

# JAMES L. DIMOND

## Education

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University of Washington	Seattle, WA	Aquatic & Fishery Sciences	Ph.D. 2019
University of Rhode Island	Kingston, RI	Biology	M.S. 2006
University of Vermont	Burlington, VT	Natural Resources	B.S. 2002

## Positions Held

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2019-present	<b>Postdoctoral Scholar</b> , Puget Sound Restoration Fund
2018-present	<b>Instructor</b> , Department of Environmental Sciences, Western Wash. Univ.
2012-present	<b>Marine Technologist</b> , Shannon Point Marine Center, Western Wash. Univ.
2008-2013	<b>Research Technologist</b> , Shannon Point Marine Center, Western Wash. Univ.
2005-2007	<b>Biological Collector</b> , Marine Biological Laboratory, Woods Hole, Mass.
2003-2005	<b>Graduate Teaching Assistant</b> , Dept. of Biological Sci., Univ. of Rhode Island
2004	<b>Research Technician</b> , U.S. EPA National Coastal Assessment, Rhode Island
2002-2003	<b>Research Assistant</b> , Dept. of Biological Sciences, University of Rhode Island

## Peer-Reviewed Publications

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\*undergraduate co-author

- Macrander JC, **Dimond JL**, Bingham BL, Reitzel AM (2018) Transcriptome sequencing and characterization of *Symbiodinium muscatinei* and *Elliptochloris marina*, symbionts found within the aggregating sea anemone *Anthopleura elegantissima*. *Marine Genomics* 37:82-91
- Dimond JL**, \*Gamblewood SK, Roberts SB (2017) Genetic and epigenetic insight into morphospecies in a reef coral. *Molecular Ecology* 26:5031-5042
- Dimond JL**, \*Orechovesky S, \*Oppenheimer J, \*Rodríguez-Ramos J, Bingham BL (2017) Photophysiology and hydrogen peroxide generation of the dinoflagellate and chlorophyte symbionts of the sea anemone *Anthopleura elegantissima*. *Journal of Experimental Marine Biology and Ecology* 489:43-47
- Dimond JL**, Roberts SB (2016) Germline DNA methylation in reef corals: patterns and potential roles in response to environmental change. *Molecular Ecology* 25:1895-904
- Bingham BL, **Dimond JL**, Muller-Parker G (2014) Symbiotic state influences life-history strategy of a clonal cnidarian. *Proceedings of the Royal Society of London B* 281:20140548
- Dimond JL**, \*Pineda RR, \*Ramos Z, Bingham BL (2013) Relationships between host and symbiont cell cycles in sea anemones and their symbiotic dinoflagellates. *Biological Bulletin* 225:102-112
- Dimond JL**, Bingham BL, Muller-Parker G, Oakley CA (2013) Symbiont physiology and population dynamics before and during symbiont shifts in a flexible algal-cnidarian symbiosis. *Journal of Phycology* 49:1074-1083
- Dimond JL**, Kerwin AH, Rotjan RD, Sharp K, Stewart FJ, Thornhill DJ (2013) A simple temperature-based model predicts the upper latitudinal limit of the temperate coral *Astrangia poculata*. *Coral Reefs* 32:401-409
- Dimond JL**, \*Holzman BJ, Bingham BL (2012). Thicker host tissues moderate light stress in a cnidarian endosymbiont. *Journal of Experimental Biology* 215: 2247-2254
- Dimond JL**, Bingham BL, Muller-Parker G, \*Wuesthoff K, Francis L (2011) Seasonal stability of a flexible algal-cnidarian symbiosis in a highly variable temperate environment. *Limnology and Oceanography* 56:2233-2242
- Bingham BL, \*Freytes I, \*Emery M, **Dimond J**, Muller-Parker G (2011) Aerial exposure and body temperature of the intertidal sea anemone *Anthopleura elegantissima*. *Invertebrate Biology* 130:291-301
- Rotjan RD, **Dimond JL** (2010) Discriminating causes from consequences of persistent parrotfish corallivory. *Journal of Experimental Marine Biology and Ecology* 390:188-195

- Carrington E, Moeser GM, **Dimond J**, Mello JP, Boller ML (2009) Seasonal disturbance to mussel beds: Field test of a mechanistic model predicting wave dislodgment. *Limnology and Oceanography* 54:978-986
- Dimond J**, Carrington E (2008) Symbiosis regulation in a facultatively symbiotic temperate coral: zooxanthellae division and expulsion. *Coral Reefs* 27:601-604
- Dimond J**, Carrington E (2007) Temporal variation in the symbiosis and growth of the temperate scleractinian coral *Astrangia poculata*. *Marine Ecology Progress Series* 348:161-172
- Rotjan RD, **Dimond JL**, Thornhill DJ, Leichter JJ, Helmuth B, Kemp DW, Lewis SM (2006) Chronic parrotfish grazing impedes coral recovery after bleaching. *Coral Reefs* 25:361-368

#### *In review*

- Dimond JL**, Roberts SB (in review) Convergence of DNA methylation profiles in a novel environment in the reef coral *Porites astreoides*. *Frontiers in Marine Science*

### Non Peer-Reviewed and Technical Publications

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- Rotjan RD, Gawne PF, eds. (2011) Smithsonian Institution Caribbean Coral Reef Ecosystems (CCRE) reef assessment and monitoring plan, Carrie Bow Cay, Belize. With key contributions from **J. Dimond**, W. Flaherty, Z. Foltz, B. Helmuth, S. Jones, L. Kaufman, K. Koltz, S. Lewis, V. Paul, S. Sandin, and J. Tschirky. Filed with the Smithsonian Institution and the New England Aquarium. 19 pgs.
- Dimond JL**, Bingham BL (2010) Cliffside Beach woody debris phase III: analysis of sediments and benthic invertebrates following natural relocation of woody debris to adjacent areas. Washington Dept. of Ecology report. 20 pgs.
- Dimond JL**, Bingham BL (2009) Cliffside Beach wood removal phase II: baseline monitoring. NOAA/Whatcom County Marine Resources Committee report. 19 pgs.

### Presentations

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\* undergraduate co-author

- \*Nguyen N, **Dimond J**. (2019) DNA methylation profiling of *Anthopleura elegantissima* using nanopore sequencing. Contributed talk. 2019 ASLO Ocean Sciences Meeting, San Juan, PR
- Dimond J**, Roberts S (2018) Comparative response of DNA methylation to environmental change in the reef coral *Porites astreoides* and its algal endosymbionts. Contributed talk. International Symbiosis Society Congress, Corvallis, OR
- Dimond J**, Roberts S (2018) Response of DNA methylation to environmental change in the reef coral *Porites astreoides*. Contributed talk. Marine Evolution 2018, Strömstad, Sweden
- Macrander J, **Dimond J**, Bingham B, Reitzel AM. (2017). Dueling symbioses: An 'omic perspective into the sea anemone *Anthopleura elegantissima* and their zooxanthellate and zoochorellate symbionts. Poster session. 2017 Society for Integrative and Comparative Biology Meeting, New Orleans, LA
- Dimond J**, Bingham B, Muller-Parker G, Francis L (2014) Cnidarian-algal symbioses in the Pacific Northwest. Invited talk. Skagit Valley College, Mt. Vernon, WA
- Jones MS, Rotjan R, Gawne P, Foltz Z, **Dimond J**, Masi J, Canty S. (2014) Comparing recovery rates among fishes with various levels of protection inside and outside a no-take MPA in Belize. Poster session. 2014 Benthic Ecology Meeting, Jacksonville, FL
- Dimond J**, \*Holzman B, Bingham B (2012) Do thicker host tissues reduce symbiont light stress in cnidarian-algal symbioses? Poster session. 2012 ASLO Ocean Sciences Meeting, Salt Lake City, UT
- Kerwin A, Rotjan R, **Dimond J**, Thornhill D, Stewart F, Distel D, Sharp K (2011) Variation in bacterial assemblages associated with different symbiotic states of the facultatively symbiotic coral, *Astrangia poculata*. Boston Bacterial Meeting, Boston, MA
- Dimond J** (2011) *Astrangia* distribution and ecology: progress to date and next questions. Contributed talk. *Astrangia* Workshop, Ocean Genome Legacy, Ipswich, MA
- Dimond J**, \*Holzman B, Bingham B (2011) The role of the host in the photophysiology of *Elliptochloris marina*, chlorophyte symbiont of *Anthopleura* spp. sea anemones. Contributed talk. 2011 Western Society of Naturalists meeting, Vancouver, WA

Bingham BL, **Dimond J**, Muller-Parker G (2011) Symbiosis, growth, fission, and sexual reproduction in *Anthopleura elegantissima*. Contributed talk. 2011 Western Society of Naturalists meeting, Vancouver, WA

**Dimond J**, Bingham B, Muller-Parker G, \*Wuesthoff K, Francis L (2009) Seasonal stability of *Anthopleura elegantissima* symbiotic algal populations. Contributed talk. 2009 Western Society of Naturalists meeting, Seaside, CA

Bingham BL, **Dimond J**, Muller-Parker G, Francis L (2009) How does symbiont complement affect reproduction in *Anthopleura elegantissima*? Contributed talk. 2009 Western Society of Naturalists meeting, Seaside, CA

**Dimond J**, \*Freytes I, \*Gutierrez A, Francis L (2009) Environmental gradients and zonation of two algal symbionts in an intertidal sea anemone. Poster session. 2009 Northwest Algal Symposium, Coupeville, WA

**Dimond J**, Carrington E (2005) Symbiosis and growth of the temperate coral *Astrangia poculata*. Invited talk. Shannon Point Marine Center, Western Washington University, Anacortes, WA

Rotjan RD, **Dimond JL**, Lewis SM (2007) Relationships between coral quality and parrotfish corallivory: A long-term predator-exclusion experiment on the Belizean barrier reef. Contributed talk. 2007 ESA/SER Joint Meeting, San Jose, CA

\*Devault AM, Staroscik AM, **Dimond J**, Nelson DR (2005) Method development and characterization of bacterial diversity on *Astrangia poculata*. Poster presentation. University of Rhode Island Summer 2005 REU presentations, Kingston, RI

**Dimond J**, Carrington E (2005) Symbiosis and growth of the temperate coral *Astrangia poculata*. Invited talk. Marine Resources Center, Marine Biological Laboratory, Woods Hole, MA

**Dimond J**, Carrington E (2005) Symbiosis and growth of the temperate coral *Astrangia poculata*. Contributed talk. 2005 Benthic Ecology Meeting, Williamsburg, VA

**Dimond J**, Carrington E (2005) Symbiosis and growth of the temperate coral *Astrangia poculata*. Contributed talk. 2005 American Academy of Underwater Sciences meeting, Mystic, CT

**Dimond J**, Mello J, Gomez-Chiarri M, Carrington E (2003) Dynamics of parasite prevalence in *Mytilus edulis* on Rhode Island rocky shores. Poster session. 2003 Benthic Ecology Meeting, Groton, CT

## Service and Outreach

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Peer review (2007-present): Molecular Ecology (3), Journal of Experimental Marine Biology and Ecology (2), Marine Ecology (2), Revista de Biología Tropical (1), Symbiosis (1), PLoS One (1), Proceedings of the Royal Society B (1), Communications Biology (1), Marine Ecology Progress Series (1), The Biological Bulletin (1), Nature Climate Change (1), Frontiers in Marine Science (1)

Guest editorship: Northeastern Naturalist (Winter 2017)

Scientific Diving Control Boards: Shannon Point Marine Center (2012-present); Marine Biological Laboratory (2007)

Guest instructor at science camp for children of Skagit County migrant workers (2011, 2012)

Shannon Point Marine Center representative at Compass2Campus, an introduction to college opportunities for at-risk youth in local communities (2012, 2013)

## Teaching

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### Western Washington University

2018-2019	ESCI 426 Marine Invertebrates and Their Environment	instructor of record
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### University of Rhode Island

2005	BIO 457 Marine Ecology Lab	instructor of record
2003-2005	BIO 101 Introductory Biology	laboratory instructor
2004	BIO 262 Introduction to Ecology	teaching assistant (grader)

## Mentoring

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### Undergraduate

Nhung Nguyen (Hobart and William Smith Colleges), Research Experiences for Undergraduates (2018)  
*DNA methylation profiling of Anthopleura elegantissima using nanopore sequencing*

Glauco Rivera (University of Puerto Rico, Mayagüez), Research Experiences for Undergraduates (2017)  
*Genetic variation in dinoflagellate endosymbionts of the reef coral Porites astreoides on the Belize Barrier Reef*

Sanoosh Gamblewood (Western Wash. University), Research Experiences for Undergraduates (2016)  
*Genetic diversity of Symbiodinium spp. hosted by Caribbean branching corals of the genus Porites*

### **Graduate**

Natalie Coleman (Western Wash. University), graduate committee member (2017-2018)  
*The effect of ocean acidification on photosynthetic performance and symbiont shifts in a model cnidarian-algal symbiosis*

### **Awards**

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2016 Hall Conservation Genetics Research Award, \$4,900  
 2016 International Society for Reef Studies Graduate Fellowship, \$2,500  
 2014 John E. Halver Fellowship, UW School of Aquatic and Fishery Sciences, \$60,000  
 2014 ARCS Foundation Seattle Chapter Fellowship, \$17,500  
 2003 American Academy of Underwater Sciences Scholarship, \$3,000

### **Professional Qualifications**

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2014	Licensed Boat Captain	U.S. Coast Guard Merchant Mariner Credential, 50 Ton Master
2007	Divemaster	Professional Association of Diving Instructors (PADI)
2000	Scientific Diver	American Academy of Underwater Sciences (AAUS)