D., Mitchelmore, C. L. and T.A. Blewett. 2025. Are standard test species still relevant? A comprehensive assessment of *Daphnia pulex* reared in laboratory and wild environments and their responses to organic ultraviolet filters. Environmental Toxicology & Chemistry, vgaf192. <https://doi.org/10.1093/etojnl/vgaf192>
- Parkerton, T., Boufadel, M., Nordtug, T., Mitchelmore. C., Colvin, K., Wetzel, D., Barron, M.G., Bragin, G.E., de Jourdan, B., and J. Loughery. 2023. Recommendations for advancing media preparation methods used to assess aquatic hazards of oils and spill response agents. Aquatic Toxicology., 259, 106518. DOI: 10.1016/j.aquatox.2023.106518.
- Takeshita R., Bursian S.J., Colegrove K.M., Collier T.K., Deak K., Dean K.M., De Guise S., DiPinto L.M., Elferink C.J., Esbaugh A.J., Griffith R.J., Grosell M., Harr K.E., Incardona J.P., Kwok R.K., Lipton J., Mitchelmore C.L., Morris J.M., Peters E.S., Roberts A.P., Rowles T.K., Rusiecki J.A., Schwacke L.H., Smith C.R., Wetzel D.L., Ziccardi M.H., and Hall A.J. 2021. A review of the toxicology of oil in vertebrates: What we have learned following the Deepwater Horizon oil spill. Journal of Toxicology and Environmental Health, Part, B – Critical Reviews, 24, 8, 355-394. DOI:10.1080/10937404.2021.1975182.
- #Conway, A.J., Gonsior, M., Clark, C., Heyes, A. & C.L. Mitchelmore. 2021. Acute toxicity of the UV filter oxybenzone to the coral *Galaxea Fascicularis*. STOTEN, 796, 148666. DOI: 10.1016/j.scitotenv.2021.148666.
- Mitchelmore, C.L., and I. Davies. 2020. Environmental Risk Assessment of UV filters. Session Summary from SETAC Europe SciCon, 2020, SETAC Globe, 4 June 2020, Session Summaries, Volume 21, Issue 6.
- Mitchelmore, C.L., Burns, E.E., Conway, A., Heyes, A. and I.A. Davies. 2021. A Critical Review of Organic Ultraviolet Filter Exposure, Hazard, and Risk to Corals. Environmental Toxicology & Chemistry, 40, 4, 967-988. <https://doi.org/10.1002/etc.4948>
- Powers, L.C., Conway, A., Mitchelmore, C.L., Fleischacker, S.J., Harir, M., Westerman, D.C., Croué J.P., Schmitt-Kopplin, P., Richardson, S.D., and M. Gonsior. 2020. Tracking the formation of new brominated disinfection by-products during the seawater desalination process. Royal Society of Chemistry, Environ. Sci.: Water Res. Technol. DOI: 10.1039/d0ew00426j
- Mitchelmore, C.L., and I. Davies. 2020. Concentrations and Impacts of UV filters in aquatic Environments. Session Summary from SETAC North America, 2020, SETAC Globe, 16 January 2020, Session Summaries, Volume 21, Issue 1.
- Sherwood, T.A., Medvecky, R.L., Miller, C.A., Tarnecki, A.M., Schloesser, R.W., Main, K.L.,

- Mitchelmore, C.L. and Wetzel, D.L. 2019. Nonlethal Biomarkers of Oxidative Stress in Oiled Sediment Exposed Southern Flounder (*Paralichthys lethostigma*): Utility for Field-Based Monitoring Exposure and Potential Recovery. *Env. Sci & Technol.*, 53, 24, 14734-14743. DOI: 10.1021/acs.est.9b05930
- Mitchelmore, C.L., and I. Davies. 2019. Environmental Risk Assessment of UV filters in Freshwater and Marine Environments. Session Summary from SETAC North America, 2018, SETAC Globe, Volume 20, Issues 2 and 3.
- Mitchelmore, C.L., He, K., Gonsior, M., Hain, E., Heyes, A., Clark, C., Younger, R., Schmitt-Kopplin P., Feerick, A., Conway, A. and L. Blaney. 2019. Occurrence and distribution of UV-filters and other anthropogenic contaminants in coastal surface water, sediment, and coral tissue from Hawaii. *STOTEN*, 670, 398-410. doi.org/10.106/j.scitoenv.2019.03.034
- Wright, D.A., Mitchelmore, C.L., Place, A., Williams, E. and Orano-Dawson, C. 2019. Genomic and Microscopic Analysis of Ballast Water in the Great Lakes Region. *Applied Sciences-Basel*, Special Issue “Innovative Water and Wastewater Treatment Technologies for Supporting Global Sustainability”, 9, 12, 2441. DOI: 10.3390/app9122441
- Richardson, S., Cuthbertson, A., Liberatore, H., Westerman, D., Plewa, M., Gonsior, M., Mitchelmore, C.L., Heyes, A., Croue, J.-P. and El-Shorbagy, W. 2018. Desalinated drinking water: What chemicals are we drinking and how safe is it? *Abs. of papers of the Am. Chem. Soc.*, 255, 310.
- He, K., Hain, E., Mitchelmore, C., Heyes, A., Gonsior, M. and Blaney, L. 2018. Occurrence and distribution of a wide range of hormones and UV-filters in water, sediment and coral (*Porites* spp.) from Hawaii. *Abs. of papers of the Am. Chem. Soc.*, 255, 228.
- Elskus, A.A., Mitchelmore, C.L., Wright, D.A., Henquinet, J.W., Welschmeyer, N., Flynn, C.J. and B.J. Watten. 2017. Efficacy and residual toxicity of a sodium hydroxide based ballast water treatment system for freshwater bulk freighters. *Journal of Great Lakes Research*, 43, 4, 744-754. DOI:10.1016/j.jglr.2017.04.004.
- Forth, H.P., Mitchelmore, C.L., Morris, J.M., Lay, C.R. and J. Lipton. 2017. Characterization of dissolved and particulate phases of water accommodated fractions used to conduct aquatic toxicity testing in support of the Deepwater Horizon natural resource damage assessment. *Environmental Toxicology & Chemistry*, 36, 6, 1460-1472. DOI:10.1002/etc.3803.
- Forth, H.P., Mitchelmore, C.L., Morris, J.M. and J. Lipton. 2017. Characterization of Oil and Water Accommodated Fractions Used to Conduct Aquatic Toxicity Testing in Support of the Deepwater Horizon Natural Resource Damage Assessment. *Environmental Toxicology & Chemistry*, 36, 6, 1450-1459. DOI: 10.1002/etc.3672.
- Mitchelmore, C.L., Bishop, C. and T.K. Collier. 2017. Toxicological estimation of mortality of oceanic sea turtles oiled during the Deepwater Horizon Oil Spill. *Endangered Species Research*, 33, 39-50. DOI: 10.3354/esr00758.
- Gonsior, M., Mitchelmore, C.L., Heyes, A., Harir, M., Richardson, S.D., Petty, W.T., Wright, D.A. and P. Schmitt-Kopplin. 2015. Bromination of Marine Dissolved Organic Matter Following Full Scale Electrochemical Ballast Water Disinfection. *Environmental Science & Technology*, 49, 9048-9055. DOI: 10.1021/acs.est.5b01474.
- #Pie, H.V., Schott, E.J. and Mitchelmore, C.L. 2015. Investigating molecular and physiological effects in juvenile blue crab, *Callinectes sapidus*, exposed to sediments contaminated by oil from the Deep-Water Horizon Incident. *Science of the Total Environment*, 532, 528-539. DOI: 10.1016/j.scitotenv.2015.06.022.
- #Pie, H. V. and Mitchelmore, C.L. 2015. Acute toxicity of current and alternative oil spill

- chemical dispersants to early life-stage blue crabs (*Callinectes sapidus*). Chemosphere, 128, 14-20. DOI: 10.1016/j.chemosphere.2015.01.008.
- #Studivan, M.S., Hatch, W.I. and Mitchelmore, C.L. 2015. Responses of the soft coral *Xenia elongata* following acute exposure to a chemical dispersant. SpringerPlus, 4, 80, 1-10 (Feb 13 2015). DOI: 10.1186/s40064-015-0844-7.
- #Pie, H. V., Heyes, A. and Mitchelmore, C.L. 2015. Investigating the use of oil platform marine fouling invertebrates as monitors of oil exposure in the Northern Gulf of Mexico. Science of the Total Environment, 508, 553-565. DOI: 10.1016/j.scitotenv.2014.11.
- Harvey, R.H., Taylor, K.A., #Fink, H.V. and Mitchelmore, C.L. 2014. Polycyclic aromatic and aliphatic hydrocarbons in Chukchi Sea biota and sediments and their toxicological response in the Arctic cod, *Boreogadus saida*. J. Deep Sea Research Part II-Topical Studies in Oceanography, 102, 32-55. DOI: 10.1016/j.dsr2.2013.07.013.
- Schwarz, J.A., Mitchelmore, C.L., Jones, R., O'Dea, A and Seymour, S. 2013. Exposure to copper induces oxidative stress responses and DNA damage in the coral *Montastraea franksi*. Comparative Biochemistry & Physiology Part C; Toxicology and Pharmacology, 157, 3, 272-279. DOI: 10.1016/j.cbpc.2012.12.003
- #Barr, J.S., Mitchelmore, C.L., Roberts, S.C. and Stapleton, H.M. 2012. Species specific differences in the *in vitro* metabolism of the flame retardant mixture, Firemaster BZ-54. Aquatic Toxicology, 124, 41-47. DOI: 10.1016/j.aquatox.2012.06.006
- #Yost, D.M., Jones, R., Rowe, C.L. and Mitchelmore, C.L. 2012. Quantification of total and particulate dimethylsulfoniopropionate (DMSP) in five Bermudian coral species across a depth gradient. Coral Reef, 31, 561-570. DOI: 10.1007/s00338-011-0870-z
- Scholz, N.L., Fleishman, E., Brown, L., Werner, I., Johnson, M.L., Brooks, M.L., Mitchelmore, C.L. and Schlenk, D. 2012. A perspective on modern pesticides, pelagic fish declines, and unknown ecological resilience in highly managed ecosystems. Bioscience, 62, 4, 428-434. DOI: 10.1525/bio.2012.62.4.13
- #Yost, D. M. and Mitchelmore, C.L. 2012. Substrate Kinetics of DMSP-lyases in various cultured *Symbiodinium* strains. Bulletin of Marine Science, 88, 267-282. DOI: 10.5343/bms.2011.1046
- Harvey, R.H., Taylor, K.A., Fink, H.V. and Mitchelmore, C.L. 2012. Organic contaminants in Chukchi Sea Biota and sediments and it's toxicological response in Arctic cod, *Boreogadus saida*. OCS Study BOEM, 2012-012, 42-66 (March 2012).
- Brooks, M.L., Fleishman, E., Brown, L.R., Lehman, P.H., Werner, I., Scholz, N., Mitchelmore, C.L., Lovvorn, J.R., Johnson, M.L., Schlenk, D., van Drunick, S., Drever, J.I., Stoms, D.M., Parker, A.E., Dugdale, R. 2012. Life histories, salinity zones, and sublethal contributions of contaminants to pelagic fish declines illustrated with a case study of San Francisco Estuary, California, USA. Estuaries and Coasts, 35, 603-621. DOI: 10.1007/s12237-011-9459-6
- #Yost, D., Mitchelmore, C.L., 2010. Determination of total and particulate dimethylsulfoniopropionate (DMSP) concentrations in four scleractinian coral species: A comparison of methods. Journal of Experimental Marine Biology and Ecology, 395, 1-2, 72-79. DOI: 10.1016/j.jembe.2010.08.016
- Wright, D.A., Gensemer, R.W., Mitchelmore, C.L., Stubblefield, W.A., van Genderen, E., Dawson, R., Orano-Dawson, C.E., Barr, J.S., Mueller, R.A. and Cooper, W.J. 2010. Shipboard trials of an ozone-based ballast water treatment system. Marine Pollution Bulletin, 60, 9, 1571-1583. DOI: 10.1016/j.marpolbul.2010.04.010

- #Barr, J.S., Stapleton, H.M. and Mitchelmore, C.L. 2010. Accumulation and DNA damage in fathead minnows (*Pimephales promelas*) exposed to 2 brominated flame-retardant mixtures, Firemaster 550 and Firemaster BZ-54. *Environmental Toxicology and Chemistry*, 29, 3, 722-729. DOI: 10.1002/etc.94
- #Yost, D., Jones, R. and Mitchelmore, C.L. 2010. Alterations in dimethylsulfoniopropionate (DMSP) levels in the coral *Montastraea franksi* in response to copper exposure. *Aquatic Toxicology*, 98, 4, 367-373. DOI: 10.1016/j.aquatox.2010.03.005
- Noyes, P.D., Kelly, S.M., Mitchelmore, C.L. and Stapleton, H.M. 2010. Characterizing the *in vitro* biotransformation of the flame retardant BDE 99 by common carp. *Aquatic Toxicology*, 97, 142-150. DOI: 10.1016/j.aquatox.2009.12.013
- Rowe, C.L., Mitchelmore, C.L. and Baker, J.E. 2009. Lack of biological effects of water accommodated fractions of chemically- and physically-dispersed oil on molecular, physiological, and behavioral traits of juvenile snapping turtles following embryonic exposure. *STOTEN*, 407, 20, 5344-5355. DOI: 10.1016/j.scitotenv.2009.06.036
- Schipper, C.A., Lahr, J., van den Brink, P.J. George, S.G., Hansen, P.D., de Assis, H.C.D., van der Oost, R., Thain, J.E., Livingstone, D., Mitchelmore, C., van Schooten, F.J., Ariese, F., Murk, A.J., Grinwis, G.C.M., Klammer, H., Kater, B.J., Postma, J.F., van der Werf, B. and Vethaak, A.D. 2009. A retrospective analysis to explore the applicability of fish biomarkers and sediment bioassays along contaminated salinity transects. In: *Assessment of Effects of Chemical Contaminants in Dredged Material on Marine Ecosystems and Human Health*, Schipper, C.A. Ed, IOS Press, 6, 9-34. DOI: 10.3233/978-1-6075060750-523-5-1
- #Yost, D. and Mitchelmore, C.L. 2009. Dimethylsulfoniopropionate (DMSP) lyase activity in different strains of the symbiotic algae *Symbiodinium microadriaticum*. *Marine Ecology Progress Series*, 386, 61-70. DOI: 10.3354/meps08031
- Schipper, C.A., Lahr, J., van den Brink, P.J. George, S.G., Hansen, P.D., de Assis, H.C.D., van der Oost, R., Thain, J.E., Livingstone, D., Mitchelmore, C., van Schooten, F.J., Ariese, F., Murk, A.J., Grinwis, G.C.M., Klammer, H., Kater, B.J., Postma, J.F., van der Werf, B. and Vethaak, A.D. 2009. A retrospective analysis to explore the applicability of fish biomarkers and sediment bioassays along contaminated salinity transects. *ICES Journal of Marine Science*, 66, 10, 2089-2105. DOI: 10.1093/icesjms/fsp194
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- #Sullivan, C., Mitchelmore, C.L., Hale, R. and Van Veld, P. 2007. Induction of CYP1A and DNA damage in the fathead minnow (*Pimephales promelas*) following exposure to biosolids. *Science of the Total Environment*, 384, 1-3, 221-228. DOI: 10.1016/j.scitotenv.2007.06.006
- Wright, D. A., Mitchelmore, C.L., Dawson, R. and Cutler, H.G. 2007. The influence of water quality on the toxicity and degradation of juglone (5-hydroxy 1,4-naphthoquinone). *Environmental Technology*, 28, 10, 1091-1101. DOI: 10.1080/09593332808618873
- #Benedict, R.T., Stapleton, H.M., Letcher, R.J. and Mitchelmore, C.L. 2007. Debromination of Polybrominated Diphenyl Ether-99 (BDE-99) in Carp (*Cyprinus carpio*) Microflora and Microsomes. *Chemosphere*, 69, 987-993. DOI: 10.1016/j.chemosphere.2007.05.010
- #Kuzmick, D.M., Mitchelmore, C.L., Hopkins, W.A. and Rowe, C.L. (2007). Effects of coal combustion residue on survival, antioxidant potential and genotoxicity resulting from full-lifecycle exposure of grass shrimp (*Palaemonetes pugio* Holthius). *Science of the Total Environment*, 373, 1, 420-430. DOI: 10.1016/j.scitotenv.2006.11.009

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- Peters L.D., Doyotte, A., Mitchelmore C.L., McEvoy J. and Livingstone, D.R. 2001. Seasonal variation and estradiol-dependent elevation of Thames Estuary eel *Anguilla anguilla* plasma vitellogenin levels and comparisons with other United Kingdom estuaries. *Science of the Total Environment*, 279, 1-3, 137-150. DOI: 10.1016/S0048-9697(01)00759-8
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## 2. Peer-reviewed Book chapters and other publications

- Baums, I. B. et al. 2025. Closing the Coral Life Cycle: A service blueprint to overcome the coral recruitment crisis through research, restoration, and innovation. *EcoEvoRxiv*. <https://doi.org/10.32942/X2B348>
- Reed, A., Opeolu B., Leopold A., Mitchelmore C., Suter G., Johnson M. and B. Rattner. Using SETAC's Successes as a Bridge to the Future. SETAC Globe, 12 Dec 2024.
- Renegar D-E A., Mitchelmore C.L. and Hankins C. Advances in Ecotoxicology of Scleractinian Corals and Other Coral Reef Organisms. SETAC Globe, 12 Dec 2024.
- National Academies of Sciences, Engineering, and Medicine 2023. Oil in the Sea IV: Quick Guide for Practitioners and Researchers. Washington, DC: The National Academies Press. DOI: 10.17226/27155.
- National Academies of Sciences, Engineering, and Medicine 2023. Advancing Research on Understanding Environmental Effects of UV filters from Sunscreens: Proceedings of a Workshop. Washington, DC: The National Academies Press. DOI: 10.17226/26775



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### ***3. Scientific or technical reports (\*; peer-reviewed technical reports)***

- Mitchelmore, C.L., Gonsior, M. and Heyes, A. 2024. Chronic toxicity of octocrylene to sea urchin embryos-exposure analysis. Report submitted April, 2024 to the PCPC.
- Mitchelmore, C.L., Renegar, A., Gonsior, M. and Heyes, A. 2024. Chronic toxicity of avobenzone to the hard coral *Acropora cervicornis*. Report to DSM December, 2023.
- Mitchelmore, C.L., Renegar, A., Gonsior, M. and Heyes, A. 2024. Chronic toxicity of octocrylene to the hard coral *Acropora cervicornis*. Report to PCPC April, 2023.
- Mitchelmore, C.L., Gonsior, M. and Heyes, A. 2024. Spatial and temporal analysis on concentrations of 12 UV filters in the Florida Keys. Report to PCPC October, 2022.
- Bailey, H., Barbour, N., Mitchelmore, C.L., Brzezinski, S. and Gonsior, M. 2019. A pilot study to reduce plastic use on Solomons Island, MD. Final report for PlasticWatch, 30<sup>th</sup> September 2019. Submitted to DNR. CZM Grant #: NA16NOS4190170.
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- Mitchelmore, C.L. State of the Science and Data Gap Report regarding the concentration of and impact of oxybenzone and octinoxate to coral reef ecosystems. Report to PCPC Dec., 2018.
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- Mitchelmore, C.L. October 13<sup>th</sup>, 2017. Expert written report regarding Case No: 2:16-cv-01443-AKK. Black Warrior River-Keeper, Inc. v. Drummond Company.
- Wright, D.A., Mitchelmore, C.L., Danvers, G.O. and C.E.F. Orano-Dawson. 2016. Shipboard Trials of a ballast water treatment. March 17<sup>th</sup>-March 27<sup>th</sup>, 2017, 42pp.
- Mitchelmore, C.L. 2016. Written expert report for civil action No: 2:13-21588 Sierra Club v. Fola Coal Company. February 5<sup>th</sup>, 2016. Prepared for the Sierra Club and Appalachian Center for the Economy and the Environment. 15 pp.
- Wright, D.A., Mitchelmore, C.L., Danvers, G.O. and C.E.F. Orano-Dawson. 2016. Shipboard Trials of a ballast water treatment. June 3<sup>rd</sup>-June 12<sup>th</sup>, 2016, 39pp.
- Wright, D.A., Mitchelmore, C.L. Orano-Dawson, C.E.F. and M. Olson. 2016. 'Cold water' shipboard trials of sodium hydroxide (NaOH) as a ballast water treatment aboard the M/V American Spirit. April 20-27<sup>th</sup>, 2016. 43pp.
- \*Forth, H.P., Morris, J.M., Lay, C.R., Lipton, J., Mitchelmore, C.L. and Suttles S.E. August, 2015. Characterization of Oil and Water Accommodated Fractions Used to Conduct Aquatic Toxicity Testing in Support of the Deepwater Horizon Natural Resource Damage Assessment. Technical Report. Prepared for NOAA, Seattle, WA. <https://www.fws.gov/doiddata/dwh-ar-documents/952/DWH-AR0155415a.pdf>
- \*Mitchelmore, C.L. and Rowe, C.L. 2015. Examining the Effects of Ingested Deepwater Horizon Oil on Juvenile Red-Eared Sliders (*Trachemys scripta elegans*) and Common Snapping Turtles (*Chelydra serpentina*) as Surrogate Species for Sea Turtles. Technical Report. Prepared for NOAA Assessment and Restoration Division. <https://pubdwhdatadiver.orr.noaa.gov/dwh-ar-documents/894/DWHAR0155176.pdf>
- \*Mitchelmore, C.L., Bishop, C. and Collier, T.K. 2015. Estimated mortality of Oceanic Sea Turtles oiled During the BP Deepwater Horizon Oil Spill. Expert toxicology panel technical report. 25pp. <https://www.fws.gov/doiddata/dwh-ar-documents/894/DWH-AR0301728.pdf>
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- Mitchelmore, C.L. Opinion Report on the West Virginia DEP's Emergency Rule For Changes to the Water Quality Standard For Aluminum (January, 2013). March 18<sup>th</sup>, 2013. Prepared for the Appalachian Center for the Economy and the Environment.
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- Schott, E.S. and Mitchelmore, C.L. 2013. Effects of cyanobacteria on Health and Disease of Blue Crab *Callinectes sapidus*: defining thresholds for exposure. R/DIS-2a. Final Report

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- Wright, D.A., Mitchelmore, C.L., Danvers, G.O., Dawson, R. and C.E. Orano-Dawson. 2012. A Bio-Endpoint study to Investigate Methods of Determining the Efficacy of the Hyde Marine 'Guardian' BWTS and the Potential for Latent UV Effects to Underestimate System Performance. December 2012, 31 pp.
- Wright, D.A., Mitchelmore, C.L., Danvers, G.O., Dawson, R. and C.E.F. Orana-Dawson. 2012. Shipboard Trials of ballast water treatment: biological testing, September 6-13<sup>th</sup>, 2012.
- Mitchelmore, C.L. 2011. Written report for civil action no. 2:10-1199. Sierra club v. Fola Coal Company, LLC. Report prepared April 25<sup>th</sup>, 2011 by Dr. Carys L. Mitchelmore for Sierra Club and Appalachian Center for the Economy and the Environment.
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- Mitchelmore, C.L. March 1<sup>st</sup> 2010. Report on the U.S. Environmental protection Agency's Chronic Whole Effluent Toxicity Testing At Selected Sites in the Coalfields of Kentucky and West Virginia. Prepared for the Sierra Club and Appalachian Center for the Economy and the Environment.
- \*Mitchelmore, C.L. and Baker, J.E. 2010. Acute and Chronic effects of oil, dispersant and dispersed oil to sensitive symbiotic cnidarian species, including corals. Final report submitted to The Coastal Response Research Center (CRRC), UNH (NOAA), July 10<sup>th</sup>, 2010. Download at [www.crrc.unh.edu](http://www.crrc.unh.edu).
- \* Rowe C.L. and C.L. Mitchelmore. 2009. Studies Using Aquatic Turtles (the Diamondback Terrapin and Snapping Turtle) to Assess the Potential Long-term Effects of Oiling of Nests During Early Embryonic Development. Final report submitted to The Coastal Response Research Center (CRRC), UNH (NOAA), April 20<sup>th</sup>, 2009. 30pp. [https://crrc.unh.edu/sites/crrc.unh.edu/files/rowe\\_crrc\\_final\\_report\\_2009.pdf](https://crrc.unh.edu/sites/crrc.unh.edu/files/rowe_crrc_final_report_2009.pdf)
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- Wright, D.A., Mitchelmore, C.L., Danvers, G.O., Dawson, R. and C.E.F. Orana-Dawson. 2008. Shipboard Trials of a ballast water treatment: biological testing, September, 2008.

Mitchelmore, C.L. 2007. Does *Crassostrea ariakensis* accumulate more microbial pathogens than *C. virginica* increasing the pathogenic risk for human consumption? Final Report Submitted to NOAA Chesapeake Bay Office. September 28<sup>th</sup>, 2007. 16pp.

***4. Written Congressional Testimonies (Federal, State and Local; includes URLs for download where possible)***

- February 12<sup>th</sup>, 2020. Written testimony presented to the Senate Education, Health and Environmental Affairs Committee. HB 229: Pesticides-Use of Chlorpyrifos-Prohibition.
- February 11<sup>th</sup>, 2020. Written testimony presented to the Senate Education, Health and Environmental Affairs Committee. SB 300: Pesticides-Use of Chlorpyrifos-Prohibition.
- March, 2019. Written and oral presentation to the city of Miami, Florida regarding the “State of the Science and risk assessment of oxybenzone and octinoxate to coral reefs”
- January, 2019. Written and oral presentation to the city of Key West, Florida regarding the “State of the Science on the environmental concentrations and relevance to toxicity of corals for oxybenzone and octinoxate”.
- April 6<sup>th</sup>, 2018. Written and verbal testimony presented to the State of Hawaii regarding the State of the Science on UV filter risk assessment in corals.
- February 13<sup>th</sup>, 2018. Written testimony presented to the Senate Education, Health and Environmental Affairs Committee. SB 500: Pesticides-Use of Chlorpyrifos-Prohibition.
- February 7<sup>th</sup>, 2018. Written testimony presented to the House Environment and Transportation Committee. HB 116: Pesticides-Use of Chlorpyrifos-Prohibition.
- February 10<sup>th</sup>, 2016. Written Testimony presented to the Maryland House of Representatives for HB211: Pollinator Protection Act.
- February 16<sup>th</sup>, 2016. Written Testimony in the Maryland Senate for SB198: Pollinator Protection Act.
- March 13<sup>th</sup>, 2015. Written Testimony presented to the Maryland House of Representatives for HB605: Pollinator Protection Act.
- February 17<sup>th</sup>, 2015. Written Testimony presented to the Maryland Senate for SB163: Pollinator Protection Act.
- February 12<sup>th</sup>, 2014. Written Testimony in the Maryland House of Representatives for HB621: Registration of Pesticides-Fee Increase-Disposition of Fees.
- March 5<sup>th</sup>, 2013. Written Testimony in the Maryland Senate for SB675: Maryland Reporting and Information Act.
- February 27<sup>th</sup>, 2013. Written Testimony in the Maryland House of Representatives for HB775: Maryland Reporting and Information Act.
- March 8<sup>th</sup>, 2011. Written Testimony in the Maryland Senate regarding SB785: Pesticide-Use, Release, Purchase and Sales Reporting.
- March 2<sup>nd</sup>, 2011. Written Testimony in the Maryland House of Representatives regarding HB660: Pesticide-Use, Release, Purchase and Sales Reporting.
- June 17<sup>th</sup>, 2010. Senate Committee on Small Business and Entrepreneurship. Hearing on “Harnessing Small Business Innovation: Navigating the Evaluation Process for Gulf Coast Oil Cleanup Proposals”. Written Testimony submitted June 15<sup>th</sup>, 2010 and available at: [http://www.sbc.senate.gov/public/?a=Files.Serve&File\\_id=C94A42DB-A417-422D-9691-C28EA3884B48](http://www.sbc.senate.gov/public/?a=Files.Serve&File_id=C94A42DB-A417-422D-9691-C28EA3884B48)
- June 10<sup>th</sup>, 2010. House Subcommittee on Insular Affairs, Oceans and Wildlife. Oversight

- Hearing on “Our Natural Resources at Risk: The Short and Long Term Impacts of the Deepwater Horizon Oil Spill”. Written Testimony submitted June 8<sup>th</sup>, 2010 and available at: <http://naturalresources.house.gov/uploadedfiles/mitchelmoretestimony06.10.09.pdf>
- May 21<sup>st</sup>, 2010. House Committee on Energy and Commerce. Bipartisan Briefing on Oceans Under Siege: Environmental Impacts Of The BP Oil Spill. Written Testimony submitted May 19<sup>th</sup>, 2010 and available at: [http://www.umces.edu/sites/default/files/cbl/mitchelmore%20\\_testimony\\_052110.pdf](http://www.umces.edu/sites/default/files/cbl/mitchelmore%20_testimony_052110.pdf)
- May 19<sup>th</sup>, 2010. House Committee on Transportation and Infrastructure. Hearing on “Deepwater Horizon: Oil Spill Prevention and Response Measures, and Natural Resource Impacts”. Written Testimony submitted May 17<sup>th</sup>, 2010 and available at: <https://www.gpo.gov/fdsys/pkg/CHRG-111hhr56561/pdf/CHRG-111hhr56561.pdf>
- May 11<sup>th</sup>, 2010. Senate Committee on Environment and Public Works. Hearing on “EPA’s Role in Protecting Ocean Health”. Written Testimony submitted May 8<sup>th</sup>, 2010 and available at: [http://www.epw.senate.gov/public/\\_cache/files/047f284e-14cd-43fe-9171-aaf3a314c147/writtentestimonyofcarysmitchelmore-formay11th20101.pdf](http://www.epw.senate.gov/public/_cache/files/047f284e-14cd-43fe-9171-aaf3a314c147/writtentestimonyofcarysmitchelmore-formay11th20101.pdf)
- March 4<sup>th</sup>, 2010. Written Testimony in the Maryland Senate regarding SB359: Fertilizer and Pesticide Release Reporting.
- March 24<sup>th</sup>, 2009. Written Testimony in the Maryland Senate regarding SB917: Fertilizer and Pesticide Release Reporting.
- March 4<sup>th</sup>, 2009. Written Testimony in the Maryland House of Representatives regarding HB929: Fertilizer and Pesticide Release Reporting.

### C. Contracts and Grants Awarded (*current annotated with \**)

- \*Wave of Plastic Jr.: Student-Driven Inquiry and Action to Prevent Marine Debris and its Impacts – 5<sup>th</sup> grade expansion. NOAA., 01/2025-01/2026. \$59,924. Principal Investigator.
- \*Temporal and Spatial Assessments of the Concentrations of Organic and Inorganic UV Filters in Seawater from Nearshore Beach and Offshore Coral Reef Locations in the Florida Keys, USA. Personal Care Products Council, DC. 12/19/2023-12/31/2024. \$278,862. Principal Investigator w. 2 others
- \*Analysis of the UV filter octocrylene in toxicity test exposure solutions and statistical analysis of the 2021 Florida UV filter dataset. Personal Care Products Council, DC. 04/28/2023-12/31/2024. \$28,712.20. Principal Investigator, 0.25 mth/yr.
- \*Assessment of Promotors in Oyster Yields. MIPS. \$149,634. Co-PI w. 1 other. 1mth/yr. 1/1/2023-12/31/2023.
- \*Riding the Wave of Plastic: Student-Driven Inquiry and Action to Prevent Marine Debris and it’s Impacts. NOAA. 09/15/2023-08/31/2025. \$192,746. Principle Investigator, 1mth/yr.
- \*Collaborative Research: Environmentally Relevant Photoproducts of Organic UV filters in Commercial Sunscreens. National Science Foundation. \$598,316. Co-PI w. 3 others. 3 years. 07/31/2023-06/30/2026.
- \*Bioaccumulation and chronic toxicity of the UV filter avobenzone to the coral *Acropora cervicornis*. DSM Personal Care, Europe. 09/01/2022-05/31/2023 (NCE extended 12/31/2024). \$348,923. Principal Investigator w. others, 2 mth/yr.
- Wave of Plastic Expansion to Charles County Public Schools. Maryland DNR. 09/01/2022-08/31/2023. \$9,995. Principle Investigator w. others.

- Detection of UV filters in Florida waters. Method development and additional funding for expansion of samples \$3,000. CBL donor to Mitchelmore Laboratory.
- Supplemental for: Designing and validating a standard toxicity test to assess the acute and chronic toxicity of the UV filter octocrylene to *Acropora cervicornis*. Personal Care Products Council (PCPC), Washington DC., 07/01/2021-12/31/2021; extended until April 2023. \$7,416. Principal Investigator w. others, 1.75 mth/yr.
- Expansion of project "Designing and validating a standard toxicity test to assess the acute and chronic toxicity of the UV filter octocrylene to *Acropora cervicornis*. Personal Care Products Council (PCPC), Washington DC., 11/01/2021-04/31/2022; extended until August 2023. \$119,962. Principal Investigator w. others, 1 mth/yr.
- Designing and validating a standard toxicity test to assess the acute and chronic toxicity of the UV filter octocrylene to *Acropora cervicornis*. Personal Care Products Council (PCPC), Washington DC., 09/01/2019-04/31/2020; extended until April 2023. \$346,670. Principal Investigator w. others, 1.75 mth/yr.
- Determining the Concentrations of UV Filters in Coastal Waters in the Florida Keys, USA. Personal Care Products Council (PCPC), Washington DC., 08/01/2019-06/30/2020; extended until April 2023. \$164,769. Principal Investigator w. others, 0.75 mth/yr.
- Acute Toxicity of Oxybenzone to the hard coral *Galaxea Fascicularis*. Johnson & Johnson Consumer Inc., 05/15/2019-12/14/2019; extended until Fall 2021. \$102,670. Principal Investigator w. others, 0.5 mth/yr.
- Wave of Plastic: Student inquiry of plastic waste and its impacts on marine ecosystems. NOAA-BWET. 09/01/2018-08/31/2021; NCE extended until August 2023. \$415,995. Co-PI w. others 0.25 mth/yr.
- Automated oyster aquaculture with solar energy. MIPS. 01/1/2019-12/31/2019. \$99,390. Co-PI w. Miller, 0.5 mth/yr.
- Effectiveness of promoters in oyster hatcheries for increasing aquaculture seed production. MIPS. 02/01/19-01/31/20; extended until end of 2021. \$89,901. Co-PI w. Miller, 1 mth/yr.
- A Pilot Study to reduce plastic use on Solomons Island, MD. Maryland Department of Natural Resources. 01/01/2018-09/30/2018. \$66,612. Co-PI w. others. 0 mth/yr.
- Assessing the partitioning of oxybenzone and octinoxate between dissolved and particulate phases in coral. Personal Care Products Council (PCPC), Washington DC. 12/01/2018-04/30/2019. \$14,535. Principal Investigator w. others. 0 mth/yr.
- Assessing the acute toxicity of boat cleaning products to the estuarine invertebrate mysid shrimp. Boat U.S. Foundation. 12/15/2018-03/31/2019. \$9,500. Principal Investigator. 0 mth/yr.
- Advancing oyster settlement for aquaculture (Phase II). Maryland Industrial Partnerships (MIPS). \$149,994 (all UMCES). 02/01/2018-01/31/2019; Co-PI w. Miller. 1mth/yr.
- Abundance and Variety of Microplastics in Surface Waters, Sediments, and Oysters: Relationship to Point-Sources and Land Use Practices" (co-PI). Maryland Sea Grant (subcontract with University of Maryland Dept. of Environmental Science & Technology, Dr. Lance Yonkos PI). March 2018 – 29 February 2020: extended until 01/2022; \$140,395 (total), \$47,231 (UMCES sub-award; co-PI); 0.5 mo/yr.
- Determining Concentrations of Oxybenzone (BP-3) in coastal waters, sediment and coral tissue in Hawaii. Personal Care Products Council (PCPC), Washington DC, 7 months (08/01/17-02/28/18), \$171,189 (Principal Investigator, w. others). 0.5 mo/yr.
- Collaborative Research: Fundamental Understanding of the Environmental Fate of Disinfection By-Products Arising from Desalination Plants. NSF, CHE – Environmental Chemical

- Science, 3 years (08/01/17-07/31/20: extended until Fall 2021), \$499,424 (co-PI).
- A Current Perspective on Understanding and Managing Coral Reef Stressors. Personal Care Products Council (PCPC), Washington DC. \$34,853. 8 months (05/01/2017-12/31/2017). (Principal Investigator). 2 mo/yr.
- Enhancing settlement of oyster larvae for commercial aquaculture. Maryland Industrial Partnership Program (MIPS). \$99,377. 12 months (01/15/2017-01/14/2017). (co-PI). 1 mo/yr.
- Spatial and temporal analysis of phytoplankton in the Great Lakes over a one-year period. Environmental Research Services. \$25,590. 12 months (07/2016-07/2017). (Principal Investigator). (6.7% time).
- Continuation of data analysis, report and publication preparation for two Stratus Projects. Stratus Consulting, \$67,132, 4 months (02/2015-05/2015). (Principal Investigator). (16% time).
- Expansion of project: Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, fluorometry and Coulter counter analyses. Stratus Consulting, \$16,757, 1 month (09/01/2015 –10/01/2015). (Principal Investigator). (8% time).
- Expansion of project: Examining The Effects of Deepwater Horizon oil on Juvenile Sea Turtles using Surrogate Species (Red-eared Sliders and the Common Snapping Turtles): TIER 1 oil ingestion study and ACTH challenge. Stratus Consulting, \$16,757, 1 month (06/01/2015-12/31/2015). (Principal Investigator). (8% time)
- Expansion of project: Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, fluorometry and Coulter counter analyses. Stratus Consulting, \$25,129, 6months (06/01/2015 –12/31/2015). (Principal Investigator). (16% time).
- Expansion of project: Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, fluorometry and Coulter counter analyses. Stratus Consulting, \$18,015, 2 months (03/01/2015 –05/31/2015). (Principal Investigator). (8% time).
- Expansion of project: Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, fluorometry and Coulter counter analyses. Stratus Consulting, \$53,952, 2 months (07/01/2014 –09/22/2014). (Principal Investigator). (8% time).
- Expansion of project: Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, fluorometry and Coulter counter analyses. Stratus Consulting, \$10,999, 2 months (05/01/2014 –06/30/2014). (Principal Investigator). (8% time).
- Expansion of project: Examining The Effects of Deepwater Horizon oil on Juvenile Sea Turtles using Surrogate Species (Red-eared Sliders and the Common Snapping Turtles): TIER 1 oil ingestion study and ACTH challenge. Stratus Consulting, \$18,844, 3 months (07/01/2014-09/30/2014). (Principal Investigator). (0% time) (CBL2014-021aSTR, submitted 07/25/2014).
- Evaluation of Options for Controlling Rope Grass Hydroid Colonies in Power Plant Intake Pipes. Constellation Energy Group, Calvert Cliffs Nuclear Energy Plant. (2 years total for Phases 1-3). Phase 1 funded, \$67,490. (02/01/2014-12/31/2014). (co-PI w/others, 4% time).
- Examining The Effects of Deepwater Horizon oil on Juvenile Sea Turtles using Surrogate Species (Red-eared Sliders and the Common Snapping Turtles): TIER 1 oil ingestion study

- and ACTH challenge. Stratus Consulting, \$196,415, 7 months (08/01/2013-01/31/2014). (Principal Investigator). (16% time).
- Quantifying the amount and size of oil particles in toxicity exposure solutions using filtration techniques, LISST and Coulter counter analyses. Stratus Consulting, \$115,999, 2 months (04/08/2013 –09/07/2014). (Principal Investigator). (8% time).
- Collection and housing of two hatchling turtle species (the snapping turtle and red eared slider) for future oil exposure studies. Stratus Consulting. \$4,500. 1 month (07/15/2013 – 08/14/2013). (Principal Investigator w/Rowe). (4% time).
- Collection, housing and tank building for two hatchling turtle species (the snapping turtle and red eared slider) for future oil exposure studies. Stratus Consulting, \$29,854, 4 months (03/10/2013 –06/30/2013). (Principal Investigator w/Rowe). (0% time).
- Examining the acute toxicity of field-collected oiled sediments from the Gulf of Mexico to juvenile blue crabs (*Callinectes sapidus*). Stratus Consulting. \$50,122. 7 months (07/01/2012 – 02/28/2013). (Principal Investigator w. others). (8% time).
- Collection and housing of two hatchling turtle species (the snapping turtle and red eared slider) for future oil exposure studies. Stratus Consulting. \$49,464. 6 months (10/01/2012 – 04/30/2013). (Principal Investigator w/Rowe). (4% time).
- Work Plan for Proposed Microbial Bio-Endpoint Study to Investigate Rapid Performance Assessment of a Ballast Water Treatment System (BWTS) and Potential for Latent UV Effects. Hyde Marine Inc./Calgon. \$23,978. 1 month (10/01/2012 – 10/30/2012). (Principal Investigator). (4% time).
- Collection and housing of two hatchling turtle species (the snapping turtle and red eared slider) for future oil exposure studies. Stratus Consulting. \$9,030. 1 month (08/15/2012 – 09/15/2012). (Principal Investigator w/Rowe). (4% time).
- Expansion of LISST oil particle size analyses using filtration techniques and finer resolution particle size analysis using coulter counter techniques. Stratus Consulting, \$60,466, 4 months (06/01/2012 –09/30/2012). (Principal Investigator). (0% time).
- Understanding chronic impacts of chemical dispersant and chemically-dispersed oil on behavior, molting success, and hormone status and of blue crab larvae: inputs for recruitment and population models. UNH, CRRC, NOAA, \$146, 549. 12 months (12/15/2012-12/14/2013). (co-Principal Investigator w/others). (8% time).
- Examining the differences in oil particle sizes prepared using different source oils, preparation methods and chemical dispersant. Stratus Consulting, \$115,600, 5 months (1<sup>st</sup> March – 30<sup>th</sup> July 2012). (Principal Investigator). (16% time).
- Evaluation of photoenhanced toxicity in surface water organisms in the Gulf of Mexico following exposure to oil released from the Deepwater horizon blowout. Cossich and partners. \$50,822. 6 months (March 2011-September 2011). (Principal Investigator). (8% time).
- Effects of toxic algal blooms on health and disease of the blue crab *Callinectes sapidus*: defining thresholds for exposure. Maryland Sea Grant. \$72, 903. 1 Year (2/2011-1/2012). (co-Principal Investigator w/other). (8% time).
- Increasing seawater filtration capabilities to enhance coastal mesocosm-scale research. NSF. \$114,155. (10/2007) (co-Principal Investigator w/others).
- Oxidative stress, DNA damage and DMSP mechanisms in hard corals. BIOS Grants in aid program, BIOS Bermuda. \$2,550. (1 month, 10/2008). (Principal Investigator).



Does *C. ariakensis* bioaccumulate more microbial pathogens than *C. virginica* increasing the pathogenic risk for human consumption? NOAA, Chesapeake Bay Office. \$89,950. 1 year (08/2005-08/2006). (Principal Investigator).

Chronic toxicity testing to determine the environmental risks of proposed ballast water treatment biocides. National Sea Grant College - Aquatic Invasive Species. \$302,002. 2 years (06/2005-05/2007). (Principal Investigator w/Wright, Yonkos and Fisher).

Acute and chronic effects of oil, dispersant and dispersed oil to sensitive symbiotic Cnidarian species, including coral. NOAA/Univ. of New Hampshire/ CRRC. \$199,247. 2 years (1/05-1/07). (Principal Investigator w/Baker).

Dispersant effects in the soft coral *Xenia* sp. NOAA/CRRC. \$17,950. Addendum to coral oil project. (Principal Investigator w/Baker).

Studies Using Aquatic Turtles (the Diamondback Terrapin and Snapping Turtle) to Assess Long-term Effects of Oiling of Nests During Early Embryonic Development. NOAA/Univ. of New Hampshire/ CRRC. \$205,421. 2 years (1/05-1/07). (Co-Principal Investigator w/Rowe, 20% time).

Studies Using Aquatic Turtles to Assess Long-term Effects of Oiling of Nests During Early Embryonic Development. NOAA/CRRC. \$13,201. Addendum to reptile oil project. (Co-Principal Investigator w/Rowe, 20% time).

An analysis of reproductive ramifications of PCBs in Hudson River Snapping Turtles. Hudson River Foundation. \$185,185. 2 years (3/04-3/06). (Co-Principal Investigator, 15% time).

Increasing controlled environmental chamber capabilities to enhance research using seawater systems facilities. NSF. \$89,120. 1 Year (10/2005-10/2006). (co-Principal Investigator w/others).

Oxidative stress and DMSP production in hard corals exposed to pesticides and heavy metals. BIOS Grants in aid program, Bermuda. \$2,104. (1 month; 10/2007). (Principal Investigator).

## D. Invited Seminars and Contributed Presentations

### 1. Mitchelmore Invited Seminars and Presentations

- 2025 “Emerging Contaminants Risks to Corals – Sunscreens and Beyond”. National Coral Reef Institute, Nova Southeastern University, Fort Lauderdale, Florida, August 20<sup>th</sup>.
- 2025 Keynote talk on “Addressing limitations, challenges, and next steps in determining the environmental risk of sunscreens”. 17<sup>th</sup> Sun Protection Conference. Royal College Physicians, London, U.K., 24-25<sup>th</sup> June.
- 2025 Plenary talk on “Emerging contaminants in the Bay and Beyond”. Symposium on Emerging Contaminants in the Chesapeake Bay. Morgan State University. February 21<sup>st</sup> 2025.
- 2024 Panelist and Invited Speaker on “SETAC’s third founding principles - multidisciplinary approaches to Solving Environmental Problems”. Special session “Using SETACs successes on the 45<sup>th</sup> Anniversary as a bridge to the future” at SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA.
- 2024 “Emerging contaminants, plastics and Dolphins in the Chesapeake Bay”. Annapolis Sail and Power Squadron dinner, October 3<sup>rd</sup>.

- 2024 “How time and place defines the concentration of UV filters off a Florida Beach”. Oral presentation. October 8-9<sup>th</sup>, Personal Care Products Council 2024 Science Symposium and Expo at the Ritz Carlton, Pentagon City, Arlington, VA.
- 2024 “Overview of CBLs research, education and service activities”, oral presentation. September 17<sup>th</sup>, Chesapeake Garden Club, All Saints Hall, Sunderland.
- 2024 “Overview of the Chesapeake Biological Laboratory”, Patuxent River Wade-In event, Jefferson Patterson Park, June 9<sup>th</sup>.
- 2024 *Keynote speaker* on “Addressing Limitations, Challenges and Next Steps in Determining the Environmental Risk of Sunscreens at the New York Society of Cosmetic Chemists conference on “Formulating Sunscreens: Myths and Misconceptions, Future Directions for Innovation, June 3<sup>rd</sup>, 2024.
- 2024 “Toxicity of UV filters”. May 14<sup>th</sup>, International Oil Spill Conference (IOSC), New Orleans. Panelist and speaker for the special session by the US National Academy of Sciences, Engineering and Medicine on the updated Oil in the Sea (OTIS) IV report.
- 2024 “Environmental science at the UMCES Chesapeake Biological Laboratory”. April 6<sup>th</sup>, Eastport Yacht club, Annapolis, MD.
- 2023 “Understanding the impact of contaminants and other stressors on coral reefs”. Oral presentation. WAMAS, Washington D.C. Area marine Aquarist Society, Bethesda MD, October 14<sup>th</sup> 2003.
- 2023 “Highlights from Chapter 6: Effects of Oil in the Sea; Oil in the Sea IV: Inputs, Fates, and Effects. Exxon Mobile OSR Oil Knowledge Transfer Webinar Series. Environmental Effects Oil in Sea”, virtual presentation, October 3<sup>rd</sup> 2023.
- 2023 “Overview of NAS report on exposure and effects of sunscreens on aquatic environments and implications of changes in sunscreen use for human health. Florida Society of Cosmetic Chemists Annual Meeting, September 15<sup>th</sup> 2023, virtual presentation.
- 2023 “Environmental Risk of Chemical Contaminants in Coral Reef Environments; science, Media and Policy Interface”. April 6<sup>th</sup> 2023. St Mary’s College of Maryland
- 2022 “Toxicity of organic UV filters in aquatic ecosystems”, oral presentation and discussion panel in National Academies of Sciences, Engineering and Medicine sponsored session on Environmental Impact of Currently Marketed Sunscreens and Potential Human Impacts of Changes in Sunscreen Usage, SETAC North America 43<sup>rd</sup> Annual Meeting, November 14-17<sup>th</sup> Pittsburg.
- 2022 “Development of toxicity tests with coral and endangered species”, oral presentation and workshop panelist, November 21<sup>st</sup>, 2022 at the International Collaboration on Cosmetic Safety meeting. Virtual.
- 2022 Invited speaker and panelist on ‘Toxicity Testing’ at the National Academies of Sciences, Engineering, and Medicine, 99<sup>th</sup> Meeting of the Ocean Studies Board, November 2<sup>nd</sup>, Washington D.C.
- 2022 “Higher-Tier Marine Exposure Modeling of Environmental Contaminants. Oral presentation at the Personal Care Products Council 2022 Science Symposium, October 25<sup>th</sup>, Arlington, VA.
- 2022 “Risk of Cosmetic Ingredients to Ocean and Coral Health “. Oral presentation at the Society of Cosmetic Chemists, September 8<sup>th</sup>, 2022. West Orange, New Jersey.
- 2021 UV filters and coral reefs: state of the science, data gaps and next steps. MyBlueCosmET-IC Beauty & Sea Conference, 10-12<sup>th</sup> March 2021.
- 2021 Green Cross France and Territories webinar talk on “UV filters and coral reefs” for the

- 3 session series “Sunscreens, human and environmental health”. February 25<sup>th</sup>, 2021.
- 2020 Science for Citizens talk at CBL (online) on Plastic pollution and reduction in Solomons, MD (October, 20<sup>th</sup> 2020).
- 2020 “Are Sunscreens Killing Our Coral Reefs?” Oral presentation for the Natural Science and Mathematics Colloquia at St. Mary’s College, Maryland. February 6<sup>th</sup>, 2020.
- 2020 Current State of the Science on the Impact of UV filters to corals. Special session: “Your science or my science. How is the way we frame our research impacted by values?” SETAC Europe SciCon, May 3-7<sup>th</sup>, 2020.
- 2020 UV filters and Coral Reefs: State of the Science, Data Gaps and Next Steps. PCPC Science Symposium and Expo, 2020 “Environmental Safety Workshop”, October 20<sup>th</sup>, 2020, virtual meeting.
- 2019 State of the Science on sunscreen impacts on corals. PCPC Science Symposium and Expo, 2019 “Environmental Safety Workshop”, October 29<sup>th</sup>, 2019, Philadelphia, PA.
- 2019 Sunscreens (UV-filters) in Coral Reef Environments. Oral Presentation (Mitchelmore, C.L.) at the American Academy of Dermatology Advisory Board Meeting, Washington DC, March 3<sup>rd</sup>, 2019.
- 2019 Updating testing protocols for Aquatic toxicity of oil and dispersants, oral presentation (Mitchelmore, C.L., Coelho G.M., Bejarano, A and D. L. Wetzel) at the GoMOSES workshop “Responding to Future Deep oil Spills-Fighting the Next War”. Gulf of Mexico Oil Spill and Ecosystem Science Conference 2019 (GoMOSES). New Orleans, LA., 4-7<sup>th</sup> February.
- 2019 Biomarkers and Surrogate Species. Oral Presentation at the “Environmental Contaminants and Sea Turtles Workshop” College of Charleston, SC, February 3<sup>rd</sup>, 2019.
- 2018 Impacts of oil on turtles and the use of surrogate species in toxicity tests. GoMRI/NOAA/NAS Sponsored invited participant only workshop on the “Toxicology of Vertebrates”, October 23<sup>rd</sup>-25<sup>th</sup>, 2018, Boulder, CO.
- 2018 Are sunscreens killing our coral reefs? Science for Citizens public seminar series, UMCES Chesapeake Biological Laboratory, October 16<sup>th</sup>, 2018.
- 2018 State of the Science on sunscreen impacts on corals. PCPC Science Symposium and Expo, 2018 “Environmental Safety Workshop”, October 20<sup>th</sup>, 2018.
- 2017 Global and Local Stressor impacts to Coral Reefs including sunscreen products. PCPC, Science Symposium and Expo., Washington DC, October 24<sup>th</sup>, 2017).
- 2017 Impacts of neonics on aquatic organisms. NESAWG Conference, Baltimore, MD. October 11<sup>th</sup> 2017.
- 2016 Fish Health in the Chesapeake Bay Watershed. Invited Oral presentation to the Trout Unlimited National Capitol Chapter. April 13<sup>th</sup>, 2016. Bethesda, MD.
- 2015 Neonicotinoids and the Chesapeake Bay. Invited Oral presentation for the Pesticides and the Chesapeake Bay Watershed Project. Ninth Annual Meeting, October 28<sup>th</sup> 2015, Reisterstown, MD.
- 2013 Impacts of oil to invertebrates, Invited Oral Presentation, AAS meeting, Boston MA, February 15-17<sup>th</sup>, 2013.
- 2012 Toxicity of oil and chemical dispersants on corals and other cnidarian species. Invited Oral presentation at the Deepwater Horizon toxicity Topic session, Society of Toxicology (SOT), San Francisco, CA, March 11-15<sup>th</sup>, 2012.
- 2011 Toxicity of oil and dispersants. Invited Oral Presentation, NOAA/Stratus Consulting, Boulder, CO. September 26-28<sup>th</sup>, 2011.

- 2011 Impacts of oil and chemical dispersants on corals. Invited Oral presentation at the Gulf Oil Spill Focused Topic Meeting, SETAC, Pensacola Beach, Florida, May 26<sup>th</sup>, 2011.
- 2011 Impacts of Corexit 9500 and Chemically-dispersed oil on symbiotic anemones and corals. PRIMO 16, Long Beach, CA, May 15<sup>th</sup> 2011. Invited Oral Presentation.
- 2011 Oil Spill Chemical dispersants; the Good, the Bad or the Ugly. Invited Oral Presentation at the Society of Toxicology (SOT) meeting. Washington, D.C., March 2011.
- 2010 Oil Spill Chemical dispersants; the Good, the Bad or the Ugly. Invited Oral Presentation for the Department of Natural Resources (DNR). Annapolis, MD, February 2010.
- 2010 Oil Spill Chemical dispersants; the Good, the Bad or the Ugly. Invited Oral Presentation at the American College of Veterinary Pathologists (AVCP) meeting. Baltimore, MD, October 2010.
- 2010 Contaminants in the home. SMCM, St Mary's City, MD. Invited Seminar, March 2010.
- 2009 Coral biomarkers. UMBC, Baltimore, MD. Invited Seminar, October 2009.
- 2009 Advances and Issues in Coral Pollution and Biomarker analyses. UMBI COMB, Baltimore MD. Invited Seminar, June 2009.
- 2008 Ecotoxicology of Coral Reefs. St Mary's College, St Mary's City, MD. Invited Seminar, October 2008.
- 2008 Toxicity Mechanisms and Biomarkers. UMBC. Baltimore, MD. Invited Seminar, March 2008.
- 2007 Aquatic Toxicity Research: The Bay and Beyond. IAN, Chesapeake Bay Seminar Series, Annapolis, MD. Invited Seminar, September 2007.
- 2007 Cnidarian-algal symbioses: Toxicity Mechanisms and Biomarkers. SERC, Annapolis, MD. Invited Seminar, March 2007.
- 2007 Acute and Chronic Effects of Oil, Dispersant and Dispersed Oil to Symbiotic Cnidarian Species. CRRC, NOAA, Seattle WA. April 2007.
- 2007 Studies Using an Estuarine Turtle (the Diamondback Terrapin) to Assess the Potential Long-Term Effects of Oiling of Nests During Early Embryonic Development. CRRC NOAA, Seattle WA. April 2007 (given by Dr. C. Rowe).
- 2007 Multiphase Partitioning of Oil Components Controls Exposure to Aquatic Organisms. Dispersed Oil Research Forum, CRC (NOAA), Red Bank, N.J., Invited Presentation, (February 2007; given by Dr. J. E. Baker).
- 2006 Exposure regimes for assessing dispersant and dispersed oil effects on Cnidarian spp.: Challenges and Advancements. PAH Toxicity Summit, CRRC NOAA, Seattle, WA. Invited Seminar, August 2006.
- 2006 Integrating multiple endpoints for understanding individual and population effects on sensitive species. PAH Toxicity Summit, CRRC NOAA, Seattle, WA. Invited Seminar, August 2006.
- 2006 Coral-algal symbioses: Biomarkers and Mechanisms of Toxicity. Hood College, Frederick, MD. Invited Seminar, October 2006.
- 2006 Acute and sublethal effects of oil, dispersant and dispersed oil to sensitive symbiotic cnidarian species, including coral. CRRC, NOAA, Univ.of New Hampshire, March 2006.
- 2006 Using Estuarine and Brackish Water Turtles to Model Effects of WAF and CEWAF on Sea Turtle Nests. CRRC, NOAA, University of New Hampshire. March 2006 (given by Dr. C. Rowe).
- 2005 IOSC conference, invited presentation on behalf of the NAS committee.

- 2005 Environmental Biomarkers. IUTOX Sponsored educational session on biomarkers, Mendoza, Argentina. Invited Seminar, October 2005.
- 2005 Coral Reef Ecotoxicology: Biomarker Development in symbiotic cnidarians. Mendoza, Argentina. Invited presentation in Ecotoxicology session, October 2005.
- 2005 Metabolism and effects of flame retardants in fish. UMBC toxicology program, Baltimore, MD. Invited Seminar, October 2005.
- 2005 Coral-algal symbioses and toxicity mechanisms. EPA Gulf Breeze, Pensacola, FL. Invited seminar, July 2005.
- 2005 Developing Adequate Information about Dispersed Oil Toxicity in Shallow Water. Conclusions of the NRC Committee On; Understanding Oil Spill Dispersants; Efficacy and Effects. IOSC conference, on behalf of the NAS committee, Miami Beach, FL. Invited Presentation, May 2005.
- 2005 Acute and sub-lethal effects of dispersed oil to sensitive symbiotic cnidarian species, including coral. CRRC, NOAA, Silver Spring, MD. March 2005.
- 2005 Aquatic toxicity in fish. Habitat Committee of the Atlantic States Marine Fisheries Commission. CBF, Annapolis, MD. Invited Seminar, April 2005.
- 2003 Coral-algal symbioses and toxicity mechanisms. Center of Marine Biotechnology, Baltimore, MD. Invited seminar, October 2003.
- 2003 Changes in gene expression as early warning biomarkers of symbiosis breakdown. 1st International Coral Ecotoxicology Workshop, Bermuda Biological Research Station, Bermuda. Invited Seminar, September 2003.
- 2003 Assessing DNA damage in cnidarians using the Comet assay. 1st International Coral Ecotoxicology Workshop, Bermuda Biological Research Station, Bermuda. Invited Seminar, September 2003.
- 2002 Molecular Mechanisms of Toxicity in corals. Hawaii Institute of Marine Biology, HI. Invited Seminar. September, 2002.
- 2001 Effects of Heavy Metals on coral-algal symbioses. Kewalo Marine Basin Laboratory, HI. Invited Seminar. October, 2001.
- 2001 Detection of genotoxicity by the COMET assay. Linus Pauling Institute, OSU, OR. Invited Seminar, July 2001.
- 2001 Biomarker development in environmental species. UMCES, Chesapeake Biological Laboratory, MD. Invited Seminar, April 2001.
- 2001 Aquatic Biomarker Application and Development: both in classical animal models and sensitive species. UMass, Amherst, MA. Invited Seminar, March 2001.
- 2001 Biomarker development in environmental species. Department of Environmental Toxicology, Clemson University, SC. Invited Seminar, March 2001.
- 2001 Aquatic Biomarker Application and Development. University of California, Santa Cruz, CA. Invited Seminar, February 2001.
- 2000 Invertebrate biomarkers and toxicity mechanisms. Walla Walla College Marine Station, Anacortes, WA. Invited Seminar, July 2000.
- 1999 Genetic toxicity in Invertebrate Species. Department of Zoology, OSU, OR. Invited Seminar, November, 1999.
- 1998 Understanding Oyster Larval Summer Mortality. Report to European Commission, Kent, U.K. Oral Presentation, November 1998.
- 1997 DNA damage and oxidative biomarkers in estuarine fish. Biomarker workshop, Middelburg, Netherlands. Invited presentation, November 1997.

- 1996 DNA damage in aquatic organisms as detected by the COMET assay. SECOTOX, Metz, France. Poster and paper presentation, August 1996.
- 1996 Genetic Toxicity in Aquatic Organisms. EPSRC Graduate School Program. Aston, Birmingham, U.K. Oral Presentation, September 1996.

***2. Additional Scientific Presentations (includes published abstracts resulting from scientific presentations), oral or poster presentations I gave noted, others as co-author:***

- 2025 “Developing Reliable Standard Analytical Protocols for the Detection of Multiple Organic UV Filters in Environmental Matrices”. Poster Presentation. SETAC Europe 35<sup>th</sup> Annual Meeting, Vienna, Austria, 11-15<sup>th</sup> May.
- 2025 “Temporal and Spatial Variability of UV filters at a popular recreational beach in Florida, USA”. Poster Presentation. SETAC Europe 35<sup>th</sup> Annual Meeting, Vienna, Austria, 11-15<sup>th</sup> May.
- 2025 “Organic UV filters detected in Coastal Waters and in the coral *Acropora cervicornis* on the Florida Reef Tract”. Poster co-author. SETAC Europe 35<sup>th</sup> Annual Meeting, Vienna, Austria, 11-15<sup>th</sup> May.
- 2025 “Assessment and Prioritization of Aquatic Contaminants of Concern on Florida’s Coral Reef”. Co-author. SETAC Europe 35<sup>th</sup> Annual Meeting, Vienna, Austria, 11-15<sup>th</sup> May.
- 2024 “Developing Standardized Metrics for Analytical and Biological Assessments in Corals”. Oral Presentation. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA.
- 2024 “Toxicity of the UV filter Octocrylene to the scleractinian coral *Acropora cervicornis*”. Oral Presentation. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA
- 2024 “Temporal variation of UV filters at a recreational beach in Florida, USA”. Oral Presentation by Stefanie Landweer. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA
- 2024 “Estimation of the short-term chronic marine toxicity of the sunscreen ingredient octocrylene to the sea urchin *Arbacia punctulata* using the EPA 1008 Method. Oral Presentation by Iain Davies. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA
- 2024 “Assessment and Prioritization of Aquatic Contaminants of Concern on Florida’s Coral Reef” Oral Presentation by Ellen Skelton. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA
- 2024 “Developing Standard Toxicity Assays in the Scleractinian Coral *Acropora cervicornis*” Oral Presentation by Dorothy-Ellen Abigail Renegar. SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA
- 2024 “Developing reliable, defensible, and relevant toxicity assays in the scleractinian coral *Acropora cervicornis*”. Oral Presentation. ECRS, July 2-5<sup>th</sup>, Naples, Italy.
- 2024 “Assessment and prioritization of aquatic contaminants of concern on Florida’s Coral Reef”. Oral Presentation by Ellen Skelton. ECRS, July 2-5<sup>th</sup>, Naples, Italy.
- 2023 “Adaptation of Sperm Quality Characterization Methods to Assess Reproductive Health of Male Mummichog (*Fundulus heteroclitus*)”. Oral Presentation by Sabine Malik. SETAC NA 44<sup>th</sup> Annual Meeting, 12-16 November, Louisville, KY, USA.

- 2023 “Spatial and Temporal Relationships of Organic UV Filter Concentrations in Seawater from the Florida Keys, USA”. Poster Presentation. SETAC NA 44<sup>th</sup> Annual Meeting, 12-16 November, Louisville, KY, USA.
- 2023 “Occurrence of Organic UV filters in Coastal Waters and the Coral *Acropora cervicornis* from the Florida Reef Tract:” Poster Presentation. SETAC NA 44<sup>th</sup> Annual Meeting, 12-16 November, Louisville, KY, USA.
- 2023 “Developing Relevant, Defensible and Reliable Toxicity Assays in the Scleractinian Coral *Acropora cervicornis*”. SETAC Latin America 15<sup>th</sup> Biennial Meeting, 17-20 September 2023, Montevideo, Uruguay.
- 2023 “Spatial and Temporal Investigations on the Concentrations of Organic UV Filters in Seawater Surrounding Coral Reef Ecosystems”. SETAC Latin America 15<sup>th</sup> Biennial Meeting, 17-20 September 2023, Montevideo, Uruguay.
- 2023 “Oil in the Sea IV: Inputs, Fates, and Effects. A Report from the National Academies of Sciences, Engineering , and Medicine”. Poster Presentation. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 1<sup>st</sup> 2023.
- 2023 “Spatial and Temporal Investigations of concentrations of organic UV filters in seawater from the Florida Keys, USA”. Oral Presentation. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 1<sup>st</sup> 2023.
- 2023 “Developing relevant and reliable toxicity assays in the scleractinian coral *Acropora cervicornis*”. Oral Presentation by Dr. Renegar. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 1<sup>st</sup> 2023.
- 2023 “Overview of exposure assessments/analytical data and method needs” Panelist in Topical discussion session – Environmental Risk of Sunscreens and Cosmetic Products. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 3<sup>rd</sup>
- 2022 Mitchelmore, C.L., Heyes, A. and M. Gonsior. Spatial and temporal investigation of concentrations of organic UV filters in seawater from the Florida Keys, USA. Poster at the Southern Maryland Marine Science Symposium, St. Mary’s College Maryland, December 10<sup>th</sup>.
- 2022 Mitchelmore, C.L., Conway, A.J., Gonsior, M., Heyes, A., Clark, C. and C. Ross. Investigating the acute and chronic toxicity of oxybenzone on the coral *Galaxea fascicularis*. Poster at the Southern Maryland Marine Science Symposium, St. Mary’s College Maryland, December 10<sup>th</sup>.
- 2022 Mitchelmore, C.L. Toxicity of Organic Filters in aquatic ecosystems. SETAC North America 43<sup>rd</sup> Annual meeting, Pittsburg, USA. November 14-17<sup>th</sup>. Oral presentation.
- 2022 Mitchelmore, C.L., Renegar, A. Developing Standard Toxicity Assays in the Scleractinian Coral *Acropora cervicornis*. SETAC North America 43<sup>rd</sup> Annual meeting, Pittsburg, USA. November 14-17<sup>th</sup>. Poster presentation.
- 2022 Mitchelmore, C.L, Gonsior, M. and A. Heyes. Spatial and temporal investigation of concentrations of organic UV filters in seawater from the Florida Keys. SETAC North America 43<sup>rd</sup> Annual meeting, Pittsburg, USA. November 14-17<sup>th</sup>. Poster presentation.
- 2022 Mitchelmore, C.L, Davies, I. and Renegar, A. Toxicity of the UV filter octocrylene to the scleractinian coral *Acropora cervicornis*. SETAC North America 43<sup>rd</sup> Annual meeting, Pittsburg, USA. November 14-17<sup>th</sup>. Oral presentation.
- 2021 Conway, A., Mitchelmore, C.L., Gonsior, M., Heyes, A., Clark C. and C. Ross. Toxicity of the UV filter oxybenzone to the coral *Galaxea fascicularis*. PCCP Virtual Science Symposium. October 26<sup>th</sup> 2021, oral presentation by Conway.

- 2020 Mitchelmore, C.L., Renegar, D.A. and Turner N.R. Comparative toxicity of common coastal contaminants and UV filters to the scleractinian coral *Acropora cervicornis*. SETAC North America, SciCon2. November 15-19 2020. Virtual Oral Presentation.
- 2020 Conway, A., Mitchelmore, C.L., Gonsior, M., Heyes, A., Clark C. and C. Ross. Investigating the toxicity of the UV filter benzophenone-3 (BP-3 or oxybenzone) on the hard coral *Galaxea fascicularis*. SETAC North America, SciCon2. November 15-19 2020. Oral Presentation virtual meeting.
- 2020 Mitchelmore, C.L. Developing standard toxicity tests in corals to assess the impacts of UV filters. PCPC Science Symposium and Expo. “Environmental Safety Workshop”, October 29<sup>th</sup>, 2020, online conference.
- 2020 Mitchelmore, C.L. Current State of the Science on the Impact of UV filters to corals. Special session: “Your science or my science. How is the way we frame our research impacted by values?” SETAC Europe SciCon, May 3-7<sup>th</sup>, 2020.
- 2020 Mitchelmore, C.L. Conway, A.J., Gonsior, M., Ross, C.L.M., Clark, C. and A. Heyes. Investigating the acute and chronic toxicity of the UV filter benzophenone-3 (oxybenzone) on the hard coral *Galaxea fascicularis*. SETAC Europe SciCon, May 3-7<sup>th</sup> 2020. Poster Presentation.
- 2019 Conway, A.J., Mitchelmore, C.L., Heyes, A., Gonsior, M and C. Clark. Investigating the Toxicity of the UV filter benzophenone-3 (BP-3 or oxybenzone) on the coral *Galaxea Fascicularis*. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Oral Presentation by Conway.
- 2019 Davies, I., E.E. Burns, A. Conway and C. Mitchelmore. Assessing the Environmental Risk of UV Filters and Other Anthropological Contaminants to Coral in the United States. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Oral Presentation by Davies.
- 2019 Bejarano, A.C., G. Coelho, C.L. Mitchelmore and D. Wetzel. A Path Forward for Improving Aquatic Toxicity Testing of Hydrocarbon Substances. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Oral Presentation by Bejarano.
- 2019 Mitchelmore, C.L., Heyes, A., Gonsior, M., Conway, A., Clark, C., He, K., Hain, E., Feerick, A. and Blaney, L. Environmental Concentration and Partitioning of Organic UV-filters in Seawater. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Poster Presentation.
- 2019 Gonsior, M., Davis, J., Conway, A., Powers, L., Mitchelmore, C.L., Heyes, A. and Schmitt-Kopplin P. Photochemical Fate of organic Sunscreen UV-filters in Fresh- and Seawater. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Poster Presentation.
- 2019 Saxe, J.K., Reynertson, K., Mitchelmore, C.L., Conway, A., Jones, R.L. and L.A. Mullins. Environmental risk assessment of oxybenzone (benzophenone-3) and coral. SETAC NA 40<sup>th</sup>, Toronto, Canada, 3-7<sup>th</sup> November, 2019. Poster Presentation.
- 2019 Mitchelmore, C.L., Heyes, A., Gonsior, M and A. Conway. 2019. Environmental Monitoring of UV filters around coral reefs in Hawaii. SETAC Australasia, Darwin, Australia, July 7-10<sup>th</sup>, 2019. Oral Presentation.
- 2019 Mitchelmore, C.L., He, K., Hain, E., Feerick, A., Younger, R., Heyes, A., Gonsior, M., Conway, A. and Blaney, L. 2019. Concentration of organic UV filters in surface seawater, coral tissue (*Porites* spp.) and sediment samples from Oahu, Hawaii. SETAC Europe 29<sup>th</sup> Annual Meeting, Helsinki, Finland, 26-30<sup>th</sup> May, 2019. Oral Presentation.
- 2019 Dyer, S.D., Holmes, C.M., Davies, I. and Mitchelmore C.L. 2019. Using Eco-



- epidemiology to Assess the Potential Risks of UV Filters to Corals. SETAC Europe 29<sup>th</sup> Annual Meeting, Helsinki, Finland, 26-30<sup>th</sup> May, 2019.
- 2019 Mitchelmore, C.L., He, K., Heyes, A., Gonsior, M., He, K., Blaney, L. and Conway, A. 2019. Evaluating the Toxicological Risk of UV Filters to Coral Species. Pollutant Responses in Marine Organisms (PRIMO 20) International Conference, Charleston, South Carolina, May 19-22, 2019. Oral Presentation.
- 2019 D.L. Wetzel., Mitchelmore, C.L., Conway, A., Music, M., Sherwood, T., Medvecky, R., Miller C. and Main K. 2019. Southern Flounder DWH Oil Sediment Induced Oxidative Stress and DNA Damage. Gulf of Mexico Oil Spill and Ecosystem Science Conference 2019 (GoMOSES). New Orleans, LA., 4-7<sup>th</sup> February. Poster Presentation.
- 2018 Mitchelmore, C.L., He, K., Hain, E., Feerick, A., Younger, R., Heyes, A., Gonsior, M. and Blaney, L. 2018. Concentration of the UV-filters Oxybenzone and octinoxate in Coral Tissue (*Porites* spp.), Surface Water and Sediment Samples from Oahu, Hawaii. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, 4-8<sup>th</sup> November, 2018. Oral Presentation.
- 2018 Gonsior, M., Heyes, A., Mitchelmore, C.L., Clark, C., Younger, R. and Schmitt-Kopplin, P. 2018. Targeted and non-targeted analysis of coastal contaminants in coral reefs in Oahu, Hawaii. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, 4-8<sup>th</sup> November, 2018.
- 2018 Forth, H., Morris, J.M., Lay, C.R. and Mitchelmore, C.L. 2018. Exposure to Crude Oils: Linking Laboratory Endpoints to Field Observations. SETAC North America 39<sup>th</sup> Annual Meeting, Sacramento, CA, 4-8<sup>th</sup> November, 2018.
- 2018 Mitchelmore, C.L., He, K., Blaney, L., Heyes, A., Gonsior, M., Hain, E., Younger, R., Schmitt-Kopplin, P., Feerick, A. and Clark, C. 2018. Concentrations of Organic UV filters in Coastal Surface Waters, Sediment and Coral Tissue from Oahu, Hawaii. SETAC Asia Pacific (AP 11), Daegu, South Korea, September 16<sup>th</sup>-19<sup>th</sup>, 2018. Oral Presentation.
- 2018 Richardson, S., Cuthbertson, A., Liberatore, H., Westerman, D., Plewa, M., Gonsior, M., Mitchelmore, C., Heyes, A., Croue, J.P. and El-Shorbagy, W. Abstracts and Papers of the American Chemical Society, 255, 31-, March 18 2018, meeting abstract. 255<sup>th</sup> National ACS meeting-Nexus of Food, Energy, and Water, New Orleans, LA.
- 2018 He, K., Hain, E., Mitchelmore, c., Heyes, A., Gonsior, M. and Blaney, L. Occurrence and distribution of a wide range of hormones and UV-filters in water, sediment, and coral (*Porites* spp.) from Hawaii. Abstracts and Papers of the American Chemical Society, 255, 228, March 18 2018, meeting abstract. 255<sup>th</sup> National ACS meeting-Nexus of Food, Energy, and Water, New Orleans, LA.
- 2017 Mitchelmore, C.L., Pulster, E. Deak, K., Sherwood T. and D. Wetzel. DNA damage in fish collected from Offshore and Nearshore locations in the Deepwater Horizon oil spill area during 2012 and 2013. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA. February 6–9<sup>th</sup>, 2017. Poster Presentation.
- 2017 Forth, H.P., Morris J.M. and C.L. Mitchelmore. Evaluation of benchtop and *in-situ* fluorometers using water accommodated fractions prepared with fresh and weathered Deepwater Horizon oils. Gulf of Mexico Oil Spill and Ecosystem Science Conference, New Orleans, LA. February 6–9<sup>th</sup>, 2017. Poster Presentation.
- 2016 Stacy, B.A., Schroeder, B.A., Wallace B.P., Witherington B., Collier T.K., MacDonald T., Mitchelmore C.L., Ylitalo G.M., Garrison L., Stacy N.I., Wehner D. and T. Brosnan. 2016. Sea Turtles and the BP Deepwater Horizon Oil Spill. American College of

- Veterinary Pathologists, New Orleans, December, 2016. Abstract Submitted and accepted (08/15) for Oral Presentation.
- 2016 Mitchelmore C.L., C. Rowe, B. Stacy, L. Clayton, C. McDermot, S. Funck, G. Danvers, M. Strauss, H. Pie, N. Chigounis, N. Stacy, C. Cray, G. Ylitalo, B. Anulacion, D. Reavill, S. Lamb, D. Cacela, K. Dean, H. Forth, J. Lipton, J. Morris, R. Takeshita and B. Wallace. 2016. Effects of Deepwater Horizon Oil on Red-Eared Sliders (*Trachemys scripta elegans*) and Common Snapping Turtles (*Chelydra serpentina*) as Surrogate Species for Sea Turtles. SETAC Orlando, FL. November 9<sup>th</sup>, 2016. Abstract accepted for Oral Presentation.
- 2016 Mitchelmore, C.L., Bishop, C.A. and T.K. Collier. 2016. Toxicological estimation of mortality of Oceanic Sea Turtles oiled during the Deepwater Horizon Oil Spill. SETAC, 9<sup>th</sup> November, 2016, Orlando, FL. Abstract accepted for Poster Presentation.
- 2016 Elskus, A.A., Wright, D.A., Mitchelmore, C.L., Welschmeyer, N., Flynn, C.J., Henquinet, JW, Watten, BJ. Efficacy and residual toxicity of a NaOH-based ballast water treatment system for freshwater ships: shipboard trials. 7th Society of Environmental Toxicology and Chemistry World Congress/SETAC North America 37th Annual Meeting, 6-10 November 2016, Orlando, FL. Abstract #631 accepted. Oral Presentation.
- 2016 Elskus, A.A. Ingersoll, C.G., Kemble, N.E., Echols, K.R., Brumbaugh, W.G., Mitchelmore, C., Wright, D., Welschmeyer, N., Flynn, C., Henquinet, J.W., Pelletreau, P., Watten, B.J. Disinfecting the ballast water of Great Lakes tankers: efficacy and residual toxicity of NaOH. University of Florida Center for Environmental and Human Toxicology, 4 Nov 2016, Gainesville, FL. Oral Presentation.
- 2016 Elskus, A.A., Wright, D.A., Mitchelmore, C., Welschmeyer, N., Flynn, C.J., Henquinet, JW, Watten, BJ. Efficacy and residual toxicity of a NaOH-based ballast water treatment system for freshwater ships: mesocosm-scale shipboard trials. 22nd Annual meeting of the North Atlantic Chapter of the Society of Environmental Toxicology and Chemistry, 13-15 June 2016, UMass, Amherst, MA. Oral Presentation.
- 2016 Elskus, A.A., Wright D.A., Mitchelmore C.L., Welschmeyer, N., Flynn C.J., Henquinet J.W. and B. Watten. 2016. Efficacy of a NaOH-based ballast water treatment system for freshwater ships: mesocosm-scale shipboard trials. 19<sup>th</sup> International Conference on Aquatic Invasive Species, Winnipeg, MB, Canada. April 10<sup>th</sup>, 2016. Oral Presentation.
- 2016 Reynolds, K.J., Flynn C.J., Elskus, A.A., Wright D.A., Mitchelmore C.L., Welschmeyer, N., Henquinet J.W. and B. Watten. 2016. Practicality of Sodium Hydroxide for Treating Ballast Water of Great Lakes Bulk Carriers. 6th GEF-UNDP-IMO GloBallast R&D Forum and Exhibition on Ballast Water Management. Montreal, Canada. 16<sup>th</sup> March, 2016. Poster Presentation.
- 2016 Mitchelmore C.L., C. Rowe, B. Stacy, L. Clayton, C. McDermot, S. Funck, G. Danvers, M. Strauss, H. Pie, N. Chigounis, N. Stacy, C. Cray, G. Ylitalo, B. Anulacion, D. Reavill, S. Lamb, D. Cacela, K. Dean, H. Forth, J. Lipton, J. Morris, R. Takeshita and B. Wallace. 2016. Effects of Deepwater Horizon Oil on Red-Eared Sliders (*Trachemys scripta elegans*) and Common Snapping Turtles (*Chelydra serpentina*) as Surrogate Species for Sea Turtles. Gulf of Mexico Oil Spill and Ecosystem Science Conference, Tampa, FL. February 1–4<sup>th</sup>, 2016. Oral Presentation.
- 2016 Forth, H.P., J.M. Morris, C.R. Lay, J. Lipton, C.L. Mitchelmore, and S.E. Suttles. 2016. Characterization of Oil and Water Accommodated Fractions Used to Conduct Toxicity

- Testing for the *Deepwater Horizon* Natural Resource Damage Assessment. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa, FL. February 1–4<sup>th</sup>, 2016. Oral Presentation.
- 2016 Stacy, B.A., Stacy N.I., Innis C.J., Keene J.L., Collier T.K., Mitchelmore C.L. and G.M. Ylitalo 2016. Assessment of injury to sea turtles in the marine environment during the Deepwater Horizon Oil Spill. Southeast Regional Sea Turtle Network Meeting, Mobile, AL. February 12<sup>th</sup> 2016. Oral Presentation.
- 2015 Forth, H.P. Morris, J.M. and C.L. Mitchelmore. 2015. Characterization of oil and water-accommodated fractions used to conduct toxicity testing for the Deepwater Horizon Natural Resource Damage Assessment. SETAC, Salt Lake City, 1-5<sup>th</sup> November, 2015. Oral Platform Presentation.
- 2015 Lay, C.R., Forth, H.P., Morris, J.M., Lipton, J. and C.L. Mitchelmore. 2015. Characterization of the dissolved fraction of PAH in mixtures of water and oil used during toxicity testing as part of the Deepwater Horizon NRDA. SETAC, Salt Lake City, 1-5<sup>th</sup> November, 2015. Poster Presentation.
- 2011 Schwarz, J., Jones, R., Venn, A. and Mitchelmore, C.L. 2011. Transcriptome-level responses to corals to copper. *Integrative and Comparative Biology*, 51, E250. Oral Presentation.
- 2011 Mitchelmore, C.L., Baker J.E. and W.A. Hatch. 2011. Impacts of Corexit 9500 and Chemically Dispersed Oil on Anemone and Coral Species. SETAC, Pensicola, FL, March 16<sup>th</sup>, 2011. Oral Presentation.
- 2011 Mitchelmore, C.L. Impacts of Corexit 9500 and chemically dispersed oil on symbiotic anemones and corals. PRIMO 16, Long Beach, CA, May 15-18<sup>th</sup>, 2011. Oral Presentation.
- 2011 Fink, H., Mitchelmore, C.L., Taylor, K. and Harvey, R.H. Biomarker assessment in Arctic cod *Boreogadus saida*, from the Chukchi Sea: results from the COMIDA program. Alaska Marine Science Symposium, January, 2011.
- 2010 Bearr, J.S., Roberts, S., Stapleton, H.M. and Mitchelmore, C.L. *In vitro* metabolism of the brominated flame retardant Firemaster in four model species. SETAC, Portland, OR. November 2010. Oral Presentation.
- 2009 Bearr, J.S., Roberts, S., Stapleton, H.M. and Mitchelmore, C.L. *In vivo* and *in vitro* metabolism of TBB and TBPH, components of Firemaster 550 and BZ-54, in the fathead Minnow (*Pimephales promelas*). SETAC, New Orleans, AL. November 2009. Oral Presentation.
- 2008 Yost, D.M. and Mitchelmore C.L. Dimethylsulfoniopropionate (DMSP) implications for coral symbioses. SETAC, Tampa, FL. November 2008. Oral Presentation.
- 2008 Mitchelmore C.L. Baker, J.E., Hatch, W.I., Teasdale, M. J. and Yost, D.M. Impacts of oil and oil spill dispersants on the soft coral *Xenia elongata*. SETAC, Tampa, FL. November 2008. Oral Presentation.
- 2008 Bearr, J. and Mitchelmore, C.L. The Role of Human Deiodinase Type 2 Enzyme on Debromination of BDE-99. SETAC, Tampa, FL. November 2008. Poster Presentation.
- 2008 Bearr, J. and Mitchelmore, C.L. Genotoxicity of Firemaster 550; a brominated phthalate, to hepatic tissue in fathead minnow. SETAC, Tampa, FL. November 2008. Poster Presentation.

- 2008 Yost, D.M. and Mitchelmore C.L. Searching for sulfur in *Symbiodinium*: DMSP implications for coral symbioses. ICRS, Fort Lauderdale, FL. July 2008. Oral Presentation.
- 2008 Mitchelmore C.L. Baker, J.E., Hatch, W.I., Teasdale, M. J. and Yost, D.M. The effects of dispersant (Corexit 9500), physically and chemically dispersed oil on the symbiotic soft coral *Xenia elongata*. ICRS, Fort Lauderdale, FL. July 2008. Oral Presentation.
- 2007 Yost, D.M. and Mitchelmore C.L. Characterization of dimethylsulfoniopropionate (DMSP) production, antioxidant and oxidative stress endpoints in marine *Symbiodinium* sp. cultures. SETAC, Milwaukee, WI. November 2007. Poster presentation.
- 2007 Sullivan, C.A., Mitchelmore, C.L., Hale, R.C. and Van Veld, P.A. Biomarker Responses in Fathead Minnows (*Pimephales promelas*) during exposure to exceptional quality biosolids. SETAC, Milwaukee, WI. November 2007. Oral presentation.
- 2007 Benedict, R.T., Brown, S.B. and Mitchelmore, C.L. Genotoxicity and Thyroid System effects in BDE-99 Exposed Common Carp (*Cyprinus carpio*). (Invited presentation) SETAC, Milwaukee, WI. November 2007. Poster Presentation.
- 2007 Kelly, S.M., Stapleton, H.M. and Mitchelmore, C.L. *In Vitro* Debromination of PBDEs in Carp Liver. SETAC, Milwaukee, WI. November 2007. Oral Presentation.
- 2007 Mitchelmore, C.L., Benedict, R.T. and Brown, S.B. Investigating the Role of Deiodinases in the Debromination of BDE Congeners in Common Carp (*Cyprinus carpio*) Liver and Intestinal Microsomes. (Invited presentation) SETAC, Milwaukee, WI. November 2007. Oral Presentation.
- 2007 Mitchelmore, C.L. and Cook, J.A. Does *C. ariakensis* accumulate more microbial pathogens than *C. virginica* increasing the pathogenic risk for human consumption? SETAC, Milwaukee, WI. November 2007. Poster Presentation.
- 2007 Mitchelmore, C.L. and Yonkos, L. Toxicity of the Quinones Menadione, Plumbagin and Juglone to Freshwater and Estuarine Organisms. SETAC, Milwaukee, WI. November 2007. Poster Presentation.
- 2007 Bearn, J., Mitchelmore, C.L. and Wright, D. Remediation of Bacteria in Ballast Water with Ozone. SETAC, Milwaukee, WI. November 2007. Poster Presentation.
- 2007 Mitchelmore, C.L., Teasdale, M.J., Beard, E., Hatch, W.I., Yost, D.M. and Baker, J.E. Effects of physically and chemically dispersed oil on the symbiotic soft coral *Xenia elongata* and the anemone *Anthopleura elegantissima*. SETAC, Milwaukee, WI. November 2007. Poster presentation.
- 2007 Benedict, R., Mitchelmore, C.L. and Brown, S. Polybrominated diphenyl ethers and thyroid hormone metabolism in carp. Society of Toxicology (SOT), Charlotte, NC. March 2007.
- 2007 Stapleton, H.M., S. Kelly, C. L. Mitchelmore. Biotransformation of PBDEs in Fish and Human Liver Microsomes. 4th International Workshop on Brominated Flame Retardants, Amsterdam, The Netherlands. April 2007.
- 2006 Mitchelmore, C.L., Yost, D.M., Teasdale, M.J. and Hatch, W.I. The Impacts of dispersant (Corexit 9500) on the soft coral *Xenia elongata* and the anemone *Anthopleura elegantissima*. SETAC, Montreal, Canada. November 2006. Oral Presentation.
- 2006 Yost, D.M. and Mitchelmore, C.L. Regulation and Function of dimethyl-sulfoniopropionate (DMSP) in cnidarian-algal symbioses. (Invited seminar) SETAC, Montreal, Canada. November 2006. Poster Presentation.

- 2006 Eisenreich, K.M., Sides, A., Mitchelmore, C.L., and Rowe, C.L. Sublethal indicators of PCB exposure in hatchling snapping turtles (*Chelydra serpentina*) from the Hudson river Superfund Site, New York. SETAC, Montreal, Canada. November 2006. Poster Presentation.
- 2006 Sullivan, C.A., Mitchelmore, C.L., Hale, R.C. and Van Veld, P.A. Cytochrome P4501A induction and DNA damage in *Pimephales promelas* during exposure to Exceptional Quality biosolids. SETAC, Montreal, Canada. November 2006. Poster Presentation.
- 2006 Walters, J., Yost, D.M., Baker, J.E., Beard, E.M., Teasdale, M., Hatch, W. and Mitchelmore, C.L. Acute and sub-lethal effects of dispersed oil to sensitive symbiotic cnidarian species (1) anemone study. ASLO, Hawaii. February 2006. Poster presentation.
- 2005 Benedict, R., Stapleton, H., Letcher, R., Baker, J., and Mitchelmore, C.L. Biotransformation of Polybrominated Diphenyl Ether-99 in Carp (*Cyprinus carpio*) Microflora and Microsomes. SETAC, Baltimore, MD. November 2005. Poster presentation.
- 2005 Kelly, S.M., Rowe, C.L., Baker, J.E., Mitchelmore, C.L. and Selcer K.W. Polychlorinated biphenyl accumulation and endocrine effects in snapping turtles of the Hudson River Superfund Site. SETAC, Baltimore, MD. November 2005. Oral presentation.
- 2005 Stapleton, H.M., B. Brazil, R. Benedict, C. Mitchelmore and D.R. Holbrook. Uptake and Debromination of Decabromodiphenyl Ether in Juvenile Rainbow Trout: Assimilation and Biotransformation. 26th Annual SETAC meeting, Baltimore, MD. November 2005. Poster presentation\*.
- 2005 Stapleton, H.M, B. Brazil, S. Anderson, R. Benedict, C. Mitchelmore and D.R. Holbrook. *In Vivo* and *In Vitro* Debromination of Decabromodiphenyl Ether (BDE 209) in Juvenile Rainbow Trout. International Symposium on Halogenated Environmental Organic Pollutants and POPs in Toronto, Canada. August 2005.
- 2005 Mitchelmore, C.L., Benedict, R., Stapleton, H., Letcher, R. and Baker, J. Debromination of polybrominated diphenyl ether 99 in carp (*Cyprinus carpio*) Microflora and microsomes. The 7<sup>th</sup> Annual Workshop on Brominated Flame Retardants (BFR) in the Environment. NIST, Gaithersburg, MD. June 2005. Oral Presentation.
- 2003 Mitchelmore, C.L., Rice, C.P. and Thoma, R. NPE contamination and correlations with biomarkers of reproductive function in carp from the Cuyahoga River. SETAC, Austin, TX. November 2003. Oral presentation.
- 2003 Mitchelmore, C.L. and Hyatt, S. Assessing DNA damage in cnidarians using the Comet Assay. SETAC, Austin, TX. November 2003. Oral presentation.
- 2003 Mitchelmore, C.L. and Hyatt, S. Assessing DNA damage in cnidarians using the Comet Assay. PRIMO 12, Tampa, FL. May 2003. Oral presentation.
- 2001 Mitchelmore, C.L., Ringwood, A. and Weis, V.M. Metal Accumulation, Toxicity, Biomarker Application and Development in Cnidarian-Algal Symbioses. PRIMO 11, Plymouth, U.K. July 2001. Oral presentation.
- 2000 Mitchelmore, C.L. and Weis, V.M. Metal Toxicity in cnidarian-algal symbioses. 9<sup>th</sup> International Coral Reef Symposium, Bali, Indonesia. October, 2000. Oral Presentation.
- 1999 Livingstone, D.R., Mitchelmore, C.L., Peters, L.D., O'Hara, S.C.M., Shaw, J and McEvoy, J. Development of blood vitellogenin in eel (*Anguilla anguilla*) as a biomarker of exposure to 'oestrogenic' contaminants in the Thames Estuary. Royal Society of

- Chemistry Annual Meeting; Endocrine Disruptors in the Environment: The Analytical Challenge. Warrington, U.K. October 1999.
- 1999 Livingstone, D.R., Mitchelmore, C.L., Peters, L.D., O'Hara, S.C.M., Shaw, J., Chesman, B., McEvoy, J., Ronisz, D., Larsson, D.G.J. and Forlin L. Development of hepatic CYP1A and blood vitellogenin in eel (*Anguilla anguilla*) for use as biomarkers in the Thames Estuary, U.K. Pollutant Responses in Marine Organisms (PRIMO 10), Williamsburg, VA. April 1999.
- 1997 Livingstone, D.R., Peters, L.D., Birmelin, C., Fessard, V., Mitchelmore, C.L., Nott, M. and O'Hara, S.C.M. Recent studies on biomarker application and mechanisms of organic contaminant toxicity in mussels (cytochrome P450) and fish (oxidative stress). Annual meeting of CEC funded BIOMAR 2 contract, Ischia, Italy. April 1997.
- 1997 Mitchelmore C.L., Birmelin C., Livingstone D.R. and Chipman J.K. (1997). Polycyclic- and nitroaromatic compounds produce DNA strand breakage in brown trout (*Salmo trutta*) and mussel (*Mytilus edulis* L.) cells. *Mutagenesis*, 12, 2, 101. Oral Presentation.
- 1997 Hodges N., Mitchelmore C.L. and Chipman J.K. (1997). DNA strand breakage induced by MX in human lymphocytes and brown trout (*Salmo trutta*) hepatocytes and blood cells. *Mutagenesis*, 12, 2, 107-108. Oral Presentation.
- 1996 Mitchelmore C.L., Livingstone D.R. and Chipman J.K. DNA damage in aquatic organisms as detected by the COMET assay. SECOTOX, Metz, France. August 1996. Poster Presentation.
- 1996 Mitchelmore C.L., Birmelin C., Livingstone D.R. and Chipman J.K. Polycyclic- and nitroaromatic compounds produce DNA strand breakage in brown trout (*Salmo trutta*) and mussel (*Mytilus edulis* L.) cells. UKEMS, Birmingham, U.K., July 1996. Oral Presentation.
- 1996 Hodges N., Mitchelmore C.L. and Chipman J.K. DNA strand breakage induced by MX in human lymphocytes and brown trout (*Salmo trutta*) hepatocytes and blood cells. UKEMS, Birmingham, U.K., July 1996. Oral Presentation.
- 1995 Mitchelmore C.L., Chipman J.K., Nunn J.W., Livingstone D.R., Matthews A., Fossato V. and Nasci C. (1995). Status of xenobiotic metabolizing enzymes and DNA adduct in *Zosterisessor ophiocephalus* and *Mytilus galloprovincialis* in relation to chemical exposure in Venice Lagoon, Italy. *Mutagenesis*, 10, 74. Oral Presentation.
- 1995 Mitchelmore, C.L., Chipman, J.K., Garcia Martinez, P and Livingstone, D.R. Normal status of hepatic 7-ethoxyresorufin O-deethylase (EROD) activity, antioxidant enzymes and DNA oxidation in turbot (*Scophthalmus maximus*) following exposure to nitroaromatic compounds. Pollutant Responses in Marine Organisms (PRIMO 8). Monterey Bay, CA. April 1995. Poster Presentation.
- 1994 Mitchelmore C.L., Chipman J.K., Nunn J.W., Livingstone D.R., Matthews A., Fossato V. and Nasci C. Status of xenobiotic metabolizing enzymes and DNA adduct in *Zosterisessor ophiocephalus* and *Mytilus galloprovincialis* in relation to chemical exposure in Venice Lagoon, Italy. UKEMS, Hatfield, UK, July 1994. Oral Presentation.

### D3. Symposia organized/chaired for Professional meetings/workshops

- 2025 Chair (w. co-chairs) of session 4.15 poster corner/poster session – “Sunscreens and Personal Care Products in the Environment: New Data and Approaches to Evaluate

- Environmental Risks and Possible Solutions”. SETAC Europe 35<sup>th</sup> Annual Meeting, Vienna, Austria, 11-15<sup>th</sup> May.
- 2024 Chair (with 2 co-chairs) of oral and poster session 2.01 on “Advances in Ecotoxicology of Scleractinian Corals and Other Coral Reef Organisms” at SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA.
- 2024 Chair (with 2 co-chairs) of oral and poster session 5.10 on “New Approaches and Data to Evaluate Environmental Risks of Sunscreens” at SETAC NA 45<sup>th</sup> Annual Meeting, 20-24 October, Fort Worth, TX, USA.
- 2023 Chair (with co-chair) of poster session at SETAC NA 44<sup>th</sup> Annual Meeting, 12-16 November, Louisville, KY, USA.
- 2023 Chair (with co-chair) of platform session 13 –“ Detection, Toxicity and Environmental Risk Assessment of UV Filters and Cosmetic Ingredients in Aquatic Ecosystems. SETAC Latin America 15<sup>th</sup> Biennial Meeting, 17-20 September 2023, Montevideo, Uruguay.
- 2023 Chair (with co-chairs) of platform session 4.07 – Environmental Risk Assessment of Organic and Inorganic UV filters. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 1<sup>st</sup> 2023.
- 2023 Chair (with co-chairs) and panelist of Topical discussion session – Environmental Risk of Sunscreens and Cosmetic Products. SETAC Europe 33<sup>rd</sup> Annual Meeting, Dublin, Ireland, May 3<sup>rd</sup> 2023.
- 2023 Co-organizer and Day 2 lead for NASEM sponsored ‘Workshop to Advance Research on Understanding Environmental Effects of UV filters in Sunscreens’. January 23-24, 2023.
- 2022 Planning committee member for NASEM sponsored ‘Workshop to Advance Research on Understanding Environmental Effects of UV filters in Sunscreens’. January 23-24, 2023.
- 2022 Chair (with co-chairs) of National Academies of Sciences, Engineering, and Medicine sponsored session on Environmental Impact of Currently Marketed Sunscreens and Potential Human Impacts of Changes in Sunscreen Usage, SETAC North America 43<sup>rd</sup> Annual Meeting, November 14-17<sup>th</sup> Pittsburgh.
- 2022 Chair (with co-chair) of session on Detection, Toxicity and Environmental Risk of UV Filters in Aquatic Ecosystem, SETAC North America 43<sup>rd</sup> Annual Meeting, November 14-17<sup>th</sup> Pittsburgh.
- 2022 Chair (with co-chair) of session on Advances in the Ecotoxicology of Reef-building Corals SETAC North America 43<sup>rd</sup> Annual Meeting, November 14-17<sup>th</sup> Pittsburgh.
- 2022 Chair (with co-chair) of Poster Corner and Poster session on Environmental risk assessment of organic and inorganic UV filters. SETAC Europe 32<sup>nd</sup> annual meeting, Copenhagen, May 15-19<sup>th</sup>, 2022.
- 2020 Chair, UV filter Monitoring and Risk Assessment Session, SETAC Europe SciCon Annual Meeting, May 3-7<sup>th</sup>.
- 2019 Chair of session on UV filters, SETAC North America 40<sup>th</sup> Annual Meeting, November 3-7<sup>th</sup>, Toronto, Canada.
- 2019 Chair, Environmental Concentrations and Impacts of UV Filters within a Holistic Evaluation of Environmental Stressors. SETAC Australasia, Darwin, Australia, July 7-10<sup>th</sup>, 2019.
- 2019 Chair, UV filter and Risk Assessment Session, SETAC Europe, Helsinki, Finland, May 25-29<sup>th</sup>, 2019.
- 2018 Chair, UV filter Monitoring and Risk Assessment Session, SETAC North America 39<sup>th</sup> Annual Meeting, November 6-10<sup>th</sup>, Sacramento, CA.

- 2013 Co-chair, Gulf Oil Spill Session, AAS, Boston, MA, February 15-17<sup>th</sup>, 2013.
- 2011 Co-chair, Gulf Oil Spill Focused Topic Meeting. SETAC, Pensacola Beach, Florida, May 26-28<sup>th</sup>, 2011.
- 2008 Co-chair, Coral Ecotoxicology session, SETAC, Tampa, FL. November 2008.
- 2008 Chair, Marine and Coastal Issues, SETAC, Tampa, FL. November 2008.
- 2005 Platform session organizing committee for SETAC. Baltimore, MD. 2004-2005.
- 2003 Genotoxicity Session co-chair, PRIMO 12. Pollutant Responses in Marine Organisms (PRIMO 12), Tampa, FL. May 2003.
- 2003 1st International Coral Ecotoxicology Workshop; session chair, organizing committee and guest editor of proceedings (Marine Pollution Bulletin). Bermuda. September 2003.
- 1997 Rapporteur for Biomarker workshop, Middelburg, Netherlands. Invited presentation, November 1997.

#### **D4. Invited Contributions / workshop or workgroup participation and media products**

- 2025 Invited member of Technical Advisory group for Nova Southeastern Universities National Coral Reef Institute. Meeting 1, April 16-18, NSU, Florida.
- 2024 Invited working group member of Caribbean Coral Recruitment ‘Closing the Coral Circle’ workshop, 27-29 February 2024. Arlington, VA.
- 2024 Speaker and Panelist at International Oil Spill Conference special workshop session on NASEM Oil in the Sea IV report, May 14<sup>th</sup>, 2024.
- 2022 “Development of toxicity tests with coral and endangered species”, oral presentation and workshop panelist, November 21<sup>st</sup>, 2022 at the International Collaboration on Cosmetic Safety meeting. Virtual.
- 2022 Invited speaker and panelist on ‘Toxicity Testing’ at the National Academies of Sciences, Engineering, and Medicine, 99<sup>th</sup> Meeting of the Ocean Studies Board, November 2<sup>nd</sup>, Washington D.C.
- 2021- Media Preparation group for revisit of CROSERF methods which will be published as a paper in early 2023.
- 2021 Panelist and workshop participant for the International series hosted by Green Cross France et Territories for the series “Sunscreens, human and environmental health”. February-May 2021. Resulted in contributions to a publication “INSPIR/actions, September 2021, Number 4.
- 2020 Invited participant for the scientific committee/stakeholder forum on “Human Health, Environmental Health and Sunscreens, Green Cross France & Territories.
- 2020 GoMRI Dispersant Virtual Workshop, presenter and workshop participant, November 16-20, 2020.
- 2020- Revisiting CROSERF working group (specifically media preparation paper and reviewer of other paper drafts).
- 2019 Invited workshop attendee for the STAC Workshop Report on “Microplastics in the Chesapeake Bay and its Watershed: State of the Knowledge, Data Gaps, and Relationship to Management Goals. April 24-25<sup>th</sup>, 2019. Woodbridge, VA. STAC publication 19-006.
- 2019- *Acropora* Ecotoxicology Review Committee.
- 2019 Invited participant at the NOAA CRRC workshop entitled “Leveraging Science and Academic Engagement During Incidents”. It was June 25 and 26<sup>th</sup> at the Bay Conference Center, Tiburon, CA.



- 2019 Updating testing protocols for Aquatic toxicity of oil and dispersants, oral presentation (Mitchelmore, C.L., Coelho G.M., Bejarano, A and D. L. Wetzel) at the GoMOSES workshop “Responding to Future Deep oil Spills-Fighting the Next War”. Gulf of Mexico Oil Spill and Ecosystem Science Conference 2019 (GoMOSES). New Orleans, LA., 4-7<sup>th</sup> February.
- 2019 Biomarkers and Surrogate Species. Oral Presentation at the “Environmental Contaminants and Sea Turtles Workshop” College of Charleston, SC, February 3<sup>rd</sup>, 2019.
- 2018 Impacts of oil on turtles and the use of surrogate species in toxicity tests. GoMRI/NOAA/NAS Sponsored invited participant only workshop on the “Toxicology of Vertebrates”, October 23<sup>rd</sup>-25<sup>th</sup>, 2018, Boulder, CO.
- 2017 Climate Smart Habitat Restoration Workshop: Toxic Contaminants Workgroup. UMCES Annapolis Office, Annapolis MD, July 31st – August 1st, 2017.
- 2015 NRDA Turtle Injury Meeting, St Petersburg, FL, March 16-18 2015.
- 2014- Member of National Academies committee for book on “Spills of Diluted Bitumen from Pipelines: a comparative study of environmental fate, effects and response”. November 2014-December 2015.
- 2014 NRDA Turtle Injury Meeting, St Petersburg, FL, June 11-14 2014.
- 2014- Pesticides and the Chesapeake Bay Watershed Project; Research working group member (EPA Chesapeake Bay Program Office).
- 2013- Participant for the toxic contaminant’s workgroup (EPA Chesapeake Bay Program Office).
- 2012- NOAA NRDA Turtle toxicity working group, 2012 – 2016.
- 2011 NOAA NRDA Marine Mammal working group/workshop, Invited Participant, Charleston, SC, July 13<sup>th</sup>-15<sup>th</sup>, 2011.
- 2010- Various written (including New Scientist, Scientific American, New York Times etc.) and TV/radio (including CNN, NPR, GMA and Dan Rather reports) media reports. These are listed on the [www.umces.edu](http://www.umces.edu) website (see UMCES in the media tab; 2010).
- 2010 Dispersant workgroup meeting invited participant. NOAA CRRC, UNH. Baton Rouge, May 2010.
- 2008- Working group on contaminants and pelagic organism declines. National Center for Ecological Analysis and Synthesis and the Interagency Ecological Program. Santa Barbara, CA. January 2008 - 2010.
- 2009 1<sup>st</sup> Coral Genomics for the non-genomic scientist training workshop. Invited Participant (attendee). June, 2009. USFW NCTC training center, MD.
- 2008 Science Communication workshop, Environmental Health News, Washington DC. April 2008.
- 2006 Invited workshop participant on Coral Ecotoxicology (Bermuda).
- 2006 PAH Toxicity Summit, CRRC NOAA, Seattle, WA. August 2006.
- 2005 Dispersant working group workshop participant. NOAA/CRRC, UNH, NH, September 2005.
- 2004 Member of National Academies committee for book review on "Understanding Oil Spill Dispersants- Efficacy and Effects". January 2004-2005.
- 2003 Book chapter review, Reptilian Biomarkers. January 2003-2004.

## **E. Special Awards and Fellowships**

- 2008 Science Communication Fellow for Environmental Health Perspectives (2008-2009).
- 2003 Distinction awarded (the first time for the course) for M.Sc. in Applied Toxicology. University of Portsmouth, U.K. September 2003.
- 2003 GlaxoWellcome Graduate Fellowship; M.Sc. Applied Toxicology. \$62,500. 09/2002-09/2003.

#### **F. Active Memberships in Professional Societies**

Society of Environmental Toxicology and Chemistry (SETAC)  
 Chesapeake Chapter of SETAC  
 American Association for the Advancement of Science (AAAS)  
 Society of Toxicology (SOT)

#### **G. National Academy of sciences, Engineering and Medicine Committees and involvement**

- 2022 National Academies of Sciences Committee member on “Oil in the Sea IV”. September 2020 to August 2022.
- 2022 National Academies of Sciences Committee member on “Environmental Impact of Currently Marketed Sunscreens and Potential Human Impacts of Changes in Sunscreen Usage. February 2021 to July 2022.
- 2019 Review coordinator and monitor for the National Academies report “The Use of Dispersants in Marine Oil Spill Response”, Ocean Studies Board, Board on Environmental Studies and Toxicology, Division on Earth and Life Studies.
- 2015 Spills of Diluted Bitumen from Pipelines: a comparative study of environmental fate, effects and response. Washington DC: The National Academy Press. 126pp. DOI:10.17226/21834
- 2005 Oil Spill Dispersants; Efficacy and Effects. National Academies Press, Washington D.C. 400pp. DOI: 10.17226/11283

#### **IV. Teaching and Training:**

- 2002- Member, USM Inter-Institutional Graduate Faculty (MEES program)
- 2002- Member, UMBC Toxicology Graduate Program (TOX program until 2017)
- 2022 Completed 3-day professional OMBUDs training, 17-19<sup>th</sup> October, Baltimore, MD.
- 2019 Guest Faculty at ENST, University of Maryland College Park.
- 2010 Adjunct/Guest Faculty St Mary’s College, Maryland (Biology and Biochemistry Departments).

#### **V. Professional Awards and Recognition:**

- 2025 Awarded best presentation at the 17<sup>th</sup> Sun Protection Conference, Royal College Physicians, London, June 24-25<sup>th</sup>.
- 2021 The review paper Mitchelmore et al. 2021 was chosen by SETAC to be a special highlighted spotlight paper.
- 2021 SETAC news highlight August 12<sup>th</sup> 2021 for Mitchelmore et al. 2021 review paper “ET&C Manuscript Gains International Attention in TIME Magazine”
- 2019 Two ET&C articles from 2016 highlighted in the 11 April 2019 SETAC GLOBE (2019,

Science and Publications, Volume 20, Issue 4) as “High-Impact Papers Publishing in the SETAC Journals for 2016”. <https://globe.setac.org/high-impact-papers-setac-journals/>  
Of the 5 papers highlighted, I was co-author on 2 (both of the Forth et al. 2016 papers).

#### **A. University System of Maryland Course's Taught (see Table 1 for MEES/TOX details):**

In a typical year my teaching load is 2 or more classes per year; usually one that I am solely responsible for, 1 as a co-Instructor with one other and an additional co-Instructor with one or more co-Instructors. My number of credits associated with my portion of these classes ranges from 37-78 credits per year). Please see Table 1 listed below for specifics on course details. Student feedback on all classes available from the UMCES CBL Directors office as requested.

- Instructor for MEES601 (609A) Applied Environmental Science (Spring 2025, 2 credit)
- Co-Instructor (50%) for Issue Study Group: MEES 718A, Plastic Pollution (Falls 2019/2021, 2 credit).
- Co-Instructor (50% except 33% in 2019) for Professional Development Course: MEES609A Applied Environmental Science. (Spring 2018-2024, 2 credit).
- Co-Instructor (50%) for Issue Study Group: MEES 718I, ‘Global Crisis of Coral Reefs’ (Fall 2018, 2 credit).
- Instructor for ENST334; Environmental Toxicology Course (Spring 2019).
- Co-Instructor (25%) for Issue Study Group: MEES 718A, Long term change in the Patuxent Ecosystem. (Fall 2017, 2 credit).
- Instructor for MEES 698I/498I (with guest speakers); Chesapeake Bay Health class (Falls since 2009, 3 credit).
- Instructor for MEES 608P; Oil Pollution (Fall 2010, Spring 2011/2013, 2 credit).
- Instructor for MEES 743 (TOX 625); Aquatic toxicology class (every Spring, 3 credit).
- Co-Instructor (20%) for MEES 608W; Environmental Forensics (Fall 2013, 2 credit).
- Co-Instructor (50%) for MEES 698W; Molecular Techniques in Environmental Science class (odd Winter, 2 credit).
- Co-Instructor (50%) for MEES 608; Ecotoxicology Seminar (Fall; 1 credit).
- Guest lecturer for Introduction to MEES 643: Environmental Toxicology (Fall 3 credit).
- Guest lecturer for MEES 698E/498E; Physiological Ecology of Animals (Spring, 2011, 2013, 2017, 2019, 2021, 2023).
- Instructor for two full courses of the CHEM 420 - Biochemistry 1 laboratory class at St Mary’s College MD (Fall 2010, 3 credit).
- Instructor for BIOL 101: Contemporary Bioscience lecture and laboratory class; St Mary’s College MD (Spring 2010, 4 credit).

**Table 1: University of Maryland Course’s Taught at UMCES, CBL (2002-present):**

Course No.	Title	Semester	Enrollment	Credit Hrs.	Co-Instructors	My total credits
MEES 601	Applied Environmental Science	2025 Spring	34	2	None	68
MEES 498E/698E#	Physiological Ecology of animals	2025 Spring	10	3	Gave 2 lectures	
MEES 601	Applied Environmental	2024 Spring	35	2	w. Tom Miller	35

	Science					
MEES 698I/498I	Chesapeake Bay Health	2023 Fall	5	3	w. Some guest lecturers	15
MEES 498E/698E#	Physiological Ecology of animals	2023 Spring	5	3	Gave 2 lectures	
MEES 601	Applied Environmental Science	2023 Spring	37	2	w. Tom Miller	37
MEES 718Z#	Plastic Pollution ISG (Dr. Eric Davidson)	2022 Fall			Guest lecture	
MEES 698I/498I	Chesapeake Bay Health	2022 Fall	6	3	w. Some guest lecturers	18
MEES 601	Applied Environmental Science	2022 Spring	33	2	w. Tom Miller	33
MEES 718E	Plastic Pollution	2021 Fall	12	2	w. Helen Bailey	12
MEES 698I/498I	Chesapeake Bay Health	2021 Fall	12	3	w. Some guest lecturers	36
MEES 498E/698E#	Physiological Ecology of animals	2021 Spring	8	3	Gave 2 lectures	
MEES 609A	Applied Environmental Science	2021 Spring	30	2	w. Tom Miller	30
MEES 698I/498I	Chesapeake Bay Health	2020 Fall	13	3	w. Some guest lecturers	39
MEES609A	Applied Environmental Science	2020 Spring	32	2	Tom Miller	32
ENST334	Environmental Toxicology	2020 Spring	16	3		48
MEES 718A	Plastic Pollution	2019 Fall	9	2	Helen Bailey	9
MEES609A	Applied Environmental Science	2019 Spring	38	2	Tom Miller Bill Dennison	25.3
MEES 743; TOX 625	Aquatic Toxicology	2019 Spring	2	3		6
MEES 718I	Global Crisis of Coral Reefs	2018 Fall	6	2	Hali Kilbourne	6
MEES609A	Applied Environmental Science	2018 Spring	34	2	Tom Miller	34
MEES 698I/498I	Chesapeake Bay Health	2017 Fall	6	3	Some guest lecturers	18
MEES 718A	Long Term Change in the Patuxent Ecosystem ISG	2017 Fall	8	2	Co-instructor	4
MEES 743; TOX 625	Aquatic Toxicology	Spring 2017	5	3		15
MEES 498E/698E**	Physiological Ecology of animals	Spring 2017	5	3	Gave 2 lectures	
MEES 698I/498I	Chesapeake Bay Health	Fall 2016	12	3	Some guest lecturers	36
MEES 743; TOX 625	Aquatic Toxicology	Spring 2016	6	3		18
MEES	Chesapeake Bay Health	Fall 2014	13	3	Some guest	39

698I/498I					lecturers	
MEES 743; TOX 625	Aquatic Toxicology	Spring 2014	10	3		30
MEES 608W	Environmental Forensics	Fall 2013	6	2	Gave 3 lectures	12
MEES 698I/498I	Chesapeake Bay Health	Fall 2013	6	3	Some guest lecturers	18
MEES 498E/698E**	Physiological Ecology of animals	Spring 2013	8	3	Gave 3 lectures	
MEES 608P	Oil Pollution Seminar	Spring 2013	4	2		8
MEES 743; TOX 625	Aquatic Toxicology	Spring 2012	9	3		27
MEES 608P	Oil Pollution Seminar	Fall 2011	15	2		30
MEES 498E/698E**	Physiological Ecology of animals	Spring 2011	10	3	Gave 3 lectures	
MEES 698I/498I	Chesapeake Bay Health	Fall 2010	7	3	Some guest lecturers	21
MEES 608P	Oil Pollution Seminar	Fall 2010	14	1		14
MEES 743; TOX 625	Aquatic Toxicology	Spring 2010	9	3		27
MEES 698I/498I	Chesapeake Bay Health	Fall 2009	13	3	Some guest lecturers	45
MEES 743; TOX 625	Aquatic Toxicology	Spring 2008	8	3		24
MEES 643**	Introduction to Environmental Toxicology	Fall 2007	7	3	Wright's class	4.5 (out of 45)
MEES 698W	Molecular Techniques in Environmental Science	Winter 2007	5	2	Suzuki*	12 (36)
MEES 743; TOX 625	Aquatic Toxicology	Spring 2006	4	3		45
MEES 608	Ecotoxicology Seminar	Fall 2005	6	1	Rowe*	15
MEES 698W	Molecular Techniques in Environmental Science	Winter 2005	4	2	Suzuki*	12 (36)
MEES 643**	Introduction to Environmental Toxicology	Fall 2004	15	3	Wright's class	4.5 (out of 45)
MEES 608B	Ecotoxicology Seminar	Fall 2004	6	1	Anderson*	15
MEES 743; TOX 625	Aquatic Toxicology	Spring 2004	10	3		45
MEES 699	Special problems	Spring 2003	1	2		10#
MEES 698W	Molecular Techniques in Environmental Science	Winter 2003	14	2	Suzuki*	12 (36)#
MEES 608	Ecotoxicology Seminar	Fall 2002	12	1	Rowe*	15

\*both Instructors equal responsibility for course and grades; #lab hours; \*\*, guest lecturer for class

## B. Graduate Students Supervised (1 and 2 as Major Advisor)

### 1. Students with Degrees Completed

- 2021 Annaleise Conway MSc MEES UMCES, CBL  
*Title:* Understanding the toxicity of the UV filter oxybenzone (BP-3) on corals
- 2014 Hannah Pie Ph.D. Toxicology Program, UMBC  
*Title:* Impact of oil and dispersant on invertebrate species, May 2014.
- 2010 Jon Bearr Ph.D. Toxicology Program, UMBC  
*Title:* Fate and effects of new formulation flame retardants, Firemaster 550 and BZ-54. August 2010.
- 2010 Denise Yost Ph.D. MEES UMCES, CBL  
*Title:* Dimethylsulfoniopropionate (DMSP) and DMSP-lyase in cnidarian algal symbioses. May 2010.
- 2008 Rae T. Benedict Ph.D. Toxicology Program, UMBC.  
*Title:* Metabolic Debromination and Genotoxicity of Polybrominated Diphenyl Ethers in Common Carp (*Cyprinus carpio*). July 2008.

## **2. Current Graduate Student advisor (\*\*: co-advisor)**

**Joy Amadi	Ph.D.	MEES	UMCES, CBL (w. Dr. Heyes)
** Robert Bell	Ph.D.	MEES	UMCES, CBL (w. Dr. Rose)
** Raul Flamenco	Ph.D.	MEES	UMCES, CBL (w. Dr. Woodland)

## **3. Current\* and past/completed Graduate Student Committee Memberships**

*Cameron Stacey	M.Sc.	MEES	UMCES, CBL
*Brady Estrada	M.Sc.		NSU (Nova Southeastern Univ.)
*Jessica McGlinsey	Ph.D.	MEES	UMCES, CBL
*Sabine Malik	Ph.D.	ENST	UMCP
Cailey Dorman	M.Sc.		NSU (Nova Southeastern Univ.)
Megan Carve Luzardo	Ph.D.		RMIT, Australia
Mikaela Nordborg	Ph.D.		James Cook University, Australia
Ellen Regina Skelton	M.Sc.		NSU (Nova Southeastern Univ.)
Megan McGrath	Ph.D.		NSU (Nova Southeastern University)
Andrea Carrao	Ph.D.		University of Cincinnati
Caron Gala	Ph.D.	ENST	UMCP
Shannon Edwards	Ph.D.	ENST	UMCP
Erin Crandall	M.Sc.	MEES	UMCES, CBL
Mary Larkin	Ph.D.	TOX	UMCES, IMET
Jenna Luek	Ph.D.	MEES	UMCES, CBL
Egbe Egiebor	Ph.D.	MEES	UMES
Alison Straka	M.Sc.	MEES	UMCES, CBL
Dana Armstrong	M. Sc.	MEES	UMCP
Meredith Bohannon	Ph. D.	MEES	UMCP
Shannon Kelly	M.Sc.	TOX	TOX, UMBC
Danika Kuzmick	M.Sc.	MEES	UMCES, CBL
Susan Klosterhaus	Ph. D.	MEES	UMCES, CBL
Amy Merten	Ph.D.	MEES	UMCES, CBL
Ann Mountz	M. Sc.	MEES	UMCES, CBL
Karen Eisenrich	Ph.D.	MEES	UMCES, CBL

Moir McKernan	Ph.D.	MEES	UMCP
Connie Sullivan	M.Sc.		VIMS

### C. Undergraduate Students Supervised (2018 onwards only)

NAME	DATE @ CBL	AFFILIATION	PROJECT TITLE
Eyron Tapia-Sibri	Jan-April 2025	CSM	Protein assays/beach counts
Lauren Black	Jan-June 2023	CSM	Turtle sex determination
Samantha Dishong	Jan-June 2023	CSM	UV filter chemistry
Titiksha Magesh	Summer 2022	UMCP	UV filter chemistry
Lauren Black	Aug-Dec 2022	CSM	UV filter chemistry
Adrianna Armstrong	Jan-June 2020	CSM	Toxicity testing
Isaiah Lucas	Aug-Dec 2019	CSM	Coral culture/toxicity tests
Justin Guider	May-Aug 2018	MDSG-REU	Advancing oyster aquaculture
Danci Johnson	May-Aug 2017	MDSG-REU	Advancing oyster aquaculture
Sydney Novak	May-Aug 2014	MDSG-REU	DNA damage (oil responses)
Zachary Watkins	May-Aug 2013	MDSG-REU	PAH in rig organisms
Jennifer Middleton	May-Aug 2010	MDSG-REU	Biomarkers in Arctic whelks
Marion Maine	May – Aug 2009	MDSG-REU	Nanoparticle toxicity
Megan Sikowitz	Sept 2007-May 2008	St Mary's College	DMSP and DMSP lyase in algae
Jennie Yuda***	May-Aug 2007	MDSG-REU	Algal DMSP production
Audrey McDonald#	May-Aug 2006	MDSG-REU	Oil toxicity in corals
Sylmar Santos	May-Aug 2006	MDSG-REU	Pathogen uptake by oysters
Katie McKone	May-Aug 2006	Intern	Pathogen uptake by oysters
Jackie Walters**	May-Aug 2005	MDSG-REU	Oil toxicity on oysters
Amanda Ellis*	May-Aug 2004	MDSG-REU	Lipofuscin levels in blue crabs
Alex Bogler	May-Aug 2003	MDSG-REU	DNA damage in blue crabs

\*; co-supervised by Dr. R. Harvey. \*\*; recipient of ALSO fellowship to attend February 2006 meeting in Hawaii #; recipient of UMEB Fellowship for ERF meeting, November 2007.

\*\*\*; recipient of fellowship to attend Ocean Sciences meeting, Florida, March 2008.

### D. Post-doctoral Student supervised:

Stefanie Landerweer	UMCES-CBL	UV filter chemistry (2023-2025)
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### E. High School Teachers (Teacher Fellow Program):

NAME	DATE @ CBL	PROJECT TITLE
Sheikisha Jenkins	June – July 2009	PCR optimization
Emily Cieslinski	June – July 2008	Microcystin levels in Lake Lariat, MD.
Lindsay Turkow	June – July 2008	Glutathione enzyme levels in BDE dosed fish
Kristin Zelekas	June – July 2007	Gene expression levels in anemones
Terri Fewless	June – July 2006	Pathogen uptake by oysters
Leeanne Rogers	June – July 2005	Pathogen uptake by oysters
John Spiniccha*	May – Aug 2005	DNA damage in turtles
John Spiniccha	June – July 2004	DNA damage in turtles
Amanda Durkee	June – July 2003	Gene expression in anemones

\*; CBL Intern

2018-present: Led and co-led various teacher professional workshops in the “Wave of Plastic school curriculum” includes NGSS standards, MWEE, MD blueprint etc.

## **V. Outreach and Service**

### ***A. Editorships***

Aquatic Toxicology, co-editor (June 2009-2012).

Marine Pollution Bulletin, Guest editor for Coral Reef Workshop Proceedings (October 2003-December 2004).

### ***B. Public Service***

- 2025 Co-organizer (and speaker) at the Annual Patuxent River Wade in event (June, Jefferson Patterson Park).
- 2025 Organized and led CBLs Spring “Science for communities” 5 week public seminar series.
- 2024 Co-organizer (and speaker) at the Annual Patuxent River Wade in event (June 9<sup>th</sup>, Jefferson Patterson Park).
- 2024 CBL overview tent at various events; June 15<sup>th</sup> Juneteenth celebration at the Jefferson Patterson Park, October 26<sup>th</sup> 10<sup>th</sup> Annual STEM Festival, St. Mary’s County Fairgrounds ‘Wave of Plastic Demonstration’.
- 2023/4 Led CBLs Open house days (October 7<sup>th</sup> 2023 and September 7<sup>th</sup> 2024).
- 2024 Organized and led CBLs Fall “Science for communities” 5 week public seminar series.
- 2024 Organized and led CBLs Spring “Science for communities” 4 week public seminar series.
- 2002- Various tours and talks at CBL and about CBL at external sites to school groups, educators, members of the public, legislators, professional groups and other stakeholders.
- 2020 Involved in the design for three outdoor signs on plastic pollution and solutions as part of the DNR PlasticWatch project which have now been installed on the Solomons Boardwalk in Maryland in coordination with the Calvert Marine Museum.
- 2019 NOAA B-WET “Wave of Plastic” project was featured in local news media, such as the Bay Net (<http://www.thebaynet.com/articles/0119/wave-of-plastic-bringswatershed-education-to-area-students.html>).
- 2019 The DNR funded PlasticWatch project was featured in local news media, such as the Calvert Recorder ([https://www.somdnews.com/recorder/spotlight/hopingthis-is-the-final-straw/article\\_62e7be3a-656c-5457-947a-79d352d1f6ba.html](https://www.somdnews.com/recorder/spotlight/hopingthis-is-the-final-straw/article_62e7be3a-656c-5457-947a-79d352d1f6ba.html))
- 2010- Member of the Board of Directors of the Maryland Pesticide Education Network (2010-2022).
- 2015- Voted Member of the Board of Calvert County, Environmental Commission, December 2015 to 2022.
- 2016- Voted Vice President of the Board of Calvert County, Environmental Commission, December 2016 through December 2018 and 2020-.
- 2016 Voted Vice President and Member of the Board of Calvert County, Environmental Commission, December 2016 and December 2017.
- 2017 Prepared summary report on findings from November 2016 Environmental Summit organized for the Calvert County Environmental Commission. April 2017.



- 2013 Invited Oral Presentation on “Pollutant Impacts and the Health of fish in the Chesapeake Bay Watershed”. Calvert County Sportsman Club. March 9<sup>th</sup>, 2013. Prince Frederick, MD.
- 2004 Invited to give a seminar at a local school (Plum Point, MD) to give a career talk and overview of Aquatic Toxicology. 2004.
- 2002- Various outreach and educational events highlighting UMCES, CBL research and education.
- 2002 Involved as a toxicology advisor for the Crofton Pond, Snakehead invasive fish expert advisory panel. 2002.
- 2002 Invited to local school (Towson elementary, MD) to give a career talk on ‘Careers in Marine Biology’. 2002.
- 2001 Science judge at National Ocean Science Bowl (held at Oregon State University, OR). 2001.

***C. Federal/State/Local Government:***

***1. Federal Congressional verbal testimonies;***

- July 27<sup>th</sup>, 2017. Congressional Briefing at the request of Congressman Conyer’s staff regarding ‘Saving America’s Pollinators Act, 2017. Oral and written testimony regarding neonic aquatic toxicology issues.
- June 17<sup>th</sup>, 2010. Senate Committee on Small Business and Entrepreneurship. Hearing on “Harnessing Small Business Innovation: Navigating the Evaluation Process for Gulf Coast Oil Cleanup Proposals”. Oral testimony.
- June 10<sup>th</sup>, 2010. House Subcommittee on Insular Affairs, Oceans and Wildlife. Oversight Hearing on “Our Natural Resources at Risk: The Short and Long Term Impacts of the Deepwater Horizon Oil Spill”. Oral testimony.
- May 21<sup>st</sup>, 2010. House Committee on Energy and Commerce. Bipartisan Briefing on Oceans Under Siege: Environmental Impacts Of The BP Oil Spill. Oral testimony.
- May 19<sup>th</sup>, 2010. House Committee on Transportation and Infrastructure. Hearing on “Deepwater Horizon: Oil Spill Prevention and Response Measures, and Natural Resource Impacts”. Oral testimony.
- May 11<sup>th</sup>, 2010. Senate Committee on Environment and Public Works. Hearing on “EPA’s Role in Protecting Ocean Health”. Oral testimony.

***2a. State (Maryland) Congressional verbal testimonies;***

- February 12<sup>th</sup>, 2020. Written Testimony in the State Senate regarding pesticide aquatic toxicity issues regarding SB300.
- February 11<sup>th</sup>, 2020. Written Testimony in the State House regarding pesticide aquatic toxicity issues regarding HB229.
- February, 2018. Oral and Written Testimony in the State Senate regarding toxicology issues In response to SB211.
- February, 2018. Oral and Written Testimony in the State House regarding aquatic toxicology issues in response to HB198.
- February 10<sup>th</sup>, 2016. Oral Testimony to the Maryland House Environment and Transportation

- Committee regarding neonicotinoid impacts on aquatic invertebrates regarding HB211: Restrictions on Sales and Use - Pollinator Protection Act.
- February 16th, 2016. Oral Testimony to the Maryland Senate Education, Health and Environmental Affairs Committee regarding neonicotinoid impacts on aquatic invertebrates regarding SB198: Restrictions on Sales and Use - Pollinator Protection Act.
- October 21<sup>st</sup>, 2016. Invited Oral Testimony to the Maryland House Environmental Matters Committee regarding the pesticide use reporting bill.
- March 13th, 2015. Written Testimony presented to the Maryland House of Representatives Environmental Matters Committee regarding neonicotinoid impacts on aquatic invertebrates regarding HB605: Pollinator Protection Act.
- February 17th, 2015. Written Testimony presented to the Maryland Senate Education, Health and Environmental Affairs Committee regarding neonicotinoid impacts on aquatic invertebrates regarding SB163: Pollinator Protection Act.
- February, 12<sup>th</sup> 2014. Oral Testimony to the Maryland House of Representatives Environmental Matters Committee regarding the use to Environmental Scientists of a pesticide use reporting system regarding HB621: Registration of Pesticides-Fee Increase-Disposition of Fees.
- March 5<sup>th</sup>, 2013. Oral Testimony to the Maryland Senate Education, Health and Environmental Affairs Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding SB675: Maryland Reporting and Information Act.
- February 27<sup>th</sup>, 2013. Oral Testimony to the Maryland House of Representatives Environmental Affairs Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding HB775: Maryland Reporting and Information Act.
- March 8<sup>th</sup>, 2011. Oral Testimony to the Maryland Senate Education, Health and Environmental Affairs Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding SB785: Pesticide-Use, Release, Purchase and Sales Reporting.
- March 2<sup>nd</sup>, 2011. Oral and Written Testimony in the Maryland House of Representatives Environmental Matters Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding HB660:Pesticide-Use, Release, Purchase and Sales Reporting.
- March 4<sup>th</sup>, 2010. Oral and Written Testimony in the Maryland Senate Education, Health and Environmental Affairs Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding SB359: Fertilizer and Pesticide Release Reporting.
- March 24<sup>th</sup>, 2009. Oral and Written Testimony in the Maryland Senate Education, Health and Environmental Affairs Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding SB917: Fertilizer and Pesticide Release Reporting.
- March 4<sup>th</sup>, 2009. Oral and Written Testimony in the Maryland House of Representatives Environmental Matters Committee Regarding the use to Environmental Scientists of a pesticide use reporting system regarding HB929: Fertilizer and Pesticide Release Reporting.

***2b. State (not Maryland) Congressional verbal testimonies;***

April 6<sup>th</sup>, 2018. Written and verbal testimony presented to the State of Hawaii regarding the concentration of oxybenzone and octinoxate in seawater, sediment and coral tissue from Oahu, Oahu.

### ***3. Local Congressional verbal testimonies;***

March, 2019. Written and oral presentation to the city of Miami, Florida regarding the “State of the Science and risk assessment of oxybenzone and octinoxate to coral reefs”

January, 2019. Written and oral presentation to the city of Key West, Florida regarding the “State of the Science on the environmental concentrations and relevance to toxicity of corals for oxybenzone and octinoxate”.

### ***4. Expert witness testimonies and depositions (national);***

May 9<sup>th</sup>-10<sup>th</sup>, 2016. Attendance and expert witness in trial in Huntington, West Virginia regarding civil action No: 2:13-21588 Sierra Club v. Fola Coal Company.

March 17<sup>th</sup>, 2016. Expert witness at the deposition for civil action No: 2:13-21588 Sierra Club v. Fola Coal Company, UMBC, MD.

May 8<sup>th</sup>-11<sup>th</sup>, 2012. Attendance and expert witness in trial in Huntington, West Virginia regarding the ‘Reylas case’; Ohio Valley Environmental Coalition v. U.S. Army Corps of Engineers. Civil No. 3:11-cv-0149 (S.D.W.Va).

April 19<sup>th</sup>, 2012. Attendance and expert witness at the deposition for the ‘Reylas case’; Ohio Valley Environmental Coalition v. U.S. Army Corps of Engineers. Civil No. 3:11-cv-0149 (S.D.W.Va). Annapolis, MD.

July 13-15<sup>th</sup>, 2011. Attendance and expert witness at Mountain top mining trial case. Charleston, West Virginia.

December 13<sup>th</sup>-17<sup>th</sup>, 2010. Attendance and expert witness in trial before the West Virginia Environmental Quality Board in Sierra Club v. Clark, Appeal No. 10-34-EQB.

### ***D. International***

External Ph.D. committee member for student at University of Birmingham, U.K., RMIT Australia, and James Cook University, Australia

Reviewer of research proposals submitted to NERC (UK). 2004-2006

Co-taught an IUTOX sponsored educational session on biomarkers and ‘omics applications to Ecotoxicology, Mendoza, Argentina. October 2005

Part of steering committee for 1<sup>st</sup> International Coral Reef Ecotoxicology Workshop (Bermuda) and guest editor for proceedings (Marine Pollution Bulletin). 2003-2004

Reviewer of research proposals for the Israel Science Foundation. 2001

### ***E. University System of Maryland***

2025 Member of USM Alternative Credentials Task Force

2025 Member of MEES internal review committee

2024 Attendee at USM Summit on Environmental Literacy and Teacher Professional Development, December 10<sup>th</sup>, IMET

- 2024 Participant at first USM Postdoctoral Research Symposium 2024. UMCP, September 27<sup>th</sup>
- 2021 CBL Tour/seminar on Environmental Toxicology to UMD ENST students (10/ 2021)
- 2017- Member of MEES Program Committee
- 2017- co-chair of MEES Program, Curricula, Courses Committee; MEES PCC (2017-present)
- 2012 Toxicology Program/GPILS student selection committee member (for PhD and MSc students), 2012-2019
- 2007 Lecture for undergraduates from Lafayette College, CBL
- 2006 Lecture and lab based class for summer middle school children (w/ Jackie Takacs). 2006-2008
- 2004 Lecture and lab based class for summer high-school teacher program (w/ Jackie Takacs). 2004-2008
- 2002 Involved as a toxicology advisor for the Crofton Pond, Snakehead invasive fish expert advisory panel

#### ***F. UMCES and Laboratory***

- 2025 Chair of CBL outreach committee
- 2025 UMCES Presidential graduate fellowship review committee
- 2025 UMCES student stipend review committee
- 2024- North Atlantic Coast Cooperative ecosystem studies unit (CESU) UMCES representative
- 2024- North Atlantic CESU technical representative for experts database
- 2024-5 SAML finance/audit committee member
- 2023-5 UMCES CBL National Association of Marine Laboratories delegate
- 2023-5 Southern Association of Marine Laboratories (SAML) delegate for UMCES CBL
- 2023-5 Co-organizer / committee and speaker of annual Patuxent River Wade In event
- 2023-5 USMAI (University of Maryland Libraries) Council of Library Directors UMCES representative
- 2022- UMCES faculty OMBUDs program; faculty representative and trained OMBUD
- 2020- Member of working group 3 for UMCES Self accreditation report.
- 2017- Chair of UMCES Program, Curricula and Courses Committee (2017-present)
- 2017- co-chair of MEES Program, Curricula and Courses Committee (2017-present)
- 2017- UMCES representative on USM Women's Forum (2017-2018)
- 2017- Member of MEES PC committee (2017-present)
- 2016- Organizer for BFL Open House Days (2016, 2017, 2018, 2019)
- 2016- Led demonstrations at CBL open house (2016, 2017, 2018, 2019)
- 2016- Chair of GFC Committee for New Student Orientation Program
- 2015- Member (2004-) and Chair of CBLs GEC graduate education committee (2015-2023)
- 2015- Graduate Faculty Council member (2015-present)
- 2015- CBL Outreach Committee
- 2015- Presidential Fellowship Committee (2015-2017)
- 2013- Chair and/or committee member on various 5-year faculty comprehensive review panels
- 2009- REU selection committee (March 2009-2013)
- 2008 Co-organizer (chair) for 2008 MEES student colloquium. CBL, October 2008
- 2008 Student brown bag series organizer (Spring 2008)
- 2008- Chair of safety committee. (2008 – 2015)
- 2007- Committee on shared instruments (and repairs) (2007-2012)
- 2006- Chair and/or committee member on a number of faculty promotion, emeritus review and

- new faculty search committees
- 2006- Involved in CBLs open day (4 mini laboratory demonstrations etc, October 2006 and 2007) and 2016
- 2007 Public Seminar ‘Fishy forensics’. (June 2007)
- 2006 Seminar for public ‘Savor the Bay series’ on issues relating to pathogen (pollution) uptake in the native versus the non-native oyster (March, 2006)
- 2005 Public seminar on ‘Reptile research at CBL and their use as models for assessing environmental stress’. (with Dr. C.L. Rowe; June 2005)
- 2005 Seminar for public ‘Savor the Bay series’ on Chesapeake Bay toxicology issues (March, 2005)
- 2006- On various promotion and new faculty search committees (2006 to present)
- 2004- Involved in various teacher outreach programs (lecture and laboratory based classes; 2004-current)
- 2004- CBL's GEC graduate education committee (2004-2013).
- 2002- Various public outreach and education presentations, including;
  - Science for citizens talk, October 16<sup>th</sup>, 2018 “Are sunscreens killing our coral reefs?”
  - Docent talk, “Plastic Pollution”, 2019
  - Science for citizens talk, Fall 2020, “Plastic Pollution and efforts to reduce plastic in Solomons, MD”
- 2002- On numerous occasions helped out in the CBL Visitors center (including docent and public outreach talks, tours; 2002-current)
- 2002 Initiated and planned CBLs molecular core facility (2002)
- 2002- Volunteer at various CBL outreach events (e.g. CBL tours)
- 2002- Hosted and run a number of CBL Wednesday seminar series

### ***G. Other Professional Service***

- 2025- Leadership Maryland Executive Program – class of ‘25
- 2025- At-Large member Cove Point National Heritage Trust (CPNHT)
- 2024- Member of Technical Advisory Committee (TAC) for the National Coral Reef Institute (NCRI)
- 2020- Reviewer of proposal for the Research Grants Council, Hong Kong, China.
- 2020- Reviewer of National Science Foundation proposals
- 2021- Reviewer and committee member for two EPA promotions
- 2019- Review coordinator and monitor for the National Academies report “The Use of Dispersants in Marine Oil Spill Response”, Ocean Studies Board, Board on Environmental Studies and Toxicology, Division on Earth and Life Studies
- 2017- Helped on CBL’s outreach and education table at PRAD and other events
- 2016- Attended Green Expo and PRAD (2016, 2017) for Calvert County Environmental Commission
- 2016- Chaired and co-organized an Environmental Summit (November 2016) for the Calvert County Environmental Commission. Wrote summary report in April 2017
- 2015 South Carolina Sea Grant proposal review panel (August 2015)
- 2015- Peer reviewer for ERG (Eastern Research Group) for various EPA documents relating to chemical risk (multiple reviews throughout 2015 and 2016)
- 2015 Peer reviewer for proposals submitted to the California Department of Fish and Wildlife (CDFW; multiple in years 2015, 2016, 2017, 2018)

- 2014 Board member for the Maryland Pesticide Education Network (December 2014-present)
- 2014 Chesapeake Bay program: Toxics Contaminants Subgroup committee (2014-present)
- 2013- Maryland Pesticide Network committee member (2013-present)
- 2013 South Carolina Sea Grant proposal review panel (August 2013)
- 2011 Peer reviewer for VERSAR for EPAs STAR Peer Review
- 2008 Science Communication Fellow, 2008. Environmental Health Science
- 2007 South Carolina Sea Grant proposal review panel (August 2007)
- 2005- Mentor (Buddy system program) for students attending SETAC North America Meetings
- 2005 South Carolina Sea Grant proposal review panel (August 2005)
- 2004 SETAC 2005 (Baltimore, MD) Platform session organizing committee
- 2003 Taught a genotoxicity laboratory course and gave seminars in coral reef toxicity responses at the 1st International Coral Reef Ecotoxicology Workshop
- 2002 Co-taught summer program (lectures and lab class) at HIMB (Hawaii Institute of Marine Biology) as part of the Edwin Pauley Summer program in 'Molecular techniques in Coral Biology'. 2002
- 2001 Reviewer of research proposals for the National Science Foundation
- 2001- Reviewer of manuscripts for Aquatic Biology, Aquatic Toxicology, Marine Biology, Marine Environmental Research, Science of the Total Environment, Environmental Toxicology and Chemistry, Environmental Toxicology and Pharmacology, Environment International, Journal of Cosmetic Science.
- 2001 Science judge at National Ocean Science Bowl (Oregon State University, OR)

#### ***H. Public Media Citations and Articles (those contributed to in \*)***

- 2022\* Student led article resulting from Plastic Pollution ISG course (involved in edits)  
<https://www.spinsheet.com/chesapeake-bay/five-opportunities-knock-down-marine-plastic-pollution>
- 2022\* Chesapeake Quarterly, June 2022, Vol. 21, No. 1. "Boats on the Bay: Shrinking the Impacts". Article included student led data from the Plastic Issue study group.  
<https://www.chesapeakequarterly.net/V21N1/>
- 2022 U.S. Right to Know. "How the Pesticide Industry Tried to Stop a Bill to Protect Bees in Maryland. July 26, 2022. <https://usrtk.org/pesticides/maryland-pollinator-protection-act-pesticide-industry-opposition-playbook/>
- 2022 AIMatMELANOMA 2022 update on the state of sunscreen in the US. July, 2022.  
[https://issuu.com/aimatmelanoma/docs/the\\_state\\_of\\_sunscreen\\_in\\_the\\_united\\_states\\_2022?e=36387643/92287518](https://issuu.com/aimatmelanoma/docs/the_state_of_sunscreen_in_the_united_states_2022?e=36387643/92287518)
- 2022 Goodhousekeeping magazine article on UV filters (November 2022):  
<https://www.goodhousekeeping.com/beauty/anti-aging/g41779401/reef-safe-sunscreen/>
- 2021 Time magazine article. <https://time.com/6084625/sunscreen-safety-regulations/>
- 2021 Cosmetics business article. March 11<sup>th</sup> 2021  
[https://cosmeticsbusiness.com/news/article\\_page/Reef\\_friendly\\_sunscreen\\_An\\_eco-feasible\\_challenge/175182](https://cosmeticsbusiness.com/news/article_page/Reef_friendly_sunscreen_An_eco-feasible_challenge/175182)
- 2021\* EurekAlert AAAS article. February 2nd 2021. <https://www.eurekalert.org/news-releases/652472>
- 2021 Medical News India Article "Coral decline: is sunscreen responsible?"  
<https://medicalnewsindia.com/coral-decline-sunscreen-responsible/>

- 2020 Coral Guardian Article, 3<sup>rd</sup> November 2020. <https://www.coralguardian.org/en/uv-filters-sunscreen-corals/>
- 2019 Science Daily article. April 1<sup>st</sup> 2019  
<https://www.sciencedaily.com/releases/2019/04/190401121805.htm>
- 2019\* Boat US article summarizing toxicity results from boat cleaner testing. August 2019.  
<https://www.boatus.com/expert-advice/expert-advice-archive/2019/august/boatus-foundation-puts-green-boat-cleaners-to-the-test>
- 2019\* EurekAlert AAAS article, April 1<sup>st</sup> 2019. <https://www.eurekalert.org/news-releases/506693>
- 2019 Florida Politics Article, April 22<sup>nd</sup> 2019. <https://floridapolitics.com/archives/294229-scientific-consensus-mounts-in-favor-of-sunscreen/>
- 2019 Biotechniques, April 1<sup>st</sup> 2019. International Journal of Life Sciences Methods article.  
<https://www.biotechniques.com/general-interest/blinding-nemo-monitoring-the-effect-of-uv-filters-on-coral-reefs/>
- 2019 Quebec Science magazine article, June 27<sup>th</sup> 2017  
<https://www.quebecscience.qc.ca/environnement/creme-solaire-nouvel-ennemi-coraux/>
- 2019 Florida today news article, July 1<sup>st</sup> 2019  
<https://www.floridatoday.com/story/opinion/2019/07/01/data-doesnt-back-sunscreen-bans-protect-coral-reefs/1620711001/>
- 2019 The Palm Beach Post “So what’s up with sunscreens and coral reefs? July 6<sup>th</sup>, 2019.  
<https://www.palmbeachpost.com/story/news/politics/state/2019/07/06/point-of-view-so-whats-up-with-sunscreens-and-floridas-coral-reefs/4752958007/>
- 2019\* O magazine article on Sunscreens and Coral reefs
- 2018 “What your patients need to hear about sunscreens”. August 2018.  
[https://www.neutrogena.ca/hcp/sites/neutrogenahcp\\_ca/files/important-sunscreen-facts.pdf](https://www.neutrogena.ca/hcp/sites/neutrogenahcp_ca/files/important-sunscreen-facts.pdf)