

JOSHUA A. MOODY

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Primary Research Interests: Shellfish physiology and its role in ecological engineering applications, the development of tools and methodologies to identify and prioritize appropriate restoration interventions, and the effectiveness of living shoreline applications in providing ecological uplift.

Areas of Expertise: Coastal Restoration, Salt Marsh Ecology, Shellfish Ecology, Living Shorelines, Project Monitoring, Geospatial Information Science, and Spatial Analysis.

EDUCATION

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| PhD | Drexel University, Environmental Science
Dissertation: “Geospatial Variation of Ribbed Mussel (<i>Geukensia demissa</i>) Ecosystem Services across the Salt Marsh Landscape”
Committee: Danielle Kreeger (chair), David Bushek, Tracy Quirk, Elizabeth Watson, Susan Kilham, and Robert Chant | December 2017 |
| MS | Rutgers University, Ecology
Thesis: “The Relationship between the Ribbed Mussel (<i>Geukensia demissa</i>) and Salt Marsh Shoreline Erosion”
Committee: David Bushek, Danielle Kreeger, Richard Lathrop, and Edwin Green | May 2012 |
| BS | Temple University, Biology | May 2008 |

RESEARCH EXPERIENCE

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| Partnership for the Delaware Estuary , Wilmington, DE
Senior Manager of Restoration | 2014 to Present |
| <ul style="list-style-type: none">• Coordination of restoration needs and opportunities throughout the Delaware Estuary• Living shoreline design, implementation, monitoring, and analysis• Primary focus areas: living shorelines, wetland vulnerability assessment, ecological modeling, and monitoring protocol and tool development | |
| Partnership for the Delaware Estuary , Wilmington, DE
Graduate Fellow | 2012 to 2014 |
| <ul style="list-style-type: none">• Coordination of Delaware Estuary Living Shoreline Initiative (DELSI) | |
| Rutgers University, Haskin Shellfish Research Laboratory
Graduate Assistant | 2008 to 2012 |
| <ul style="list-style-type: none">• Monitoring and evaluation of ecological development on living shorelines | |

PUBLICATIONS

Journal Publications

Moody, J.A., Bouboulis, S.A., Haaf, L., Rothermel, E.R. and Kreeger, D.A., 2022. The spatiotemporal development of two shellfish populations and their associated filtration capacity on a living shoreline near Milford, Delaware, USA. *Ecological Engineering*, 180, p.106661. <https://doi.org/10.1016/j.ecoleng.2022.106661>

Morris, R.L., La Peyre, M.K., Webb, B.M., Marshall, D.A., Bilkovic, D.M., Cebrian, J., McClenachan, G., Kibler, K.M., Walters, L.J., Bushek, D. and Sparks, E.L., **Moody, J.** 2021. Large-scale variation in wave attenuation of oyster reef living shorelines and the influence of inundation duration. *Ecological Applications*, 31(6), p.e02382.

<https://esajournals.onlinelibrary.wiley.com/doi/10.1002/eap.2382>

Moody, J., Kreeger, D. 2021. Spatial Distribution of Ribbed Mussel (*Geukensia demissa*) Filtration Rates Across the Salt Marsh Landscape. *Estuaries and Coasts*, 44: 229-241.

<https://doi.org/10.1007/s12237-020-00770-9>

Moody, J.A., Gentry, M.J., Bouboulis, S.A. and Kreeger, D.A., 2020. Effects of Substrate (Protection and Type) on Ribbed Mussel (*Geukensia demissa*) Recruitment for Living Shoreline Applications. *Journal of Coastal Research*, 36(3), pp.619-627.

<https://esajournals.onlinelibrary.wiley.com/doi/10.1002/eap.2382>

Moody, J., and D. Kreeger. 2020. Ribbed mussel (*Geukensia demissa*) filtration services are driven by seasonal temperature and site-specific seston variability. *Journal of Experimental Marine Biology and Ecology*, V522, 151237. <https://doi.org/10.1016/j.jembe.2019.151237>

Morris RL, Bilkovic DM, Boswell MK, Bushek D, Cebrian J, Goff J, Kibler KM, La Peyre MK, McClenachan G, **Moody J**, Sacks P, Shinn JP, Sparks EL, Temple NA, Walters LJ, Webb BM, and SE Swearer. 2019. The application of oyster reefs in shoreline protection: Are we over-engineering for an ecosystem engineer? *Journal of Applied Ecology*. doi.org/10.1111/1365-2664.13390

Select Professional Reports

Moody, J., S. Guiteras, A. Howard, and D. Janiec (Eds.). 2018. Developing monitoring plans for living shoreline projects in Delaware: A goal-based framework. A report prepared by the Delaware Living Shorelines Committee Standards of Practice Subcommittee.

[https://s3.amazonaws.com/delawareestuary/PDE+Reports/2018-](https://s3.amazonaws.com/delawareestuary/PDE+Reports/2018-DELS+Framework+V.2.0_Final.pdf)

[DELS+Framework+V.2.0_Final.pdf](https://s3.amazonaws.com/delawareestuary/PDE+Reports/2018-DELS+Framework+V.2.0_Final.pdf) Additionally and 2016 NJ analog is located here:

<https://www.conservationgateway.org/ConservationPractices/Marine/crr/library/Documents/Framework-Coastal-Wetland-Shoreline-Projects-New-Jersey.pdf>

Moody, J., D. Kreeger, E. Reilly, K. Collins, L. Haaf and M. Maxwell-Doyle. 2017. Rapid vulnerability assessment of tidal wetlands using the Marsh Futures approach to guide strategic municipal projects. Partnership for the Delaware Estuary Report No. 17-03, 70p.

https://s3.amazonaws.com/delawareestuary/pdf/ScienceReportsbyPDEandDELEP/PDE+Report+17-03+-+MF_NJDEP_NFWF_Final.pdf

PROFESSIONAL AFFILIATIONS

Delaware Living Shoreline Committee, 2013-Present
Co-chair Standards of Practice Subcommittee.

New Jersey Coastal Resiliency Collaborative, 2015-Present
Co-chair Ecological Restoration & Science Work Group.