

# Rebecca Orrison, Ph.D.

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## EDUCATION

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**Ph.D., Atmospheric Science;** University at Albany; State University of New York 2024

Dissertation: *Stable oxygen isotope variability as a proxy for large-scale dynamics of the South American Summer Monsoon*

**B.S., Environmental Science, Policy and Management;** University of Minnesota – Twin Cities 2016

## SKILLS

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<b>Technical</b>	observational data (.txt), large-scale climate data (netCDF), statistics, data visualization, shell/bash scripting
<b>Programming</b>	Python, Climate Data Operators (CDO), Git, UNIX, high-performance parallelized computing, L <sup>A</sup> T <sub>E</sub> X
<b>Software</b>	Asana, Airtable, Zenodo, Zotero
<b>Languages</b>	English (native), Spanish (fluent), French (proficient)

## RESEARCH EXPERIENCE

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**Graduate Research Assistant** 9/2018 – 7/2024

*Research Foundation for SUNY at the University at Albany; New York*

- Synthesized diverse data from large-scale climate models, observations, and reanalysis products to develop an emergent understanding of the historic and modern climate variability of the South American Summer Monsoon.
- Developed statistical analysis to characterize the regional atmospheric circulation response to external and internal forcing mechanisms of the global climate system in the past, present, and future.
- Presented research findings in numerous first- and co-authored peer-reviewed publications, professional talks, and conference presentations. Full list available on professional website.
- Participated in diverse outreach activities including as a mentor and instructor for education activities designed to engage students from backgrounds under-represented in STEM and gave numerous public talks on climate change for diverse community groups.

**Visiting Research Scientist** 9/2017 – 12/2017

*Climate Dynamics Group, Max Planck Institute for Meteorology; Hamburg, Germany*

- Assessed the difference in estimated ocean-atmosphere climate feedback strength between reanalyses and observations across multiple data sets (surface and L3 satellite products) with estimates in current literature derived from CMIP5 model simulations.

**Undergraduate Research Assistant** 6/2014 – 10/2016

*Dept of Soil, Water and Climate, University of Minnesota; Minnesota*

- Evaluated the regional response of North American hydrology and climate to seasonal ocean-atmosphere variability in the Pacific and Atlantic ocean basins in large-scale climate model simulations and reanalysis datasets.

## LEADERSHIP EXPERIENCE

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**Chair** 1/2021 – 1/2023

*Capital District Public Power Working Group*

*Democratic Socialists of America, Public Power NY Coalition; Albany, NY*

- Steering member and sole climate scientist of a strategic statewide campaign to fight for renewable energy, high-paying jobs, and environmental justice through the expansion of public power in the state of New York, and to pass the New York Build Public Renewables Act. [passed in 2022-2023 session]
- Built deep relationships with key stakeholders, including organized labor, elected officials, and social justice organizations.
- Coordinated recruitment and training to support a local team of activists engaged in the statewide effort, including coordination of local actions, written communications (press releases and articles), delegating organizing conversations with new member recruits, and media strategy.

- Maintained multi-modal (phone calls, slack, email) and frequent communication within our local team through documenting and facilitating meetings, maintaining working plans and training team members to help with project management and step into leadership.
- Planned seven legislative lobbying days in 2020–2021 legislative session and a regionally coordinated rally (June 2021).

## Co-convenor

4/2018 – 12/2021

### *Climate Change Working Group Science for the People*

- Facilitated national working group meetings across various member chapters and coordinated with allied organizations
- Developed a campaign for a “People’s Green New Deal” to combat the climate crisis with widespread democratic input, including support for events across the United States and the development of materials and resources for local efforts.
- Member of publication collective for the Science for the People Magazine ‘People’s Green New Deal’ issue (coordinator, contributor, reviewer, translator). Continued assistance in translation and technical editing for subsequent publications.
- Coordinated a series of seven virtual workshops on a ‘People’s Green New Deal’ for an international audience, reaching more than 500 participants. Themes of the workshop related to the intersection of climate change and social justice with themes such as labor, agriculture, energy, and internationalism.
- Organized a workshop to engage geoscientists in ongoing Science for the People activities and the work of allied organizations.

## Organizer

11/2019

### *Climate, Food Systems, and Social Justice*

- Organized and facilitated a community workshop with over 80 attendees to create emergent dialog at the intersection of the issues of climate, food systems, and social justice.
- Planned a detailed workshop outline, including a Q & A with a panel of featured speakers (both local and invited from outside the community), facilitated small group discussions with guiding questions, and planned a concluding synthesis discussion.

## SELECTED PUBLIC OUTREACH

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<b>Interviewee</b> , Climate Change Collaborations Across the Americas, AGU TV	2023
<b>Presenter</b> , Public talk: Climate Change and Us; Beyond Individual Action; Wilkes-Barre, PA	2022
<b>Presenter</b> , Public talk: Climate Change and Us; Beyond Individual Action; Albany, NY	2022
<b>Panelist</b> , COP 26 Panel; UAlbany Democracy Matters Club	2022
<b>Volunteer</b> , Girls Inc., Eureka! summer camp; DAES, UAlbany	2021
<b>Volunteer</b> , UAlbany Science and Technology Entry Program; DAES, Albany, NY	2020
<b>Volunteer</b> , Earth Science Teacher workshop; DAES, Albany, NY	2020
<b>Presenter</b> , Poster session and discussion with Congressman Paul Tonko; DAES, Albany, NY	2019
<b>Volunteer</b> , Earth Science Teacher workshop; DAES, Albany, NY	2019
<b>Volunteer</b> , Girls Inc., Eureka! summer camp; DAES, UAlbany	2019
<b>Panelist</b> , Environmental Science Career Day; Coxsackie-Athens School District, Hudson, NY	2019
<b>Narrator</b> , English voice-over for <i>Chasing Traces from the Past</i> Documentary	2019

## PROFESSIONAL AFFILIATIONS

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American Meteorological Society (AMS)	2018 – present
American Association for the Advancement of Science (AAAS)	2018 – present
American Geophysical Union (AGU)	2018 – present