

SHAWN M. ARELLANO

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PROFESSIONAL APPOINTMENTS

- 2018-present **Assistant Professor**, Department of Biology, Western Washington University (WWU), Bellingham, WA
- 2012-present **Guest Investigator**, Woods Hole Oceanographic Institution (WHOI), Woods Hole, MA
- 2015-2018 **Adjunct Faculty**, Department of Biology, Western Washington University (WWU), Bellingham, WA
- 2012-2018 **Marine Scientist**, Shannon Point Marine Center (SPMC), WWU, Anacortes, WA
- 2010-12 **Postdoctoral Scholar**, Woods Hole Oceanographic Institution, Woods Hole, MA
Supervisor: Dr. Lauren S. Mullineaux, Senior Scientist
- 2009-10 **Postdoctoral Fellow**, Hong Kong University of Science and Technology (HKUST), Clear Water Bay, Hong Kong SAR, China. Supervisor: Prof. Pei-Yuan Qian
- 2007-8 **Knauss Marine Policy Fellow, Co-coordinator of Ecosystem Research Program**, National Oceanic and Atmospheric Administration (NOAA), Silver Spring, MD
Supervisor: Dr. Leon Cammen, Director of National Sea Grant
- 2002-8 **National Science Foundation Graduate Research Fellow & Ford Foundation Predoctoral Fellow**, University of Oregon (UO), Coos Bay, OR
Supervisor: Prof. Craig M. Young

EDUCATION

- 2008 **Ph.D., Biology** (Marine Biology), Oregon Institute of Marine Biology (OIMB), UO;
Advisor: Dr. Craig M. Young
- 2000 **B.S., Biology** (Dual emphases: Organismal Biology, Cell Biology), Univ. of Kansas (KU);
Advisor: Dr. Daphne G. Fautin

GENERAL RESEARCH INTERESTS

- **Marine invertebrate larval ecology:** larval behavior in flow, vertical distribution of larvae, larval transport, impacts of climate change on larval interactions and processes
- **Deep-sea ecology:** Developmental, larval, & community ecology at hydrothermal vents & cold seeps
- **Developmental ecology:** microbial-invertebrate interactions, induction of metamorphosis, developmental transcriptomics, larval stress and latent effects
- **Community dynamics:** Pre- and post-settlement factors affecting recruitment, physiological ecology, reproductive biology

TEACHING

Courses Taught at Western Washington University:

- 2019 Biometrics (Biol 340,
- 2018 Marine Ecology (Biol 407, 5 credits)
- 2012-present [Marine Science Scholars Program](#) (quarterly course series for freshmen & sophomores):
 - [Marine Habitat Diversity](#) (Biol 110, 4 credits)
 - [Current Topics in Marine Science](#): Land-use impacts (Winter: Biol 111, 1 credit)
 - Current Topics in Marine Science: Marine pollution (Spring: Biol 111, 1 credit)
 - Current Topics in Marine Science: Global Fisheries (Fall: Biol 112, 1 credit)
 - Current Topics in Marine Science: Climate Change (Winter: Biol 112, 1 credit)
 - Current Topics in Marine Science: Global change (Spring: Biol 112, 1 credit)
- 2016 Deep-Sea Ecology (Biol 497/597, 3 credits)
- 2015, 16 Biology Research Participation (Biol 395), Biology Research (Biol 494), and Biology Research Communication (Biol 495)
- 2014 State of the Salish Sea Ecosystem (ESCI 497/597K, 5 credits)
- 2014 Ecology of Local Marine Habitats (Biol 197), College Quest 1-week course

Invited Guest Lectures:

- 2014 Deep-Sea Ecology, Friday Harbor Labs, Instructors: Craig Smith, Ken Halanych (1 lecture)
- 2012 COSEE-Community College Faculty Teaching Institute, organizer: Jude Apple (1 lab)
- 2012 Marine Biology, Wheaton College, Instructor: Larissa Williams (1 lecture, 1 lab)
- 2011 Marine Biology, Wellesley College, Instructor: Marianne Moore (1 lecture)
- 2011 Marine Inverts of Cape Cod, WHOI/MIT, Instructor: Stace Beaulieu (1 lecture)
- 2011 Oceanography short course for British Petroleum employees, WHOI (2 lectures)
- 2009, 10 Introduction to Marine Biology, HKUST, Instructor: Pei-Yuan Qian (9 lectures & 3 exams)
- 2009 Deep-Sea Biology, OIMB, Instructor: Craig Young (1 lecture)

MENTORING

Undergraduate Research Mentoring:

- 2018 Laila Brubaker, St. Olaf College, Research Experience for Undergraduates (REU) at SPMC
- 2018 Abigail Ernest-Beck, WWU, lab assistant
- 2017 Phia Yang, Univ. of Wisconsin, REU
- 2017 Aiyi Wu, Binghamton University, REU at SPMC
- 2017 Patria Alponente (co-advised with Brady Olson), University of Puerto Rico, REU at SPMC
- 2017 Ruby Jones (co-advised with Art Faculty), Western Washington University, Fine Arts Intern at SPMC
- 2015-2016 Dana Eckert, WWU, Huxley Colleges of Environmental Sciences Internship
- 2015 Jacob Krodell, Seattle Pacific University, REU at SPMC
- 2015 Jake Lawlor, University of Texas-Austin, Multicultural Initiatives in Marine Science Undergraduate Program (MIMSUP) at SPMC
- 2015 Chelsea Collins, Western Washington University, MIMSUP at SPMC
- 2014 Guadalupe Cordoba-Ibarra, St. Mary's University, REU at SPMC
- 2014 Torian Jones, Norfolk State University, MIMSUP at SPMC
- 2013 Tyler Carrier, University of Maine, REU at SPMC
- 2013 Samantha Peart, North Carolina State University, MIMSUP at SPMC
- 2012 Stephen Hesterberg, DePauw University, research assistant at WHOI
- 2011 Jacob Cravens, Boston College, Partnership Education Program at WHOI
- 2009-10 Perry Tang, HKUST, research assistant at HKUST

Western Washington University Master's Degree Students (major research advisor):

- 2018-present Michelle McCartha, Biology/Marine and Estuarine Science Program (MESP)
(M.S., expected Spring 2020)
- 2017-present Jake Lawlor, Biology/MESP (M.S., expected Spring 2019)
Most Inspirational Washingtonian of the Day (awarded by Governor Jay Inslee)
- 2016-18 Brooke McIntyre, Environmental Science (M.S., Spring 2018)
2018 WWU Outstanding Graduate Student Award
current position: Research Associate 1, Western Washington University
- 2013-15 Shannon Buckham, Environmental Science (M.S., Fall 2015)
current position: Water Resources Specialist, Swinomish Tribal Community

Western Washington University Master's Degree Student Thesis Committees:

- 2018-present Hana Busse, Biology/MESP
- 2017-present Katie Mills-Orcutt, Biology/MESP
- 2017-present Caitlin O'Brien, Biology/MESP
- 2017-present Amanda Stromecki, Biology
- 2015-present Geoffrey Mayhew, Biology/MESP
- 2016 Paul Pratt, Biology/MESP (withdrew)
- 2012-2014 Yolimar Rivera, Environmental Science/MESP

Postdoctoral Researchers:

- 2016 Dr. Katherina Schoo, Shannon Point Marine Center, WWU
current position: Intergovernmental Oceanographic Commission of UNESCO

FELLOWSHIPS & AWARDS

- 2013 Selected as participant in NSF-funded Alvin Science Verification Cruise (cruise cancelled)
- 2010-12 Woods Hole Oceanographic Institution Postdoctoral Scholarship
- 2007 Dean John A. Knauss Marine Policy Fellowship, National Sea Grant, NOAA
- 2002-8 Ford Foundation Predoctoral Fellowship for Minorities
- 2002-7 National Science Foundation Graduate Research Fellowship
- 2006 Monterey Bay Aquarium Research Institute Summer Internship
- 2002/3 American Society for Cell Biology FHL Summer Course Awards
- 2002 Graduate Teaching Fellowship, University of Oregon
- 2002 University of Oregon General Scholarship
- 2001 Minority Summer Fellowship, Woods Hole Oceanographic Institution, MA
- 2000/1 Assn. for the Sciences of Limnology & Oceanography (ASLO) Multicultural Program
- 2000 Multicultural Initiatives in Marine Science Undergraduate Program (MIMSUP), Shannon Point Marine Center (SPMC), Western Washington University, WA
- 2000 McNair Scholar, University of Kansas

GRANTS AWARDED

Current Awards

- 2019 NSF-RUI Collaborative: Dispersal depth and the transport of deep-sea methane-seep larvae around a biogeographic barrier. (**Co-PI**, Lead PI: C. M. Young, UO, Co-PIs: Roy He, Dave Eggleston, NC State). Start date: August 2019.
- 2018 NSF-RUI-Collaborative: The impact of symbiont-larval interactions on species distributions across southwestern Pacific hydrothermal vents (**Co-PI**, Lead PI: Roxanne Beinart, URI, Co-PI: C. M. Young, UO)
- 2015 NSF-RUI-1538626: Will climate change cause 'lazy larvae'? Effects of climate stressors on larval behavior and dispersal. (**Lead PI**, Co-PIs Brady Olson & Sylvia Yang)

Past Awards

- 2015 RSP Grant-in-Aid of Research: Early colonization of microbial biofilms and microfauna at Mariana Arc Hydrothermal Vent Systems.
- 2014 RSP Small Grant for publication costs to *Proc. Roy. Soc. B*.
- 2014 NSF-1418709: An imaging center to support research across multiple scales at the Shannon Point Marine Center. (**Co-PI**, Lead PI: Brian Bingham)
- 2013 NSF-1318278: FSML Improvements: Provision of a molecular ecology laboratory at the Shannon Point Marine Center. (**Lead PI**, Co-PI: Robin Kodner, Steve Sulkin)
- 2013 Bering Sea Foundation: Ocean acidification effects on crab larvae. (PI Steve Sulkin)
- 2012 Travel Stipends, Society of Integrative and Comparative Biology.
- 2011-12 Coastal Ocean Institute, WHOI :Can waterborne settlement cues trigger the larval transition from the plankton to the seafloor? (**Lead PI**, co-PI L. Mullineaux)

STUDENTS' GRANTS AWARDED

- 2018 WWU Fund for the Enhancement of Graduate Research (PI: Jake Lawlor)
- 2018 Steve Sulkin Graduate Research Fellowship (PI: Jake Lawlor)
- 2015 WWU Ross Travel Grant (PI: Shannon Buckham)
- 2014 WWU Fund for the Enhancement of Graduate Research (PI: Shannon Buckham)
- 2014 Huxley Grant for graduate research (PI: Shannon Buckham)

PUBLICATIONS CURRENTLY IN PREP (+Undergrad and **Grad student co-authors)

24. McIntyre, Brooke A.***, E.E. McPhee-Shaw, M.B.A. Hatch, SM Arellano. *In prep* for Estuaries and Coasts. Current speed affects the vertical distribution of Olympia oyster (*Ostrea lurida*) larvae in Fidalgo Bay, WA.
23. Aponte, PI+, P Yang+, **SM Arellano**, BO Olson. *In prep* for Marine Ecology Progress Series. Effect of climate change on *Dendraster excentricus* larval feeding behavior and energy storage.
22. Carrier, T+, **SM Arellano**. *In prep* for Biological Bulletin. Responses of *Dendraster excentricus* larvae exposed to the potential predator *Pleurobrachia bachei*.
21. Buckham, SM**, B Love, MB Olson, S Peart+, **SM Arellano**. *In prep* for Scientific Reports. Ocean acidification affects larval swimming in *Ostrea lurida*, but not *Crassostrea gigas*.

PEER-REVIEWED PUBLICATIONS (*Equal contribution)

20. Young, CM, **SM Arellano**, J-F Hamel, A. Mercier. 2018. Chapter 20. Ecology and Evolution of Larval Dispersal in the Deep Sea *In*: Carrier, T, AM Reitzel, A Heyland (eds) Evolutionary Ecology of Marine Invertebrate Larvae. Oxford University Press.
19. **Arellano SM**, Van Gaest AL, Johnson SB, Vrijenhoek RC, Young CM. 2014. Larvae from deep-sea methane seeps disperse in surface waters. *Proc. Roy. Soc. B*. 281:20133276–20133276 **Featured 'Science Shot' on Science Magazine's website**: <http://tinyurl.com/l3dfu4k>
18. **Arellano, SM***, OO Lee*, FF Lafi, J Yang, Y Wang, CM Young, and P-Y Qian. 2012. Deep sequencing of *Myxilla (Ectyomyxilla) methanophila*, an epibiotic sponge on cold-seep tubeworms, reveals methylotrophic, thiotrophic, and putative hydrocarbon-degrading microbial associations. *Microb. Ecol.* doi: 10.1007/s00248-012-0130-y
17. Young, CM, R He, RB Emler, Y Li, H Qian, **SM Arellano**, A Van Gaest, KC Bennett, M Wolf-Watts, TI Smart, ME Rice. 2012. Dispersal of Deep-Sea larvae from the Intra-American Seas: Simulations of trajectories using ocean models. *Integr. Comp. Biol.* 52(4): 483-496.
16. **Arellano, SM**, AM Reitzel, C Button. 2012. Variation in vertical distribution of sand dollar larvae relative to haloclines, food, and fish cues. *J. Exp. Mar. Biol. Ecol.* 414-415: 28-37.
15. Adams, DK*, **SM Arellano***, B Govenar*. 2012. Larval exchange: vent life in the water column. *Oceanography* 25(1): 256–268. **Recommended by the Faculty of 1000**
14. Govenar, B*, **SM Arellano***, DK Adams*. 2012. Box 1. Rebuilding a vent community: Lessons from the EPR Integrated Study Site. *Oceanography* 25(1)

13. Chen, ZF, K Matsumura, H Wang, **SM Arellano**, X Yan, I Alam, JAC Archer, VB Bajic, PY Qian 2011. Toward an understanding of the molecular mechanisms of barnacle larval settlement: a comparative transcriptomic approach. *PLoS One* 6 (7): e22913.
12. **Arellano, SM**, CM Young. 2011. Temperature and salinity tolerances of embryos and larvae of the deep-sea mytilid mussel "*Bathymodiolus*" *childressi*. *Mar. Biol.* 158 (11): 2481-2493.
11. Zhang, H, YH Wong, H Wang, ZF Chen, **SM Arellano**, T Ravasi, P Qian. 2011. Quantitative proteomics identify molecular targets that are crucial in larval settlement and metamorphosis of *Bugula neritina*. *J. Proteome Res.* 10: 349–360.
10. Diederich, CM, JN Jarrett, OR Chaparro, CJ Segura, **SM Arellano**, JA Pechenik. 2011. The effects of short-term salinity stress on pre- and post-metamorphic growth, survival, and development in three calyptraeid gastropods. *J. Exp. Mar. Biol. Ecol.* 397: 94-105.
9. **Arellano, SM**, CM Young. 2010. Pre- and post-settlement effects on the fine-scale spatial distribution of a cold-seep mussel. *Mar. Ecol. Prog. Ser.* 414: 131-144.
8. Zhang, Y, J Sun, K Xiao, **SM Arellano**, V Thiyagarajan, PY Qian. 2010. 2D gel-based multiplexed proteomic analysis during larval development and metamorphosis of the biofouling polychaete tubeworm *Hydroides elegans*. *J. Proteome Res.* 9: 4851-4860.
7. Zhang, Y, Y Xing, **SM Arellano**, K Xiao, PY Qian. 2010. Comparative proteome and phosphoproteome analyses during cyprid development of the barnacle *Balanus* (= *Amphibalanus*) *amphitrite*. *J. Prot. Res.* 9 (6): 3146–3157.
6. Wong, YH, **SM Arellano**, H Zhang, PY Qian. 2010. Dependency on de novo protein synthesis and proteomic changes during metamorphosis of the marine bryozoan *Bugula neritina*. *Proteome Sci.* 8: 25-38.
5. **Arellano, SM**, CM Young. 2009. Spawning, development, and the duration of larval life in a deep-sea, cold-seep mussel. *Biol. Bull.* 216: 149-162.
4. Van Gaest, AL, CM Young, JJ Young, AR Helms, **SM Arellano**. 2007. Physiological and behavioral responses of *Bathynnerita naticoides* (Gastropoda: Neritidae) and *Methanoaricia dendrobranchiata* (Polychaeta: Orbiniidae) to hypersaline conditions at a brine pool cold seep. *Mar. Ecol.* 28: 199-207.
3. Tyler, PA, CM Young, E Dolan, **SM Arellano**, S Brooke, M Baker. 2007. Gametogenic periodicity in the chemosynthetic cold-seep mussel *Bathymodiolus childressi*. *Mar. Biol.* 150 (5): 829-840.
2. Reitzel, A, J Webb, **SM Arellano**. 2004. Growth, development and condition of *Dendroaster excentricus* (Eschscholtz) larvae reared on natural and laboratory diets. *J. Plankton Res.* 26 (8): 901-908.
1. **Arellano SM**, DG Fautin. 2001. Redescription and range extension of the sea anemone *Exocoelactis actinostoloides* (Wassilief, 1908) with revision of genus *Exocoelactis* (Cnidaria, Anthozoa, Actiniaria). *Zoosystema* 23 (4): 645-657.

INVITED SEMINARS & KEYNOTE PRESENTATIONS

- 2017 Biology Departmental Seminar, Western Washington University, Bellingham, WA
- 2015 Spring Seminar Series, Oregon Institute of Marine Biology, UO, Charleston, OR
- 2014 Deep-Sea Ecology Summer Course, Friday Harbor Labs, University of Washington
- 2013 Hawk Talk, Anacortes High School Honor Society, Anacortes, WA
- 2013 Biology Departmental Seminar, Western Washington University, Bellingham, WA
- 2012 Japan Agency for Marine-Earth Science and Technology, Yokosuka, Japan
- 2012 Biology Departmental Seminar, Bowdoin College, Brunswick, ME
- 2012 Shannon Point Marine Center, Western Washington University, Anacortes, WA
- 2011 Biology Departmental Seminar Series, WHOI, Woods Hole, MA
- 2009 *Keynote presenter*, 4th International Chemosynthetic Based Ecosystems Symposium, Japan
- 2008 Shannon Point Marine Center, Western Washington University, Anacortes, WA
- 2007 Biology Department Graduate Students Association Seminar Series, PSU
- 2005 Spring Seminar Series, Oregon Institute of Marine Biology, UO

CONTRIBUTED PRESENTATIONS

- 2017 Poster presentation, 6th Int'l Symp. on Chemosynthesis-Based Ecosystems, Woods Hole, MA
- 2017 Oral & Poster presentations, XIth International Larval Biology Symposium, Honolulu, HI
- 2014 Oral presentation, Samish Tribe's Fidalgo Bay Science Conference, Anacortes, WA
- 2012 Oral presentation, Ocean Sciences Meeting, Salt Lake City, UT
- 2012 Oral & Poster presentations, SICB Annual Meeting, Charleston, SC
- 2011 Oral presentation, 1st Int'l Sponge Microbiology Symp., Germany (Presenter: On On Lee)
- 2010 Oral presentation, Annual WHOI Postdoctoral Symposium, Woods Hole, MA
- 2010 Oral presentation, 9th International Larval Biology Symposium, Wellington, New Zealand
- 2008 Oral presentation, 8th International Larval Biology Symposium, Lisbon, Portugal
- 2007 Oral presentation, SICB Annual Meeting, Phoenix, AZ
- 2006 Oral & Poster presentations, 7th International Larval Biology Symposium, Coos Bay, OR
- 2005 Oral presentation, 3rd International Vent & Seep Biology Symposium, La Jolla, CA
- 2005 Oral presentation, 34th Benthic Ecology Meeting in Williamsburg, VA
- 2004 Poster presentation, SICB Annual Meeting, New Orleans, LA (Presenter: Nora Terwilliger)
- 2003 Poster presentations (2), 10th Deep-Sea Biology Symposium, Coos Bay, OR
- 2001 Oral presentation, ASLO Aquatic Sciences Meeting, Albuquerque, NM
- 2000 Oral presentation, ASLO International Meeting, Copenhagen, Denmark

GRADUATE STUDENTS' CONTRIBUTED PRESENTATIONS

- 2018 Oral presentation, Brooke McIntyre, Fidalgo Bay Aquatic Reserve Science Symposium, Anacortes, WA
- 2018 Oral presentation, Brooke McIntyre, Salish Sea Ecosystem Conference, Seattle, WA
- 2018 Oral presentation, Brooke McIntyre, National Shellfisheries Association Meeting, Seattle, WA
- 2016 Poster presentation, Shannon Buckham, Whatcom Marine Resources Committee Meeting, Bellingham, WA
- 2015 Oral presentation, Shannon Buckham, Western Society of Naturalists, Sacramento, CA

UNDERGRADUATES' CONTRIBUTED PRESENTATIONS

- 2017 Poster presentation, Jake Lawlor, XIth International Larval Biology Symposium, Honolulu, HI
- 2017 Poster presentation, Dana Eckert, Pacific Estuarine Research Society, Coos Bay, OR
- 2015 Oral presentation, Jacob Krodel, Murdock Undergraduate Research Conference, Portland, OR
- 2015 Oral presentation, Guadalupe Cordoba, Aquatic Sciences Meeting, Granada, Spain
- 2015 Poster, Torian Jones, Aquatic Sciences Meeting, Granada, Spain
- *Outstanding Student Presentation Award-awarded to top 7% of 361 students***
- 2014 Poster, Torian Jones, Pacific Estuarine Res. Society, Newport, OR ***Runner-Up Best Poster***
- 2014 Oral presentation, Samantha Peart, Ocean Sciences Meeting, Honolulu, HI
- 2014 Oral presentation, Tyler Carrier, North American Echinoderm Conference, Pensacola, FL
- 2013 Poster, Samantha Peart, Society for Advancement of Chicanos and Native Americans in Science (SACNAS) annual meeting, San Antonio, TX ***Runner-Up Best Poster***
- 2013 Poster, Samantha Peart, Pacific Estuarine Research Society, Delta, BC
- 2012 Poster, Jacob Cravens, SACNAS annual meeting, Seattle, WA

PROFESSIONAL MEMBERSHIPS

- Deep-Sea Biology Society (2018-present)
- Western Society of Naturalists (2015-2016)
- Society for Integrative and Comparative Biology (2011-12)
- The American Association for the Advancement of Science (2011-12)
- Association for the Sciences of Limnology & Oceanography (2000-01, 2011-12)

DEEP-SEA RESEARCH CRUISES & SUBMERSIBLE EXPERIENCE

Co-Chief Scientist on:

-2 cruises in 2004 to Gulf of Mexico Cold Seeps on Louisiana Slope

Scientist on:

-17 research cruises since 2002

-10 ships: R/V K.O.K. (Hawaii Undersea Research Laboratories), R/V Seward Johnson I & II (HBOI), R/V Walton Smith (U. Miami), R/V Gyre (Texas A&M University), R/V Pelican (LUMCON), R/V Point Lobos (MBARI), R/V Western Flyer (MBARI), R/V Aegaeo (Hellenic Centre for Marine Research), R/V Atlantis, R/V Roger Revelle (Scripps)

-5 Habitats: Deep Hawaiian slope off Kona, Gulf of Mexico Cold Seeps on Louisiana Slope & Florida Escarpment, Monterey Canyon Whale Falls, Red Sea, Mariana Arc & Back Arc

Submersible Experience:

-22 dives (15 as chief observer & 7 as observer) in 4 submersibles (20 dives in Johnson Sea-Links I & II, 1 dive in DSV Pisces V, 1 dive DSV Alvin)

-Experience using ROV Tiburon (MBARI), AUV Sentry (WHOI), ROV Jason (WHOI)

SCIENTIFIC COMMUNITY SERVICE

- NSF GEO-BIO-OCE Panel member
- Journal reviewer: Aquatic Biology, PLoS One, Journal of Experimental Marine Biology and Ecology, Marine Ecology Progress Series, Deep-Sea Research, Canadian Journal of Zoology
- Grant/Scholarship Reviewer: NSF GEO-BIO-OCE, NOAA Holling's Scholarship, MIMSUP, REU
- External thesis examiner: University of Victoria (2016)
- Meeting Mentor through ASLO Multicultural Program, Ocean Sciences, Salt Lake City, UT (2012)
- Chair for Dispersal of Marine Organisms complementary session at SICB meeting (2012)
- Member, Population Connectivity Working Group, International Network for Scientific Investigations of Deep-Sea Ecosystems (INDEEP) (2011-present)
- Invited panelist, 3rd Annual Expanding Opportunities Conference, Jackson State University (2001)

INSTITUTIONAL SERVICE

Western Washington University:

- Committee for curriculum development for the Marine and Coastal Science major at WWU (2018-present)
- Director of Marine Sciences at WWU hiring committee (Fall 2018 - present)
- Committee for Biology Department Seminars and Special Events (Fall 2018 - present)
- SPMC/Extended Ed outreach coordinator hiring committee (Fall 2018)
- Presentation to WWU Board of Trustees about MSSP and the Marine Science Major (October 2018)
- Shannon Point Marine Center faculty advisory committee (2017-2018)
- Committee for Undergraduate Marine Science Major development proposal (2017-2018)
- Strategic planning committee member, Shannon Point Marine Center (2017-2018)
- Selection committee member, SPMC Research Experience for Undergraduates (2016-present)
- Developed Emergent Budget Proposal for Shannon Point Marine Center (2017)
- Developed Marine Science Scholars crowdfunding campaign (2017)
- Lead planner, Shannon Point Marine Center open house event (2017)
- Selection committee member, SPMC MIMSUP (2013 - 2015)
- Selection committee member, Director of Shannon Point Marine Center job search (2012 - 2013)
- Chief Editor, The Point, Shannon Point Marine Center Newsletter (2013-2017)

University of Oregon:

- Assisted with organization of 7th International Larval Biology Symposium, Coos Bay, OR (2006)
- Assisted with organization of the 10th Deep-Sea Biology Symposium, Coos Bay, OR (2003)

EDUCATIONAL OUTREACH

- Fidalgo Bay Aquatic Reserve Citizen Science Committee (2012-present)
- Women in STEM Career Panel, WWU Association for Women in Science club (2015)
- NOAA OceanAGE (Ocean Careers to Inspire Another Generation of Explorers) Profile (2015)
- Guest presentation on using ROVs in WWU Extended Ed Ocean STEM after school program (2015)
- “Explorer” & blogger on NOAA Ocean Exploration Program website (2014)
- Guest blogger, Deep Sea News (2012)
- Oral presentation and Q & A with MIMSUP participants at SPMC (2008)
- Women in Science presenter, Coos County Boys and Girls Club, Coos Bay, OR (2006)
- Featured on “Scientists’ Spotlight,” NSF’s Ridge 2000 education & outreach website (2006)
- Interview on “Hostile Deep,” Discovery Science Channel (2003)
- “Explorer” & blogger on NOAA Ocean Exploration Program website (2002/2003)
- Oral presentations to 5th grade science classes, Santa Fe Middle School, Newton, KS (2002)
- Marine Science Instructor, 4th grade, Anacortes, WA (1 class weekly) (2000)

SPECIALIZED TRAINING COURSES & WORKSHOPS

- 2015 Alvin Boot Camp, NSF-funded workshop for new Alvin users, WHOI
- 2015 Software Carpentry Workshop, University of Washington
- 2014 NSF-GEO-REU Principle Investigator workshop, Boulder, CO
- 2012 Mariana Vent Larval (MarVel) Workshop: International Study of Connectivity Between Hydrothermal Vents, Okinawa, Japan; funded by NSF and Okinawa Inst. of Science and Tech.
- 2012 Professional Development Workshop for Early Career Scientists: Communicating Broader Impacts Sponsors: Center for Ocean Sciences Education Excellence (COSEE)
- 2011 Strategies and Techniques for Analyzing Microbial Population Structure, Marine Biological Laboratory, Woods Hole, MA; Organizers: Dr. Mitch Sogin & David Mark Welch
- 2010 FORWARD to Professorship Workshop (NSF-ADVANCE funded), Galludet University, Washington D.C.
- 2007 Project Design and Evaluation Workshop, NOAA Coastal Services Center, hosted by National Sea Grant Office, Silver Spring Maryland
- 2003 Comparative Marine Invertebrate Embryology, Friday Harbor Labs, University of Washington; Instructors: Drs. Richard Strathmann & George Von Dassow
- 2002 Larval Biology, Friday Harbor Labs, University of Washington; Instructors: Drs. Richard Strathmann, Craig Young, and Danny Grünbaum