

CAROLINE F. IANNIELLO, PHD

Postdoctoral Research Scholar

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SUMMARY

Fish biologist and quantitative ecologist. PhD from Boston University. Experience in fisheries data analysis, ecological modeling, and science communication. NOAA-trained researcher with expertise in translating complex observational and environmental data into management-relevant insights. Currently a postdoc with the **Striped Bass Initiative**.

EXPERIENCE

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| Postdoctoral Research Scholar (Half-time)
Striped Bass Initiative | 01/2026 – Present
Woods Hole, MA |
| <ul style="list-style-type: none">Designed and led a management-relevant field study with Maryland DNR to generate evidence on how catch-and-release affects spawning and migration of striped bass. Conducted subsequent data analysis, fieldwork, and outreach. | |
| Postdoctoral Research Scholar (Half-time)
Department of Biology, Tufts University | 01/2026 – Present
Medford, MA |
| <ul style="list-style-type: none">Published four original research articles that advanced understanding of marine organism energetics and ecophysiology. | |
| National Science Foundation Intern
National Oceanic and Atmospheric Administration (NOAA) | 01/2025 – 06/2025
Woods Hole, MA |
| <ul style="list-style-type: none">Linked climate and water quality conditions in Narragansett Bay to Atlantic menhaden abundance using Dynamic Structural Equation Models and Generalized Additive Models, producing management-relevant insight on habitat use. | |
| Graduate Research and Teaching Assistant
Department of Biology, Boston University | 09/2020 – 12/2025 |
| <ul style="list-style-type: none">Produced five peer-reviewed publications through PhD research on marine ecology, physiology, and urbanization, contributing new evidence on how coastal organisms respond to environmental change. | |
| Curatorial Assistant
Harvard Museum of Natural History, Museum of Comparative Zoology (MCZ), Harvard University | 09/2018 – 08/2020 |

EDUCATION

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| PhD in Biology (Marine Program), GPA 3.95
Boston University | 2020 – 2025
Boston, MA |
| B.S. in Biology, magna cum laude, GPA 3.71
College of the Holy Cross | 2014 – 2018
Worcester, MA |
| <ul style="list-style-type: none">Major: Biology, Ecology and Conservation ConcentrationMinor: Art History and Museum Studies | |

SKILLS

Statistical & Quantitative Methods: ANOVA and t-tests, Linear and generalized linear models (LM, GLM), Linear mixed-effects models (lmer), Principal Components Analysis (PCA), Survival analysis, Dynamic Structural Equation Modeling (DSEM), Generalized Additive Models (GAM, mgcv), Dynamic Energy Budget Modeling (AddMyPet)

Software & Tools: R (tidyverse, ggplot2, Rmisc, stats), MATLAB, Data wrangling, cleaning, and visualization, Spatial analyses and GIS-style map creation

Research & Reporting: Stakeholder-driven reporting, Fisheries government regulations, Technical scientific writing, Collaborative project design

Field & Lab Techniques: Water sampling, Aquarium water quality testing, Finfish tagging, Quadrat sampling, Physiology and respiration, Photosynthetic efficiency, Lipid, protein, carbohydrate, and chlorophyll extraction

Leadership & Communication: Project management, Leadership, Mentoring, Oral and written science communication, Budgeting

PUBLICATIONS

ICES Journal of Marine Science 83(7) — <https://doi.org/10.1093/icesjms/fsag117> 2026

A multi-evidence causal investigation of water quality influences on Atlantic menhaden (*Brevoortia tyrannus*) habitat use and abundance in Narragansett Bay, USA

Ianniello CF, Grace S, Hyde K, Large SI, McManus CM, Smith L, Rotjan RD, Deyle E

In press

Ecological Modelling 2026

Leveraging Dynamic Energy Budgets to model coral complexity: challenges, opportunities, and a case study of facultative symbiosis

Ianniello CF, Lavaud R, Lindsay TR, McAlister JS, Rotjan RD, Muller EB

In review

Frontiers of Marine Biology 2026

Development of methods for spawning, fertilization, larval husbandry, and settlement in the temperate coral *Astrangia poculata*

Borbee, E., Changsut, I., McAlister, J.S., Davies, S., **Ianniello, C.F.**, Roberson, L., Rotjan, R.D., Schickle, A., Sneed, J.M., Fuess, L., Warner, J.F., Babonis, L.S. and K.H. Sharp

In press

Coral Reefs 44 (6) 2191-2233 — <https://doi.org/10.1007/s00338-025-02716-8> 2025

A review of the current knowledge of the flow of carbon and energy in scleractinian corals

Ianniello CF, McAlister JS, Ferrier-Pages C, Rotjan RD

Marine Pollution Bulletin, 216, 117918 — <https://doi.org/10.1016/j.marpolbul.2025.117918> 2025

Stress in the City: Disentangling multi-stressor effects on an urbanized coral in a changing ocean

Ianniello, C. F., Beery, G., Chen, T.-H. (Denny), Deyle, E., Heiger-Bernays, W., Motter, I., McAlister, J. S., & Rotjan, R. D

Sustainable Earth Reviews, 7(1), 3 — <https://doi.org/10.1186/s42055-024-00074-x> 2024

Strengthening graduate education and addressing environmental challenges through solutions-oriented partnerships and interdisciplinary training

Templer, P., Atherton, K. F., Conrad-Rooney, E., Ho, H., Hutyra, L. R., **Ianniello, C. F.**, Kashian, D. R., Levy, J. I., Meshoulam, D., & Urban, M. C

AWARDS (TOTAL = \$239,934.82)

NSF INTERN Supplemental Funding Request (2024) USD \$37,280	Warren McLeod Annual Fellowship (2024) USD \$35,500	Spring 2023 BU URBAN Travel Award USD \$999.86
BU Biology Teaching Fellow Mentor (2023) USD \$1,000	Charlotte Magnum Student Support Award, Society of Integrative and Comparative Biology (2022) USD \$350	Spring 2022 BU URBAN Research Award USD \$5,631.96
Fall 2021 BU URBAN Research Award USD \$1,500	Spring 2021 BU URBAN Travel Award USD \$2,492	Spring 2021 BU URBAN Research Award USD \$1,500
BU Initiative on Cities Early-Stage Urban Research Award (2021) USD \$10,000	BU Department of Biology Macchi Award for Regulatory Biology (2021) USD \$1,000	Fall BU College of Arts and Science Dean's Fellowship (2020)
NSF Graduate Research Fellowship (2020) USD \$138,000	NSF Research Coordination Network Evolving Seas Travel Grant (2019) USD \$2,681	Marine Technology Society Graduate Scholarship (2019) USD \$2,000