

Imari Walker-Franklin (Karega)

Curriculum Vitae

RTI International

Discovery Sciences

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CHRONOLOGY OF EMPLOYMENT

- 2022-Present *Research Natural Scientist I*, RTI International, RTP, NC
- 2016-2021 *Graduate Research Assistant*, Duke University, NC
- 2016 *Facilities Environmental Engineer*, Intel, Santa Clara, CA
- 2013-2016 *Undergraduate Researcher*, University of California, Berkeley
- 2015 *Undergraduate Researcher*, Columbia University Lamont Doherty Earth Observatory,
- 2014 *Undergraduate Researcher*, University of California, San Diego SCRIPPS
- 2013-2014 *Theme Program Resident Assistant*, University of California, Berkeley

CHRONOLOGY OF EDUCATION

- 2016-2021 Doctor of Philosophy in Civil and Environmental Engineering, Duke University
Research Advisor: P. Lee Ferguson
[Dissertation](#): "Release, Transformation, and Effects of Polymer-Associated Chemicals in the Aquatic Environment".
- 2021 Graduate Certificate, Certificate in college teaching, Duke University
- 2016-2019 Master of Science in Civil and Environmental Engineering, Duke University
Thesis: "Influence of CNT loading and environmental factors on leaching of polymer additives from epoxy and polycarbonate nanocomposites"
- 2011-2016 Bachelor of Arts in Marine Science, University of California Berkeley
Research Advisor: James Bishop. Honors Thesis: "Quantification of particulate inorganic carbon sedimentation using autonomous carbon flux explorer"

CHRONOLOGY OF OUTREACH

- 2023-2024 *Conference Organizer*, NC SOT Meeting 23' and 24' at RTI International
- 2023 *Science Communication Session Chair*, SERMACS 2023 Conference
- 2022 *Co-Social Chair*, SETAC Nontarget 2022 Meeting
- 2018-2022 *Chair*, Gordon Research Seminar titled [Environmental Science: Water](#)
- 2021 *Science Policy Student*, Duke [Environmental Law and Policy Clinic](#)
- 2018-2019 *Preparing For Future Faculty Fellow*, Duke Graduate Program
- 2018-2019 *Founder*, Microplastics Collaboratory and Journal Club, Duke University
- 2017-2019 *Graduate Student Mentor*, Duke 8th Grade [Sensor Saturday Engineering Academy](#)
- 2016-2019 *Workshop Committee Chair*, Duke [PhD Plus](#) Professional Development Program
- 2015-2016 *Vice President*, National Society of Black Engineers UC Berkeley Chapter
- 2015-2016 *Student Coordinator*, Bergeron Scholarship Program University of California, Berkeley

HONORS AND AWARDS

2024	<i>Book Author Award</i> , RTI International
2024	<i>Highly Published Author Award</i> , RTI International
2023	<i>Mentor of the Year Nominee</i> , RTI International
2022	<i>President's Award</i> , RTI International
2022	<i>Discovery Sciences Annual Award</i> , RTI International
2022	<i>Civil and Environmental Engineering Doctoral Scholar Award</i> , Duke University
2021	<i>Honorable mention</i> , Merritt Science Communication Award, Duke University
2021	<i>2nd Place Award</i> , Society of Environmental Chemistry and Toxicology Student Science Communication Competition
2019	<i>Engineer-In-Training (EIT) Certification</i> , State of North Carolina Board of Examiners for Professional Engineers, Land Surveyors, and Geologists
2018	<i>Honorable mention</i> , Ford Fellowship Predoctoral Award, Duke University
2016-2017	<i>GEM Consortium Fellowship Award</i> , Duke University
2015	<i>Fall Dean's List recipient</i> , UC Berkeley Selected as one of five female science majors for this scholarship, Bergeron Scholars Program, University of California Berkeley
2015-2016	<i>UC Leadership through Advanced Degrees Award</i> , University of California Berkeley
2013-2015	<i>Cal Alumni Leadership Award</i> , University of California Berkeley
2012-2014	<i>Cal Alumni Leadership Award</i> , University of California Berkeley
2012-2013	<i>Louis Stokes Alliance for Minority Participation Scholar</i> , University of California Berkeley

Peer Reviewer for Journals:

2018	<i>PLOS</i>
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Students Mentored

2024	Kimberly Johnson, Undergraduate Researcher, NCCU
2022-2023	Zahkura Eastman, Undergraduate Researcher, NCCU
2020	Christina Boxberger, Undergraduate Researcher, Duke University
2019	Cara Peters, Undergraduate Researcher, Duke University
2019	Siyuan Feng, Graduate Researcher, Duke University
2019	Amaree Gartner, Undergraduate Researcher, Duke University

Professional Memberships

2023-Present	Society of Toxicology
2022-present	Advisory Board Member of Beyond Plastics
2019-present	American Society for Mass Spectrometry
2018-present	Society of Environmental Toxicology and Chemistry
2017-present	American Chemical Society
2015-2020	National Society of Black Engineers
2012-2016	Sigma Xi Research Honors Society

BOOK

2023	Walker-Franklin, I. and Jambeck, J., 2023. Plastics Book. MIT Press. Plastics (mit.edu)
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PUBLICATIONS

- 2023 Jambeck, R. Jenna & Walker-Franklin, Imari. (2023) The impacts of plastics life cycle. One Earth. <https://doi.org/10.1016/j.oneear.2023.05.015>
- Liboiron, M., Liu, R., Earles, E., & Walker-Franklin, I. (2023). Models of justice evoked in published scientific studies of plastic pollution. FACETS, 8(1), 1–34. <https://doi.org/10.1139/facets-2022-0108>
- 2023 Hankett, J. M., Holtz, J. L., Walker[-Franklin], I., Shaffer, K., Jourdan, J., Batiste, D., ... Ferguson, P. L. (2023). Matrix Matters: Novel insights for the extraction, preparation, and quantitation of microplastics in a freshwater mesocosm study. Microplastics and Nanoplastics. <https://doi.org/10.1186/s43591-023-00062-6>
- 2023 Jordon-Thaden, I. E., Spoelhof, J. P., Viccini, L. F., Combs, J., Gomez Jr., F., Walker[-Franklin], I., Soltis, P. S. (2023). Phenotypic trait variation in the North American *Tragopogon* allopolyploid complex. American Journal of Botany. <https://doi.org/10.1002/ajb2.16189>
- 2023 Walker[-Franklin] Karega, I., & Ferguson, P. L. (2021). Release, transformation, and effects of polymer-associated chemicals in the aquatic environment. Doctoral dissertation. Duke University, Durham, NC. <https://dukespace.lib.duke.edu/dspace/handle/10161/24422>
- 2021 Walker, I., Montano, M.D., Lankone, R.S., Fairbrother, D.H. and Ferguson, P.L., 2021. Influence of CNT loading and environmental stressors on leaching of polymer-associated chemicals from epoxy and polycarbonate nanocomposites. Environmental Chemistry, 18(3), pp.131-141. <https://doi.org/10.1071/EN21043>
- 2021 Hunter, B. *, Walker, I. *, Lassiter, R., Lassiter, V., Gibson, J.M., Ferguson, P.L. and Deshusses, M.A., 2021. Evaluation of private well contaminants in an underserved North Carolina community. Science of the Total Environment, 789, p.147823. ***Co-first authorship.** <https://doi.org/10.1016/j.scitotenv.2021.147823>

SCHOLARLY ACTIVITIES***Invited Lectures/Seminars:***

- 2024 Walker-Franklin, I. “How tire rubble pollution can impact human health”. [Monterey Bay Aquarium Research Institute](#) Seminar Speaker
- 2024 Walker-Franklin, I. “Plastic Odyssey: Navigating the seas of research and science communication”. Monterey Bay Aquarium Ocean Plastic Pollution Summit Keynote Speaker
- 2023 Walker-Franklin, I. “Science by the Slice: Human Health Impacts from Microplastics Exposure”. [Science by the Slice](#) seminar speaker.
- 2023 Walker-Franklin, I. “Human Health Impacts from Microplastics Exposure”. Seminar Speaker at the CARES Seminar Series at North Carolina Central University.
- 2023 Walker-Franklin, I. “The Journey of a Scientist Studying Plastics”. Keynote Speaker presentation for the [North Carolina Marine Debris Symposium](#)
- 2021 Walker-Franklin, I. “Risks of Microplastics in Freshwater Systems.” [Groundwater Resources Association of California](#) Meeting Speaker
- 2021 Walker Karega, I. “Microplastic Pollution: New Research & Impacts on Communities.” Waterkeepers Alliance Seminar Speaker
- 2021 Walker Karega, I. “Potential endocrine disrupting effects of microplastics in aquatic life.” [Collaborative on Health and the Environment](#) Webinar Speaker

- 2020 Walker Karega, I. "Release and Transformation of Polymer Additives into Aquatic Systems from Plastics and Nanocomposites." [Triangle Area Mass Spectrometry Seminar Speaker](#)
- 2020 Walker Karega, I. "Release and transformation of polymer additives into aquatic systems from plastics and nanocomposites." [Columbia University Seminar Speaker](#)
- 2020 Walker Karega, I. "Release and transformation of polymer additives into aquatic systems from plastics and nanocomposites." NCSU Seminar Speaker
- 2020 Walker Karega, I. "Release and transformation of polymer additives into aquatic systems from plastics and nanocomposites." Eastern NCU ACS Diversity Series Seminar Speaker

Science Communication Experience:

- 2024 Invited Panelist for Bad, but how bad? Assessing the impacts of plastic pollution on human and ecosystem health by Cell Press [Webinar Registration - Zoom](#)
- Invited Speaker for City of Sunnyvale Sustainability Speaker Series. "Microplastics? Macro problem. [Microplastics? Macro Problems | Events Calendar | Sunnyvale, CA](#)
- 2023 Reddit [Ask Me Anything](#) (AMA) for the Authors of Plastic.
- 2023 Podcast Speaker for [Tiny Matters Podcast](#): Plastic, (micro)plastic everywhere. What does it do and why should we care? An American Chemistry Society Podcast.
- 2023 Invited panelist for [Plastic Pollution Coalition](#): Plastic-Free Seas: Diving Into How Plastic Impacts Health, Climate, and Our Oceans Webinar
- 2023 Co-Host for the [Aquathread](#) NPR Podcast speaking on impacts of plastics.
- 2021 Invited speaker for Ocean Plastics Leadership Network: Global Treaty on Plastic Pollution Dialogue
- 2021 Invited panelist for [Plastic Pollution Coalition](#): Unwoven: Phasing Plastic Out of Fashion Webinar
- 2021 Invited panelist for [Circularity 21](#): The Nexus of Public Health and Plastic
- 2020 Interview on [Science Tonight](#) Microplastics in our Air, Water, and Bodies, NC Museum of Natural Sciences
- 2020 Interviewed for [Important Not Important Podcast](#), Ep. 93
- 2020 Invited panelist for [Plastic Pollution Coalition](#) Plastic Free President Press Conference
- 2020 Invited panelist for [NYC Bar Association](#) Microplastics Conference
- 2020 Invited panelist for Institute for Journalism and Natural Resources climate workshop
- 2020 Created YouTube Science Communication Channel titled: [Imari Walker](#)

Scientific Impact & Insight Blogs:

- 2023 Author. "Putting PFAS Into Perspective". [RTI International](#)
- 2023 Author. "Mentoring and Empowering Emerging Scientists Via Internships". [RTI International](#)
- 2023 Author. "Piedmont & Eastern N.C. | Why is PFAS in my water?". [RTI International](#)
- 2023 Author. "When Yesterday's Breakthrough Innovation Becomes Today's Problem". [RTI International](#)
- 2023 Author. "Four Things You Need To Know About PFAS". [RTI International](#)
- 2023 Author. "Forever Chemicals Here, There and Everywhere: Where is all this PFAS coming from?". [RTI International](#)

News Article Features & Mentions:

- 2024 Mentioned. "New York City Is Considering a Laundry Pods Crackdown" [Bloomberg](#)
- 2024 Featured. Authority Magazine. "Dr Imari Walker-Franklin Of RTI International: 5 Things We Must Do To Inspire The Next Generation About Sustainability And The Environment" [Authority Magazine](#)
- 2022 Mentioned. MIT Technology Review [Think that your plastic is being recycled? Think again. \(ampproject.org\)](#)
- 2021 Mentioned. "How Plastics Are Poisoning Us" [New Yorker](#)
- 2021 Featured. "This chemist uses online videos to teach about the perils of microplastics". [Science News Explores](#)
- 2021 Mentioned. "The five myths of plastics" [Washington Post](#)
- 2020 Mentioned. "The plastics you throw away are poisoning the worlds eggs." [National Observer](#)
- 2020 Featured. "Women Leading the Plastic Revolution" [World Wildlife Fund](#)
- 2020 Featured. "Duke Celebrates Women and Girls in Science Day." [Duke Dep. of Chemistry](#)
- 2020 Mentioned. "Polluting microplastics harm both animals and ecosystems." [Science News Explores](#)
- 2020 Featured. "Imari Walker is on a mission to protect our health from microplastics." [Duke Daily](#)
- 2020 Featured. "Water Bottles: Canceled." [Duke Pratt School of Engineering](#)

Teaching Experience:

University of Georgia:

- 2023 Walker-Franklin, I. "Impact of Plastics Life Cycle". Invited Lecture in Plastic Pollution Seminar

Duke University:

- 2019 Walker Karega, I. "Microplastics in the environment". Invited presentation in Environmental chemistry and toxicology, ENV360
- 2019 Teaching Assistant for Spring Chemical Transformations, CEE662
- 2019 Teaching Assistant for Aquatic Chemistry, CEE461 and CEE561/ENV462
- 2019 Walker Karega, I. "Air water partitioning" Guest Lecture in Aquatic Chemistry, CEE461

International/National Presentations:

- 2023 Walker-Franklin, I., Hale, N., Spence, P., Apolian, J., Christian, O., and Gerald, C. "Targeted and Non-Targeted Screening for Seasonal Environmental Contamination Levels in Durham, NC Surface Waters using Liquid Chromatography-High Resolution Mass Spectrometry." Oral Presentation at the International Society of Exposure Science Conference, Chicago, IL
- 2023 Walker-Franklin, I., Eastman, Z., Tober, K., and Rios-Colon, L. "Non-targeted Chemical Analysis and In Vitro Epithelial cell line analysis of Microplastics dosed in simulated lung leachates and extracts." Oral Presentation at the International Society of Exposure Science Conference, Chicago, IL
- 2023 Walker-Franklin, I., Waidyanatha, S., Uenoyama, T., Rehder Silinski, M. A., Fernando, R., Rider, C. V. "Determination of Variability in Monoterpene Levels in Pine Bark Extract Dietary Supplements Using Gas Chromatography-High Resolution Mass Spectrometry." Poster Presentation at the Society of Toxicology National Meeting, Nashville, TN

- 2022 Walker Karega, I and Ferguson, P. "The Fate of Polypropylene and Polyurethane Microplastic-Associated Chemicals in a Freshwater Laboratory and Mesocosm Study." Oral Presentation at SETAC Nontarget Analysis for Environmental Risk Assessment Meeting, Durham, NC
- 2022 Walker Karega, I., Berger, P, Manalis, N, Brenner, S, Dombek, T. "The Occurrence of Water-Soluble Organic Pollutants in PM2.5 Collected During Wildfire Events in the Western United States." Poster Presentation at Gordon Research Conference: Environmental Science: Water, Holderness, NH
- 2021 Walker Karega, I and Ferguson, P. "The Fate of Polypropylene and Polyurethane Microplastic-Associated Chemicals in a Freshwater Laboratory and Mesocosm Study." Oral Presentation at Society of Environmental Chemistry and Toxicology, Virtual
- 2021 Walker Karega, I and Ferguson, P. "Using nontargeted analysis to understand additive leaching from polyurethane and polypropylene microplastics." Oral Presentation at American Chemical Society, Virtual
- 2019 Walker Karega, I., Montano, M, and Ferguson, P. "The influence of ultraviolet light on release of polymer additives from epoxy-CNT nanocomposites." Poster Corner Presentation at Society of Environmental Chemistry and Toxicology Conference, Toronto, CA
- 2018 Walker Karega, I., Montano, M, and Ferguson, P. "Influence of ultraviolet light (UV), natural organic matter (NOM), pH, and temperature on leaching of Bisphenol A from carbon nanotube (CNT) polymer composites in water." Poster Presentation at Gordon Conference: Environmental Science: Water, Holderness, NH
- 2018 Walker Karega, I., Montano, M, and Ferguson, P. "Influence of ultraviolet light (UV), natural organic matter (NOM), pH, and temperature on leaching of Bisphenol A from carbon nanotube (CNT) polymer composites in water" Poster Presentation at Center for Environmental Implications of Nanotechnology Conference, Duke University, Durham NC
- 2018 Walker Karega, I., Montano, M, and Ferguson, P. "Leaching of bisphenol A from epoxy - carbon nanotube (CNT) polymer composites in water: Influence of UV light exposure and polymer particle size" Poster Presentation at Microplastics Conference, Ascona, Switzerland
- 2018 Walker Karega, I., Montano, M, and Ferguson, P. "Leaching of bisphenol A from epoxy - carbon nanotube (CNT) polymer composites in water: Influence of UV light exposure and polymer particle size" Poster Presentation at Society of Environmental Chemistry and Toxicology Conference, Sacramento, CA
- 2016 Walker Karega, I., Bishop, J." Quantification of particulate inorganic carbon sedimentation using autonomous Carbon Flux Explorer." Marine Science Department Honors Thesis Presentation, UC Berkeley, CA
- 2015 Walker Karega, I. D'Andrea, W. "Understanding alkenone production within algae grown at varied temperature and light conditions." Poster Presentation at American Geophysics Union Fall Meeting, San Francisco, CA
- 2015 Walker Karega, I. D'Andrea, W. "Understanding alkenone production within algae grown at varied temperature and light conditions." Poster Presentation at Sigma Xi, Kansas City, MO
- 2015 Walker Karega, I. D'Andrea, W. "Understanding alkenone production within algae grown at varied temperature and light conditions." Poster Presentation at LDEO Summer Intern Symposium, New York City, NY

- 2015 Walker Karega, I., Mishler, B. Stillman, J. "Macroinvertebrate succession on decomposing *Turbinaria ornata* on the shores of Moorea, French Polynesia." Poster Presentation at UC Leadership through Advanced Degrees (LEADs) Conference, Merced, CA
- 2015 Walker Karega, I., Mishler, B. Stillman, J. "Macroinvertebrate succession on decomposing *Turbinaria ornata* on the shores of Moorea, French Polynesia." Poster Presentation at California Alliance for Minority Participation (CAMP) Conference, Received honorable mention award, Irvine, CA
- 2014 Walker Karega, I., Mishler, B. Stillman, J. "Macroinvertebrate succession on decomposing *Turbinaria ornata* on the shores of Moorea, French Polynesia." Presentation at UC Berkeley Moorea Class Research Presentation, Berkeley, CA
- 2014 Walker Karega, I. Aluwihare, L. "Creating a Standard Curve using Polar Lipids of Spinach to Quantify cyanobacteria along the water column of the Tonga Trench." Presentation at UC San Diego Summer Undergraduate research Symposium, San Diego, CA
- 2014 Walker Karega, I. Jordan-Thaden, I. "Comparing seed germination and viability between the polyploid hybrids and diploid parents of the *Tragopogon* species." Poster Presentation at UC LEADS Conference, Riverside, CA
- 2014 Walker Karega, I. Jordan-Thaden, I. "Comparing seed germination and viability between the polyploid hybrids and diploid parents of the *Tragopogon* species." Poster Presentation at California Alliance for Minority Participation (CAMP) Conference, Received honorable mention award, Irvine, CA
- 2013 Walker Karega, I. Jordan-Thaden, I. "Comparing seed germination and viability between the polyploid hybrids and diploid parents of the *Tragopogon* species." Poster Presentation at Sigma Xi National Conference, Raleigh, NC
- 2013 Walker Karega, I. Jordan-Thaden, I. "Comparing seed germination and viability between the polyploid hybrids and diploid parents of the *Tragopogon* species." Poster Presentation at UC Berkeley Summer Research Symposium, Berkeley, CA