

JONATHAN B. PURITZ JR.

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University of Rhode Island
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EDUCATION

- 2011 **Ph.D. in Zoology, University of Hawaii at Manoa**
Committee: Rob Toonen, Brian Bowen, Steve Karl, Megan Donahue, Shannon Bennett
- 2005 **B.S. in Biology with Honors, Brown University**
Advisors: Jon Witman and David Rand

PROFESSIONAL APPOINTMENTS

- 2023- **Associate Professor**
Department of Biological Sciences, University of Rhode Island
- 2017-23 **Assistant Professor**
Department of Biological Sciences, University of Rhode Island
- 2016-17 **Postdoctoral Research Associate**
Marine Science Center, Northeastern University
- 2014-16 **Postdoctoral Research Associate, Adjunct Graduate Faculty**
Harte Research Institute, Texas A&M Corpus Christi
- 2012-14 **Postdoctoral Research Associate**
Department of Wildlife and Fisheries Science, Texas A&M University
- 2012 **Postdoctoral Scholar, Lecturer**
Hawaii Institute of Marine Biology, University of Hawaii at Manoa

PUBLICATIONS

Statistics (Google Scholar Accessed 05/16/2024)

2721 Citations

38 Peer reviewed journal articles and book chapters

21 h-index

Pre-prints and manuscripts under review

- 2024 Torres, W.J., Holstein, D.M., Putnam, H.M., Edmunds, P.J., **Puritz, J.B.**, Toonen, R.J., Hench, J.L. Post-disturbance recovery dynamics of connected coral subpopulations. **Under Review at *Theoretical Ecology*.**
- 2022 **Puritz, J.B.**, Zhao, H., Guo, X., Hare, M.P., He, Y., LaPeyre, J. Lotterhos, K.E., Lundgren, K. M., Proestou, D., Rawson, P., Fernandez Roboledo, J. A., Wedop, B., Witkop, E., Gomez-Chiarri, M. Nucleotide and structural polymorphisms of the eastern oyster genome paint a mosaic of divergence, selection, and human impacts. *BioRxiv*. DOI: <https://doi.org/10.1101/2022.08.29.505629>
- 2022 Hart, M. W. Guerra, V., Byrne, M., **Puritz, J.B.** Genomic data improve coalescent inference across a range of demographic parameters and life-histories. **Under Review at *Evolutionary Applications*.** Preprint DOI: 10.22541/au.159990335.58331776

Published and In Press

- 2024 **Puritz, J.B.**, Guo, X., Hare, M.P., He, Y., Hillier, L., Lotterhos, K.E., Liu, M., Minx, P., Proestou, D., Rice, E., Tolison, C., Warren, W., Zhao, H., Gomez-Chiarri, M. A second unveiling: haplotig masking of the eastern oyster genome improves population level inference. ***Molecular Ecology Resources***. DOI :10.1111/1755-0998.13801
- 2023 Bogan, S.N., Johns, J., Griffiths, J.S., Davenport, D., Smith, S.J., Schaal, S.M., Downey-Wall, A., Lou, R.N., Lotterhos, K., Guidry, M.E., Rivera, H.E., McGirr, J.A., **Puritz J.B.**, Roberts, S.B., Silliman, K. A dynamic web resource for robust and reproducible genomics in non-model species: marineomics.io. ***Methods in Ecology and Evolution***. DOI: 10.1111/2041-210X.14219
- 2023 Klanten, O.S., Gall, M., Barbosa, S.S., Hart, M.W., Keever, C.C., **Puritz, J.B.**, Haratino, J., Toonen, R.J., Selvakumaraswamy, P., Grosberg, R.K., Byrne, M. Population connectivity across east Australia's Bioregions and larval duration of the range extending sea star *Meridiastra calcar*. ***Aquatic Conservation: Marine and Freshwater Ecosystems***. DOI: 10.1002/aqc.3973
- 2023 Guo, X., **Puritz, J. B.**, Wang, Z., Proestou D., Allen, Jr., S., Small J., Verbyla, K., Zhao, H., Haggard, J., Chriss, N., Zeng, D., Lundgren, K., Allam, B., Bushek, D., Gomez-Chiarri, M., Hare, M., Hollenbeck, C., LaPeyre, J., Liu, M., Lotterhos, K.E., Plough, L., Rawson, P., Saillant, E., Rikard, S., Varney, R., Wikfors, G., Wilbur, A. Development and evaluation of high-density SNP arrays for the eastern oyster *Crassostrea virginica*. ***Marine Biotechnology***. DOI: 10.1007/s10126-022-10191-3
- 2022 Schiebelhut, L.M., Giakoumis, M., Castilho, R., Duffin, P.J., **Puritz, J.B.**, Wares, J.P., Wessel, G.M. and Dawson, M.N., 2022. Minor Genetic Consequences of a Major Mass Mortality: Short-Term Effects in *Pisaster ochraceus*. ***The Biological Bulletin*** DOI: 10.1086/722284
- 2022 Willis, S.C., Hollenbeck, C.M., **Puritz, J.B.** and Portnoy, D.S. Genetic recruitment patterns are patchy and spatiotemporally unpredictable in a deep-water snapper (*Lutjanus vivanus*) sampled in fished and protected areas of western Puerto Rico. ***Conservation Genetics***. DOI: 10.1007/s10592-021-01426-2
- 2022 Portnoy, D.S., Fields, A.T., **Puritz, J.B.**, Hollenbeck, C.M., Patterson, W.F. Genomic Analysis of Red Snapper, *Lutjanus campechanus*, Population Structure in the U.S. Atlantic and Gulf of Mexico. ***ICES Journal of Marine Science***. DOI: 10.1093/icesjms/fsab239
- 2022 Trigg, S.A., Venkataraman, Y.R., Gavery, M., Roberts, S.B., Bhattacharya, D., Downey-Wall, A., Eirin Lopez, J.M., Johnson, K.M., Lotterhos, K.E., **Puritz, J.B.**, Putnam, H.M. Invertebrate methylomes provide insight into mechanisms of environmental tolerance and reveal methodological biases. ***Molecular Ecology Resources***. DOI: 10.1111/1755-0998.13542
- 2021 Modak, T. H., Literman, R., **Puritz, J.B.**, Johnson, K. J., Roberts, E. M., Proestou, D., Guo, X., Gomez-Chiarri, M., Schwartz, R. S. Extensive genome-wide copy number variation in the eastern oyster (*Crassostrea virginica*). ***Phil. Trans. R. Soc. B***. DOI: 10.1098/rstb.2020.0164
- 2021 Catalano, K. A., Dedrick, A. G., Stuart, M. R., **Puritz, J. B.**, Montes Jr., H. R., Pinsky, M. L. Quantifying dispersal variability among nearshore marine populations. ***Molecular Ecology***. DOI: 10.1111/mec.15732
- 2020 Hart, M.W. and **Puritz, J.B.** Correction to 'Extraordinarily rapid life-history divergence between *Cryptasterina* sea star species'. ***Proceedings of the Royal Society B***, 287(1930), p.20201325. DOI: 10.1098/rspb.2020.1325
- 2018 O'Leary, S.J., **Puritz, J. B.**, Willis, S.C., Hollenbeck, C.M. and Portnoy, D.S., 2018. These aren't the loci you're looking for: Principles of effective SNP filtering for molecular ecologists. ***Molecular Ecology***. DOI: 10.1111/mec.14792

A top downloaded paper of 2019

- 2018 Schiebelhut, L.M., **Puritz, J. B.**, and Dawson, M.N. Decimation by sea star wasting disease and rapid genetic change in a keystone species, *Pisaster ochraceus*. ***Proceedings of the National Academy of Sciences***. DOI: 10.1073/pnas.1800285115
- 2018 **Puritz, J. B.**, and Lotterhos, K. E. Expressed Exome Capture Sequencing (EecSeq): a method for cost-effective exome sequencing for all organisms with or without genomic resources. ***Molecular Ecology Resources***. DOI: 10.1111/1755-0998.12905
- 2017 **Puritz, J. B.**, Keever, C. C., Addison, J. A., Barbosa, S. S., Byrne, M., Hart, M. W., Grosberg, R. K., Toonen, R. J. Life history predicts past and present population connectivity in two sympatric sea stars. ***Ecology and Evolution***. DOI: 10.1002/ece3.2938
- 2017 Willis, S. C., Hollenbeck, C. M., **Puritz, J.B.**, Gold, J. R., Portnoy, D. S. Haplotyping RAD loci as an efficient method to characterize and filter paralogs and manage linkage disequilibrium. ***Molecular Ecology Resources***. DOI: 10.1111/1755-0998.12647
- 2016 **Puritz, J. B.**, Portnoy, D. S., Gold, J. R. Fine-scale partitioning of genomic variation among recruits in an exploited fishery: causes and consequences. ***Scientific Reports***. DOI: 10.1038/srep36095
- 2016 Selkoe, K.A., D'Aloia, C. C., Crandall, E. D., Iacchei, M. I., Liggins, L., **Puritz, J. B.**, von der Heyden, S., Toonen, R. J. A decade of seascape genetics: contributions to basic and applied marine connectivity. ***Marine Ecology Progress Series***. DOI:10.3354/meps11792
Feature Article
- 2015 Portnoy, D. S., **Puritz, J. B.**, Hollenbeck, C. M., Gelsleichter, J., Chapman, D., Gold, J. R. Selection and sex-biased dispersal in a coastal shark: the influence of philopatry on adaptive variation. ***Molecular Ecology***. DOI: 10.1111/mec.13441
- 2015 Gold, J. R., Willis, S. C., Renshaw, M. A., Buentello, A., Walker, Jr., H. J., **Puritz, J. B.**, Hollenbeck, C. M., Voelker G. Phylogenetic relationships of tropical eastern Pacific snappers (Lutjanidae) inferred from mtDNA sequences. ***Systematics and Biodiversity***. DOI:10.1080/14772000.2015.1078857
- 2014 **Puritz, J.B.**, Matz, M. V., Toonen, R. J., Weber, J. N., Bolnick, D. I., Bird, C. E. Comment: Demystifying the RAD fad. ***Molecular Ecology***. DOI: 10.1111/mec.12965
2nd Most Accessed Paper for 2014-2015
- 2014 **Puritz, J. B.**, Hollenbeck, C. M., Gold, J. R. *dDocent*: a RADseq, variant-calling pipeline designed for population genomics of non-model organisms. ***PeerJ***. DOI: 10.7717/peerj.431
- 2014 **Puritz, J. B.**, Renshaw, M. A., Abrego, D., Vega, R. R., Gold, J. R. Reproductive variance of brood dams and sires used in restoration enhancement of spotted seatrout (*Cynoscion nebulosus*) in Texas bays and estuaries. ***North American Journal of Aquaculture*** DOI: 10.1080/15222055.2014.920751
- 2013 Toonen, R. J., **Puritz, J. B.**, Forsman, Z.H., Whitney, J. L., Fernandez-Silva, I., Andrews, K. A., Bird, C. E. ezRAD: a simplified method for genomic genotyping in non-model Organisms. ***PeerJ***. DOI:10.7717/peerj.203
- 2013 Keever, C., **Puritz, J. B.**, Addison, J. A., Byrne, M., Grosberg, R. K., Toonen R. J., Hart, M.W. Shallow gene pools in the high intertidal: Extreme loss of genetic diversity in viviparous sea stars (Parvulastra). ***Biology Letters***. DOI:10.1098/rsbl.2013.0551
- 2013 Andrews, K. R., Perrin, W. F., Oremus, M. Karczmariski, L., Bowen, B. W., **Puritz, J. B.**, Toonen, R. J. The evolving male: spinner dolphin (*Stenella longirostris*) ecotypes are divergent at Y chromosome but not mtDNA or autosomal markers. ***Molecular Ecology***. DOI: 10.1111/mec.12193
- 2013 Barbosa, S., Klaten, S., **Puritz, J. B.**, Toonen, R. J., Byrne, M. Very fine scale population genetic structure of sympatric asterinid sea stars with benthic and pelagic larvae: influence of

mating system and dispersal potential. *Biological Journal of the Linnean Society*. DOI: 10.1111/bij.12006

- 2013 **Puritz, J. B.** and Toonen, R. J. Next-generation sequencing for high-throughput molecular ecology: a step-by-step protocol for targeted multilocus genotyping by pyrosequencing. Chapter in *Methods in Molecular Biology: Microsatellites*. Volume Editor: Kantartzi, S. K. Pages 89-99
- 2012 **Puritz, J. B.**, Keever, C. C., Addison, J. A., Byrne, M. Hart, M. W, Grosberg, R. K., Toonen, R. J. Extraordinarily rapid life history divergence between *Cryptasterina* sea star species. *Proc. R. Soc. B*. DOI: 10.1098/rspb.2012.1343
- 2012 **Puritz, J. B.**, Addison, J. A., Toonen, R. J. Next-Generation Phylogeography: the application of targeted next-generation sequencing of non-model organisms. *PLoS One* DOI: 10.1371/journal.pone.0034241
- 2011 **Puritz, J. B.** and Toonen, R. J. Coastal Pollution Limits Pelagic Larval Dispersal. *Nature Communications*. DOI: 10.1038/ncomms1238
- 2011 Toonen, R. J., Andrews, K. R., Baums, I. B., Bird, C. E., Concepcion, G. T., Daly-Engel, T. S., J. Eble, A. Faucci, M. Gaither, M. Iacchei, **J. Puritz**, J. Schultz, D. Skillings, M. Timmers & B. Bowen. Defining boundaries for ecosystem-based management: A multispecies case study of marine connectivity across the Hawaiian Archipelago. *Journal of Marine Biology* DOI: 10.1155/2011/460173
- 2009 Keever, C. C., Sunday, J., **Puritz, J. B.**, Addison, J. A., Toonen, R. J., Grosberg, R. K., Hart, M. W. Discordant distributions of populations and genetic variation in a sea star with high dispersal potential. *Evolution*. DOI: 10.1111/j.1558-5646.2009.00801.x
- 2008 Haney, R. A., Dionne, M., **Puritz, J. B.**, Rand, D. M. The comparative phylogeography of east coast estuarine fishes in formerly glaciated sites: Persistence versus Recolonization in *Cyprinodon variegatus ovinus* and *Fundulus heteroclitus macrolepidotus*. *Journal of Heredity* DOI: 10.1093/jhered/esn107
- 2005 Walker, A. N., Bush, P., **Puritz, J. B.**, Wilson, T., Chang, E. S., Miller, T., Holloway, K., Horst, M. N. Bioaccumulation and metabolic effects of the endocrine disruptor methoprene in the lobster, *Homarus americanus*. *Integrative and Comparative Biology*. DOI: 10.1093/icb/45.1.118

GRANTS AWARDED

Total funding = \$2,618,780; Current funding= \$2,328,938

Current Funding

- | | | | |
|----|------|--|------------------|
| 1) | 2024 | Rhode Island Sea Grant | \$247,475 |
| | | <i>The interaction of environment, genotype, and disease on juvenile oyster survival</i>
(PI Puritz; Total to Puritz: \$247,475; additional \$123,734 in match
Project Total: \$371,209) | |
| 2) | 2021 | USDA- Agriculture Research Service | \$250,000 |
| | | Population genomic evaluation of wild and cultured Eastern oyster populations from the Northeast region
(PIs Puritz and Proestou; Total to Puritz: 250,000; additional \$50,000 in match
Project Total: \$300,000) | |
| 3) | 2021 | National Science Foundation | \$680,898 |
| | | <i>How do multiple coastal stressors structure the genomic diversity of marine populations?</i>
(PI Puritz; Total to Puritz: \$680,898; Project Total: \$680,898) | |

4)	2020	National Science Foundation <i>EAGER: Development of a tool to rapidly and cost-effectively sequence the exome of any organism</i> (PI Puritz; Total to Puritz: \$298,978; Project Total: \$298,978)	\$380,130
5)	2019	US Fish and Wildlife Service <i>Assessing Horseshoe Crab Population Structure within Southern New England</i> (PIs: McManus, Ameral, and Puritz; Total to Puritz \$80,435; additional match: \$43,302 (URI) & \$13,992 DEM; Project Total: \$163,715)	\$80,435
6)	2019	Atlantic Coast Marine Fisheries Council <i>From Sequence to Consequence: Genomic Selection to Expand And improve Selective Breeding for The Eastern Oyster</i> (Eastern Oyster Breeding Consortium; URI PIs: Puritz and Gomez-Chiarri; Total to URI: \$690,000; Project Total: \$4,363,092)	\$690,000
Past Funding			
	2019	Rhode Island Sea Grant <i>How do multiple coastal stressors limit oyster recruitment?</i> (PI Puritz; Total to Puritz: \$249,192; additional \$124,617 in match Project Total: \$373,809)	\$249,192
	2016	Harte Research Institute Staff Innovations Grant (Declined) Collaborative proposal to investigate evolutionary impacts of barotrauma in red snapper	\$5,000
	2015	Texas Research Development Fund Program <i>Impacts of sewage effluent on genomic diversity and connectivity of marine intertidal communities</i>	\$20,000
	2011	NSF East Asian Pacific Science Institute Fellowship Fellowship for two months of research at the University of Sydney	\$8,000
	2011	University of Hawaii Graduate Student Organization Travel Grant for 2011 Annual Meeting of the Western Society of Naturalists	\$750
	2010	University of Hawaii Graduate Student Organization Travel Grant for 2010 Benthic Ecology Meeting	\$900
	2009	University of Hawaii Graduate Student Organization Research grant for sample collection trip to California	\$750
	2008	The Charles H. and Margaret B. Edmondson Research Fund Research on the population connectivity of <i>Linckia multifora</i>	\$1,500
	2007	Ecology, Evolution, and Conservation Biology Travel Grant Travel Grant for 2007 Annual Meeting of the Western Society of Naturalists	\$750
	2007	University of Hawaii Arts and Sciences Advisory Council Award Research expedition to the Chagos Archipelago	\$3,000

TEACHING EXPERIENCE

Classes

- 2024 **Instructor, University of Rhode Island**
BIO 594: Conservation and Population Genomics: theory and practice
- 2024 **Instructor, University of Rhode Island**
BES 582: Biological and Environmental Sciences Colloquium
- 2023 **Instructor, University of Rhode Island**
BES 581: Biological and Environmental Sciences Colloquium
- 2023 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2023 **Instructor, University of Rhode Island**
BIO 594: Conservation and Population Genomics: theory and practice
- 2022 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2022 **Instructor, University of Rhode Island**
BIO 594: Using genomic techniques to examine the evolution of populations
- 2021 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2021 **Instructor, University of Rhode Island**
BIO 425G: The origins and fate of marine biodiversity: a larval perspective
- 2020 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2019 **Instructor, University of Rhode Island**
BIO 425G: The origins and fate of marine biodiversity: a larval perspective
- 2019 **Instructor, University of Rhode Island**
BIO 130: Topic in Marine Biology
- 2019 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2019 **Instructor, University of Rhode Island**
BIO 594: Using genomic techniques to examine the evolution of populations
- 2018 **Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
 - Includes rebuilding curriculum for both lecture and lab
- 2018 **Instructor, University of Rhode Island**
BIO 594: Using genomic techniques to examine the evolution of populations
 - New Graduate Class offered for the first time
- 2017 **Co-Instructor, University of Rhode Island**
BIO 354: Invertebrate Zoology
- 2017 **Guest Lecturer, University of Rhode Island**
BIO 360: Marine Biology (1 class, Fall semester)
- 2012 **Lecturer, University of Hawaii at Manoa**
Instructor of record for Biology 404: Advanced Topics in Marine Biology
 - Capstone class for seniors majoring in Marine Biology

Workshops

- 2015-18 **Invited Faculty, Winter School, ETH Zürich, Switzerland**
Bioinformatics for Adaptation Genomics: Adaptation genomics in the realm of Next-Generation Sequencing data analysis
- Funded by Adaptation to a Changing Environment initiative, ETH Zürich, Switzerland
 - Responsible for whole day workshop on “Extracting SNP data from NGS sequencing”
- 2015 **Invited Faculty, Nha Trang University, Vietnam**
Training workshop for Next Generation Sequencing
- Funded by the project "Building a Mekong River genetic biodiversity research network" in the PEER program funded by USAID in the process of project implementation, NTU partnered with Old Dominion, and Texas A & M University Corpus Christi.
 - Responsible for multiple day workshop on RADseq Bioinformatics
- 2014 **Invited Faculty, De LaSalle University, Manila, Philippines**
Pacific Advanced Science Institute (PacASI) sponsored workshop: “Introduction to Genome Data Analysis: Assembly, Annotation, and Application.”
- PacASI is a partnership between the Center for Natural Science and Ecological Research at De La Salle University and the National Science Foundation Partnerships for Enhanced Engagement in Research.
 - Responsible for several lectures and hands on workshops designed for international students’ first engagement with genome scale data.
- 2013 **Invited Faculty, Hawaii Institute of Marine Biology**
29th Annual Edwin W. Pauley Summer Program: “Advancing tools for biodiversity studies: Genomics and bioinformatics of cnidarians with a focus on corals”
- Responsible for developing and overseeing student research projects and for a workshop on RAD Sequencing

INVITED PRESENTATIONS

- 2022 **Coastal pollution, next-generation sequencing, and the evolution of marine populations**
Department of Biology- Miami University
- 2018 **Coastal pollution, next-generation sequencing, and the evolution of marine populations**
Department of Marine Sciences- University of Connecticut Avery Point
- 2018 **Coastal pollution, next-generation sequencing, and the evolution of marine populations**
Graduate School of Oceanography- University of Rhode Island
- 2018 **Coastal pollution, next-generation sequencing, and the evolution of marine populations**
Ecology and Evolutionary Biology Department- Brown University
- 2017 **Expressed Exome Capture Sequencing: a method for cost-effective exome sequencing for all organisms**
Cellular and Molecular Biology Department- University of Rhode Island
- 2017 **Coastal pollution, next-generation sequencing, and the evolution of marine populations**
Biology Department- Woods Hole Oceanographic Institution
- 2016 **Harnessing the power of next-generation sequencing to examine the evolution of marine populations**
Department of Biological Sciences- University of Rhode Island
- 2015 **Using next-generation sequencing to examine patterns of coastal genomic diversity**

Department of Biology Seminar- University of Louisiana at Lafayette

- 2015 **Using next-generation sequencing to examine patterns of coastal genomic diversity**
Marine Science Center Seminar- Northeastern University
- 2015 **The Seascape Genetics of Coastal Pollution**
Waterscape Genetics- New Perspectives on Connectivity in Fluid Environments Symposium at the International Association of Landscape Ecology World Congress
- 2013 **Impacts of Coastal Pollution and Life-History on Marine Population Connectivity**
Biological Sciences Seminar- Old Dominion University
- 2012 **The Impacts of Coastal Pollution on Marine Population Connectivity**
Harte Research Institute Seminar Series- Texas A&M Corpus Christi
- 2012 **The Impacts of Coastal Pollution on Marine Population Connectivity**
Wildlife and Fisheries Sciences Brown Bag Seminar- Texas A&M University
- 2009 **“The Frontiers of Conservation Genetics: From Genes to Genomes”** Hanauma Bay Education Program Lecture Series- Hanauma Bay Nature Preserve

CONFERENCE PRESENTATIONS (LAST 7 YEARS)

[^]undergraduate mentee, # post-baccalaureate mentee, * graduate student mentee

- 2024 **Acute and long-term responses of juvenile oysters to dynamic multiple coastal stressors**
Guidry*, M.E., Randall#, C., Puritz, J.B. National Shellfishery Association Meeting. Charlotte, NC.
- 2024 **Assessing the evolutionary response of the eastern oyster to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Zyck*, A., Harvey, J. A., Lotterhos K.E. National Shellfishery Association Meeting. Charlotte, NC.
- 2023 **The effects of probe and DNA insert length on the *de novo* assembly and capture efficiency of expressed exome capture sequencing (EecSeq)**
Green*, J. M., and Puritz J. B. National Shellfishery Association Meeting. Baltimore, MD.
- 2023 **Investigating the effects of coastal stressors on the genomic variation of oyster populations in Narragansett Bay**
Zyck*, A., Stevick, R., Gomez-Chiarri, M., Puritz J. B. National Shellfishery Association Meeting. Baltimore, MD.
- 2023 **Nucleotide and structural polymorphisms of the eastern oyster genome paint a mosaic of divergence, selection, and human impacts**
Puritz, J.B., Zhao, H., Guo, X., Hare, M.P., He, Y., LaPeyre, J. Lotterhos, K.E., Lundgren, K. M., Proestou, D., Rawson, P., Fernandez Roboledo, J. A., Wedop, B., Witkop, E., Gomez-Chiarri, M. National Shellfishery Association Meeting. Baltimore, MD.
- 2022 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., Lotterhos K.E. Benthic Ecology Meeting. Portsmouth, NH.
- 2021 **Unlocking the Exome: exploring de novo assembly for capture sequencing**
Green*, J. M., and Puritz J. B. National Shellfishery Association Meeting.
- 2021 **From Sequence to Consequence: genomic selection to expand and improve selective breeding for the eastern oyster**
Guo, X., Allen Jr., S., Proestou, D., Allam, B., Gomez-Chiarri, M., Hare, M., Liu, M., Lotterhos, K.E., Kube, P., Plough, L., Puritz, J.B., et al. National Shellfishery Association Meeting. Virtual.

- 2021 **Investigating the effects of coastal stressors on the genomic variation of oyster populations in Narragansett Bay**
Zyck*, A., Stevick, R., Gallagher[#], A., Padro[^], N., Gomez-Chiarri, M., Puritz J. B. National Shellfishery Association Meeting. Virtual.
- 2021 **An assembled genome reference for the eastern oyster: a resource for discovery and innovation**
Puritz, J.B., Zhao, H., Weedop, B., Modak, T., Roberts, E., Allen Jr., S., Hare, M., Lotterhos, K.E., Rawson, P., Schwartz, R., Proestou, D., Guo, X., Warren, W., Gomez-Chairri, M. National Shellfishery Association Meeting. Virtual.
- 2021 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., and Lotterhos K. E. National Shellfishery Association Meeting. Virtual
- 2020 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., and Lotterhos K. E. Western Society of Naturalists. Virtual.
- 2020 **Unlocking the Exome: exploring de novo assembly for capture sequencing**
Green*, J. M., and Puritz J. B. Western Society of Naturalists. Virtual.
- 2020 **Investigating the effects of coastal stressors on the genomic variation of oyster populations in Narragansett Bay**
Zyck*, A., Stevick, R., Gallagher[#], A., Padro[^], N., Gomez-Chiarri, M., Puritz J. B. Western Society of Naturalists. Virtual.
- 2020 **Unlocking the Exome: exploring de novo assembly for capture sequencing**
Green*, J. M., and **Puritz J. B.** National Shellfishery Association Meeting. Baltimore, MD.
Cancelled due to Covid-19
- 2020 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., and Lotterhos K. E. National Shellfishery Association Meeting. Baltimore, MD.
Cancelled due to Covid-19
- 2019 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., and Lotterhos K. E. Evolution. Providence, RI.
- 2019 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., and Lotterhos K. E. Aquaculture 2019. New Orleans, LA.
- 2018 **Expressed Exome Capture Sequencing: a method for cost-effective exome sequencing for all organisms**
Puritz, J. B., and Lotterhos K. E. Global Invertebrate Genome Alliance. Curacao.
- 2018 **Expressed Exome Capture Sequencing (EecSeq): a method for cost-effective exome sequencing of non-model organisms**
Puritz, J. B., and Lotterhos K.E. National Shellfishery Association Meeting. Seattle, WA.
- 2017 **Expressed Exome Capture Sequencing: a method for cost-effective exome sequencing for all organisms**
Puritz, J. B., and Lotterhos K.E. Western Society of Naturalists. Pasadena, CA.
- 2017 **Expressed Exome Capture Sequencing: a method for cost-effective exome sequencing for all organisms**
Puritz, J. B., and Lotterhos K.E. Evolution. Portland, OR.

- 2017 **Expressed Exome Capture Sequencing (EecSeq): a method for cost-effective exome sequencing of non-model organisms**
Puritz, J. B., and Lotterhos K.E. National Shellfishery Association Meeting. Knoxville, TN.

CONFERENCE POSTERS (LAST 7 YEARS)

^undergraduate mentee, # post-baccalaureate mentee, * graduate student mentee

- 2024 **What are the impacts of coastal stressors on *Crassostrea virginica* on growth during early life stages?**
Westbrook[^], C., Zyck^{*}, A., Puritz, J.B. National Shellfishery Association Meeting. Charlotte, NC.
- 2024 **The phenotypic effects of diel-cycling of dissolved oxygen and pH across populations of eastern oyster larvae**
Randall[#], C., Wildes[^], E., Guidry^{*}, M.E., Puritz, J.B. National Shellfishery Association Meeting. Charlotte, NC.
- 2024 **Understanding how coastal stressors affect selectively bred eastern oysters (*Crassostrea virginica*)**
Wildes[^], E., Bucci[^], J., Randall[#], C., Guidry^{*}, M.E., Puritz, J.B. National Shellfishery Association Meeting. Charlotte, NC.
- 2024 **Exploring genetic diversity and population differentiation of horseshoe crabs in southern New England through ddRAD sequencing**
Santiago[^], H., Green^{*}, J.M., Barret^{*}, G., Ameral^{*}, N., Puritz, J.B. SACNAS National Diversity in STEM Conference. Portland, OR.
- 2023 **The effects of diel-cycling acidification and hypoxia across multiple developmental stages of the eastern oyster (*crassostrea virginica*)**
Zyck^{*}, A., Puritz J. B. National Shellfishery Association Meeting. Baltimore, MD.
- 2023 **Diel-cycling hypoxia and Acidification increases susceptibility to Roseovarius Oyster Disease in *Crassostrea virginica***
Kulesh[^], K., Zyck^{*}, A., Puritz J. B., Gomez-Chiarri, M. National Shellfishery Association Meeting. Baltimore, MD.
- 2023 **Multiple coastal stressors induce differential RNA expression in larval oysters**
Guidry^{*}, M.E., Harvey, J. A., Lotterhos, K. E., Schedl[#], M., Puritz, J. B. National Shellfishery Association Meeting. Baltimore, MD.
- 2022 **Comparing extracted DNA/RNA concentration from oyster gill & mantle tissues utilized in EecSeq for exome surveying**
Santiago[^], H., Green^{*}, J.M., Puritz, J.B. SACNAS National Diversity in STEM Conference. Puerto Rico.
- 2021 **Unlocking the Exome: exploring de novo assembly for capture sequencing**
Green^{*}, J. M., and Puritz J. B. AGA Presidential Symposium- Conservation Genomics: Current Applications and Future Directions. Snowbird, UT.
- 2021 **The effect of environmental parameters on *Crassostrea virginica* shell sizes.**
Satkowski[^], S., Zyck^{*}, A., Puritz, J.B. National Shellfishery Association Meeting. Virtual.
- 2021 **Investigating the effects of coastal stressors on the genomic variation of oyster populations in Narragansett Bay**
Zyck^{*}, A., Stevick, R., Gallagher^{^#}, A., Padro[^], N., Gomez-Chiarri, M., Puritz J. B. National Shellfishery Association Meeting. Virtual.
- 2020 **Investigating the effects of coastal stressors on the connectivity of oyster populations in Narragansett Bay**
Zyck^{*}, A., Gallagher[#], A., Padro[#], N., Puritz J. B. National Shellfishery Association Meeting. Baltimore, MD.

Cancelled due to Covid-19

2020 **CASE-ing out the transcriptomics of multiple coastal anthropogenic stressors on eastern oyster larvae**
Schedl#, M., Harvey, J. A., Lotterhos, K. E., Puritz, J. B. National Shellfishery Association Meeting. Baltimore, MD.

Cancelled due to Covid-19

2020 **Understanding the effects of multiple stressors on oyster larvae**
Tarrant#, M., Zyck*, A., Schedl#, M., Puritz J. B. National Shellfishery Association Meeting. Baltimore, MD.

Cancelled due to Covid-19

2019 **Assessing the evolutionary response of eastern oyster larvae to exposure to coastal acidification and sewage effluent: a CASE study**
Puritz, J. B., Harvey, J. A., Lotterhos K.E. Gordon Research Conference: Ecological and Evolutionary Genomics.

2019 **Expressed Exome Capture Sequencing: a method for cost-effective exome sequencing for all organisms**
Puritz, J. B., and Lotterhos K.E. Evolution. Providence, RI.

2019 **CASE-ing out the transcriptomics of multiple coastal stressors**
Schedl#, M., Harvey, J. A., Lotterhos, K. E., Puritz, J. B. Evolution. Providence, RI.

2019 **Understanding the impacts of sewage effluent on the genomic diversity and population connectivity of the fiddler crab (*Uca rapax*)**
Zyck*, A. H., Dimens, P., Willis, S., Portnoy, D., Puritz J. B. Evolution. Providence, RI.

2019 **An Analysis of Population Structure, Genetic Variation and Outlier SNPs in the Eastern Oyster, *Crassostrea virginica***
Weedop, K. B., Freeman, K., Roberts, E., Proestou, D., Puritz, J. B., Gomez-Chiarri, M., and Lotterhos K. E. Evolution. Providence, RI.

2019 **Unlocking the exome: exploring de novo assembly options for expressed exome capture sequencing**
Green*, J. M., and Puritz J. B. Evolution. Providence, RI.

2018 **Unlocking the Exome: exploring de novo assembly options for capture sequencing**
Green#, J. M., and Puritz J. B. Western Society of Naturalists.

MENTORING

Undergraduate

2024- Juliana Bucci, Cierra Westbrook, Chris Delano, India Greene
2023-2024 Hector Santiago, Lauren Albanese, Cierra Westbrook, Erin Wildes, Juliana Bucci
2022-2023 Hector Santiago, Lydia Cross, Ben Poepsel, Hailee Carlson, Halle Peterlin
2021-2022 Anna Sorgie, Madeline Kistler, Joseph Maiorano, Finn Harty
2020-2021 Nina Padro, Anna Sorgie, Seraphina Satkowski, Allison Gallagher, Nadia Moss
2019-2020 Melati Tarrant, Allison Gallagher, Nina Padro
2018-2019 Emma Ferrante, Kevin Dyer, Marygrace Trousdell
2017-2018 Elliot Vosburgh, Kate Leiden

Primary Graduate Advisor

2024- Olivia Nieves PhD. Biological and Environmental Sciences
2023- Cassandra Cerasia PhD. Biological and Environmental Sciences
2021-24 Gabriel Barrett MS. Biological and Environmental Sciences
2020- Megan Guidry PhD. Biological and Environmental Sciences

2019-22	Natalie Ameral	MS.	Biological and Environmental Sciences
2019-	Jacob Green	PhD.	Biological and Environmental Sciences
2018-	Amaelia Zyck	PhD.	Biological and Environmental Sciences

Graduate Committees

2024-	Karis Kang, PhD.	Biological and Environmental Sciences
2022-	Leann Biancani, PhD.	Biological and Environmental Sciences
2022-	Jill Ashe, PhD.	Biological and Environmental Sciences
2022-	Danielle Becker, PhD.	Biological and Environmental Sciences
2022-	Michelle Hauer, PhD.	Graduate School of Oceanography
2022-24	Eren Ada, PhD.	Biological and Environmental Sciences
2020-21	Tyler Devos, M.S.	Biological and Environmental Sciences
2019-24	Benjamin Ha, PhD.	Ecology and Evolutionary Biology (UCLA)
2019-23	Ian Bishop, PhD.	Graduate School of Oceanography
2019-21	Samuel Gurr, PhD.	Biological and Environmental Sciences
2018-21	Erin Borbee, PhD.	Biological and Environmental Sciences
2019	Martin Hellwig, PhD.	Computer Science.
2018-19	Evelyn Takyi, MS.	Biological and Environmental Sciences
2014-15	Patricia M. Cockett, MS.	Biology (Texas A&M Corpus Christi)

Postdoctoral scholars

2024-	Dr. Coline Caillon
2022-23	Dr. Alexandra Hooks

PROFESSIONAL SERVICE

2022-	The Evolving Seas RCN: Training and Integration Workshop (Website) Participant
2022-2023	Building Eelgrass Resiliency along the Mid-Atlantic and Southern New England Coast Workshop Series (Website) Participant
2021-2023	The Evolving Seas RCN: Virtual Lab Meeting Training Program
2021-	Biological and Environmental Science Graduate Program Leadership Committee Coordinator of the Evolution and Marine Biology Graduate Specialization
2021	MarineOmics Panel Seminar on GBS/RADseq genotyping pipelines (Video) Invited Panelist
2021-	MarineOmics Working Group (Website) Faculty advisor
2021-	GSO Science Saturday Lab had an interactive research experience in Blount Aquarium
2020-2021	The Evolving Seas RCN: 2020 Virtual Lab Meeting Training Program Host and mentor for PhD student Camila Mac Loughlin Aleman, Centro de Investigaciones Biológicas del Noroeste
2020-	Synthesis and outlook for future improvements in understanding and application of the biology of sea star wasting disease Working Group (Website) Participant

- 2018- **Functional Re-annotation of Oyster Genomes with Epigenetic Resources (FROGER) working group**
Participant
- 2018- **Moorea Coral Reef LTER Connectivity working group**
Participant
- 2018- **Equity, inclusion, diversity committee, Biological Sciences**
Member
- 2018- **Committee to establish a graduate Data Science Program at URI**
Member
- 2017- **Eastern Oyster Genome Consortium working group**
Participant, leading genome description manuscript
- 2014- **dDocent RADseq Bioinformatics pipeline**
Developer, software has over 85,000 downloads and website with 95,000 visitors
- 2019 **Faculty host at URI Welcome Day**
- 2018-2019 **Ad hoc committee for Cruickshank Lecture, Biological Sciences**
Chair
- 2018 **The power of RNA: Broad application of RNA-based sequencing for transcriptome and genome analysis**
Science Webinar- AAAS ([LINK](#))
- 2017 **Faculty host at URI Fall Open House (both events)**

Peer Reviewer

<i>Proceedings of the Royal Society B</i>	<i>Ecology and Evolution</i>	<i>Evolution</i>
<i>JEMBE</i>	<i>MEPS</i>	<i>Biological Invasions</i>
<i>Molecular Ecology</i>	<i>Journal of Heredity</i>	<i>Marine Biology</i>
<i>BioScience</i>	<i>PLoS One</i>	<i>Conservation Genetics</i>
<i>Conservation Genetics Resources</i>	<i>Heredity</i>	<i>Transactions of AFS</i>
<i>Aquatic Biology</i>	<i>Genetica</i>	<i>PeerJ</i>
<i>PLoS Genetics</i>	<i>Axios</i>	<i>Biology Letters</i>
<i>Nature Protocols</i>	<i>Open Science</i>	<i>Journal of Fish Biology</i>
<i>Molecular Ecology Resources (X6)</i>	<i>Genome Biology and Evolution</i>	<i>Scientific Reports</i>
<i>Methods in Ecology and Evolution</i>	<i>Hydrobiologia</i>	<i>Diversity and Distribution</i>
<i>G3: Genes/Genomes/Genetics</i>	<i>New Zeal J Mar Fres</i>	<i>NSF: Bio. Oce.</i>
<i>Ecological Applications</i>	<i>Washington Sea Grant</i>	<i>NSF</i>
<i>Louisiana Sea Grant</i>	<i>Graduate Women in Science</i>	

AWARDS AND HONORS

- 2015 **Top 300 Reviewers of Molecular Ecology**
- 2009,11 **Best Paper Honorable Mention, Albert L. Tester Memorial Symposium**
- 2005-06 **National Science Foundation Graduate Research Fellowship Honorable Mention**

PUBLIC OUTREACH

- 2017- **Skype a Scientist**
The Skype a Scientist matches scientists with classrooms around the world! Scientists will skype into the classroom for 30-60 minute Q and A sessions that can cover the scientist's expertise or what it's like to be a scientist

- 2016- **Scientist Pen pal**
Working with Letters to a Pre-Scientist (<http://www.prescientist.org>) to connect with middle school students who want to learn more about being a scientist
- 2007- **Underwater Photographer**
Photo chosen for "Featured Image" for *PeerJ* (Nov 2013)
Photo chosen for "Image of the Week" for *Nature Communications* (March 2011)
Images have appeared in several publications including NOAA public reports, the Division of Land and Natural Resources Hawaii outreach posters, and several HIMB and UC Davis press releases.
- 2016 **Nahant Coastal BioBlitz**
Sponsored by the Ocean Genome Legacy and Northeastern University Marine Science Center- Volunteer Photographer and Scientist
- 2016 **BLUE On Tour Film Festival-Corpus Christi**
Sponsored by the Harte Research Institute-Volunteer Social Media Coordinator
- 2010-11 **Participant in the Pacific Symposium for Science and Sustainability**
Judged and moderated a high school science competition
- 2007-11 **Scientific Blogger**
Created a blog to document the experience of being an NSF EAPSI fellow in Australia.
jbpaustralia2011.wordpress.com
Created a blog to document field research experience aboard the NOAA R/V Hi'ialakai, Northwestern Hawaiian Islands Research cruise in September of 2007.
<https://sites.google.com/site/jpuritz/cruise>
Google changed this service and formatting for this webpage is no longer correct

TRAINING AND CERTIFICATIONS

- 2014-16 **Texas A&M Corpus Christi Scientific Diver (AAUS Reciprocity)**
- 2005-12 **University of Hawaii Scientific Diver (AAUS Reciprocity)**
- 2007 **NOAA Advanced Coxswain**