University of Maryland
CENTER FOR ENVIRONMENTAL SCIENCE
HORN POINT LABORATORY

CURRICULUM VITAE

Calendar Year 2024

James J. Pierson

Horn Point Laboratory

University of Maryland Center for Environmental Science

Certification

I have reviewed this Curriculum Vitae and here certify that it is a current and accurate statement of my professional record for this calendar year.

Signed: _____ Date: 29 January 2025

Associate Professor

Horn Point Laboratory
University of Maryland Center for Environmental Science
P.O. Box 775
Cambridge, MD 21613
410-221-8218
jpierson@umces.edu
www.planktoneer.com
ORCID: http://orcid.org/0000-0002-5248-5850

I. Education

1996 B.S., University of New Hampshire. Biology: Marine and Freshwater
2002 M.S., University of Washington, Seattle. Biological Oceanography
2006 Ph.D., University of Washington, Seattle. Biological Oceanography

II. Professional Background

1995 – 1996	Laboratory Assistant, University of New Hampshire, Durham, NH
1996 – 1997	Technical Assistant, University of New Hampshire, Durham, NH & Woods Hole Oceanographic Institute, Woods Hole, MA
1997 – 2000	Marine Research Specialist I-II, University of Rhode Island, Graduate School of Oceanography, Narragansett, RI
2000 – 2006	Graduate Research Assistant, University of Washington, School of Oceanography, Seattle, WA
2006 – 2010	Assistant Research Scientist, University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD
2010 – 2015	Assistant Research Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD
2015 – 2018	Assistant Professor, University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD
2018 – Present	Associate Professor with Tenure, University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD

III. Research [5 years only for each subsection]

A. Areas of professional expertise

- Biological oceanography, specifically zooplankton ecology:
  - Vertical migration and feeding behavior of zooplankton
  - Response of zooplankton life histories to environmental and climatic changes
  - Dynamics of microplastic pollution in estuarine and coastal systems
- Broadening participation in environmental and geosciences, with special emphasis on marine science

B. Peer Reviewed Publications
Publons Profile: https://publons.com/researcher/2885857/james-j-pierson/
Google Scholar: http://scholar.google.com/citations?user=s4spRhAAAAAJ&hl=en

Peer-Reviewed Papers

Fuchsman C.A., M.E. Duffy, J.A. Cram, P. Huanca-Valenzuela, B.P. Gregory, L. Plough, **J.J. Pierson**, C.L. Fitzgerald, A.H. Devol, and R.G. Keil. *In revision, Global Biogeochemical Cycles.* Contributions of Vertically Migrating Metazoans to Sinking and Suspended Particulate Matter Fuel N_2 production in the Eastern Tropical North Pacific Oxygen Deficient Zone. *ESS Open Archive* . DOI: 10.22541/essoar.172745075.56787778/v1

Pierson J.J., N.J. Nidzieko , C.L. *Fitzgerald, M.R. Roman. *Submitted*. Lateral advective transport of copepods between shoal and channel habitats is a potential population subsidy during hypoxic conditions. *Nature Scientific Reports*

Olivo C.J., F. Moser, L. Harris, **J. Pierson**, M.F. Barberena-Arias, P.M. Maldonado-Rivera, M. Allen. *In review*. Early and Often: Broadening participation and enhancing retention in the geosciences for Puerto Rican undergraduate students through multi-tiered interventions and partnerships. *Journal of Geoscience Education*

Meyer-Gutbrod, E.L., **J.J. Pierson**, M. Behl. 2023. Community Perspectives on Justice, Equity, Diversity, and Inclusion in Ocean Sciences. *Oceanography*. doi: 10.5670/oceanog.2023.106

Brandt, S.B., S.E. Kolesar, C.N. Glaspie, A. Laurent, C.E. Sellinger, **J.J. Pierson**, M.R. Roman, and W.C. Boicourt. 2023. Functional seascapes: Understanding the consequences of hypoxia and spatial patterning in pelagic ecosystems. In Frontiers in Ocean Observing: Emerging Technologies for Understanding and Managing a Changing Ocean. E.S. Kappel, V. Cullen, M.J. Costello, L. Galgani, C. Gordó-Vilaseca, A. Govindarajan, S. Kouhi, C. Lavin, L. McCartin, J.D. Müller, B. Pirenne, T. Tanhua, Q. Zhao, and S. Zhao, eds, Oceanography 36(Supplement 1):28–30, doi: 10.5670/oceanog.2023.s1.8.

Roman, M.R. and **J.J. Pierson**. 2022 . Interactive effects of increasing temperature and decreasing oxygen on coastal zooplankton. *Biological Bulletin*. 243(2). doi: 10.1086/722111

Woods, H.A., A.L. Moran, C. Atkinson, A. Audzijonyte, M. Berenbrink, F.O. Borges, K.G. Burnett, L.E. Burnett, C. J. Coates, R. Collin, E. M. Costa-Paiva, M. I. Duncan, R. Ern, E. M. J. Laetz, L. A. Levin, M. Lindmark, N. M. Lucey, L. R. McCormick, **J. J. Pierson**, R. Rosa, M. R. Roman, E. Sampaio, P. M. Schulte, E. A. Sperling, A. Walczyńska, A. and W. C. E. P. Verberk. 2022. Integrative Approaches to Understanding Organismal Responses to Aquatic Deoxygenation. *Biological Bulletin.* 243(2). doi: 10.1086/722899

Pierson, J. J., J. M. Testa, and M. R. Roman. 2022. Copepod habitat suitability estimates vary among oxygen metrics in Chesapeake Bay. *ICES Journal of Marine Science*. 79(3): 855–867. doi: 10.1093/icesjms/fsac019

Khalifa, U., V. Ebenezer, and **J. J. Pierson**, 2022. Elevated temperature and low pH affect the development, reproduction, and feeding preference of the tropical cyclopoid copepod Oithona rigida. *International Journal of Environmental Studies* :1-17. doi: 10.1080/00207233.2022.2044680

Bentley, K., **J. J. Pierson**, and P. M. Glibert. 2021. Physiological Responses of the Copepods *Acartia tonsa* and *Eurytemora carolleeae* to Changes in the

Nitrogen:Phosphorus Quality of Their Food. *Nitrogen*. 2(1):62-85. doi: 10.3390/nitrogen2010005

Morison, F., **J. J. Pierson**, A. Oikonomou, and S. Menden-Deuer. 2020. Mesozooplankton grazing minimally impacts phytoplankton abundance during spring in the western North Atlantic. *PeerJ*. e9430. doi: 10.7717/peerj.9430

*Liu Slater, W., **J. J. Pierson**, M. B. Decker, E. D. Houde, C. Lozano, and J. Seuberling. 2020. Fewer Copepods, Fewer Anchovies, and More Jellyfish: How Does Hypoxia Impact the Chesapeake Bay Zooplankton Community? *Diversity*. 12(1):35. doi:10.3390/d12010035

Hamilton, S., S. Bartell, **J. Pierson**, and D. Murphy. 2020. Factors Controlling Calanoid Copepod Biomass and Distribution in the Upper San Francisco Estuary and Implications for Managing the Imperiled Delta Smelt (Hypomesus transpacificus). *Environmental Management*. 1-15. doi:10.1007/s00267-020-01267-8

*Millette, N. C., **J. J. Pierson**, and E. North. 2019. Water temperature during winter may control striped bass recruitment during spring by affecting the development time of copepod nauplii. *ICES Journal of Marine Science*. 77(1):300-314. doi: 10.1093/icesjms/fsz203

Glaspie, C.N., M. Clouse, *K. Huebert, S. A. Ludsin, D. M. Mason, **J. J. Pierson**, M. R. Roman, S. B. Brandt. 2019. Fish Diet Shifts Associated with the Northern Gulf of Mexico Hypoxic Zone. *Estuaries and Coasts.* 42(8):2170-2183. doi:10.1007/s12237-019-00626-x

Stoecker, D. K., **Pierson, J. J.** 2019. Predation on protozoa: its importance to zooplankton revisited. *Journal of Plankton Research.* doi:10.1093/plankt/fbz027

Roman, M. R., Brandt, S. B., Houde, E. D., and **Pierson J. J.** 2019. Interactive Effects of Hypoxia and Temperature on Coastal Pelagic Zooplankton and Fish. *Frontiers in Marine Science*. 6:139. doi:10.3389/fmars.2019.00139

Plough L. V., Fitzgerald, C., Plummer, A., and **Pierson J. J.** 2018. Reproductive isolation and morphological divergence between cryptic lineages of the copepod *Acartia tonsa* in Chesapeake Bay. *Marine Ecology Progress Series*. 597:99-113. doi:10.3354/meps12569

Franzè, G., **Pierson, J. J.**, Stoecker, D. K. and Lavrentyev, P. J. 2018. Diatom-produced allelochemicals trigger trophic cascades in the planktonic food web. *Limnology and Oceanography*. 63(3)1093-1108. doi:10.1002/lno.10756

Pierson, J.J., *W.C.L. Slater, #D. Elliott, & M.R. Roman. 2017. Synergistic effects of seasonal deoxygenation and temperature truncate copepod vertical migration and distribution. *Marine Ecology Progress Series*. 575:57-68. doi:10.3354/meps12205

Mayor, E., P. Chigbu, **J. Pierson**, & V.S. Kennedy. 2017. Composition, Abundance, and Life History of Mysids (Crustacea: Mysida) in the Coastal Lagoons of MD, USA. *Estuaries and Coasts*. 40(1): 224-234. doi: 10.1007/s12237-016-0131-z

*Millette, N.C., **J.J. Pierson**, A. Aceves, & D.K. Stoecker. 2016. Mixotrophy in *Heterocapsa rotundata*: A mechanism for dominating the winter phytoplankton. *Limnology and Oceanography*. 62(2):836-845. doi:10.1002/lno.10470

Merz, J., P. S. Bergman, **J. Pierson**, D. Delaney, J. Melgo, & P. Anders. 2016. Long-Term Seasonal Trends in the Prey Community of Delta Smelt (*Hypomesus transpacificus*) Within the Sacramento-San Joaquin Delta, California. *Estuaries and Coasts.* 39(5): 1526–1536. doi: 10.1007/s12237-016-0097-x

Pierson, J. J., D. G. Kimmel & M. R. Roman. 2016 Temperature impacts on *Eurytemora* size and vital rates in the upper Chesapeake Bay in winter. *Estuaries and Coasts*. 39(4): 1122–1132. doi: 10.1007/s12237-015-0063-z

*Millette, N.C., G.E. King, & **J. J. Pierson**. 2015. A note on the survival and feeding of copepod nauplii (*Eurytemora carolleeae*) on the dinoflagellate *Heterocapsa rotundata*. *Journal of Plankton Research*. 37(6): 1095-1099. doi: 10.1093/plankt/fbv090

Lavrentyev, P.J., G. Franzè, **J. J. Pierson**, & D. K. Stoecker. 2015. The Effect of Dissolved Polyunsaturated Aldehydes on Microzooplankton Growth Rates in the Chesapeake Bay and Atlantic Coastal Waters. *Marine Drugs.* 13(5): 2834-2856. doi: 10.3390/md13052834 (Click for Open Access PDF)

*Millette, N.C., D. K. Stoecker, & **J. J. Pierson**. 2015. Top-down control of micro-and mesozooplankton on winter dinoflagellate blooms of *Heterocapsa rotundata*. *Aquatic Microbial Ecology*. 76: 15-25. doi: 10.3354/ame01763

Melle, W., J. A. Runge, E. Head, S. Plourde, C. Castellani, P. Licandro, **J. Pierson**, S. Jonasdottir, C. Johnson, C. Broms, H. Debes, T. Falkenhaug, E. Gaard, A. Gislason, M. R. Heath, B. Niehoff, T. G. Nielsen, P. Pepin, E. K. Stenevik, & G. Chust. 2015. Biogeography of key mesozooplankton species in the North Atlantic, by manual counting methods, and egg production of *Calanus finmarchicus*. *Earth System Science Data Discussions*. 7(1): 225-242. doi: 10.5194/essdd-7-225-2014

Melle, W., J. Runge, E. Head, S. Plourde, C. Castellani, P. Licandro, **J. Pierson**, S. Jonasdottir, C. Johnson, C. Broms, H. Debes, T. Falkenhaug, E. Gaard, A. Gislason, M. Heath, B. Niehoff, T. G. Nielsen, P. Pepin, E. K. Stenevik, & G. Chust. 2014. The North Atlantic Ocean as habitat for *Calanus finmarchicus*: Environmental factors and life history traits. *Progress in Oceanography*. 129(B) B: 244-284 doi: 10.1016/j.pocean.2014.04.026

#Elliott, D. T., **J. J. Pierson**, M. R. Roman. 2013. Copepods and hypoxia in Chesapeake Bay: Abundance, vertical position, and non-predatory mortality. *Journal of Plankton Research*. 35 (5):1027-1034. doi: 10.1093/plankt/fbt049

#Elliott, D. T., **J. J. Pierson**, M. R. Roman. 2013. Predicting the effects of coastal hypoxia on vital rates of the planktonic copepod *Acartia tonsa* Dana. *PLoS ONE*. 8 (5), e63987 doi: 10.1371/journal.pone.0063987

Pierson, J. J., H. Batchelder, W. Saumweber, A. Leising, J. Runge. 2013. The impact of increasing temperature on dormancy duration in *Calanus finmarchicus*. *Journal of Plankton Research* 35(3): 504-512. doi: 10.1093/plankt/fbt022. Featured article available free HTML or PDF

Pierson, J. J., B. W. Frost, A. W. Leising. 2013. Foray foraging behavior: seasonally-variable, food-driven migratory behavior in two calanoid copepods. *Marine Ecology Progress Series* 475: 49–64 doi: 10.3354/meps10116

Roman, M. R., **J. J. Pierson**, D. G. Kimmel, W. C. Boicourt, and X. Zhang. 2012. Impacts of Hypoxia on Zooplankton Spatial Distributions in the Northern Gulf of Mexico. *Estuaries and Coasts* 35(5):1261–1269. doi: 10.1007/s12237-012-9531-x

#Elliott, D. T., **J. J. Pierson**, and M. R. Roman. 2012. Relationship between environmental conditions and zooplankton community structure during summer hypoxia in the northern Gulf of Mexico. *Journal of Plankton Research* 34(7): 602-613. doi:10.1093/plankt/fbs029

Devreker, D., **J. J. Pierson**, S. Souissi, D. G. Kimmel, and M. R. Roman. 2012. An experimental approach to estimate egg production and development rate of the calanoid copepod *Eurytemora affinis* in Chesapeake Bay, USA. *Journal of Experimental Marine Biology and Ecology*. 416-417: 72-83. doi: 10.1016/j.jembe.2012.02.010

Maps, F., J.A. Runge, A. Leising, A.J. Pershing, N.R. Record, S. Plourde, and **J.J. Pierson**. 2012. Modelling the timing and duration of dormancy in populations of *Calanus finmarchicus* from the Northwest Atlantic shelf. *Journal of Plankton Research* 34(1): 36-54. doi: 10.1093/plankt/fbr088

Mitra, S., D.G. Kimmel, J.Snyder, S. Scalise, B.D. McGlaughon, M.R. Roman, G.L. Jahn, **J.J. Pierson**, S.B. Brandt, J.P. Montoya, R.J. Rosenbauer, T.L Lorenson, F.L. Wong, and P.L. Campbell. 2012. Macondo-1 well oil-derived polycyclic aromatic hydrocarbons in mesozooplankton from the northern Gulf of Mexico. *Geophysical Research Letters*. 39(1): L01605. doi: 10.1029/2011GL049505

Kimmel, D. G., W. C. Boicourt, **J. J. Pierson**, M. R. Roman, X. Zhang. 2010. The vertical distribution and diel variability of mesozooplankton biomass, abundance and size in response to hypoxia in the northern Gulf of Mexico USA. *Journal of Plankton Research* 32(8): 1185-1202. doi: 10.1093/plankt/fbp136

Pierson, J. J., M. R. Roman, D. G. Kimmel, W. C. Boicourt, & X. Zhang. 2009. Quantifying changes in the vertical distribution of mesozooplankton in response to hypoxic bottom waters. *Journal of Experimental Marine Biology and Ecology* 381: S74-S79. doi: 10.1016/j.jembe.2009.07.013

Kimmel, D. G., W. C. Boicourt, **J. J. Pierson**, M. R. Roman, & X. Zhang. 2009. A comparison of the mesozooplankton response to hypoxia in Chesapeake Bay and the northern Gulf of Mexico using the biomass size spectrum. *Journal of Experimental Marine Biology and Ecology* 381: S65-S73. doi: 10.1016/j.jembe.2009.07.012

Pierson, J. J., B. W. Frost, D. Thoreson, A. W. Leising, J. R. Postel, & M. Nuwer. 2009. Trapping migrating zooplankton. *Limnology and Oceanography Methods* 7(5): 334-346. doi: 10.4319/lom.2009.7.334 (Click for Open Access PDF)

Pierson, J. J., B. W. Frost, and A. W. Leising. 2007. The lost generation of *Calanus pacificus*: Is the diatom effect responsible? *Limnology and Oceanography* 52(5): 2089-2098 doi: 10.4319/lo.2007.52.5.2089 (Click for Open Access PDF)

Bucklin, A., P. H. Wiebe, S. B. Smolenack, N. J. Copley, J. G. Beaudet, K. G. Bonner, J. Farber-Lorda, and **J. J. Pierson**. 2007. DNA barcodes for species identification of euphausiids (Euphausiacea, Crustacea). *Journal of Plankton Research* 29(6): 483-493. doi: 10.1093/plankt/fbm031

Leising, A. W., **J. J. Pierson**, S. Cary, and B. W. Frost. 2005. Copepod foraging and predation risk within the surface layer during night-time feeding forays. *Journal of Plankton Research* 27(10): 987-1001. doi: 10.1093/plankt/fbi084

Pierson, J. J., A. W. Leising, and C. Halsband Lenk. 2005. Reproductive success of *Calanus pacificus* during diatom blooms in Dabob Bay, WA. *Progress in Oceanography* 67(3/4): 314-331. doi: 10.1016/j.pocean.2005.09.002

Pierson, J. J., A. W. Leising, C. Halsband-Lenk, and N. Ferm. 2005. Vertical distribution and abundance of *Calanus pacificus* and *Pseudocalanus newmani* in relation to chlorophyll *a* concentrations in Dabob Bay, WA. *Progress in Oceanography* 37(3/4): 349-365. doi: 10.1016/j.pocean.2005.09.006

Halsband-Lenk, C., **J. J. Pierson**, and A. W. Leising. 2005. Reproduction of *Pseudocalanus newmani* (Copepoda: Calanoida) is deleteriously affected by diatom blooms - a field study. *Progress in Oceanography* 67(3/4): 332-348. doi: 10.1016/j.pocean.2005.09.003

Horner, R. A., J. R. Postel, C. Halsband-Lenk, **J. J. Pierson**, G. Pohnert, and T. Wichard. 2005. Winter-spring phytoplankton blooms in Dabob Bay, Washington. *Progress in Oceanography* 67(3/4): 286-313. doi: 10.1016/j.pocean.2005.09.005

Leising, A. W., R. A. Horner, **J. J. Pierson**, J. R. Postel, and C. Halsband-Lenk. 2005. The balance between microzooplankton grazing and phytoplankton growth in a highly productive estuarine fjord. *Progress in Oceanography* 67(3/4): 366-683. doi: 10.1016/j.pocean.2005.09.007

Leising, A. W., **J. J. Pierson**, C. Halsband-Lenk, R. A. Horner, and J. R. Postel. 2005. Copepod grazing during spring blooms: Can *Pseudocalanus newmani* induce trophic cascades? *Progress in Oceanography* 67(3/4): 406-421. doi: /10.1016/j.pocean.2005.09.009

Leising, A. W., **J. J. Pierson**, C. Halsband-Lenk, R. A. Horner, and J. R. Postel. 2005. Copepod grazing during spring blooms: Does *Calanus pacificus* avoid harmful diatoms? *Progress in Oceanography* 67(3/4): 384-405. doi: 10.1016/j.pocean.2005.09.008

C. Other Products

Data Sets

Lavrentyev, P., **Pierson, J.**, Stoecker, D. 2019. PUA (polyunsaturated aldehydes) experiments: Chlorophyll-a concentrations, Virginia Coastal Bays and Bay of Napoli, Mar-July 2015. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2019-07-31. doi:10.1575/1912/bco-dmo.774017.1

Lavrentyev, P., **Pierson, J.**, Stoecker, D. 2019. PUA (polyunsaturated aldehydes) experiments: Experimental Conditions, Virginia Coastal Bays and Bay of Napoli, Mar-July 2015. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2019-07-31. doi:10.1575/1912/bco-dmo.773979.1

Lavrentyev, P., **Pierson, J.**, Stoecker, D. 2019. Microzooplankton biomass estimates from PUA (polyunsaturated aldehydes) experiments, Virginia Coastal Bays and Bay of Napoli, Mar-July 2015. Biological and Chemical Oceanography Data Management Office (BCO-DMO). (Version 1) Version Date 2019-09-30. doi:10.1575/1912/bco-dmo.774033.1

Roman, M. & **J. Pierson**. 2017. Species composition via niskin and associated CTD information collected on R/V Hugh R. Sharp (HRS1316, HRS1317) in the Chesapeake Bay from August to September in 2013. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2017-06-28. http://lod.bco-dmo.org/id/dataset/707526 *Preliminary and in progress*

Roman, M. & **J. Pierson**. 2017. Species composition via MOCNESS and associated CTD information collected on R/V Hugh R. Sharp (HRS1316, HRS1317) in the Chesapeake Bay from August to September in 2013. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2017-06-28. http://lod.bco-dmo.org/id/dataset/707094 *Preliminary and in progress*

Pierson, J. & E. Houde. 2015. Anchovy data of Chesapeake Bay. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2015-07-29. doi:10.1575/1912/bco-dmo.687979

Pierson, J. & M.B. Decker. 2014. DeZoZoo Cruise Data. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2014-08-07. doi:10.1575/1912/bco-dmo.687984

Pierson, J. 2015a. DeZoZoo CTD Data. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2015-06-29. doi:10.1575/1912/bco-dmo.687991

Pierson, J. 2015b. Zooplankton from hypoxic waters of Chesapeake Bay. Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2015-08-26. doi:10.1575/1912/bco-dmo.687996

Roman, M., W. Boicourt, & **J. Pierson**. 2011. Cruise track position data from R/V Pelican cruises PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE07-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project). Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2011-09-23. http://lod.bco-dmo.org/id/dataset/3364 Date Accessed: 7 August 2017

Roman, M., W. Boicourt& **J. Pierson**. 2011. CTD station locations from R/V Pelican PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE07-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project). Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2011-09-23. http://lod.bco-dmo.org/id/dataset/3382

Roman, M., W. Boicourt & **J. Pierson**. 2011. MIDAS data from R/V Pelican cruises PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE07-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project). Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2011-09-28. http://lod.bco-dmo.org/id/dataset/3548

Roman, M., W. Boicourt & **J. Pierson**. 2011. SCANFISH data from R/V Pelican cruises PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE07-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project). Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2011-09-27. http://lod.bco-dmo.org/id/dataset/3549

Roman, M., W. Boicourt & **J. Pierson**. 2011. CTD bottle data from R/V Pelican cruises PE03-NGOMEX, PE04-NGOMEX, PE06-NGOMEX, PE09-05, PE11-06 in the Northern Gulf of Mexico, 28-30N 89-94W; 2003-2010 (GoMX NGOMEX project). Biological and Chemical Oceanography Data Management Office (BCO-DMO). Dataset version 2011-10-14. http://lod.bco-dmo.org/id/dataset/3557

Editorials

Pierson, J., G. Nesslage, A. Fries, H. Kelsey, F. Chen, C. Davis, and K. Rose. 2024. Recognizing JEDI efforts in the hiring, tenure, and promotion process. *Oceanography* 37(4):95–96, https://doi.org/10.5670/oceanog.2024.307.

Books and Book Chapters

Pierson, J. J., Benfield, M. 2022. Estuarine Zooplankton. In: Day, J., Crump, B., Testa, J., and Dutton, K. (Eds.) *Estuarine Ecology*. Wiley Publishing. ISBN: 978-1-119-53465-5

Pierson, J., E. Camatti, R. Hood, T. Kogovšek, D. Lučić, V. Tirelli, and A. Malej. 2021. Mesozooplankton and Gelatinous Zooplankton in the Face of Environmental Stressors. In: Malone, T. C., A. Malej, and J. Faganeli. (Eds.) *Coastal Ecosystems in Transition: A Comparative Analysis of the Northern Adriatic and Chesapeake Bay*. Geophysical

Monograph Series, American Geophysical Union and John Wiley and Sons, Inc. doi: 10.1002/9781119543626

Pierson J. 2019. Marine Plankton Communities. In: Cochran, J. K.; J. H. Bokuniewicz,; L. P. Yager, (eds.) *Encyclopedia of Ocean Sciences, 3rd Edition*, 1:574-581. Oxford: Elsevier. doi: 10.1016/B978-0-12-409548-9.10798-5

Roman, M. R. and **J. J. Pierson**. 2019. Chapter 8.6: Estuarine and Costal Plankton. In: Laffoley, D. & J.M. Baxter (eds.). 2019. *Ocean deoxygenation: Everyone's problem - Causes, impacts, consequences and solutions.* Gland, Switzerland: IUCN. xxii+562pp.doi: 10.2305/IUCN.CH.2019.13.en

(* = Graduate student advisee, # = Postdoctoral advisee)

D. Research Grants and Contracts:

Total funding for UMCES to date, including all projects as PI or co-PI: $ 9,794,262

Active:

Collaborative Research: Do diatom-derived polyunsaturated aldehydes directly or indirectly reduce embryonic and larval forage fish fitness? NSF OCE: $119,173, 03/2024 – 02/2027

Synergistic Effects of Hypoxia and Warming on Zooplankton Prey for Higher Trophic Levels in Coastal Waters. NOAA CHRP: $306,155, 09/2023 – 08/2026

Supporting Emerging Aquatic Scientists (SEAS) Islands Alliance. NSF EES: $2,453,821, 11/2019 – 10/2024

Pioneering Molecular and Artificial Intelligence Tools for Ecology Research in the Chesapeake Bay. Bailey Wildlife Foundation: $200,000, 02/2025 – 01/2027

In No-Cost Extension:

Microplastic Debris: Novel Tools to Assess the Deposition and Degradation in Coastal Wetlands and Open Water. NOAA Marine Debris: $159,998, Cost Share: $160,373, 01/2022 – 12/2024

Planktonic Omnivores and Stable Isotopes: Developing, Validating and Field-testing a Multi-species Functional Response Model. NSF OCE: $896,833, 09/2020 – 08/2023

Pending:

Developing novel methods to use DNA for monitoring zooplankton in Chesapeake Bay. Maryland Sea Grant: $200,000, Cost Share, $100,000, 02/2026 – 01/2028

Past

Building Capacity to Monitor and Better Understand Wildlife (of all sizes) at the PhytoChop Coastal Observatory. Bailey Wildlife Foundation: $117,000, 08/2022 – 07/2024

Microplastic Debris: Novel tools to assess the deposition and degradation in coastal wetlands and open water. Mid-Shore Community Foundation: $60,000. including $30,000 matching, 01/2022 - 12/2023

Collaborative Research FSML: PhytoChop: An Estuarine Phytoplankton Observatory. NSF DBI: $228,316, 08/2020 – 07/2022

Novel Genomic Tools to Assess Fish Diet and Prey Quality in the Choptank River. Maryland Sea Grant: $139,512, 02/2018 – 01/2020

Biological Mosquito Control by Native Zooplankton. Waterfowl Chesapeake Foundation: $5,000, 12/2017 – 11/2018

Predicting, Validating, and Understanding Zooplankton Distributions from Space in an Eddy Rich Ocean. NASA: $1,038,803, 01/2017 – 12/2019

GP-IMPACT: Pathways TO RENEW :Tropical Oceanography Research Experiences for the NExt-Generation Workforce. NSF RISE: $444,288, 09/2016 – 08/2019

Integration, Synthesis and Modeling of High Resolution Zooplankton and Pelagic Fish Data for the Northern Gulf of Mexico. National Academy of Sciences: $504,471, 01/2016 – 12/2017

Rapid Response Sampling of Chesapeake Bay for 2015 Nor'easter and Hurricane Joaquin. Maryland Sea Grant: $30,000, 10/2015 – 09/2016

A Necklace of Cameras to Illuminate Bioluminescence. Bailey Wildlife Foundation: $12,795, 06/2015 – 06/2016

COLLABORATIVE RESEARCH: Getting it right. A Strategic Planning Workshop to Develop a Sustainable Pathway for Educating Underrepresented and Underserved Puerto Rican Students in Geosciences. NSF GEO: $19,580, 05/2015 – 04/2016

Collaborative Research: The effects of diatom-produced polyunsaturated aldehydes on the microbial food wed in temperate and polar waters. NSF OCE: $477,309, 04/2014 – 03/2017

Copepod Population Dynamics in Hypoxic Coastal Waters: Physical and Behavioral Regulation of Resupply and Advective Losses. NSF OCE: $593,303, 03/2013 – 02/2016

RAPID collaborative research: Historic freshwater input and hypoxia effects on zooplankton populations of the northern Gulf of Mexico. NSF OCE: $89,341, 08/2012 – 07/2013

Effects of Changing Phytoplankton Stoichiometry on Copepods. California State and Federal Contractors Water Agency: $199,331, 06/2012 – 05/2014

Chesapeake Bay 2011 Zooplankton Sample Analysis. Chesapeake Research Consortium: $49,999, 02/2012 – 12/2012

RAPID Collaborative Proposal: Spatially-explicit, High-resolution Mapping and Modeling to Quantify Hypoxia and Oil Effects on the Living Resources of the Northern Gulf of Mexico. NSF OCE: $107,961, 08/2011 – 07/2012

Collaborative Research: Hypoxia in Marine Ecosystems: Implications for Neritic Copepods. NSF OCE: $1,114,711, 03/2010 – 02/2013

The Effects and Impacts of Hypoxia on Production Potential of Ecologically and Commercially Important Living Resources in the Northern Gulf of Mexico. NOAA CSCOR: $348,381, 09/2009 – 08/2013

Forecasting Young-of-the-Year Production of Striped Bass in Chesapeake Bay. NASA (subcontract to University of Maryland College Park): $70,000, 08/2009 – 08/2010

Collaborative Research: Life histories of species in the genus Calanus *in the North Atlantic and North Pacific Oceans and responses to climate forcing.* NSF OCE: $208,181, 09/2008 – 08/2011

E. Invited Seminars and Presentations

1. Invited Seminars

Izaak Walton League of America, Maryland Division Meeting, June 2023
Chesapeake Forum, April 2023
Chesapeake Biological Laboratory, Solomons, MD, November 2015
University of Connecticut, Groton, CT, October 2012
University of Delaware, Lewes DE, September 2012
University of Maine / Gulf of Maine Research Institute, Portland, ME, December 2010
Woods Hole Oceanographic Institution, Woods Hole, MA, July 2010
RARGOM Calanus Life Histories Workshop, Portland, ME, March 2010
Smithsonian Environmental Research Center, Edgewater, MD, February 2010
Center for Coastal Physical Oceanography, Old Dominion University, Norfolk, VA, October 2009
Workshop on advancements in modelling physical-biological interactions in fish early-life history: recommended practices and future directions (WKAMF), Sete, France, March 2007
University of South Florida, College of Marine Science, St. Petersburg, FL, September 2007
University of Maryland Center for Environmental Science, Chesapeake Biological Laboratory, Solomons, MD, March 2007
Oregon State University, College of Oceanic and Atmospheric Science, Corvallis, OR, May 2006

2. Presentations

(* = Invited; # = Student or Postdoc advisee lead Author)

Pierson, J.J., N. Nidzieko, M.R. Roman, C. Fitzgerald. Copepod Populations in Shoal Habitats with Higher Production and Lower Mortality Subsidize Deep Channel Habitats Through Lateral Advection During Periods of Bottom Water Hypoxia. Ocean Sciences Meeting, New Orleans, LA, February 2024

Pierson J.J., J.M. Testa, M.R. Roman. Hot, cramped, and out of breath: Copepod habitat decreases with temperature and dissolved oxygen. CERF Biennial Conference, Virtual, November 2021

Pierson, J.J. Teaching Estuarine Zooplankton. CERF Biennial Conference, Virtual, November 2021

Pierson, J.J., N. Nidzieko, C. Fitzgerald, M.R. Roman. Copepod vertical migration and mortality: Cross-channel variability and interaction with deoxygenated bottom water affect copepod population dynamics in an estuary. Ocean Science Meeting, Portland, Oregon, February 2018

Pierson J.J., . Copepod vertical migration and mortality: Cross-channel variability and interaction with deoxygenated bottom water affect copepod population dynamics in an estuary

Pierson J.J., M. Roman, J. Testa, & D. Elliott. Too Hot to Breathe: The impact of rising temperature and decreased oxygen on zooplankton individuals and populations. Oral Presentation, 6th International ICES/PICES Zooplankton Production Symposium, 2016, Bergen, Norway.

Pierson J.J., M.R. Roman, & D. Elliott. Critical and Lethal Dissolved Oxygen of Copepod Habitat in the NGOMEX Region. Poster Presentation, The 5th Annual

NOAA/NGI Gulf Hypoxia Research Coordination Workshop, July 2014, Stennis Space Flight Center, MS.

Pierson J.J., N.J. Nidzieko, M.R. Roman, D. Elliott, & C. Fitzgerald. The roles of behavior and physics in controlling copepod population dynamics in hypoxic systems. Poster Presentation, Ocean Sciences Meeting 2014, Honolulu, HI.

Pierson J.J., M.R. Roman, D.G. Kimmel, D. Elliott, W. Boicourt, G. Jahn, A. Barba. Oil, Floods, and Hypoxia: Zooplankton dynamics in the Northern Gulf of Mexico in 2010 and 2011. Poster Presentation Ocean Sciences Meeting 2012, Salt Lake City, UT.

Pierson J.J., M.R. Roman, D.G. Kimmel, D. Elliott, W. Boicourt, G. Jahn, A. Barba. Oil, Floods, and Hypoxia: Zooplankton dynamics in the Northern Gulf of Mexico 2003-2011. Poster Presentation, 3rd Annual Hypoxia Research Coordination Meeting in Bay St. Louis, MS.

Pierson J.J., D.K. Stoecker, M. Roman, D. Elliott, E. Houde, M.B. Decker, K. Liu, & A. Barba. Plankton trophic dynamics in hypoxic waters: seasonal effects and foodweb implications. Oral presentation ICES ASC 2011, Gdansk, Poland.

Pierson J.J., D. Elliott, M. Roman, & P. Lavrentyev. Plankton dynamics and seasonal hypoxia: tracing cause and effect in complex interacting systems. Oral presentation CERF 2011, Daytona Beach, Florida USA.

#Liu W.C., M.B. Decker, & **J.J. Pierson**. Effects of hypoxia on predation of copepods by gelatinous zooplankton in Chesapeake Bay. Oral presentation CERF 2011, Daytona Beach, Florida USA.

Roman, M., D. Elliott, & **J.J. Pierson**. The influence of dissolved oxygen concentration on the vertical distribution of life stages of the copepod, *Acartia tonsa*, in Chesapeake Bay. Oral presentation CERF 2011, Daytona Beach, Florida USA.

#Elliott, D., **J.J. Pierson**, & M. Roman. Zooplankton composition across environmental gradients in the Northern Gulf of Mexico. Oral presentation CERF 2011, Daytona Beach, Florida USA.

***Pierson, J.J**., Leising, A.W., Runge, J., Maps, F., Johnson, C., Plourde, S., Pershing, A. 2010. Predicting the response of copepod dormancy to climate change: Implications for lipid accumulation. Invited Oral Presentation at Ocean Sciences 2010, Portland, OR.

Pierson, J.J., Roman, M.R., Kimmel, D.G., Hood, R.R., Crump, B.C., Keller, D., Dong-Yoon Lee, D., Malpezzi, M. 2009. Estimates of Winter Zooplankton Production in the Chesapeake Bay Estuarine Turbidity Maximum. Oral presentation at Coastal and Estuarine Research Federation 2009 Meeting, Portland, OR.

Pierson, J.J., Frost, B.W., Leising, A.W. 2009. Foray foraging behavior of copepods: An empirical and numerical study. Poster presentation at ASLO Aquatic Sciences Meeting, Nice, France.

Pierson, J.J., Roman, M., Kimmel, D., Zhang, X., Loveland, B., Boicourt, B. Quantitative relationships between zooplankton vertical distribution and oxycline depth: Comparisons between regions, size classes, and time of day. Oral presentation at Ocean Sciences 2008 Meeting, Orlando, FL

Pierson, J.J., Roman, M.R., Kimmel, D.G., Hood, R.R., Keller, D., Crump, B.C., Malpezzi, M. 2007. First observations of winter zooplankton abundance, distribution, and vital rates in the Chesapeake Bay estuarine turbidity maximum. Oral presentation at Estuarine Research Federation 2007 Meeting, Providence, RI

Pierson, J.J., Frost, B.W., Leising, A.W. 2007. Foray foraging behavior in marine copepods. Oral presentation at PICES/ICES Early Career Scientists Conference, Baltimore, MD.

Pierson, J.J., Leising, A.W., Halsband-Lenk, C., Horner, R.A., Postel, J.R., & Frost, B.W. 2005. Prey type effects on zooplankton production: A different view of food limitation. Oral presentation at Estuarine Research Federation 2005 Meeting, Norfolk, VA.

Pierson, J.J., Leising, A.W., Frost, B.W., Horner, R.A., Postel, J.R., & Halsband-Lenk, C. 2004. Species-specific grazing by *Calanus pacificus* and *Pseudocalanus newmani* during phytoplankton blooms in Dabob Bay, Puget Sound (WA). Oral presentation at ASLO/TOS Ocean Sciences Meeting, Honolulu, HI.

Pierson, J.J., & Frost, B.W. 2003. In situ reproduction of *Calanus pacificus* before, during, and after phytoplankton blooms. Oral presentation at 3rd International Zooplankton Production Symposium, Gijon, Spain.

Pierson, J.J., & B.W. Frost. 2002. Fecundity and egg hatching success of *Calanus pacificus* and *Pseudocalanus newmani* during the spring bloom in Dabob Bay, WA. Oral presentation for ASLO Summer Meeting, Victoria, B.C.

Pierson, J.J., Durbin, E.G. & Sullivan, B.K. 2000. Suspended planktonic hydroids: Abundance, distribution, and impact of a rapacious predator. Poster for ASLO/AGU Ocean Sciences, San Antonio, TX

Symposia Organized/Chaired for Professional Meetings

Town Hall, Ocean Sciences Meeting 2024, "TOS JEDI Committee Town Hall: Scientific Societies' Roles in Building Inclusive Communities", co-convened with Erin Meyer-Gutbrod and Mona Behl

Town Hall, Ocean Sciences Meeting 2022, "Diversity, Equity, Inclusion and Justice in the Ocean Sciences: Challenges, Initiatives and Opportunities", co-convened with Erin Meyer-Gutbrod and Mona Behl

Session Chair, Aquatic Sciences 2019, "SS041: The Next Generation: Undergraduate Research in Puerto Rico and the US Virgin Islands"

F. Workshops Attended

NSF Writing Workshop: The Dissemination of Undergraduate Research Initiatives that Support Diversity and Inclusion in the Geosciences, New York, New York, November 2019

NOAA 5th Annual NOAA/NGI Gulf Hypoxia Research Coordination Workshop, Stennis Space Flight Center, MS, July 2014

EarthCube End-User Domain Workshop: Articulating Cyberinfrastructure Needs of the Ocean Ecosystem Dynamics Community. Woods Hole, MA, October 2013

NOAA Environmental Science Training Center, Keystone Species Workshop, Oxford, MD, January 2012

NOAA CSCOR 3rd Annual Hypoxia Research Coordination Meeting in Bay St. Louis, MS, March 2012

ESSAS OSM 2011 Zooplankton Life Histories: Developing metrics to compare field observations and model results in order to predict climate effects. Seattle, WA, May 2011

NOAA CINAR Workshop on Climate and Ecosystem Change in the NW Atlantic. Woods Hole, MA, March 2011
NOAA Environmental Science Training Center, Keystone Species Workshop, Oxford, MD, January 2011
RARGOM *Calanus* Life Histories Workshop, Portland, ME, March 2010
IAN Science Communication Course, April 2008
ICES WKAMF / WGZE Joint Workshop: Workshop on advancements in modelling physical-biological interactions in fish early-life history: recommended practices and future directions (WKAMF), Sete, France, March 2007
ICES/PICES Early Career Scientist Conference, June 2007

G. Active Memberships in Professional Societies
The Oceanography Society (JEDI Committee member)
American Geophysical Union
Association for the Sciences of Limnology and Oceanography
Coastal and Estuarine Research Federation
Society for the Advancement of Chicanos/Hispanics and Native Americans in Science

IV. Teaching and Training

Member, UMCES Graduate Faculty
Member, MEES Faculty and USM Inter-Institutional Graduate Faculty

A. University System of Maryland Courses Taught

MEES 637: Zooplankton Ecology, 3 credits, Spring 2015, 2017, Autumn 2018, 2019, 2021 (offered autumn odd years from 2019 onward); Offered Autumn 2023 but minimum student number not met. Co-taught with Mike Roman and Diane Stoecker as MEES 698G in Autumn 2010 and 2012
MEES 718W: Advancing diversity, equity, and inclusion in environmental science, 2-credit Issue Study Course, Spring 2022 and offered Spring 2023, co-taught with Clara Fuchsman and Cindy Palinkas
MEES 718D: Ocean Deoxygenation, 2-credit Issue Study Course, Spring 2020, co-taught with Clara Fuchsman
MEES 608I: Phytoplankton Blooms, 1 credit seminar, Spring 2017, co-taught with Greg Silsbe
MEES 608M: Long Term Monitoring Data from Chesapeake Bay, 1 credit seminar, Spring 2014, co-taught with Mike Roman and Jeremy Testa
MEES 608O: Dispersion, degradation, and ecosystem effects of oil in the marine environment, 1 credit seminar, Autumn 2010, co-taught with Mike Roman and Elizabeth North
MEES 608A: Classic Readings in Oceanography, 1 credit seminar, Spring 2009

B. Outside USM

GEOG 1114: Elements of Oceanography, 2 credits, Winter 2023, co-taught with Lora Harris at Universidad Interamericana Recinto Metro. Intensive undergraduate interdisciplinary ocean science course taught as part of NSF Eddie Bernice Johnson INCLUDES *SEAS Islands Alliance*.

BIOL 4912: Earth Systems, 3 credits, Spring 2022, co-taught with Maria Barberena-Arias and Pedro Maldonado at Universidad Interamericana Recinto Metro. Undergraduate interdisciplinary earth system science course taught as part of NSF Eddie Bernice Johnson INCLUDES *SEAS Islands Alliance*.

GESC 300 & GESC 300L: Earth System Science (Lecture and Lab), 4 credits, Summer 2018, 2019, 2020 (Virtual), co-taught with Ryan Woodland (2018) or Lora Harris (2019, 2020) at Universidad del Turabo. Intensive undergraduate earth system science course taught as part of NSF funded *Centro TORTUGA* project.

Puerto Rico Mini REU program, 2012 – 2016. NSF-funded immersive REU projects for undergraduates in Puerto Rico, accomplished as a collaboration between UMCES, Maryland Sea Grant, Universidad Metropolitana, and Universidad Turabo. This program included intensive summer field programs in Puerto Rico, as well as summer and academic year internet communication between students and faculty.

V. Student Training

A. Committee Chair

Nicole Millette (Ph.D.) Graduated 2016
Katherine Liu Slater (Ph.D.) Graduated 2019
Catherine Fitzgerald (Ph.D.) Primary, co-Chair with Louis Plough
Kerria Burns (Ph.D.) Secondary, co-Chair with William Nardin
Mairim Villafañe-Vicente (M.S.), current

B. Committee Member

Nina Santos (CBL, Ph.D.)
David Garcia (HPL, Ph.D.)
Allyson Kido (IMET, M.S.)
Shannon Hood (HPL, Ph.D, 2022)
Anna Davis (HPL, Ph.D., 2021)
Christine Knauss (HPL, Ph.D., 2021)
Morgan Ross (HPL, M.S., 2021)
Katherine Hornick (HPL, Ph.D., 2020)
Hillary Lane, (College Park, PhD, 2017)
Wei Liu, (HPL, PhD, 2017)
Jake Goodwin, (HPL, PhD, 2015)
Ejiro Mayor, (University of Maryland Eastern Shore, PhD, 2015)
Efeturi Oghenekaro, (University of Maryland Eastern Shore, PhD, 2015)
Adam Wickline, (University of Delaware, M.S., 2016)
Ali Barba, (HPL, MS, 2015)
Katherine Bentley, (HPL, M.S., 2014)

Brianne Walsh, (HPL, M.S., 2012)

C. Research Internships Supervised

Kendall Stevens (Chesapeake College) 2023
Kacey Kaub (Chesapeake College) 2022
Maya Skirka (Chesapeake College) 2022
Miles Bateson (Chesapeake College) 2020
Stephanie D'Elia (Chesapeake College) 2019 – 2020
Lauren Ervin (Chesapeake College) 2019
Sophia Ali (Chesapeake College) 2018
Graham Alston (Chesapeake College) 2018
Alison Aceves, Maryland Sea Grant REU student, Summer 2015
Gabrielle King, Maryland Sea Grant REU student, Summer 2014
Alberto Rivera, UPR Bayamon, Summer 2014
Eduardo Perez, UPR Bayamon, Summer 2014
Cristina Villalobos, Maryland Sea Grant REU student, Summer 2013
Isabel Sanchez, Universidad Metropolitanta REU student, Summer 2013
Carlos Mota, Universidad Metropolitanta REU student, Summer 2013
Carolina Mendez, Maryland Sea Grant REU student, Summer 2012
Luis Rivera, Universidad Metropolitanta REU student, Summer 2012
Sheyla Acevedo, Universidad Metropolitanta REU student, Summer 2012
Daniel Yeager, COSEE intern, Hampton University, Summer 2010
Lenise Goggins, COSEE intern, Hampton University, Summer 2010
Carol Smith, COSEE teacher intern, Summer 2010
Diane Lee, COSEE teacher intern, Summer 2010
Marsha-Gail Davis, Maryland Sea Grant REU student, Summer 2009
William Ludt, Maryland Sea Grant REU student, Summer 2008

VI. Outreach and Service

A. Service outside of the University of Maryland Center for Environmental Sciences
Research Proposal Panelist
- NASA
- NSF (multiple directorates)
- State SeaGrant Panelist

The Oceanography Society Jedi Committee, 2020 – present
ASLO Committee Member, Online Media Library, 2015 – 2020
Session Chair, Ocean Sciences 2016, "ME44A: Plankton Grazing and Selectivity in Marine Food Webs Posters"
Session Chair, CERF Meeting, 2011, "Zooplankton dynamics in a changing world: from individual to population"
Session Chair, ICES ASC, 2011, "Integrating micro- and meso-zooplankton in marine food web research"

Session Chair, ASLO Meeting, 2011, "Consequences of Hypoxia for Living Resources and Biogeochemical Cycles"
Session Chair, Ocean Sciences 2010, "Plankton Grazing Rates in the Sea: So Many Methods, So Much Learned, So Much To Do"
Session Chair, CERF 2009, "Zooplankton Dynamics in Estuarine and Coastal Systems"
Chief Scientist for NOAA NRDA Plankton Monitoring Cruises in the Gulf of Mexico following the Deepwater Horizon Oil Spill
Paper Reviewer for *Journal of Plankton Research, Ecological Modelling, Limnology and Oceanography, Marine Ecology-Progress Series, Journal of Experimental Marine Biology and Ecology, Elementa, PLOS One, Estuaries and Coasts, Estuarine, Coastal and Shelf Science*

B. Service within the University of Maryland Center for Environmental Science
UMCES Faculty Senate Chair, 9/2023 – Present
UMCES Faculty Senate Vice Chair, 2022 – 2023
UMCES Appointment Promotion and Tenure Policy Review Committee, Chair, 2022 - Present
UMCES Faculty Senate, 2022 – Present
UMCES Learning Outcomes Committee, 2019 – 2022
UMCES Self-Study Working Group 5, 2019 – 2021
MEES Program Committee, 2015-2016
UMCES Website Redesign Committee, 2015-2017
LMRCSC Research Committee, 2012-Present
MEES Admission Committee, Oceanography AOS, 2011-2015
REU Selection Committee, 2010, 2015

C. Horn Point Laboratory Committees
Career Advancement Committee, 2020 – Present
Diversity, Equity, and Inclusion Committee, 2020 – Present
Boat Committee, 2022 – Present, Chair 2016-2018
Education Committee, 2010 – 2012, 2016 – 2022, Chair 2018 – 2020
Computer Committee, 2014-2016
Seminar Chair, Autumn 2012, Spring 2015
Library Committee, 2012-2014
Open House Committee, 2010-2012

D. Public Outreach
Chesapeake Forum course, "Life in the Dead Zone", with Michael Roman, March 5 & 12, 2024
Summer Talk with Horn Point Lab, "From Plankton to Plastic: The Chesapeake Bay Under a Microscope", July 25, 2023
Chesapeake Forum course, "From Plankton to Plastic: The Chesapeake Bay Under a Microscope", April 19, 2023

Public seminar on microplastics at Easton Club East, November 17, 2022

Panelist for "Plastic Pollution & Solutions on Maryland's Lower Eastern Shore!" for the Lower Eastern Shore Sierra Club Group, February 10, 2022.

Talbot County Public Schools, Gifted and Talented Program, Sixth Graders, "Collecting Plankton with ROVs". Collaborative project including Washington College Center for Environment and Society, NOAA Chesapeake Bay Office Environmental Literacy, and Assemble. Students learn about plankton ecology and marine food webs, construct scientific questions about plankton communities in class, then participate in a field trip to the Horn Point Laboratory where they design and deploy an Aquabotz ROV to collect plankton to answer their scientific questions. Since 2017

Plankton 101: Training class for shipboard instructors for Maryland Living Classrooms, Baltimore, MD, 2016, 2017, 2018, 2019, virtual 2020 – 2022

Born to float alone: the Natural History of Plankton. Presentation for the Natural History Society of Maryland, Virtual. April 15, 2021

Talbot County Public Schools, Gifted and Talented Program, Sixth Graders, "Collecting Plankton with ROVs". Collaborative project including Washington College Center for Environment and Society, NOAA Chesapeake Bay Office Environmental Literacy, and Assemble. Students learn about plankton ecology and marine food webs, construct scientific questions about plankton communities in class, then participate in a field trip to the Horn Point Laboratory where they design and deploy an Aquabotz ROV to collect plankton to answer their scientific questions.

Young Scientist's Sea Chest, http://www.youngscientistsseachest.org/, a curriculum kit for educators developed in conjunction with Assemble, a non-profit design studio, that includes curricular materials developed by teachers that adhere to the Next Generation Science Standards. The material focuses on plankton ecology research to address concepts including food webs, biodiversity, and watershed ecology, with assessments of student learning included in the material.

Does Science Matter, UMCES Podcast, 2017: http://www.umces.edu/news/why-does-science-matter-umces-scientists-weigh

Plankton 101: Training class for shipboard instructors for Maryland Living Classrooms, Baltimore, MD, 2016, 2017

Invited Speaker at Maryland Association for Environmental and Outdoor Education (MAEOE) annual conference, 2016 "Zooplankton and Aquatic Food Webs: Who they are, what they do, and why you should care."

Invited speaker at Tidewater Rotary, August 2010, "Oxygen, Organisms, and Oil"

Profiled in special volume of *CURRENT: The Journal of Marine Education*, dedicated to the U.S. GLOBEC program. 2011. GLOBEC Personality: From Planktoneer to Professor. *CURRENT,* 27(2):34

E. Media Mentions

Horn Point Lab to study microplastics in Choptank watershed. *Star Democrat*, January 9, 2022. https://www.stardem.com/news/local_news/horn-point-lab-to-study-microplastics-in-choptank-watershed/article_095b7d55-e231-5fc7-b1ca-4df8c56f1fa6.html

UMD Studies Microplastics in Water. *Fox 5 DC*, January 10, 2022. https://www.fox5dc.com/video/1021570

Does Science Matter, UMCES Podcast, 2017: http://www.umces.edu/news/why-does-science-matter-umces-scientists-weigh

The Marc Steiner Show, Interview for segment on *Sound Bites on Delmarva* with WEAA, October 2010. Audio available here: http://www.steinershow.org/podcasts/october-21-2010-hour-1/ (23:05 – 53:00).

National Geographic online video, "Did Gulf Spill Boost 'Dead Zone'?", 27 October 2010: http://youtu.be/n6Jp7syqPqc

Ciencia Puerto Rico, "Chasing the mystery behind bioluminescence in Puerto Rico", June 29, 2017, https://www.cienciapr.org/es/node/19782

Star Democrat, "Scientists to begin Gulf mission", August 30, 2010 http://www.stardem.com/news/local_news/article_93168b57-3057-5357-9303-ae62365ee71c.html

Star Democrat, "Nutrients a factor in Bay quality, dead zones", February 13, 2014, http://www.stardem.com/extras/chesapeake_bay/article_f43c9e3e-a70c-5be2-a909-2a0af4f8b1ea.html

Ocean Sentry, "Study confirms oil from Deepwater Horizon disaster entered food chain in the Gulf of Mexico", March 21, 2012, http://www.oceansentry.org/oil-from-deepwater-horizon-disaster-entered-food-chain/

Science Daily, "Oil from Deepwater Horizon disaster entered food chain in the Gulf of Mexico", March 20, 2012, https://www.sciencedaily.com/releases/2012/03/120320142100.htm

UPI, "Oil from gulf disaster found in food chain", March 20, 2012, https://www.upi.com/Science_News/2012/03/20/Oil-from-gulf-disaster-found-in-food-chain/30551332291029/

Star Democrat, "Scientists begin gulf Mission", September 17, 2010, https://www.newspapers.com/newspage/115896172/

WBOC, "Horn Point Laboratory Scientists to Study Oil Spill Effects in Gulf", June 8, 2010, http://www.wboc.com/story/12614994/horn-point-laboratory-scientists-to-study-oil-spill-effects-in-gulf