

KATHRYN A. CRAWFORD

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APPOINTMENTS

2020 –	Middlebury College	<i>Assistant Professor,</i> Environmental Studies Program
2018 – 2020	Geisel School of Medicine at Dartmouth	<i>Postdoctoral Research Associate,</i> Department of Epidemiology
2011 – 2012	State of Vermont	<i>Epidemiologic Assistant,</i> Department of Environmental Health
2008 – 2011	Leggette, Brashears & Graham, Inc.	<i>Environmental Scientist</i>
2005 – 2007	University of Vermont	<i>Research Assistant,</i> Rubenstein Ecosystem Science Laboratory

EDUCATION

2018	Boston University School of Public Health	<i>Doctor of Philosophy,</i> Environmental Health
2007	University of Vermont	<i>Master of Science,</i> Natural Resources
2005	University of Vermont	<i>Bachelor of Science,</i> Environmental Science

PUBLICATIONS (* indicates undergraduate co-author)

- [9] Cleary, B.M., * Romano, M.E., Heiger-Bernays, W., Chen, C.Y., **Crawford, K.A.** Comparison of recreational fish consumption advisories across the United States. *Current Environmental Health Reports*. DOI: <https://doi.org/10.1007/s40572-021-00312-w>
- [8] Criswell R., **Crawford, K.A.**, Bucinca, H., Romano, M.E. 2020. Endocrine-Disrupting Chemicals and Breastfeeding Duration: A Review. *Current Opinions in Endocrinology Diabetes and Obesity*. 27(6):388-395. DOI: 10.1097/MED.0000000000000577
- [7] **Crawford, K.A.**, Hawley, N., Calafat, A.M., Jayatilaka, N.K., Froehlich, R.J., Has, P., Gallagher, L.G., Savitz, D.A., Braun, J.M., Werner, E.F., Romano, M.E. 2020. Maternal urinary concentrations of organophosphate ester metabolites: associations with gestational weight gain, early life anthropometry, and infant feeding behaviors among mother-infant pairs in Rhode Island. *Environmental Health*. 19:97. DOI: <https://doi.org/10.1186/s12940-020-00648-0>

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- [6] **Crawford, K.A.**, Clark, B.W. Heiger-Bernays, W.J., Karchner, S.I., Hahn, M.E., Nacci, D.E., Schlezinger, J.J. 2020. Tributyltin disrupts fin development in *Fundulus heteroclitus* from both PCB-sensitive and resistant populations: Investigations of potential interactions between AhR and PPAR γ . *Aquatic Toxicology*. 218: 105334. DOI: <https://doi.org/10.1016/j.aquatox.2019.105334>
- [5] Heiger-Bernays, W.J., Tomsho, K.S., Basra, K., Petropoulos, Z., **Crawford, K.A.**, Scammell, M.K. 2020. Human Health Risks Due to Airborne Polychlorinated Biphenyls is Highest in New Bedford Harbor Communities Living Closest to the Harbor. *Science of the Total Environment*. 710:135576. DOI: <https://doi.org/10.1016/j.scitotenv.2019.135576>
- [4] **Crawford, K.A.**, Clark, B.W., Heiger-Bernays, W.J., Karchner, S.I., Claus Henn, B.G., Griffith, K.N., Howes, B.L., Schlezinger, D.R., Hahn, M.E., Nacci, D.E., Schlezinger, J.J. 2019. Altered lipid homeostasis in a PCB-resistant Atlantic killifish (*Fundulus heteroclitus*) population from New Bedford Harbor, MA, U.S.A. *Aquatic Toxicology*. 210:30-43. DOI: <https://doi.org/10.1016/j.aquatox.2019.02.011>
- [3] **Crawford, K.A.**, Schlezinger, J.J., Craffey, P., Heiger-Bernays, W. 2019. Predictions of polychlorinated biphenyl concentrations in seafood based on long-term monitoring and remediation in New Bedford Harbor, Massachusetts. *Preprint: bioRxiv*. DOI: <https://doi.org/10.1101/675355>
- [2] Environmental Public Health Tracking Portal (2012). Vermont Department of Health. <http://healthvermont.gov/tracking> (produced maps used for displaying Public Community Water System water quality data)
- [1] **Crawford, K.A.** 2008. The Effects of Nutrient Ratios and Forms on the Growth of *Microcystis aeruginosa* and *Anabaena flos-aquae*. Graduate College Dissertations and Theses. Paper 59. <http://scholarworks.uvm.edu/graddis/59>

BOOK CHAPTERS, OTHER PUBLICATIONS, and REPORTS

- [10] Dartmouth College Superfund Research Program, PFAS in New Hampshire: What you need to know (fact sheet). May 2021. https://www4.des.state.nh.us/nh-pfas-investigation/wp-content/uploads/PFASinNH_Fact-Sheet_20210805.pdf
- [9] **Crawford, K.A.**, How chemicals like PFAS can increase your risk of severe COVID-19. *The Conversation*. August 31, 2020. <https://theconversation.com/how-chemicals-like-pfas-can-increase-your-risk-of-severe-covid-19-143167>
- [8] **Crawford, K.A.**, Heiger-Bernays, W.J., Foley, C., Cleary, B.M., Reevaluating fish consumption advisories during the COVID-19 pandemic. *Environmental Health News*. May 19, 2020. <https://www.ehn.org/safe-to-eat-fish-2646025526.html>
- [7] **Crawford, K.A.**, Shoaff, J.R., Romano, M.E. Persistent and non-persistent Environmental Endocrine-Disrupting Chemicals. *Public Health and Preventive Medicine*.
- [6] Heiger-Bernays, W.J. and **Crawford, K.A.** Environmental Risk Assessment. 4th edition of the *Oxford Handbook of Public Health Practice*.

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- [5] **Crawford, K.A.** and Diego, J. Subsurface Site Investigation and Preliminary Remediation Report, Milton, VT. *Submitted to the Vermont Department of Environmental Conservation by Leggette, Brashears & Graham, Inc. on behalf of the Husky Injection Molding Systems, Inc.*
- [4] **Crawford, K.A.** and Diego, J. Remedial Action Plan, South Burlington, VT. *Submitted to the Vermont Department of Environmental Conservation by Leggette, Brashears & Graham, Inc. on behalf of the Greer Family, LLC.*
- [3] **Crawford, K.A.** and Diego, J. Phase II Environmental Site Investigation, South Burlington, VT. *Submitted to the Vermont Department of Environmental Conservation by Leggette, Brashears & Graham, Inc. on behalf of the Greer Family, LLC.*
- [2] Ritzer, D, **Crawford, K.A.** and Diego, J. Quality Assurance Project Plan, Rutland, VT. *Submitted to the Vermont Department of Environmental Conservation by Leggette, Brashears & Graham, Inc. on behalf of the Rutland Regional Planning Commission.*
- [1] Ritzer, D, **Crawford, K.A.** and Diego, J. Subsurface Environmental Site Investigation, Rutland, VT. *Submitted to the Vermont Department of Environmental Conservation by Leggette, Brashears & Graham, Inc. on behalf of the Rutland Regional Planning Commission.*

WORKS IN PROGRESS (* indicates undergraduate co-author)

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- [5] **Crawford, K.A.**, Gallagher, L.G., Baker, E., Karagas, M.R., Romano, M.E. Predictors of breastfeeding duration in the New Hampshire Birth Cohort Study. *Submitted to Maternal and Child Health Journal.*
- [4] **Crawford, K.A.**, Doherty, B.T., Claus Henn, B.G., Romano, M.E., Gilbert-Diamond, D. Exposures to per- and polyfluoroalkyl substances among US snow sport participants. *Submitted to Journal of Exposure Science & Environmental Epidemiology.*
- [3] **Crawford, K.A.**, Doherty, B.T., Claus Henn, B.G., Romano, M.E., Gilbert-Diamond, D. Attitudes, concerns, and health effects associated with per- and polyfluoroalkyl exposure from wax use among US skiers and snowboarders. *Manuscript in preparation, Target journal: Environmental Science & Technology.*
- [2] Lardinois, L.,* Contreras, C.,* San, S.,* Shanley Barr, G.,* **Crawford, K.A.** Personal care products as a source of exposure to chemical mixtures: A review of global and cultural use patterns. *Manuscript in preparation.*
- [1] Romano, M.E., **Crawford, K.A.**, Gallagher, L.G., Baker, E., Karagas, M.R. Associations between per- and polyfluoroalkyl substance (PFAS) exposure and breastfeeding duration in the New Hampshire Birth Cohort Study. *Manuscript in preparation.*

TEACHING

2020 –	Assistant Professor; Middlebury College	
	Environmental Health	Fall 2020, 2021
	Environmental Studies Community-Engaged Practicum	Spring 2021, 2022
	Natural Science and the Environment	Spring 2021, 2022
	Toxic World	Fall 2021

	Data Science Across Disciplines: Environmental Health	Winter 2022
2019 – 2020	Discussion Leader; <i>Geisel School of Medicine at Dartmouth</i> Patients and Populations: Improving Health and Healthcare	Fall 2019, Spring 2020
	Teaching Fellow, Guest Lecturer; <i>Dartmouth College</i> Epidemiology II	Winter 2019, 2020
2019	Lecturer; <i>Women and Infants Hospital of Rhode Island</i> Fellows' Workshop in Clinical Research Design	Summer 2019
2017	Co-Instructor; <i>Boston University School of Public Health</i> Water and Public Health	Fall 2017
2016	Teaching Assistant, Guest Lecturer; <i>Boston University School of Public Health</i> Introduction to Toxicology Introduction to Geographic Information Systems	Fall 2016 Spring 2016
2015	Field Instructor; <i>Boston University School of Public Health</i> Water and Public Health	Fall 2015
2006 – 2007	Teaching Assistant, Lecturer; <i>University of Vermont</i> Marine Biology Introduction to Environmental Science	Spring 2007 Spring 2006

MENTORING/ADVISING

2020 –	Primary Mentor, Middlebury College <i>Student Project:</i> Spatial analysis of PFAS in Vermont drinking water <i>Student Project:</i> Understanding atmospheric partitioning of PFAS <i>Student Project:</i> Quantifying PFAS in dust from ski and snowboard waxing as a proxy for human exposure <i>Student Project:</i> Personal care products as a source of exposure to chemical mixtures: A review of global and cultural use patterns <i>Student Project:</i> Personal care product and agrochemical use patterns among a rural Honduran cohort with elevated thyroid disorders <i>Student Independent Study:</i> The commodification of health
	Secondary Mentor, Middlebury College <i>Student Project:</i> Evaluating human health risk from lead in drinking water among Vermont school-aged children
	Committee Member, Integrative Senior Thesis, Middlebury College <i>Student Project:</i> Heavy metal pollutant analysis in beach and reef sediments and implications for human health <i>Student Project:</i> U.S Nuclear Testing on Indigenous Lands of the Marshallese and Western Shoshone: An Environmental Justice and GIS Analysis

Student Project: Metabolism in the Atlantic killifish (Fundulus heteroclitus): A population-level comparison to assess long-term effects of pollution

Student Project: Metabolism, temperature, and pollution in the Atlantic killifish (Fundulus heteroclitus)

2019 – 2021 **Primary Mentor**, Presidential Scholars Program, *Dartmouth College*
Student Project: Comparison of risk calculations used by U.S. States and Canadian Provinces to set fish consumption advisories

2019 **Research Mentor**, Presidential Scholars Program, *Dartmouth College*
Student Project: A review of effects of perinatal exposure to per- and poly-fluoroalkyl substances on maternal and child health.

Research Mentor, *Boston University*
Student Project: A Meal: the ultimate complex mixture

2016 **Research Mentor**, *Boston University*
Student Project: Quantifying larval fish growth using novel microscopy video techniques

RESEARCH SUPPORT

2020 – NIEHS R21ES032187-01 (PIs: Chen)
Per- and polyfluoroalkyl substances (PFAS) in marine fish and shellfish: A biomonitoring tool for PFAS remediation and a metric for potential human exposure through seafood consumption
 Role: Consultant

2018 – 2020 NIGMS P20-GM104416, Sub-Project ID: 6371 (PI: Romano)
Project 2: Effects of perfluoroalkyl substances on gestational weight gain, breastfeeding and early life growth
 Role: Postdoctoral Research Associate

2018 – 2019 NCI 5R25CA134286-10 (PIs: Karagas, Tosteson)
Training Program for Quantitative Population Sciences in Cancer
 Role: Postdoctoral Research Associate

2017 – 2018 NIEHS T32ES014562 (PI: McClean)
Environmental Epidemiology in Community Settings
 Role: Doctoral Trainee

2014 – 2017 NIEHS P42-ES007381 (PI: Sherr)
Boston University Superfund Research Program
 Role: Doctoral Trainee

2012 – 2014 NIEHS T32ES014562 (PI: McClean)
Environmental Epidemiology in Community Settings
 Role: Doctoral Trainee

2005 – 2007 NOAA NCCOS
Monitoring and Event Response for Harmful Algal Blooms
Role: Master's Trainee

PROFESSIONAL MEMBERSHIPS

- Associations International Society of Environmental Epidemiology
- Society for Pediatric and Perinatal Epidemiologic Research
- Society of Toxicology
- Society of Environmental Toxicology and Chemistry
- Society of Risk Analysis

SELECTED POSTERS AND PRESENTATIONS (first author only)

Evaluating PFAS exposure from fluorinated waxes among U.S. snow sport participants (invited talk)
Northeast Conference on the Science of PFAS: Public Health and the Environment, Marlborough, MA, April 2022

Evaluating PFAS exposure from fluorinated waxes among U.S. snow sport participants
Society of Environmental Toxicology and Chemistry North American Meeting, Portland, OR (virtual), November 2021

Speed might be risky, but not for the obvious reasons
Fall Faculty Forum, Middlebury College, October 2021

Reflecting on COVID-19 through an environmental health lens (invited talk)
Rohatyn Center for Global Affairs, Middlebury College, November 2020

Associations between per- and polyfluoroalkyl substance (PFAS) exposure and breastfeeding duration in the New Hampshire Birth Cohort Study
Gordon Research Conference on Environmental Endocrine Disruptors, Newry, ME, May 2020 (cancelled)

Maternal urinary concentrations of organophosphate flame retardant metabolites: Associations with maternal gestational weight gain, early life anthropometrics, and infant eating behaviors among mother-infant pairs in Rhode Island (poster)
International Society of Environmental Epidemiology, Utrecht, Netherlands, August 2019

Predictors of Breastfeeding Duration in the New Hampshire Birth Cohort Study (poster)
Society of Pediatric and Perinatal Epidemiology Annual Meeting, Minneapolis, MN, June 2019

Predictors of Breastfeeding Duration in the New Hampshire Birth Cohort Study (poster)
Northeast Regional Institutional Development Award (IDeA) Conference, Bretton Woods, NH, August 2019

Healthy Fish, Healthy People: How fish can inform our understanding of effects of metabolism disrupting compounds (MDCs) exposure on wildlife and human health (platform presentation)
Society of Environmental Toxicology and Chemistry North American Meeting, Minneapolis, MN, November 2017

Healthy fish, healthy people: Ecological and human health impacts of early life exposures to endocrine disruptors on metabolic and bone development (poster)

Superfund Research Program Annual Meeting, Philadelphia, PA, November 2017

Healthy fish, healthy people: Ecological and human health impacts of early life exposures to endocrine disruptors on metabolic and bone development (poster)

Society of Environmental Toxicology and Chemistry North American Meeting, Minneapolis, MN, November 2017

Healthy fish, healthy people: Using fish to simultaneously study the ecological and human health impacts of Superfund chemicals in New Bedford Harbor, Massachusetts (poster)

Superfund Research Program Annual Meeting, Durham, NC, December 2016

Healthy Fish, Healthy People? Using fish to simultaneously study the ecological and human health impacts of Superfund chemicals in New Bedford Harbor, Massachusetts (oral presentation)

Gijs van Seventer Environmental Health Seminar, Boston University, Boston, MA, September 2016

Risk assessment and fish consumption advisories: How scientific data inform health policy (oral presentation)

What's in your fish? Forum, Museum of Science, Boston, MA, April 2016

Using Computational Toxicology and Existing Environmental Data Sets to Inform *in vivo* Toxicity Testing (poster)

Superfund Research Program Annual Meeting, San Juan, Puerto Rico, November 2015

Evidence of resistance to AhR-mediated effects of PCB-126 in Atlantic killifish (*Fundulus heteroclitus*), in the Island End River, Chelsea, MA (poster)

The Eighth International PCB Workshop, Woods Hole, MA, October 2014

Evidence of resistance to AhR-mediated effects of PCB-126 in Atlantic killifish (*Fundulus heteroclitus*), in the Island End River, Chelsea, MA (poster)

National Forum on Contaminants in Fish, Alexandria, VA, September 2014

Lower Mystic River Sediment Quality Analysis and Fish Advisory Development (poster)

Boston University School of Public Health MPH Practicum Symposium, Boston, MA, August 2014

Linking Ecotoxicology with Human Health: Industrial Pollutants, Atlantic Killifish and Fish Advisories (oral presentation)

Gijs van Seventer Environmental Health Seminar, Boston University, Boston, MA, April 2014

The Effects of Nutrient Ratios and Forms on the Growth of *Microcystis aeruginosa* and *Anabaena flos-aquae* (oral presentation)

Master's Thesis Defense, University of Vermont, Burlington, VT, December 2007

Water Quality Assessment of Stormwater Entering Lake Champlain from Shelburne Farms, Shelburne, VT (oral presentation)

Shelburne Farms Board of Trustees Meeting, Shelburne, VT, October 2005