Luis Alexis Rodríguez-Cruz

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EDUCATION

Ph.D. Candidate in Food Systems

August 2017 –

University of Vermont

Dissertation: [un]Natural Disasters & Structural Vulnerability: Understanding Puerto Rican Farmers'

Adaptive Capacity in a Changing Climate

Advisor: Dr. Meredith T. Niles

Committee: Drs. V. Ernesto Méndez, Amy Trubek, and Teresa Mares (Chair)

Certificate of Graduate Study in Agroecology

2020

Agroecology and Livelihoods Collaborative, University of Vermont

M.S. in Food Science and Technology

2018

University of Puerto Rico at Mayagüez

Thesis: Food Safety Knowledge, Attitudes, and Practices Amongst Small Scale Commercial Fishermen of

Western Puerto Rico.

Advisor: Dr. Fernando Pérez-Muñoz

Graduate Committee: Dr. María del Carmen Rodríguez-Rodríguez & Dr. Robinson Rodríguez-Pérez

B.S. in Biology with sub-concentration in Biotechnology

2014

University of Puerto Rico at Ponce, Cum Laude

RESEARCH INTERESTS

• Island food systems, natural hazards and agriculture, food security and sovereignty, adaptive capacity and structural vulnerability, agroecology, social-ecological systems, science communication and outreach, Puerto Rican and Caribbean studies, food culture, governance, public health and public policy.

RESEARCH & PROFESSIONAL EXPERIENCE

Research Consultant November 2018 –

Caribbean Agroecology Institute, Burlington, Vermont

- Provides consulting on program development and evaluation, and on food systems research.
- Worked in the logistics regarding the US delegation's participation at the 7th International Encounter of Agroecology, Sustainable Agriculture and Cooperativity of Cuba's National Association of Small Farmers (November 2019, Havana).
- Provided consulting on climate change adaptation workshops for a collaborative project between the Caribbean Agroecology Institute and the *Unidad Presupuestaria de Servicios Ambientales* (Baracoa,

Guantánamo, Cuba) titled, Strongly Prepared for Climate Change: Community-based Adaptation and Resiliency Planification. (November 2018)

Research Assistant August 2017 –

Department of Nutrition and Food Sciences, University of Vermont

Assistant to Dr. Meredith T. Niles

- Project: Food access and food security during Coronavirus
 - Built survey on Qualtrics platform, and translated to Spanish some parts of the survey.
- Project: Farmers' Perspectives on Water Management and the Sustainable Groundwater Management Act (SGMA)
 - Wrote policy briefs on the results of three California counties.
- Project: Advancing Grass-Fed Dairy: A Whole Systems Approach to Enhancing Productivity, Quality, and Farm Viability in the US.
 - Performed qualitative analysis of transcripts
- Project: Assessing the Cumulative Impact of Policy Stacking on Vermont farmers.
 - Prepared data sheets for coding and statistical analysis.
 - Performed qualitative analysis of transcripts

Research Assistant 2016 – 2017

Extension Service, University of Puerto Rico at Mayagüez

Assistant to Dr. María del Carmen Rodríguez-Rodríguez

- Project: Development of Culturally-Sensitive-Age-Appropriate Nutrition Education Materials for Childhood Obesity Prevention in Puerto Rico. (USDA NIFA-AFRI)
 - Conducted 3 focus groups (~11 children each). Performed 5 verbatim transcriptions, and analyzed them through content analysis. Assessed current barriers on acquiring healthy food, promoting physical activity, and on healthy eating perceptions among Puerto Rican parents and children.

Biology Assistant 2014

Fisheries Division of the Department of Agriculture, San Juan, PR.

Supervisor: Salvador Coleman Tió

• Conducted in person and telephoned surveys (~20), organized meetings across Puerto Rico (~5), and developed an updated registry of the fisheries of the Puerto Rico Department of Agriculture.

Undergraduate Researcher

2014

Department of Biology, University of Puerto Rico at Ponce

Assistant to Dr. José G. Rodríguez

- Project: A Comparison of Two Genetic Populations of Atlantea tulita.
 - Gathered field data (caterpillars) in two locations in Puerto Rico (Maricao and Quebradilla), and performed genetic tests (e.g. DNA amplification, Maximum Likelihood, etc.) of Cytochrome Oxidase I to understand the relationship between two extant populations of *Atlantea tulita*.

Research Assistant 2012 –2013

AIDS Program of the Ponce Health Sciences University, Ponce, PR.

Volunteer assistant to Dr. Qiyi Tang

Electroporation, and others to understand the roles of different genes in Human cytomegalovirus.

• Performed techniques such as cloning using the Bacterial Artificial Chromosome, Overlapping PCR,

Research Assistant 2012

Tropical Agriculture Research Station, USDA Agricultural Research Service, Mayagüez, PR Intern in Dr. Timothy Porch's Genetic Laboratory

- Project: Characterization, Conversion, and Improvement of Common Bean Germplasm.
 - Performed genetic techniques (e.g. PCR, gel electrophoresis), developed a photographic database for tepary beans, and carried out field work (e.g. virus inoculation, data analysis on-site).

APPOINTMENTS

- 2020 4. <u>Volunteer Researcher.</u> Caribbean Climate Hub, International Institute of Tropical Forestry, United States Forest Service, United States Department of Agriculture
- 2020 3. **Co-Lead.** Social Activities Committee, Agroecology and Livelihoods Collaborative.
- 2020 2. **Chapter Liaison.** Society for the Advancement of Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS), UVM Chapter.
 - Was part of the founding group. Represents the group at the SACNAS US Level, and at the University of Vermont Graduate Student Senate
- 2018 1. Puerto Rico Science Policy Action Network (PR-SPAN)

Co-Chair since February 2020, member since 2018

- A Ciencia Puerto Rico <u>initiative</u> that seeks to create a platform for Puerto Rican scientists to access resources and skills that allow them to inform policy and decision-making at all levels, and collaborate with Puerto Rican communities and organizations in the creation and implementation of sound and evidence-based policies.

PEER-REVIEWED PUBLICATIONS

Research article

Robinson Rodríguez-Pérez, PhD, Nancy Correa-Matos, PhD, RDH, LND, Angélica Valdés-Valderrama, MS,
 Luis Alexis Rodríguez-Cruz, MS, María C. Rodríguez, PhD. (2018) A Qualitative Study of Puerto Rican
 Parent and Child Perceptions Regarding Eating Patterns. *Journal of Nutrition and Education Behavior*.
 https://doi.org/10.1016/j.jneb.2018.10.002

Comments and book reviews

- 4. **Luis Alexis Rodríguez-Cruz** (2020) Food in Cuba: the pursuit of a decent meal. *Journal of Food, Culture & Society*. DOI: 10.1080/15528014.2020.1773145.
- 3. Vanessa García Polanco & **Luis Alexis Rodríguez-Cruz** (2019) <u>Decolonizing the Caribbean diet:</u>

 <u>Two perspectives on possibilities and challenges</u>. In a special edition of the *Journal of Agriculture*, *Food Systems*, and *Community Development* titled, "*Indigenous Food Sovereignty in North America*". 9(B).

- 2. Luis Alexis Rodríguez-Cruz (2019) Between Two Worlds. Science. 365(6456): 946.
- 1. Luis Alexis Rodríguez Cruz (2018) <u>From Ocean to Table: Integrating Marine and Coastal Food Systems into Food Studies</u>. *Cite This*, a special edition of the *Graduate Journal of Food Studies*. 5(2).

PEER-REVIEWED ARTICLE IN PREPARATION

1. Luis Alexis Rodríguez-Cruz & Meredith T. Niles. Puerto Rican Farmers' Psychological Awareness after Hurricane Maria: Implications for Adaptive Capacity. Submitted to *PLOS ONE* on June 22, 2020.

RESEARCH BRIEFS

- 2. Seafood handling and processing in western Puerto Rico: Challenges and opportunities for commercial fishermen (2020) <u>Luis Alexis Rodríguez-Cruz</u>. University of Puerto Rico at Mayagüez. <u>English</u> and <u>Spanish</u>.
- 1. Hurricane Maria's Impacts on Puerto Rican Farmers: Experience, Challenges, and Perceptions (2018) <u>Luis Alexis Rodríguez-Cruz & Meredith T. Niles. University of Vermont. English and Spanish.</u>

PUBLIC WRITING

- 4. Luis Alexis Rodríguez Cruz (2020, March 19) Soberanía alimentaria en tiempos de coronavirus. [The COVID-19 Pandemic and Puerto Rico's Food Sovereignty] El Nuevo Día.
- 3. Luis Alexis Rodríguez-Cruz (2019, August 29) <u>I wanted to join my fellow Puerto Ricans in protest—but I'm far away for my Ph.D.</u> Working Life, Science Magazine. [Español]
- 2. **Luis Alexis Rodríguez Cruz** (2019, June 14) <u>El reto de fortalecer la pesca en Puerto Rico</u>. [Challenges on Strengthening the Puerto Rican Fishing Sector] *El Nuevo Día*, p. 48.
- 1. Luis Alexis Rodríguez Cruz (2019, March 11) <u>Descontaminar sin atentar contra los viequenses</u>. [Cleaning <u>Vieques Should Threaten its Citizens nor the Environment</u>] *El Nuevo Día*, p. 52.

LITERARY PUBLICATION

1. Cuentos color mostaza (A compilation of short stories) (July 2015) ISBN: 9781514611203

LITERARY PUBLICATION IN PREPARATION

1. Al otro lado (A compilation of short stories).

GRANTS

- 3. Puerto Rico Science Policy Action Network. (2020) *Visibilidad y conCiencia en Puerto Rico de cara a las elecciones 2020*. Science Rising Challenge Fund, Union of Concerned Scientists, Washington, DC. *Total Award:* \$1,000 (Co-Lead).
- Marysel Pagán-Santana, Luis Alexis Rodríguez-Cruz, and Yamil López. <u>Puerto Rican Agricultural</u>
 <u>Resiliency and Sustainable Rural Livelihoods</u>. COVID-19 Working Group for Public Health and Social Sciences

Research. (2020) NSF-funded Social Science Extreme Events Research (SSEER) network and the CONVERGE facility, Natural Hazards Center, University of Colorado Boulder. *Total Award:* \$1,000 (Co-Lead).

1. Luis Alexis Rodríguez-Cruz and Amy Trubek. Food Systems, Mixed-Methods and Archival Research: A Learning and Doing Workshop. (2020) Food Systems Transdisciplinary Workshop or Proposal Development Grant, University of Vermont Graduate College. Total Award: \$10,000 (Co-Lead).

INVITED PRESENTATIONS

- 4. <u>Guest lecturer</u>. NFS 073 Farm to Table: Our Contemporary Food System, Profs. Jean Harvey and Amy Trubek. Presented: *Small Island Developing States and Climate Change*. December 3, 2018. University of Vermont. Burlington, VT.
- 3. <u>Panelist</u>. Presented: *Small Island Developing States: Challenges and opportunities for agricultural resilience in a changing climate*. Panel: *Climate Change and Resilience*. Alongside Chathurika Wijewardana, Valens Niyigena, and Saleh Ahmed. Borlaug Summer Institute on Global Food Security. June 13, 2018. Perdue Center for Global Food Security, Perdue University, West Lafayette, Indiana.
- 2. <u>Discussant.</u> Peer Mentoring Chat: Isolation and Imposter Syndrome (webinar). Alongside Sofía Machiavelli-Girón & Liz Hernández. Yale Ciencia Academy. June 12, 2018. Yale University and Ciencia Puerto Rico.
- 1. <u>Guest lecturer</u>. Basic Spanish, Prof. Marta García Nieves. Was invited to speak to students about the process of writing *Cuentos color mostaza*. December 8, 2016. Interamerican University of Puerto Rico. Ponce, PR.

ORGANIZED EVENTS

- 3. "Pedagogía de la tierra en la escuela y en la comunidad: Retos y oportunidades para el desarrollo de políticas públicas." [Land Pedagogy at Schools and Communities: Challenges and Opportunities for the Development of Public Policies] *Moderator and organizer*. Funded by The Science Rising Challenge Fund. September 11, 2020. *Webinar (Facebook Live)*.
- 2. "<u>Racismo en Puerto Rico: Retos y oportunidades para el desarrollo de políticas públicas</u>". [Racism in Puerto Rico: Challenges and Opportunities for the Development of Public Policies] <u>Moderator and organizer</u>. Funded by The Science Rising Challenge Fund. September 4, 2020. <u>Webinar (Facebook Live)</u>.
- 1. "Acortando la brecha entre la ciencia, política y medios de comunicación". [Shortening the Gap Between Science, Politics, and the Media] *Presenter, and leadership team*. Funded by the National Science Policy Network (NSPN). San Juan, Puerto Rico. September 6, 2019. <u>Workshop</u>.

PRESENTATIONS AT ACADEMIC CONFERENCES

4. **Luis Alexis Rodríguez Cruz** & Meredith T. Niles. "Intended and Actual Adoption of Climate Adaptation Practices after Hurricane Maria". *American Association for the Advancement of Science Annual Meeting*. <u>Poster presentation</u>. *Seattle, WA*. February 2020.

3. **Luis Alexis Rodríguez Cruz.** Farming in an Unincorporated Territory of the United States. <u>Panel presentation</u>: Relocalizing Agriculture in a Transnational World: Place, Markets, and Migration. Alongside Emily Ramsey, Andrea Rissing, Alex Korsunsky, and Debarati Sen as moderator. SANA/SUNTA joint conference. San Juan, PR. May 2019. [paper in absentia]

- 2. **Luis Alexis Rodríguez Cruz** & Meredith T. Niles. "Hurricane Maria's Impacts on Puerto Rican Farmers: Experience, Perceptions, and Challenger." *University of Vermont's Student Research Conference*. <u>Poster presentation</u>. *Burlington*, VT. April 2019.
- 1. **Luis Alexis Rodríguez Cruz** & Meredith T. Niles. "Puerto Rican Farmers Psychological Distance of Climate Change Adaptation". *American Association for the Advancement of Science Annual Meeting*. <u>Poster presentation</u>. *Washington*, *D.C.* February 2019.

AWARDS & FELLOWSHIPS

Fellowships

- 7. Switzer Environmental Fellowship. The Robert and Patricia Switzer Foundation. 2020-2021.
- "The Switzer Fellowship offers one-year fellowships to highly talented graduate students in New England and California whose studies and career goals are directed toward environmental improvement and who clearly demonstrate leadership in their field."
- 6. Food Systems 4th Year Doctoral Candidate Fellowship. Graduate College, University of Vermont. 2020.
- This fellowship is intended for students to focus solely on dissertation research, and in disseminating their work through academic conferences.
- 5. Scientist Sentinels for Civic Engagement and Leadership, COMPASS Science Communication Inc. 2019 –
- One of 15 scientists chosen nationwide (US) to "(...) advance the role of science in society, inspire their peers, and support evidence-based decision making at the local level and beyond".
- 4. Graduate Fellow. Gund Institute for the Environment, University of Vermont, Burlington, VT. 2018 -
- "The Gund Institute for Environment brings scholars and leaders together to accelerate research, uncover solutions and tackle the world's most pressing environmental issues."
- 3. Borlaug Summer Institute on Global Food Security Fellow, Purdue University, West Lafayette, IN. 2018.
- One of the 40 accepted graduate students nationwide (United States) interested in "developing a holistic understanding of the conceptual challenges around global food security."
- 2. Yale Ciencia Academy, Yale University and Ciencia Puerto Rico. 2018.
- Successfully completed a competitive year-long career development program for doctoral students (40), across the United States and Puerto Rico, featuring professional development workshops, virtual conversations with successful scientists, career planning, science outreach, networking opportunities, and extensive community building.
- 1. The Caminos Project Fellow (USDA-NIFA), Texas State University, San Marcos, Texas, 2016.
- One of 12 graduate students from underrepresented populations in the US, chosen to participate in a multidisciplinary training in the agricultural sciences at the 2016 National Conference of the American Association of Hispanics in Higher Education.

Awards

- 7. <u>2020 Graduate Research Excellence Award</u>. Recognized by the College of Agriculture and Life Sciences for excelling in research and scholarly accomplishments. (May, 2020) University of Vermont. Burlington, VT.
- 6. <u>Winner in Social Sciences</u>. Student *Eposter* Competition of the American Association for the Advancement of Science Annual Meeting (February 2020), Seattle, Washington.
- 5. <u>Symposium Scholar</u> #InclusiveSciComm Symposium. Funding from the Chan Zuckerberg Foundation. (August 2019) Metcalf Institute, University of Rhode Island. Kingstown, RI.
- 4. <u>Honorable Mention in Social Sciences.</u> Student *Eposter Competition* of the American Association for the Advancement of Science Annual Meeting (February 2019) Washington, D.C.
- 3. Student Diversity Program Winner. USDA's Agricultural Outlook Forum. (February 2017) Washington, D.C.
- One of 10 graduate students selected nationwide (essay competition) for a highly competitive program that exposes students to contemporary agribusiness, future trends, scientific research and agricultural policy.
- 2. <u>Honorable Mention in Poetry.</u> 2015 Literary Contest (May 2015) University of Puerto Rico at Mayagüez.
- 1. <u>Best Presentation and People's Choice Awards.</u> *New Food Product Development Competition* (November 2014) University of Puerto Rico at Mayagüez.

TEACHING EXPERIENCE

Teaching Assistant and Laboratory Instructor

2017 - 2020

Department of Nutrition and Food Sciences, University of Vermont

- Basic Concepts of Food Laboratory (NFS 054) (Spring Semesters 2018, and 2020)
 - Instructor of two laboratory sessions (12 and 16 students each).
 - Intertwined culinary skills with food science and technology.
- Fundamentals of Nutrition (NFS 043) (Fall Semester 2019)
 - Graduate TA of the course (206 students)
 - Supervisor of 5 undergraduate TA's
- Food Microbiology Laboratory (NFS 213) (Fall Semesters 2017, and 2018)
 - Instructor of two laboratory sessions (16-20 students each).
 - Prepared laboratory materials: media cultures, sanitation of equipment, etc.

Laboratory Instructor

2014 - 2017

Department of Biology, University of Puerto Rico at Mayagüez

- Human Anatomy and Physiology Laboratory (BIOL 3716) (2015-2018)
 - Instructor of 2-3 laboratory sessions per semester (15-20 students each).
 - Prepared laboratory materials: dissection organs, anatomical schemes, etc.
 - Designed and carried out exams and assessments.
 - Incorporated experiential learning techniques, as well as the arts.
- Biological Sciences Laboratory (CIBI 3032) (2014 2015)
 - Instructor of 2-3 laboratory sessions per semester (15-20 students each).
 - Assisted Mr. Donato Seguí, coordinator of the laboratory, in leading TA meetings.

- Incorporated an interdisciplinary approach to satisfy the diverse interests of students.

CERTIFICATIONS & SKILLS

- Certified in Standard Operating Procedure (SOP), Standard Sanitizing Operating Procedure (SSOP), Hazard Analysis and Critical Control Points (HACCP), and Good Manufacturing Practices (GMPs) (2016)
- Proficiency with/in:
 - Project and interdisciplinary teams management
 - Event management and organizer
 - Statistical analyses in STATA, SPSS, JMP (basic), and R (basic)
 - Scientific survey design and administration (in person, online, by mail, and through enumerators)
 - Survey design in Qualtrics and Google Forms
 - Qualitative analysis with NVivo Software
 - Microsoft Office Suite
 - WordPress blog management and design

OTHER SPOKEN LANGUAGE

Spanish (first language)

PROFESSIONAL AFFILIATIONS

American Geophysical Union	2020 -
American Association for the Advancement of Science (AAAS),	2018 -
Ciencia Puerto Rico,	2017 -
Society for Advancement of Chicanos/Hispanics and Native Americans in Science (SACNAS),	2015 -
βββ National Biological Honor Society, Zeta Kappa Chapter	2010 -