

MATTHEW P. STEFANAK

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EDUCATION

University of Maryland , College Park, MD	2021-current
<ul style="list-style-type: none"> • <i>Ph.D. Candidate</i>. Marine, Estuarine, & Environmental Science Focus: Ecological Systems • Advisor: Dr. Ryan Woodland, Chesapeake Biological Laboratory 	
Woods Hole Oceanographic Institute , Woods Hole, MA	2018
<ul style="list-style-type: none"> • <i>Coursework</i>. Fall 2018 Semester at Woods Hole (SAW) Program Focus: Biological Oceanography 	
Middlebury College , Middlebury, VT	2019
<ul style="list-style-type: none"> • <i>B.A.</i>, Biology & Environmental Studies (<i>magna cum laude</i>) Focus: Conservation Biology 	

RESEARCH & TEACHING EXPERIENCE

Graduate Research Assistant , Solomons, MD	2021-current
Chesapeake Biological Laboratory, Woodland Lab	
Adjunct Faculty , St Mary's City, MD	Fall 2025
St. Mary's College of Maryland, <i>Fish and Fisheries</i> Lab Course	
General Assistant , Solomons, MD	2025
Active Societal Participation in Research & Education (ASPiRE), Harris Lab	
Research Technician , Kāneʻohe, HI	2019-2021
Hawai'i Institute of Marine Biology, Coral Reef Ecology Lab	
Student Researcher , Woods Hole, MA	2018-2019
Woods Hole Oceanographic Institute, Larval Fish Ecology Lab	
Student Researcher , Middlebury, VT	2018
Middlebury College, Eggleston Lab	
Summer Research Internship , Hanover, NH	2017
Dartmouth College, Lutz Lab	

PEER-REVIEWED PUBLICATIONS¹

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- †**Stefanak MP**, Santos NR, O'Brien M, Murphy TE, Secor DH, and Woodland RJ. (2025). Bidirectional habitat connectivity of juvenile fish within a coastal lagoon-shelf nursery seascape. *ICES Journal of Marine Science*, In review.
- †**Stefanak MP**, Schott EJ, and Woodland RJ. (2025). Observations on the population distribution and ecology of *Branchiostoma* (Cephalochordata) lancelets from the Virginia inner continental shelf region, United States. *Marine Biology*, 172: 161. doi.org/10.1007/s00227-025-04736-y.
- Han JJ, **Stefanak MP**, and Rodgers KS. (2022). Low-level nutrient enrichment during thermal stress delays bleaching and ameliorates calcification in three Hawaiian reef coral species. *PeerJ* 10(1): e13707. doi: 10.7717/peerj.13707.
- Bates AE, *et al.* (**Stefanak MP** one of 345 co-authors). (2021). Global COVID-19 lockdown highlights humans as both threats and custodians of the environment. *Biological Conservation* 263: 109175. doi: 10.1016/j.biocon.2021.109175.

¹ † corresponding authorship

- Rodgers KS, †**Stefanak MP**, Tsang AO, Han JJ, Graham A, and Stender YO. (2021). Impact to the coral reef community at Hā'ena and Pila'a, Kaua'i following a record 2018 freshwater flood event. *Diversity* 13(2), 66. doi: 10.3390/d13020066.
- Alkhouri NB, Mutka MC, †**Stefanak MP**, and Bearer CF. (2021). The impact of COVID-19 on manuscript submissions to Pediatric Research. *Pediatric Research* 90: 6-7. doi: 10.1038/s41390-020-01220-9.
- †**Stefanak MP**, Al-Mudares F, El-Metwally D, Jones J, Kane M and Bearer CF. (2020). High concentrations of urinary ethanol metabolites in Neonatal Intensive Care Unit infants. *Pediatric Research* 88: 865-870. doi: 10.1038/s41390-020-1020-5.
- El-Metwally D, Chain K, Mallya K, **Stefanak MP**, Alwis U, Blount B, LaKind J and Bearer CF. (2018). Infant exposure to volatile organic compounds in the Neonatal Intensive Care Unit. *Pediatric Research* 83(6): 1158-1164. doi: 10.1038/pr.2018.52.

POSTERS & PRESENTATIONS²

- Stefanak MP***, Gartland J, Woodland RJ. Trophic niche of the emerging penaeid shrimp assemblage and potential food web consequences in the Chesapeake Bay region. *American Fisheries Society: Tidewater Chapter*. Solomons, MD. March 2026. Talk.
- Lawrence, PE*, Woodland RJ, **Stefanak MP**, Goethel CL. Assessing Juvenile Habitat Contributions to Age-1+ Spot Through Stable Isotope Analysis of Eye Lenses. *American Fisheries Society: Tidewater Chapter*. Solomons, MD. March 2026. Poster.
- Ming L*, Chen Y, Pham V, **Stefanak MP**, Woodland RJ, Testa JM. Chesapeake Bay plume and its effect on the transport and fate of particulate organic matter on the inner continental shelf. *Ocean Sciences Meeting*. Glasgow, Scotland. February 2026. Talk.
- Harris L*, Byrd V*, Lopez-Fretts M*, Iwasaki P, Nur R*, Tutman F*, **Stefanak MP**, Pandya R, and Black B. The ASPIRE Virtual Discussion Series: A platform for exploring successful community-engaged research. *American Geophysical Union*. New Orleans, LA. December 2025. Poster.
- Stefanak MP***, and Woodland RJ. Macrobenthic food web structure and trophic dynamics along the Chesapeake Bay plume estuarine-marine gradient. *Coastal and Estuarine Research Federation*. Richmond, VA. November 2025. Talk.
- Lawrence P*, Woodland RJ, **Stefanak MP**, Goethel, C. Assessing juvenile habitat contributions to age-1+ spot through stable isotope analysis of eye lenses. *Coastal and Estuarine Research Federation*. Richmond, VA. November 2025. Talk.
- Stefanak MP***, and Woodland RJ. Trophic dynamics of the Chesapeake Bay plume as a resource subsidizer of key juvenile fish species. *American Fisheries Society: Tidewater Chapter*. Beaufort, NC. March 2025. Talk.
- Stefanak MP***, and Woodland RJ. Estuarine-marine connectivity dynamics between the Chesapeake Bay plume and juvenile fish. *American Fisheries Society: 154th Annual Meeting*. Honolulu, HI. September 2024. Talk.
- Stefanak MP***, Tsang T, and Rodgers KS. Evaluating the efficacy of a novel Community-Based Subsistence Fishing Area in Hā'ena, Kaua'i. *American Fisheries Society 154th Annual Meeting*. Honolulu, HI. September 2024. Poster.
- Woodland RJ*, Santos N, Murphy T, Reyes-Delgado A, **Stefanak MP**, O'Brien M, and Secor DH. Assessing the prevalence and ecological characteristics of habitat connectivity between Maryland's coastal lagoons and coastal ocean for juvenile fish. *American Fisheries Society 154th Annual Meeting*. Honolulu, HI. September 2024. Talk.
- Stefanak MP***, and Woodland RJ. The Chesapeake Bay plume as a trophic subsidizer of coastal benthic food webs. *13th International Conference on the Application of Stable Isotope Techniques in Ecological Studies*. Fredericton, NB (Canada). July 2024. Talk.

² * presenter

- Stefanak MP***, Murphy T, and Woodland RJ. How does the Chesapeake Bay plume affect juvenile fish? *Marine, Estuarine, & Environmental Science Program Colloquium*. Grasonville, MD. March 2024. Poster.
- Stefanak MP***, Murphy T, and Woodland RJ. Evaluating the trophic resources supporting benthic and bottom-associated consumers within the Chesapeake Bay plume. *American Fisheries Society: Tidewater Chapter*. Hampton, VA. February 2024. Poster.
- Stefanak MP***, Hodgkins C, Li M, Murphy T, Testa J, and Woodland RJ. Influence of the Chesapeake Bay plume on coastal benthic communities. *Coastal and Estuarine Research Federation*. Portland, OR. November 2023. Poster.
- Santos N, Murphy T, Reyes-Delgado A, **Stefanak MP**, O'Brien MH, Secor DH, and Woodland RJ*. Individual fish use connected inner shelf and lagoon ecosystems as networked nurseries. *Coastal and Estuarine Research Federation*. Portland, OR. November 2023. Poster.
- Santos N*, Murphy T, Reyes-Delgado A, **Stefanak MP**, O'Brien MH, Secor DH, and Woodland RJ. Assessing the prevalence and ecological consequences of habitat connectivity between Maryland's coastal lagoons and coastal ocean for juvenile fish. *American Fisheries Society: Tidewater Chapter*. Solomons, MD. March 2023. Poster.

TECHNICAL REPORTS

- Fantauzzi IAM, Woodland RJ, and **Stefanak MP**. (2022). Effects of the Chesapeake Bay plume on benthic biodiversity and biomass in the shallow coastal zone. Prepared for Maryland Sea Grant, NSF/Research Experience for Undergraduates Program. College Park, MD. pp 18.
- Rodgers KS, Graham A, Han JH, Stender Y, Tsang A, and **Stefanak MP**. (2022). 2016-2020 five-year recovery assessment and long-term monitoring of reef coral communities at Pila'a Reef, Kaua'i. Prepared for State of Hawai'i, Department of Land and Natural Resources, Division of Aquatic Resources. Honolulu, HI. pp 149.
- Severino S, Rodgers KS, Graham A, Tsang A, Stender Y, and **Stefanak MP**. (2021). Hanauma Bay biological carrying capacity survey 2020/21 annual report. Prepared for City and County of Honolulu: Parks and Recreation, Hawai'i Board of Land and Natural Resources. Honolulu, HI. pp 340.
https://www.honolulu.gov/rep/site/dpr/hanaumabay_docs/Hanauma_Bay_Carrying_Capacity_Study_Year_3_2020_to_2021-compressed.pdf.
- Rodgers KS, Graham A, Han JH, **Stefanak MP**, Stender Y, Tsang A, Weible R, and Stamoulis K. (2021). 2016-2020 five year efficacy study of the management regulations within the Community Based Subsistence Fishing area of Hā'ena, Kaua'i. Prepared for State of Hawai'i, Department of Land and Natural Resources, Division of Aquatic Resources. Honolulu, HI. pp 81. <https://dlnr.hawaii.gov/holomua/files/2023/01/2020-Haena-Report-Final.pdf>
- Severino S, Rodgers KS, **Stefanak MP**, and Stender Y. (2020). Hanauma bay biological carrying capacity survey 2019-20 2nd annual report. Prepared for City and County of Honolulu Parks and Recreation, Hawai'i Board of Land and Natural Resources. Honolulu, HI. pp 59.
http://www.honolulu.gov/rep/site/dpr/hanaumabay_docs/Hanauma_Bay_Carrying_Capacity_Report_August_2020.pdf.
- Rodgers KS, Graham A, Han JH, **Stefanak MP**, Stender YO, and Tsang AO. (2020). 2019 long-term monitoring and assessment of the Hā'ena, Kaua'i Community Based Subsistence Fishing Area year 4 CBSFA efficacy study. Prepared for State of Hawai'i, Department of Land and Natural Resources, Division of Aquatic Resources. Honolulu, HI. pp 63.
https://dlnr.hawaii.gov/dar/files/2020/07/2019_Final_Haena_report.pdf.

AWARDS, FUNDING, & FELLOWSHIPS

UMCES Centennial Fellowship Bridge Fund Award (approx. \$18,300)	2026
CERF Student / Early Career Participation Travel Award (\$500)	2025
UMD-CP Jacob K. Goldhaber Travel Grant – Post-Candidacy (\$250)	2025
Clint Waters Student Award Scholarship (\$2,000)	2025
Best Student Oral Presentation Award: AFS Tidewater Conference (\$150)	2025
SAML Student Support Award (\$500)	2025
UMCES-GEC Student Travel Award (\$500) x4	2024, 25, 26
UMD-CP Jacob K. Goldhaber Travel Grant – Pre-Candidacy (\$600)	2024
Explorers Club Washington Group Exploration & Field Research Grant (\$5,250)	2024
Cove Point Natural Heritage Trust Rath Mathes Scholarship (\$2,500)	2024
Debbie Morrin-Nordlund Memorial Travel Award (\$1,616)	2023
Washington Biologists' Field Club Research Award (\$3,300)	2023
MD Sea Grant Competitive Graduate Research Fellowship (approx. \$45,000)	2022
University of Maryland Flagship Fellowship (\$60,000)	2021
Middlebury College Senior Independent Study Grant (\$390)	2019
Woods Hole Oceanographic Institute Academic Scholarship (\$7,500)	2018
Middlebury College Independent Study Grant (\$609)	2018

GRADUATE COMMITTEES & SERVICE

American Fisheries Society (AFS) Student Subunit: University of Maryland Treasurer (2022, 2024), President (2023)
American Fisheries Society: Tidewater Conference Planning Committee Student Representative (2023, 2026)
Diversity, Equity, and Inclusion Committee (DEIC): Chesapeake Biological Laboratory Student Representative (2023, 2024)
Graduate Education Committee (GEC): Chesapeake Biological Laboratory Student Representative (2025)
Graduate Student Organization (GSO): Marine, Estuarine, & Environmental Science Program CBL Representative (2025-26)
Research Experience for Undergraduates Program (CBL): Maryland Sea Grant Student Liaison (Summer 2024)
Tom Miller Endowed Professorship in Fisheries Science and Ecology: Search Committee Student Representative (2026)