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EDUCATION

TBD | PhD program in Environmental Science, University of California, Santa Barbara (Bren School, began 2021)

2014 | Board Certified Environmental Scientist (BCES), Biology Specialty | American Academy of Environmental Scientists

2008 | Master of Applied Sciences, Marine Ecology and Fisheries Science | James Cook University, Townsville, Australia

2003 | Bachelor of Science, Aquatic Biology; Minor, Geological Sciences | University of California, Santa Barbara

EXPERIENCE

2018 – present | Science Director | The Bay Foundation

2018 - present | Director of Programs | Loyola Marymount University, Coastal Research Institute

2021 - present | PhD Graduate Student and Researcher | Marine Science Institute, University of California, Santa Barbara

2018 – 2021 | Senior Lecturer | Loyola Marymount University, Seaver College of Science and Engineering

2016 – 2018 | Treasurer, Board of Directors | Southern California Academy of Sciences

2013 – 2018 | Director of Watershed Programs | The Bay Foundation

2013 – 2018 | Lecturer | Loyola Marymount University, Seaver College of Science and Engineering

2008 – 2013 | Project Manager and Ecologist | The Bay Foundation

2007 – 2008 | Teaching Assistant, Experimental Sampling and Design | James Cook University

2007 - 2008 | Tutor, Biological Sciences and Statistics

2005 – 2007 | Laboratory Assistant II | Marine Science Institute, University of California, Santa Barbara

2003 – 2005 | Laboratory Assistant I | Marine Science Institute, University of California, Santa Barbara

2002 | Research Experience for Undergraduates Scholarship | University of California, Santa Barbara

SCIENTIFIC AND LEADERSHIP EXPERTISE

Karina Johnston has been a passionate scientific and community leader in the southern California region for more than 14 years, with an increasing level of responsibility culminating in her current position with The Bay Foundation (TBF) as Science Director and her current position with Loyola Marymount University (LMU) as Director of Programs for LMU's Coastal Research Institute (CRI). Karina leads her department at TBF by developing, managing, and implementing federal, state, and non-profit grants to help execute the strategic plan for the Santa Monica Bay National Estuary Program, which strives to clean up waterways and create healthy habitats in the Los Angeles region. She is currently directing multiple projects to research and restore the Santa Monica Bay's coastal habitats, including beaches, dunes, and wetlands. Career ecological restoration highlights include project implementation and leading the scientific monitoring programs for the Malibu Lagoon Restoration and Enhancement Project, the Santa Monica Beach Restoration Pilot Project, several other Living Shoreline Projects, and contributing significantly to environmental planning (CEQA/NEPA) for the Ballona Wetlands Restoration Project (577 acres).

As CRI's Director of Programs, she developed and oversees the internship and faculty fellowship programs, conducts research, and teaches in Environmental Science. Her mentorship for students extends beyond the classroom into field trainings and experiential learning. Current research fields include coastal ecology, coastal resiliency, restoration ecology, and water quality. In 2021, Karina won the Part Time Faculty Distinguished Teaching Award from LMU for her teaching and research service.

Karina is recently finished leading the multi-year public process to perform major revisions to regional strategic plans, including a revised Comprehensive Monitoring Program and Climate Action Plan for the region. Through her coordination of collaborative regional scientific monitoring efforts, Karina has extensive experience developing, implementing, and directing scientific programs and projects, including experimental design and research. Her communication, leadership, and interpersonal skills make her an interdisciplinary Director with a high degree of adaptability. Karina is also a Board Certified Environmental Scientist, with a Biology specialty and is a Certified Ecological Restoration Practitioner (Society for Ecological Restoration). In 2021, Karina began a PhD program at UCSB in Environmental Science and aims to conduct research relating to ecological and physical trajectories of beach restoration projects in southern California in partnership with her academic and community mentors.



PUBLICATIONS AND PEER-REVIEWED TECHNICAL DOCUMENTS (selected)

- Burkhard, J, **K Johnston**, J Saez, and J Dorsey. Water Quality and Hydrological Benefits of a Natural Treatment System Installed in an Urban Watershed in Southern California. (*submitted*) Environmental Monitoring and Assessment.
- Rosenau, N, H Galavotti, et al., including **K Johnston** (2021). Integrating High-Resolution Coastal Acidification Monitoring Data Across Seven U.S. Estuaries. Frontiers in Marine Science, Vol. 8: 679913. <u>DOI: 10.3389/fmars.2021.679913</u>
- Johnston, K., C. Enyart, M. Jenkins, D. Lazarus, and S. Cuadra (2021). Santa Monica Beach Restoration Pilot Project: Year 5 Annual Report. Report prepared by The Bay Foundation for City of Santa Monica, California Coastal Commission, US Environmental Protection Agency, and California Department of Parks and Recreation. 118 pages. (pdf)
- **Johnston, K**, C Enyart, M Jenkins, S Cuadra, and D Lazarus (2021). Los Angeles Living Shoreline Project Restoration and Monitoring Plan. Prepared by The Bay Foundation for the California Coastal Commission, Los Angeles County Department of Beaches and Harbors, City of Los Angeles, and State Coastal Conservancy. 72 pages.
- Grifman, P, M Grubbs, and **K Johnston** (2020). From Science to Adaptation: A Case Study in Nature-Based Adaptation to Improve Coastal Resiliency in Santa Monica Bay. Shore and Beach, Vol. 88 (3), pp. 39-52. DOI: 10.34237/1008834
- Harvey, M, SN Giddings, ED Stein, J Crooks, C Whitcraft, T Gallien, L Tiefenthaler, H Meltzer, G Pawlak, K Thorne, **K Johnston**, R Ambrose, S Schroeter, HM Page, and H Elwany (2020). Effects of Elevated Sea Levels and Waves on Southern California Estuaries during the 2015–2016 El Niño. Estuaries and Coasts, Vol 43, pp. 256–271. <u>DOI: 10.1007/s12237-019-00676-1</u>
- **Johnston, K**, C. Enyart, K Alvarez, and H Weyland (2020). Santa Monica Beach Restoration Pilot Project Year 4 Annual Report. Report prepared by The Bay Foundation for the City of Santa Monica, California Coastal Commission, US Environmental Protection Agency, and California Department of Parks and Recreation. 100 pp. (pdf)
- Ryan, TP, DS Cooper, S Vigallon, C Dellith, **KK Johnston**, and L Nguyen (2019). Return of Beach Nesting Snowy Plovers to Los Angeles County Following a 68-Year Absence. Western Birds 50: 16-25 <u>DOI: 10.21199/WB50.1.2</u>
- Johnston, KK, M Grubbs, C Enyart, R Dagit, and D Cooper (2019). Malibu Lagoon Restoration and Enhancement Project Final Comprehensive Monitoring Report (Year 6). Report Prepared by The Bay Foundation for the State of California, Department of Parks and Recreation. 261 pp. (pdf)
- Johnston, K, M Grubbs, and R Abbott (2018). Santa Monica Beach Restoration Pilot Project Year 2 Annual Report. Report prepared by The Bay Foundation for the City of Santa Monica, California Coastal Commission, Metabolic Studio, US Environmental Protection Agency, and California Department of Parks and Recreation. 67 pp. (pdf)
- Abramson, M, **K Johnston**, M Grubbs, R Abbott, R Dagit, and D Cooper (2018). Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report (Year 5). Report Prepared for the State of California, Department of Parks and Recreation. 170 pp. (pdf)
- Abbott, R, M, Grubbs, and **K Johnston** (2018). Los Angeles International Airport Coastal Dunes Improvement Project Ecological Monitoring Report. Report Prepared for Los Angeles World Airports, City of LA and CA Coastal Commission. 60 pp. (pdf)
- **Johnston, K**, M Grubbs, and R Abbott (2017). Santa Monica Beach Restoration Pilot Project Year 1 Annual Report. Report prepared by The Bay Foundation for the City of Santa Monica, California Coastal Commission, Metabolic Studio, US Environmental Protection Agency, and California Department of Parks and Recreation. 68 pp. (pdf)
- Abramson, M, **K Johnston**, R Abbott, M Grubbs, R Dagit, and D Cooper (2017). Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report (Year 4). Report Prepared for the State of California, Department of Parks and Recreation. 175 pp. (pdf)
- Barton, ML, ID Medel, **KK Johnston**, and CR Whitcraft (2016). Seed Collection and Germination Strategies for Common Wetland and Coastal Sage Scrub Species in Southern California. Bulletin of the Southern California Academy of Sciences, Vol 115(1). (link)
- Grubbs, M, **K Johnston**, G Wang, and T Ford (2016). Climate Change Vulnerability Assessment of the Santa Monica Bay National Estuary Program's Bay Restoration Plan. Final Report prepared by the Santa Monica Bay National Estuary Program for the United States Environmental Protection Agency. 30 September 2016. 184 pp. (pdf)
- Abramson, M, **K Johnston**, R Abbott, M Grubbs, R Dagit, and D Cooper (2016). Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report (Year 3). Report Prepared for the State of California, Department of Parks and Recreation. 148 pp. (pdf)
- **Johnston, KK**, J Dorsey, and J Saez (2015). Fecal Indicator Bacteria (FIB) Stratification and Loading in a Tidally Muted Urban Salt Marsh. Environmental Monitoring and Assessment: <u>DOI: 10.1007/s10661-015-4314-z</u>
- Ambrose, RF, JH Dorsey, **KK Johnston**, and ED Stein (2015). State of the Bay Report. "Habitat Conditions: Coastal Wetlands." *Urban Coast* 5(1): 59-68. (pdf)



- Foreman, K, D Hubbard, **KK Johnston**, and K Martin (2015). State of the Bay Report. "Habitat Conditions: Sandy Shores." *Urban Coast* 5(1): 69-84. (pdf)
- **Johnston, KK**, ID Medel, S Anderson, E Stein, C Whitcraft, and J Crooks (2015). California Estuarine Wetland Monitoring Manual (Level 3). Prepared by The Bay Foundation for the United States Environmental Protection Agency. 297 pages. (<u>link</u>)
- Johnston, KK, ID Medel, S Anderson, R Abbott, and E Stein (2015). Regional Monitoring Report for Southern California Coastal Wetlands: Application of the USEPA Three-Tiered Monitoring Strategy. Prepared by The Bay Foundation for the United States Environmental Protection Agency. 100 pages. (pdf)
- Johnston, KK, ID Medel, and C Solek (2015). Condition Assessment of the Wetland Habitats in the Ballona Wetlands Ecological Reserve, Los Angeles, CA. Technical Memorandum prepared for the California State Coastal Conservancy and the California Department of Fish and Wildlife, 11 pp. (pdf)
- Abramson, M, **K Johnston**, I Medel, R Dagit, D Cooper, and R Abbott (2015). Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report (Year 2). Report Prepared for the State of California, Department of Parks and Recreation. 135 pp. (pdf)
- Johnston, KK, I Medel, A McCarthy, and T Harris (2014). Salt Pan Assessment to Inform Restoration Target Acreages at the Ballona Wetlands Ecological Reserve. Technical Memorandum prepared for the California State Coastal Conservancy and the California Department of Fish and Wildlife, 16 pp.
- **Johnston, KK** (2014). Socio-Economic Analyses of Coastal Ecosystem Resilience: Symposium Proceedings Document. Hosted by the Santa Monica Bay Restoration Commission and the Center for Urban Resilience, March 2014; 23 pp. (pdf)
- Medel, ID, **K Johnston**, and A McCarthy (2014). *Ballona Wetlands Ecological Reserve Vegetation Alliance and Habitat Crosswalk*.

 Technical Memorandum prepared for the California State Coastal Conservancy and the California Department of Fish and Wildlife, 22 pp. (pdf)
- McLaughlin, K, M Sutula, L Busse, S Anderson, J Crooks, R Dagit, D Gibson, **K Johnston**, and L Stratton (2013). *A Regional Survey of Extent and Magnitude of Eutrophication in Southern California Estuaries*. Estuaries and Coasts: <u>DOI: 10.1007/s12237-013-9670-8</u>
- Abramson, MA, R Dagit, DS Cooper, J King, **KK Johnston**, I Medel, and C Piechowski (2013). *Malibu Lagoon Restoration and Enhancement Project Comprehensive Monitoring Report*. Report prepared for the State of California Department of Parks and Recreation. (pdf)
- **Johnston, KK** (2013). Climate Change in Urban Estuaries: Symposium Proceedings Document. Hosted by the Santa Monica Bay Restoration Commission and the Center for Urban Resilience, March 2013; 25 pp.
- McLaughlin, K, M Sutula, L Busse, S Anderson, J Crooks, R Dagit, D Gibson, **K Johnston**, N Nezlin, and L Stratton. 2012. Southern California Bight 2008 Regional Monitoring Program: VIII. Estuarine Eutrophication. Southern California Coastal Water Research Project. Costa Mesa, CA (pdf)
- **Johnston, KK** (2012). Wetland Health and Assessment: An Information Inundation at the Ballona Wetlands Ecological Reserve. Urban Coast (3)1: 61-70. (pdf)
- Johnston, KK, E Del Giudice-Tuttle, ID Medel, C Piechowski, D Cooper, J Dorsey, and S Anderson (2012). *The Ballona Wetlands Ecological Reserve Baseline Assessment Program: 2010-2011 Report*. Santa Monica Bay Restoration Commission. Report Prepared for the California State Coastal Conservancy, Los Angeles, California. 215 pp. (pdf)
- **Johnston, KK**, E Del Giudice-Tuttle, ID Medel, J Dorsey, D Cooper, and SP Bergquist (2011). *The Ballona Wetlands Ecological Reserve Baseline Assessment Program: 2009-2010*. Report prepared for the California State Coastal Conservancy and California Department of Fish and Game. 446 pp. (pdf)
- Del Giudice-Tuttle, E, **KK Johnston**, and ID Medel (2011). Evaluating Distribution and Prevalence of Non-native Vegetation in a Southern California Wetland and its Application to Inform Habitat Restoration and Non-native Vegetation Control. Proceedings of the California Invasive Plant Council Symposium (15): 35-38.
- **Johnston, KK** (2008). *Habitat Associations and Growth Patterns in Butterflyfish of Orpheus Island, Australia*. Submitted Master of Applied Science Thesis to James Cook University, Townsville, Australia, 77 pp.



SCIENTIFIC PRESENTATIONS (selected since 2013; * indicates invited speaker)

- Johnston, KK*. 2021. Panelist, presenter, and moderator at the California Dune Science Network Conference. Virtual, December 2021. Co-led the conference and workshop development, in partnership with The Bay Foundation, California Sea Grant, University of California Santa Barbara, and USC Sea Grant Program.
- Johnston, KK. 2021. Panelist, presenter, and moderator at the National Conference on Ecosystem Restoration. Virtual, July and August 2021.
- Johnston, KK*. 2021. Invited Panelist to the American Shore and Beach Preservation Association National Summit. "Planning for the next generation's beach and coast." March 2021
- Johnston, KK* and D. Murray. 2020. "Living Shorelines: Case Studies for Coastal Beach Adaptation in Urban Communities."

 Presentation to the American Shore and Beach Preservation Association National Conference, October 2020. Co-author on four additional poster presentations with various undergraduate and graduate students of LMU CRI.
- Johnston, KK*, C Enyart, and J Dorsey. 2019. "A 30-Year Trend Assessment of Fecal Indicator Bacteria in the Santa Monica Bay." Presentation to the California Beach Water Quality Workgroup in Costa Mesa, CA, in August 2019.
- Johnston, KK and students. 2019. Multiple presentations and posters on research in microplastics, metal uptake in plants (rain garden study), beach studies, and others at the Southern California Academy of Sciences Annual Meeting in May 2019.
- Johnston, KK*, M Grubbs, and C Enyart. 2018. "Urban Southern California Coastal Wetlands: An Evaluation of Impacts and Opportunities." Restore America's Estuaries Summit in Long Beach in December, 2018.
- Johnston, KK*, M Grubbs, and T Ford. 2018. "Beaches and Buffers: Resilience through Restoration in Los Angeles." Restore America's Estuaries Summit in Long Beach in December, 2018.
- Johnston, KK* and M Grubbs. 2018. "Increasing Coastal Resilience through Sandy Beach Restoration." Restore America's Estuaries Summit in Long Beach in December, 2018.
- Johnston, KK*. 2018. "Innovative Solutions to Address Climate Change: How Living Shorelines Improve Coastal Resilience." Collective Impact event at BuroHappold, downtown Los Angeles.
- Johnston, KK*. 2017. "Panel Discussion with the EPA on Challenges, Climate Change, and Opportunities for the Los Angeles Region."

 Loyola Marymount University's Coastal Research Institute launch
- Johnston, KK*. 2017. "From Fill to Function: Past, Present, and Future of the Ballona Wetlands Ecological Reserve." Loyola Marymount University symposium.
- Johnston, KK*, ID Medel, and S Anderson. 2015. "Regional Health Evaluation of Urban Coastal Wetlands in Southern California." Southern California Academy of Sciences.
- Johnston, KK*, ID Medel, and R Abbott. 2015. "Development of Tidal Wetlands Level 3 Monitoring Protocols." Southern California Wetland Recovery Project Science Advisory Panel.
- Johnston, KK and ID Medel. 2014. "4-Year Ecological Assessment of the Ballona Wetlands to Inform Restoration Planning." Conference on Ecological and Ecosystem Restoration. New Orleans, LA.
- Medel, ID, KK Johnston, and MA Abramson. 2014. "Post-restoration Ecosystem Service Evaluation of a Seasonally Closed Estuary: Malibu Lagoon Case Study." Conference on Ecological and Ecosystem Restoration. New Orleans, LA.
- Johnston, KK*. 2014. "4-Year Ecological Assessment of the Ballona Wetlands to Inform Restoration Planning and Develop Regional Level-3 Monitoring Protocols." Headwaters to Ocean Conference. San Diego, CA.
- Johnston, KK*. 2014. "Ballona Wetlands Ecological Reserve: From Fill to Function." Presentation to Concordia University and University of California, Irvine. Irvine, CA.
- Johnston, KK. 2013. "Functional Assessment of the Ballona Wetlands Ecological Reserve: 4-Year Monitoring Summary." Coastal and Estuarine Research Federation Conference. San Diego, CA.
- Johnston, KK, J Dorsey, and J Saez. 2013. "Fecal Indicator Bacteria (FIB) Stratification and Loading in a Muted Salt March." Coastal and Estuarine Research Federation Conference. San Diego, CA.
- Johnston, KK*. 2013. "Watersheds to Wetlands: Local Stewardship of a National Estuary Program." Presentation to the UCLA Institute of the Environment and Sustainability. Los Angeles, CA.
- Johnston, KK and S Luce. 2013. "Historical Ecology and Restoration of Urban Estuaries in Los Angeles, California: From Fill to Function." Society of Wetland Scientists Conference. June 2013. Duluth, Minnesota.



GRANT AWARDS AND RECOGNITIONS (selected)

- 2021 Part Time Faculty Distinguished Teaching Award, Loyola Marymount University
- 2021 National Fish and Wildlife Foundation for Santa Monica Beach Dune Restoration (\$290,000)
- 2020 US Environmental Protection Agency for Santa Monica Bay National Estuary Program (\$660,000)
- 2020 Coastal Commission Mitigation Funds for Restoration Activities at the Ballona Wetlands (\$94,636)
- 2019 Certified Ecological Restoration Practitioner, Society for Ecological Restoration (Cert. #0375)
- 2019 City of Los Angeles, 3-Year Agreement for Restoration and Monitoring at the LAX Dunes (\$500,000)
- 2019 California State Coastal Conservancy Grant for Los Angeles Living Shoreline Project (\$485,000)
- 2019 Honda Marine Science Foundation for Los Angeles Living Shoreline Project (\$75,000)
- 2019 Proposition 12 Grant for Ballona Wetlands Community Restoration (\$90,000)
- 2019 US Environmental Protection Agency for Santa Monica Bay National Estuary Program (\$600,000)
- 2018 California State Coastal Conservancy Grant for Malibu Living Shoreline Project (\$250,000)
- 2018 National Fish and Wildlife Foundation grant for Wetland Restoration (\$44,000)
- 2018 US Environmental Protection Agency for Santa Monica Bay National Estuary Program (\$600,000)
- 2017 City of Los Angeles, 1-Year Agreement for Restoration and Monitoring at the LAX Dunes (\$94,000)
- 2017 US Environmental Protection Agency for Santa Monica Bay National Estuary Program (\$600,000)
- 2016 Los Angeles Department of Water and Power Community Partnership Grant (\$65,000)
- 2015 USEPA Wetland Program Development Grant for Regional Wetland Assessment (\$400,000)
- 2015 Southern California Wetland Recovery Project's Community Wetland Restoration Grant Program
- 2015 Annenberg Foundation Metabolic Lab Community Grant for Beach Restoration
- 2015 California State Coastal Conservancy Grant for Coastal Dune Community Stewardship
- 2015 Southern California Edison Grant for Habitat Restoration and Community Stewardship
- 2015 Winner, W3 Award; "Desert Delivery" Public Service Announcement
- 2014 Los Angeles Department of Water and Power Community Partnership Grant (CD11)
- 2014 Metropolitan Water District, Innovative Conservation Program Grant for Rainwater Harvesting (143541)
- 2013 Winner, LA County Green Leadership Award for Culver City Rainwater Harvesting Program
- 2013 California State Parks Grant for Long-Term Malibu Lagoon Restoration and Enhancement Project
- 2011 USEPA Wetland Program Development Grant for Level-3 Wetland Monitoring (CD-00T73001-0)

CERTIFICATIONS

- 2019 Certified Ecological Restoration Practitioner; Society for Ecological Restoration
- 2018 CPR/O2 and First Aid Certification (annually, 2018 is most recent); University of California Los Angeles
- 2014 Board Certified Environmental Scientist, Biology Specialty; American Academy of Environmental Scientists
- 2012 California Rapid Assessment Method Practitioner; California Water Quality Monitoring Council
- 2008 Boat Captain Certification / License; Australia
- 2006 Rescue SCUBA Diver Certification (Anacapa Dive Center, Santa Barbara); PADI
- 2005 Small Boat Captain Certification / License; University of California Santa Barbara
- 2003 AAUS Scientific SCUBA Diver Certification (60 ft); University of California Santa Barbara
- 2002 Ice Diving and Drysuit Diving SCUBA Specialty Certifications; University of California Santa Barbara
- 2002 AAUS Scientific SCUBA Diver Certification (30 ft); University of California Santa Barbara
- 1999 Advanced Open Water SCUBA Certification; NASE
- 1996 Junior Open Water SCUBA Certification; PADI



COMMITTEES, ADVISORY BOARDS, AND RELEVANT AFFILIATIONS

- Board of Directors, American Shore and Beach Preservation Association (elected officer, 2021-present)
- Board of Directors, Southern California Academy of Sciences (elected officer, 2015-2018 term)
- Environmental Science Faculty Affiliate, Loyola Marymount University
- Executive and Administrative Committees, Loyola Marymount University's Coastal Research Institute
- Advisory Committee, California Dune Science Network, California Sea Grant
- Graduate Student Planning Committee, University of California Santa Barbara
- Management Advisory Committee, Estuarine Marine Protected Areas Monitoring Program
- Scientific Advisory Committee, Submerged Aquatic Vegetation Regional Monitoring Program
- Environmental Life Sciences Specialty Committee; American Academy of Environmental Scientists
- California Wetland Monitoring Workgroup (CWMW) of the California Water Quality Monitoring Council
- CWMW Level-3 and Data Standardization Subcommittee
- Technical Advisory Committee, Topanga Lagoon Restoration Project
- Wetlands Advisory Group, Southern California Wetland Recovery Project
- Advisory Group, Temporal Investigations of Marsh Ecosystems
- Management and Technical Advisory Group, Marshes on the Margins
- Advisory Board, Friends of the LAX Dunes
- Advisory Board and Guest Editor, Urban Coast Journal
- Society of Wetland Scientists, Western Chapter
- Beach Ecology Coalition
- Environmental Stewardship and Sustainability Committee, Loyola Marymount University
- Science and Restoration Committee, Friends of Ballona Wetlands
- Association of State Wetland Managers
- California Estuarine Research Society