

Victoria J. Coles

Professor

University of Maryland Center for Environmental Science

Horn Point Laboratory

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Education

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| 1991 | B.Sc., University of California at San Diego. Physics (Earth Sciences). |
| 1998 | Ph.D., University of Miami, Rosenstiel School of Marine and Atmospheric Sciences. Physical Oceanography. |

Professional Experience

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| 2022-Present | Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory. |
| 2023-2024 | Associate Director for Research, Horn Point Laboratory. |
| 2017-22 | Associate Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory. (Tenured 2018) |
| 2009–17 | Research Associate Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory. |
| 2001–09 | Research Assistant Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory. |
| 1997–01 | Postdoctoral Fellow, Goddard Space Flight Center, National Atmospheric and Space Agency. |

Awards and Special Recognition

- 2009 State of Maryland Governor's Commendation for work on Maryland Commission on Climate Change.
- 2008 University of Maryland Center for Environmental Science President's award for excellence in application of science. (Awarded annually to one faculty member)

Areas of professional expertise

Application of observations, remote sensing, and models to questions at the interface of physical oceanography, biogeochemistry, ecology, and impacts of climate variability and change.

- Observation and modeling of ocean circulation
- Climate variability and impacts on regional scales
- Biogeochemical and ecological modeling

Diverse Selected Publications: orcid.org/0000-0002-7247-0007

Silsbe, G.M., R. Lele, **V.J. Coles**, S.V. Amaraneni, X. Guo, S.V. Malkin, V.P. Janeja, "Surface Clustering of Bioargo Floats Delineates the Vertical Structure of Phytoplankton in

- the Atlantic Basin" *IGARSS 2026 - 2026 IEEE International Geoscience and Remote Sensing Symposium*, Washington D.C.,USA, 2026.
- Levine, N.M., H. Alexander, E. Bertrand, **V.J. Coles**, S. Dutkiewicz, S.G. Leles, E. Zakem (2025) Microbial Ecology to Ocean Carbon Cycling: From Genomes to Numerical Models, *Annual Review Earth and Planetary Sciences*. 53:595-624.
- Hood, R.R., **V.J. Coles**, J. A. Huggett, M.R. Landry, M. Levy, J.W. Moffett, T. Rixen (2022) Nutrient, Phytoplankton and Zooplankton Variability in the Indian Ocean. In: *The Indian Ocean and its role in the global climate system* (eds) R.R. Hood and C.C. Ummenhofer, Elsevier.
- St.Laurent, K.A., **V.J. Coles**, R.J. Wood, R.R. Hood (2021), Climate Extremes and Variability surrounding Chesapeake Bay: Past, Present, and Future, *Journal of the American Water Resources Association*.
- Sprintall, J., **V.J. Coles**, K.A. Reed, A. H. Butler, G. R. Foltz, S. G. Penny, H. Seo (2020) Best practice strategies for process studies designed to improve climate modeling, *Bulletin of the American Meteorological Society* <https://doi.org/10.1175/BAMS-D-19-0263.1>
- Brooks, M.T., **V.J. Coles**, R.R. Hood, J.F.R. Gower (2018), Factors controlling the seasonal distribution of pelagic *Sargassum*, *Marine Ecology Progress Series*, 599, 1-18, doi.org/10.3354/meps12646
- Coles, V.J.**, M. R. Stukel, M. T. Brooks, A. Burd, B. C. Crump, M. A. Moran, J. H. Paul, B. M. Satinsky, P.L. Yager, B. L. Zielinski, R. R. Hood (2017) Ocean biogeochemistry modeled with emergent trait-based genomics. *Science*, 358, 1149-1154.
- Strutton, P.G., **V.J. Coles**, R.R. Hood, R.J. Matear, M.J. McPhaden, H.E. Phillips (2015) Biogeochemical variability in the equatorial Indian Ocean during the monsoon transition, *Biogeosciences*, 12, 2367-2382, doi:10.5194/bg-12-2367-2015.
- Coles, V. J.**, M. T. Brooks, J. Hopkins, M. R. Stukel, P. L. Yager, and R. R. Hood (2013), The pathways and properties of the Amazon River Plume in the tropical North Atlantic Ocean, *Journal of Geophysical Research, Oceans*, 118(12), 6894-6913, doi:10.1002/2013JC008981.
- Coles, V. J.**, L. Gerber, S. Legg, and M. S. Lozier, (2011), Commentary: Mentoring groups—A nonexit strategy for women in physical oceanography. *Oceanography* 24(2):17–20, doi:10.5670/oceanog.2011.43.
- Boesch, D. F., **V. J. Coles**, D. G. Kimmel, and W. D. Miller (2007), Coastal dead zones and global climate change: Ramifications of climate change to Chesapeake Bay hypoxia, *Pew Environmental series*.
- Coles, V.J.**, R. R. Hood, M. Pascual and D. G. Capone (2004), Modeling the impact of *Trichodesmium* and nitrogen fixation in the Atlantic Ocean. *Journal of Geophysical Research, Oceans*, 109, C06006, doi:10.1029/2002JC001753.
- Coles, V. J.**, M. S. McCartney, D. B. Olson, and W. M. Smethie, Jr. (1996), Changes in Antarctic Bottom Water properties in the western South Atlantic in the late 1980's. *Journal of Geophysical Research, Oceans*, 101, 8957—8970.

Professional Societies

American Geophysical Union, Coastal and Estuarine Research Federation