Kristin B. Raub, Ph.D.

SUMMARY

Sr. Research Scientist with the Global Resilience Institute at Northeastern University. Interdisciplinary background; connects multiple fields to create unique solutions to complex community resilience challenges. Aspires to be a leader in community-engaged, applied, climate resilience research by working at the nexus of science and society.

EDUCATION

University of Vermont	
Ph.D., Natural Resources: Coastal Resilience	Aug. 2015 - Mar. 2021
Rubenstein School of Environment & Natural Resources	C
NSF IGERT Smart Grid Trainee	
Gund Institute for Environment Graduate Fellow	
• Advisors: A. Zia and K. Stepenuck, Committee: J. Stephens, B. Panikkar, B. Gibson	
Dissertation: Coastal Resilience at the Nexus of Food, Energy, and Water: An Interdisciplinary Planning	Perspective for Resilience
Certificate of Graduate Study in Complex Systems	Aug. 2015 - May 2018
University of Connecticut	
MSc, Applied & Resource Economics: Environmental Economics	Aug. 2013 - Aug. 2019
Department of Agricultural and Resource Economics	
Advisor: S. Swallow	
• Thesis: Coastal Adaptation to Sea Level Rise: Effects of Residential Proximity to the Coast, Cl	imate Change Perceptions,
and Attitudes Toward Government for Valuing Ecosystem Outcomes	
MSc, Oceanography: Chemical Oceanography	Aug. 2011 - Dec. 2013
Department of Marine Science	
Advisor: P. Vlahos	
Thesis: Comparison of Marine Sampling Methods for Organic Contaminants: Passive Sampler	s, Water Extractions, and
Live Oyster Deployment	
Boston University	Aug. 2008 - May 2011
BA, Marine Science	
Sea Education Association, Degree of Completion	
Independent Research: Hydraulics and Morphodynamics of Morse River Inlet, Maine	

TECHNICAL SKILLS

GRANT WRITING; Led the development and writing of several large research proposals, most notably a \$40 million NOAA Climate Smart Communities Initiative proposal that required the coordination of six co-PI's, eight sub-contracts, and over 20 letters of support from partner communities. I have also led proposals for DOE, NASA, USAID, and CIROH. Successful track record in securing grant funding.

PROJECT MANAGEMENT; PI of successful \$1.6million project. Led research team of 11 through the engagement of six communities across the US in an interdisciplinary study of how a hydrologic model could be applied to community resilience work. This included the oversight of staff ranging from undergraduate students through senior research staff and the collaboration with federal agency staff.

INTERDISCIPLINARY RESEARCH; Training in oceanography, environmental economics, complex systems, coastal resilience, the food-energy-water nexus, and community-engaged research. Expertise in qualitative methodologies.

HUMAN SUBJECTS RESEARCH: Current CITI Certificate in human subjects research, proficient in the IRB approval process.

QUALITATIVE METHODOLOGIES: Proficient in survey design, interview protocol development, conducting interviews, qualitative data analysis (thematic and qualitative content analysis, primarily). Community-engaged, social science research design.

PROFESSIONAL EXPERIENCE

Global Resilience Institute at Northeastern University | Boston, MA (Remote)

- Leads ongoing research studies and guides GRI program development, such as through designing and securing funding for new research studies. Specializes in connecting complex climate science and information with communities who need it and designing community-engaged approaches to defining action-oriented resilience strategies.
- Mentors GRI junior staff on qualitative methodologies, research design, presentations, and academic writing. •

Resilience Research Scientist

Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) | Arlington, MA (Remote)

- Position works closely with the Global Resilience Institute at Northeastern University
- Brings a socio-hydrology perspective to CUAHSI through the development of research proposals, leading research • studies, and fostering interdisciplinary collaborations with outside organizations
- Awarded grant from the Cooperative Institute for Research to Operations in Hydrology (CIROH) for a project entitled • "An Analysis and Demonstration of the National Water Model's Applicability to Community Resilience Planning"

Postdoctoral Research Associate

Global Resilience Institute at Northeastern University Boston, MA (Remote)

- Position held jointly during time at CUAHSI.
- Led the development of several grant proposals on resilience planning: NOAA, USAID, DOE, and NASA.
- Awarded grant from NASA's ROSES program (\$100,000) for a project entitled "Leveraging Earth observation data to support environmental justice: A Puerto Rico coastal community case study."

Department of Homeland Security Flood Apex Post-Doc

Consortium of Universities for the Advancement of Hydrologic Science, Inc. (CUAHSI) | Cambridge, MA (Remote)

- Mentored by Dr. Jennie Stephens (Northeastern University) and Dr. Kris Stepenuck (University of Vermont).
- Conducts research and documents options for flood resilience; focuses on resilience as transformation using a food-energy-water nexus approach.
- Awarded grant from UCAR's COMET Outreach Program as the PI for a project entitled "Assessment of the National • Water Model's current and potential role in community resilience planning: A case study analysis" (\$15,000).
- Developed and hosted a Cyber Seminar Series entitled "Interdisciplinary Perspectives on Urban Flood Resilience, How • Diverse Fields Tackle One of the World's Most Prevalent Disasters." 87 - 140 attendees for each of the six sessions.

Graduate Writing Consultant

University of Vermont Graduate Writing Center | Burlington, VT

- Guided graduate writers to overcome challenges faced in diverse writing endeavors.
- Areas of expertise included science writing, academic posters, and long-form writing projects, however, successfully • consulted on writing from any field.
- CRLA's International Tutor Training Program Certification as a Master Tutor, Level III.

Resilience Research Specialist

Coastal States Organization | Washington, D.C. (Remote)

- Remote contract position. Expertise required to complete resilience projects begun during Knauss Fellowship. •
- Led conclusion of the study of coastal tool overabundance. Draft revision, led final review with coastal program members, and published the document in the Journal of Coastal Management.
- Oversaw final writing and review of the Green Guide for FEMA's Community Rating System. Editing draft, liaison to • communities, creating and conducting 4 webinars on the Green Guide. Publicly launched in May 2017.

CSO Coastal Policy Fellow

Coastal States Organization | Washington, D.C.

- Position held during Knauss Fellowship, as part of joint assignment with USACE Institute for Water Resources. •
- Coordinated team of experts to compose comments on the Proposed USACE Nationwide Permits (specifically, NWP 13 and NWP B) on behalf of CSO. Comments adopted in final Nationwide Permits.

Sept. 2021 - July 2022

Aug. 2019 - Dec. 2020

Feb. 2017 - Oct. 2017

Feb. 2016 - Jan. 2017

July 2022 - July 2024

Feb. 2021 - July 2022

- Initiated and facilitated a series of 5 webinars between EPA and CSO members.
- Initiated a study of the overabundance of coastal tools. Interviewed members of coastal programs and toolkit developers • to understand their relationship with tools/toolkits and how coastal adaptation occurs. Project expanded to dissertation chapter post-fellowship.
- Facilitated CSO's Adaptation Working Group. •
- Created a Green Guide for FEMA's Community Rating System in coordination with the Association of State Floodplain Managers. Interviewed 14 of 36 communities on their success with a subset of program elements, drafted success stories from each interview, helped plan and present project during in-person workshop in Rhode Island.

IWR Coastal Policy Fellow

U.S. Army Corps of Engineers Institute for Water Resources | Alexandria, VA

- Position held during Knauss Fellowship, as part of joint assignment with the Coastal States Organization.
- Revised several draft National Shoreline Management Study (NSMS) reports
- Coordinated a one month detail at Army Corps' New England District. Assisted planners with a feasibility study in Connecticut; met with five of CT's Regional Council of Governments.
- Initiated a social network analysis of the Systems Approach to Geomorphic Engineering (SAGE) program to better • understand information flows between individuals.

Environmental Economic Research Assistant

University of Connecticut | Storrs, CT

- Developed a survey to estimate environmental benefits using a choice experiment approach, lead focus groups, analyzed • data using STATA.
- Conducted economic impact analysis of turfgrass industry in New England under Dr. Benjamin Campbell: IMPLAN • model generation; data collection, analysis, and summary.

Oceanographic Research Assistant

Vlahos Organic Carbon Lab, University of Connecticut Avery Point | Groton, CT

- Quantified organic contaminant partitioning via GC/MS of water samples, passive samplers, and live oysters.
- COSEE-TEK Outreach Coordinator: Developed tutorial of analytical methods for biological settlement plates. •
- EVA-BOB (Ethylene vinyl acetate passive sampler plates attached to Basic Ocean Buoys) lab technician: Passive sampler preparation and processing, sample analysis on GC/MS, data collection/summary, and deployment site liaison.

Teaching Assistant, Marine Sciences

University of Connecticut | Storrs, CT & Groton, CT

Independently taught lab sections for Introduction to Oceanography (2x) and Marine Biology (1x).

Laboratory Assistant

Fulweiler Laboratory, Boston University | Boston, MA

Coastal ecology and biogeochemistry field prep, sample processing and analysis.

HONORS & AWARDS (Abbreviated)

2019/20 Thomas J. Votta Scholar

Scholarship awarded to one UVM graduate student who demonstrates an aptitude for solving environmental problems • through a combination of environmental best practices, environmental engineering, and environmental business; competitively awarded.

2016 Knauss Marine Policy Fellow

Host Offices in Washington, D.C.: Coastal Policy Fellow jointly with the Coastal States Organization and the U.S. Army Corps of Engineers' Institute for Water Resources

May 2012 - Dec. 2012

Fall 2011, Spring 2012, Spring 2013

May 2010 - Aug. 2010

Feb. 2016 - Jan. 2017

Aug. 2013 - May 2015

GRANTS

2022 - 2025. "An Analysis and Demonstration of the National Water Model's Applicability to Community Resilience Planning," Principal Investigator: Kristin Raub, Co-Principal Investigators: Stephen Flynn, NOAA – Cooperative Institute for Research to Operations in Hydrology (CIROH) (\$1,640,000)

2023 - 2025. "Modeling Community Trust: A Collaborative Approach to Scoping Water Forecasting Needs and NOAA Product Use in Indigenous Communities of Northeastern Oklahoma," Principal Investigator: Mike Fedoroff, Co-Principal Investigators: Kristin Raub, Stephen Flynn, Scott Merrill, Chris Koliba, NOAA - Cooperative Institute for Research to Operations in Hydrology (CIROH) (\$100,000)

2023 - 2024. "Leveraging Earth Observation Data to Support Environmental Justice: A Puerto Rico coastal community case study," Principal Investigator: Stephen Flynn, Co-Principal Investigators: Kristin Raub, Josh Laufer, Fernado E. Pabon Rico, NASA – Equity and Environmental Justice (\$100,000)

2022 - 2023. "Assessment of the National Water Model's current and potential role in community resilience planning: A case study analysis," Principal Investigator: Kristin Raub, Co-Principal Investigator: Josh Laufer, UCAR COMET Outreach Program's NWS Partners Project (\$15,000)

Lead Writer & Research Designer

2024 - 2026. "International Collaborative Co-Development to Advance and Scale Adaptation and Resilience Efforts in the Caribbean Region" Principal Investigator: Stephen Flynn, Co-Principal Investigator: Elizabeth Moore, Kim Waddell, Gregory Guannel. NOAA Adaptation Sciences (\$300,000)

2023 - 2025. "Advancing Community Climate Resilience Planning in the Caribbean Region," Principal Investigator: Stephen Flynn, Co-Principal Investigators: David Smith, Evangeline Innis Springer, Dan Milz, Elizabeth Moore, Larissa Marchiori Pacheco, Moira Zellner, Rebecca Riccio, U.S. Agency for International Development (USAID) (\$1,000,000)

PUBLICATIONS

Mostacedo-Marasovic, S.-J., **Raub, K.B.**, McCay, D.H., and Forbes, C.T. 2024. Instructors' Needs for Teaching and Mentoring Undergraduate Students in the Water Sciences. *Journal of Contemporary Water Research and Education*, under review.

Raub, K.B. Laufer, J., Flynn, S.E., Daniels, S., and Sivalingam, T. 2024. Harnessing Climate Services to Support Community Resilience Planning: Lessons learned from a community-engaged approach to assessing NOAA's National Water Model. *Frontiers in Climate - Climate Services*, Vol. 6, https://doi.org/10.3389/fclim.2024.1291165.

Raub, K.B., Flynn, S.E., Stepenuck, K.F., and Hedderman, C. 2024. Integrating Resilience and Nexus Approaches in Managing Flood Risk. *Frontiers in Water*, Vol. 6, 1 - 6, <u>https://doi.org/10.3389/frwa.2024.1306044</u>.

Raub, K.B., Platter, H., O'Mara, E., and Panikkar, B. 2023. Incorporation of Justice Concerns within Coastal Resilience Plans Across Eleven U.S. Coastal Cities. *Journal of Climate Resilience and Climate Justice*, Vol. 1, 33 - 54, https://doi.org/10.1162/crcj_a_00007.

Sykora-Bodie, S., Jones, L., Hastings, Z., Lombardi, E., Barnett, M., Davis, O.N., Ferrari, O.M., Garcia Polanco, V., Hofner, A.N., Hunter, B., Ippolito, T., Krantz, W., Neyra, O., Perez-Figueroa, O., **Raub, K.B.**, Sou, J., Viguez, E., Waters, T., and Whitten, J. 2021. Graduate Student Perspectives on Transforming Academia. *Conservation Science and Practice*, https://doi.org/10.1111/csp2.556.

Raub, K.B., Stepenuck, K.F., and Panikkar, B. 2021. Exploring the Food-Energy-Water Nexus Approach to Enhance Coastal Community Resilience Research and Planning. *Global Sustainability*, Vol. 4, 1 - 13, <u>https://doi.org/10.1017/Sus.2021.20</u>.

Raub, K.B., Stepenuck, K.F., Panikkar, B., and Stephens, J.C. 2021. An Analysis of Resilience Planning at the Nexus of Food, Energy, Water, and Transportation in Coastal US Cities. *Sustainability*, Vol. 13, 1 - 21, <u>https://doi.org/10.3390/su13116316</u>.

Gourevitch, J., Singh, N., Minot, J., **Raub, K.B.**, Rizzo, D., Wemple, B., Ricketts, T. 2020. Spatial Targeting of Floodplain Restoration to Equitably Mitigate Flood Risk. *Global Environmental Change*, Vol. 61, https://doi.org/10.1016/j.gloenvcha.2020.102050.

Raub, K.B., Cotti-Rausch, B.E. 2019. Helping Communities Adapt and Plan for Coastal Hazards: Coastal Zone Management Program Recommendations for National Tool Developers. *Coastal Management*, Vol. 47, No. 3, 253-268, https://doi.org/10.1080/08920753.2019.1596674.

Raub, K.B., Vlahos, P., and Whitney, M. 2015. Comparison of Marine Sampling Methods for Organic Contaminants: Passive Samplers, Water Extractions, and Live Oyster Deployment. *Marine Environmental Research*, Vol. 109, pp. 148-158, https://doi.org/10.1016/j.marenvres.2015.07.004.

JOURNALS REVIEWED FOR

Coastal Management (2021), Water (2021); Bulletin of the American Meteorological Society (2024)

REPORTS

Raub, K., Bose, P., 2021. Community Development. In Galford, G.L., Faulkner, J. et al. (Eds), The Vermont Climate Assessment 2021. Burlington, Vermont: Gund Institute for Environment at the University of Vermont. On the web: <u>https://vtclimate.org</u>

Raub, K., B.L. Campbell, V. Wallace, J. Henderson, J. Inuagiato, and S. Rackliffe. 2015. Economic Impact of the Turfgrass Industry in New England. Research report for the New England Regional Turfgrass Foundation.

PRESENTATIONS (Abbreviated)

Heibert, D., Helgeson, J., McLachlan, S., **Raub, K**., and Yu, S. 2024. Tailored resilience: Creating community-engaged climate and hazard plans. Natural Hazard Workshop, Boulder, CO, Jul. 16, presentation.

Sweetman, B., **Raub, K.**, Méndez Guijarro, M., and Neugebauer, S. 2024. Connecting with communities - moving federal science into action. Natural Hazards Workshop, Boulder, CO, Jul. 14, session convener and presentation.

Raub, K. 2024. Fostering use of NOAA's National Water Model in resilience planning for water-related hazards through community engagement. Water Science Conference, St. Paul, MN, Jun. 27, presentation.

Raub, K., Kenney, M., and Sharma, S. 2024. Socio-hydrology: Connecting water and social science for a sustainable future. Water Science Conference, St. Paul, MN, Jun. 25, session convener and moderator.

Raub, K., Castronova, A., and Garousi-Nejad. I. 2024. Embracing diverse perspectives: Translating hydrologic science between scientists, policy makers, and community end-users. Water Science Conference, St. Paul, MN, Jun. 25, session convener and moderator.

Raub, K. 2024. Research to operations: Recommendations for how to facilitate use of the NWM by resilience stakeholders. NOAA OWP All Hands Meeting, Feb. 21, presentation.

Raub, K. 2024. The power of talking to people: Community engagement to connect science, data, and information to those who need it. University of Hawaii guest lecture for course NREM 601, Jan. 29, presentation.

Raub, K., Laufer, J., and Flynn, S. 2023. Proposed uses and enhancements of NOAA's National Water Model (NWM) to advance equity, climate adaptation, and emergency management: Lessons learned from a community-engaged assessment of the NWM's value for resilience-related planning. AGU Fall Meeting, San Francisco, CA, Dec. 14, poster.

Mendez Guijarro, M., **Raub, K**., Flynn, S. 2023. Empowering environmental justice, climate adaptation, and lasting resilience in Salinas, Puerto Rico: Lessons learned from a community-engaged exploration of Earth observation data applications. AGU Fall meeting, San Francisco, CA, Dec. 14, poster.

Forbes, C.T., McCay, D., Mostacedo-Marasovic, S-J., and **Raub, K**. 2023. Understanding the needs of faculty for teaching undergraduate students in the water sciences. Geological Society of America Connects 2023, Pittsburgh, PA, Oct. 15 - 18, poster.

Raub, K. 2023. The Power of Talking to People: Catalyzing the Role of Hydrology in Resilience Planning Through Community Engagement. CIROH 1st Annual Training & Developers Conference, Salt Lake City, UT, May 18, invited keynote speaker.

Raub, K. 2022. A Collaborative Approach to Assessing the National Water Model's Current and Potential Role in Community Resilience Planning: Preliminary Outcomes from Geographically Diverse Communities. AGU Fall Meeting, Chicago, IL, Dec. 13, presentation.

Raub, K. 2022. Demonstration of the National Water Model and Other NOAA Tools to Crowdsource Ways that NOAA Could Facilitate Their Usage in Coastal Resilience Planning. Restore America's Estuaries 2022 Coastal & Estuarine Summit, New Orleans, LA, Dec. 5, panel creator and moderator.

Raub, K., O'Mara, E., Platter, H., and Panikkar, B. 2022. Evaluating the incorporation of climate justice and community well-being concerns within resilience plans across eleven US coastal cities. ISQOLS 2022: Quality-of-Life for Resilient Futures: Sustainability, Equity, & Wellbeing, Burlington, VT, Aug. 3 - 6, poster.

Raub, K. 2022. Assessment of the National Water Model's Current and Potential Role in Community Resilience Planning: A Case Study Analysis. Frontiers in Hydrology, San Juan, Puerto Rico, June 20, presentation.

Raub, K. 2022. Connecting Silos: A Food-Energy-Water Nexus Approach for Coastal Resilience Planning. Tulane Engineering Forum, New Orleans, LA, Apr. 22, invited presentation.

Raub, K. 2021. Applying a Food-Energy-Water Nexus Approach to Coastal Resilience Research and Planning. CUAHSI Cyberseminar Series: Perspectives on Urban Flood Resilience, Sept. 22, presentation.

Raub, K. 2020. An Analysis of Resilience Planning at the Nexus of Food, Energy, Water, and Transportation Systems in Coastal US Cities. Behavior, Energy, and Climate Change Conference, Virtual Conference, Dec. 7 - 10, presentation.

Raub, K. 2020. A Comparison of Riverine and Coastal Resilience at the Nexus of Food, Energy, and Water Systems. American Geophysical Union's (AGU) Fall Meeting, Virtual Conference, Dec. 1 - 17, poster.

Raub, K. 2020. Exploring the Food-Energy-Water Nexus Approach to Enhance Coastal Community Resilience Planning. Restore America's Estuaries: The National Coastal & Estuarine Virtual Summit, Sept. 29 - Oct. 1, presentation.

Raub, K. 2019. Helping Communities Adapt and Plan for Coastal Hazards: Coastal Zone Management Program Recommendations for National Tool Developers. UVM Student Research Conference, Burlington, VT, Apr. 17, presentation.

Raub, K. 2019. Operationalizing Resilience. Gund Research Slam hosted by the Gund Institute for Environment, Burlington, VT, Mar. 27, presentation.

Raub, K. 2019. Coastal Resilience at the Nexus of Food, Energy, and Water. Energy, Resilience: Equity & Inclusive Action in an Increasingly Turbulent World Workshop hosted by the Global Resilience Institute at Northeastern University, Boston, MA, Mar. 26, invited presentation.

Raub, K. 2018. Challenges with Coastal Tools: Community End-User Needs and Recommendations. Restore America's Estuaries 9th National Summit on Coastal and Estuarine Restoration and Management: Investing in Our Coasts: Environment, Economy, Culture, Long Beach, CA, Dec. 8-13, poster.

Raub, K. 2018. Coastal Resilience Policy at the Nexus of Food, Energy, and Water. Behavior, Energy, and Climate Change Conference, Washington, DC, Oct. 10, presentation.

Raub, K., Minot, J., and Gourevitch, J. 2017. Optimizing Investments in Flood Mitigation Using a Multi-Objective Evolutionary Algorithm. University of Vermont Computer Science Fair, Burlington, VT, Dec. 8, poster.

Raub, K., Collins, P., and Rosenberg, A. 2016. Social Network Analysis of Actors Involved in Systems Approach to Geomorphic Engineering (SAGE). Restore America's Estuaries 8th National Summit on Coastal and Estuarine Research and 25th Biennial Meeting of the Coastal Society, New Orleans, LA, Dec. 11-15, poster.

PROFESSIONAL TRAINING

SHARP Training in PI Leadership Skills

Columbia University Mailman School of Public Health

• Course: Two-day intensive boot camp on the skills necessary to be a successful lab or research group leader.

Fundamentals of OCAP

First Nations Information Governance Centre

• Course: Online course providing training on the importance of ownership, control, access, and possession (OCAP) of First Nations data. The course provides training on the importance of self-determination, self-governance, and collective rights to data sovereignty.

Innovations in Collaborative Modeling Virtual Field School

Michigan State University (virtual course)

• Course: Four-day intensive course on participatory modeling techniques. Completed units on fuzzy cognitive mapping and systems dynamic modeling.

Spatial Agent-Based Modeling Short Course

Socio-Environmental Synthesis Center (SESYNC); Annapolis, MD

- Course: One week intensive course by Dr. Nick Magliocca
- One of 18 participants, competitively selected.

Summer School of Agriculture and Food Economics

Università Cattolica del Sacro Cuore Graduate School in Agro-Food Economics; Cremona, Italy

- Course: Strategy and Leadership by Dr. Christian Stadler
- Funding awarded by the University of Connecticut, 3 students from the department selected.

Sea Education Association

• Degree of Completion; One month on-shore study in Woods Hole, MA; Investigated nutrient cycling within planktonic Sargassum mats in the Caribbean Sea throughout 28-day tallship research cruise between St. Croix, US Virgin Islands and Key West, FL.

LEADERSHIP & VOLUNTEER ACTIVITIES

Sail Beyond Cancer Vermont	July 2021 - Oct. 2023	
• Volunteer. Crew for sailing excursions that provide respite and the "healing power of wind" for UVM Women in STEM Network	Jan. 2018 - Sept. 2020	
• Leadership. Co-founder and co-leader of the Network. The group's mission is to advance professional development of		
STEM undergraduate and graduate students and to learn from the experiences of other women in a variety of		
science-related careers.		
Building Bridges Symposium	Nov. 2018	
• Leadership. Co-created and co-led a day-long Symposium. Successfully furthered the work undertaken by RSENR on		
diversity, inclusion, and equity. 50 - 75 attendees throughout 7 sessions. 4 weeks from inception	to successful execution.	
Rubenstein Graduate Student Association (GSA) Vice President	Aug. 2017 - May 2018	
• Leadership, elected position. Graduate/faculty liaison, advocate for GSA membership interests.		
UConn ARE Seminar Committee	Aug. 2013 - May 2015	
• Leadership, elected position. Seminar coordination and speaker liaison.		
UConn Avery Point Graduate Student Association (GSA) Secretary	Aug. 2012 - May. 2013	
• Leadership, elected position. Coordinated weekly seminar series, department-wide information distribution.		
Taste Touch and Smell Marine Science	May 2010 - June 2010	
• Volunteer. Science day camp for underprivileged youth, led the chemical oceanography unit.		

June 2024

April 2022

August 2021

June 2019

May 2014

Nov. 2010 - Dec. 2010

OTHER INTERESTS

Competitive & recreational sailing, podcast listening, gardening, travel, cooking, winter beach combing