



*CURRICULUM VITAE*

Calendar Year 2025

**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: 3 February 2026

*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](mailto:jpierson@umces.edu)  
[www.planktoneer.com](http://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 – 2024 Associate Professor (with Tenure), University of Maryland Center for Environmental Science, Horn Point Laboratory, Cambridge, MD  
2024 – Present Professor, 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
- Broadening participation in environmental and geosciences, with special emphasis on marine science

B. Peer Reviewed Publications (Last 5 years)

Publons Profile: <https://publons.com/researcher/2885857/james-j-pierson/>

Google Scholar: <http://scholar.google.com/citations?user=s4spRhAAAAAJ&hl=en>

- 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. 2025. Contributions of Vertically Migrating Metazoans to Sinking and Suspended Particulate Matter Fuel N<sub>2</sub> production in the Eastern Tropical North Pacific Oxygen Deficient Zone. , *Global Biogeochemical Cycles*. 39, e2024GB008365. DOI: [10.1029/2024GB008365](https://doi.org/10.1029/2024GB008365)
- 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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/10.3390/nitrogen2010005)

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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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](https://doi.org/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. Nessler, 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](https://doi.org/10.1002/9781119543626)
- 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](https://doi.org/10.1002/9781119543626)

(\* = 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*

E. Invited Seminars and Presentations

1. Invited Seminars

Izaak Walton League of America, Maryland Division Meeting, June 2023

Chesapeake Forum, April 2023

2. Presentations

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

**Pierson, J.J.**, M.R. Roman, N.M. Millette. Deoxygenation and temperature impact feeding, reproduction, and distribution of the copepod *Acartia tonsa*. CERF Meeting, Richmond, VA, November 2025

**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

Symposia Organized/Chaired for Professional Meetings

Session Chair, CERF Meeting 2025, “Estuarine and coastal plankton communities: sentinels of evolving ecosystems”, co-convended with Nicole Millette and Patricia Thibodeau

Town Hall, Ocean Sciences Meeting 2024, “TOS JEDI Committee Town Hall: Scientific Societies’ Roles in Building Inclusive Communities”, co-convended 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-convended with Erin Meyer-Gutbrod and Mona Behl

F. Workshops Attended

2025 Continuous Plankton Recorder (CPR) Workshop, November 4 2025

**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, 2025 (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, 2023, 2024. Co-taught with Clara Fuchsman and Cindy Palinkas

**B. Outside USM**

GEOG 1114: Elements of Oceanography, 2 credits, Winter 2023 and 2025. 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*.

**V. Student Training****A. Committee Chair**

Nicole Millette (Ph.D.) Graduated 2016  
Katherine Liu Slater (Ph.D.) Graduated 2019  
Catherine Fitzgerald (Ph.D.) Graduated 2025  
Kerria Burns (M.S.) Graduated 2025, co-Chair with William Nardin  
Mairim Villafañe-Vicente (M.S.), current

**B. Committee Member**

Nanushka M. Bonano-Collazo, M.Sc (IMET, Ph.D.)  
Marshall Grossman (HPL, Ph.D.)  
Nina Santos (CBL, Ph.D.)

David Garcia (HPL, Ph.D.)  
Allyson Kido (IMET, M.S. 2024)  
William Atkinson (HPL, M.S. 2024)  
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

Grace Lindsay (Chesapeake College) 2025  
Megan Lee (Chesapeake College) 2024  
Austin Rapp (Chesapeake College) 2024  
Kendall Stevens (Chesapeake College) 2023  
Kacey Kaub (Chesapeake College) 2022  
Maya Skirka (Chesapeake College) 2022

## VI. Outreach and Service

### A. Service outside of the University of Maryland Center for Environmental Sciences

Member of CUSF (Council of University System Faculty, for the University System of Maryland, 2023 – present  
CUSF Research Committee, 2023 – present  
CUSF Faculty Concerns Committee, 2024 – present  
UMCES Presidential Search Committee, 2024  
Research Proposal Panelist

- NASA
- NSF (multiple directorates)
- State SeaGrant Panelist

The Oceanography Society Jedi Committee, 2020 – present  
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 Website Redesign Committee

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

C. Horn Point Laboratory Committees

Career Advancement Committee, 2020 – Present

Diversity, Equity, and Inclusion Committee, 2020 – Present

Boat Committee, 2022 – Present, Chair 2016-2018

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

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.

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](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>