**Celina Scott-Buechler**

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**Education**

**Cornell University:** M.S./PhD Candidate, Atmospheric Sciences

* Advisor: Charles H. Greene, Earth & Atmospheric Sciences

**Thinkful, Inc.:** Data Science Bootcamp, Spring 2019

**Cornell University:** Bachelor’s, *Summa Cum Laude*, May 2018 | GPA in Major: 4.1; Overall GPA: 3.9 | Distinction in all subjects

* ­College Scholars Honors Major: Earth Systems Science & Environmental Justice | Minor: Climate Change Science
* Honors Thesis: “The Decline of Caribbean Coral Reefs: Global & Local Anthropogenic Threats”

**Qualifications Summary**

* Focal Areas: resilience & adaptation, renewable energy, environmental policy, carbon dioxide removal, climate modeling, data science, sustainable development, GHG accounting, sub-national climate action, sustainable finance, GIS
* Computer: ArcGIS (incl. spatial statistics), Python, MATLAB, R, Raven Acoustics, Microsoft Excel, imageJ
* Languages: Spanish & German proficiency; 9 years' international living experience (Mexico, India, Germany)
* Communication: grant writing, outreach, public speaking, media campaigns
* Character: attention to detail, follow-through, creativity, critical thinking, collaboration, adaptability, empathy­

**Scholarships & Fellowships Awards & Honors**

* Atkinson Biodiversity Fund Fellowship
* Cornell Presidential Graduate Research Fellowship
* [Harry S. Truman Scholarship](https://www.truman.gov/)
* [Morris and Stewart Udall Scholarship](https://www.udall.gov/OurPrograms/Scholarship/Scholarship.aspx)
* [NOAA Ernest F. Hollings Scholarship](http://www.noaa.gov/office-education/hollings-scholarship)
* [Hunter R. Rawlings Presidential Research Scholarship](http://commitment.cornell.edu/rawlings-research-scholars)
* Lynch Scholars Ocean Research Fellowship
* Cornell Branch of the Telluride Association Scholarship
* Cornell Engaged Learning & Research Fellowship
* [Cornell Exceptional Senior](http://as.cornell.edu/seniors-2018)
* Summa cum Laude, Distinction in all subjects
* Cornell Delegate for the 24th UN Conference of Parties
* Carbon180: Science Communication Award
* Cornell Urban Scholars Award
* Womensphere Foundation Recognition of Student Leadership
* Pack Natural Resources Management ­Essay Contest winner
* Cornell University Dean's List for Excellence in Scholarship

**Research Experience**

**Summer Fellow**, Dr. Richard Moss, Integrated National Climate Assessment Consortium*May 2018 to August 2018*

* Provided research assistance for the independent National Climate Assessment project, initiated in response to federal censorship of climate science. Also responsible for website development, author coordination, and messaging.

**Sustainable Small-Scale Agriculture Intern**, Tree Gate Farm, Ithaca, NY *July 2018 to present*

* Research sustainable agricultural practices, such as crop rotation, natural pesticide alternatives, soil nitrification, among others for application on small-scale farms in upstate New York.

**Research Assistant**, Dr. Charles Greene, Cornell University *November 2017 to present*

* Investigating the potential of natural ocean processes and ocean-related technologies (especially micro-algal biofuel production) in negative emissions, as well as provide energy and nutrition to areas lacking resources.
* Lead author on book chapter, “Bioenergy with Carbon Capture and Storage: Nature and Technology Can Help; *Chapter 2:* *Role of Ocean in Climate Action*” to be published by Elsevier.

**Summer Student Fellow**, Dr. Anne Cohen, [Woods Hole Oceanographic Institute](http://www.whoi.edu/)*May to August 2017*

* Researched temperature anomaly effects on Caribbean hermatypic corals, demonstrating anthropogenic influence in unprecedented bleaching. Resulted in Cornell honors thesis that received highest Latin honors (*summa cum laude*).

**Research Apprentice**, Drs. Drew Harvell & Charles Greene, Cornell University *January to May 2017*

* Conducted fieldwork and analysis on effects of eelgrass wasting disease on blue carbon storage in Puget Sound, Washington. Temperature anomalies on coral reef health and biodiversity in Hawaii. Funded by the Lynch Scholars Research Fellowship.

**Research Assistant**, Dr. Drew Harvell, Cornell University*August 2016 to August 2017*

* Analyzed disease susceptibility, immunity in *Gorgonia Ventalina*corals using histology microscopy and meta-analysis.

**Research Assistant**, Dr. Bruce Monger, Cornell University*August 2016 to May 2017*

* Co-author on working paper, "Evaluating the impact of ocean warming and coral bleaching on social ecological resilience of small-scale fishermen households in Indonesia." Funded by the World Bank.

**Research Exp. for Undergrad. Intern**, Dr. Emmett Duffy, [Smithsonian Environmental Research Center](https://serc.si.edu/) *May to August 2016*

* Conducted independent research contributing to the MarineGEO project: "Taking the Pulse of Coastal Ecosystems: Standardized Methods for Measuring Near-Shore Predation."

**Research Assistant**, Dr. Robert Howarth, Cornell University*January to May 2016*

* Produced reports on Cornell’s carbon footprints at different scales. Contributed to efforts by the Senior Leaders Climate Action Group to transition Cornell to carbon neutrality by 2035.

**Intern**, [West Harlem Environmental Action (WE ACT)](https://www.weact.org/)*May to August 2015*

* Researched climate change impacts on NYC near-shore ecology and low-income housing tenants.
* Founded the Harlem Environmental Health and Justice Leadership Training (EHJLT) program.

**Leadership & Outreach**

**Board of Directors, Member**, [Telluride Association](https://www.tellurideassociation.org/) *June 2016 to present*

* ­­Nonprofit offering free educational programs to promising students from underserved demographics.
* Serve on the Summer Program Application Review Committee.

**STEM Mentor,** [1000 Girls, 1000 Futures](https://www.nyas.org/programs/global-stem-alliance/1000-girls-1000-futures/)*January 2019 to present*

* Conduct regular mentoring sessions for high school girls around the world, encouraging their interest in STEM.

**Cornell University Delegate, US (“We’re Still In”) Volunteer**, United Nations Conference of Parties 23*November 2017*

* Assisted with international climate change summit. Participated & represented Cornell in official conference events.

**Head Organizer**, Climate Justice Cornell *August 2014 to December 2016*

* Student group dedicated to institutional change at the nexus of social justice and the environment.

**Student Body Representative**, Cornell Senior Leaders Climate Action Group (SLCAG) *August 2016 to December 2016*

* Faculty body developing Cornell's ­Climate Action Plan, including carbon neutrality by 2035. Represented student interests in long-term sustainability decisions.

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**Co-Founder, President**, Critical Thought at Cornell *October 2014 to May 2017*

* Student coalition for interdisciplinary ­social & environmental justice. Organized meetings, set agendas, led outreach.

**Professional Development**

* **Policy Hackathon,** Massachusetts Institute of Technology (MIT) *April 2019*
* **Advanced Geospatial Analysis Workshop,** Socio-Environmental Synthesis Research Center*March 2019*
* **Advanced Coding for Research,** New York Academy of Sciences *January 2019*
* **Global Change Assessment Model Training,** Joint Global Change Research Institute *September 2018*
* **International Conference on Negative CO2,** Carbon180 & University of Gothenburg *May 2018*
* **23rd Conference of Parties,** United Nations Environment Program *November 2017*
* **Ocean Sciences Conference,** American Geological Union & The Oceanography Society *February 2017*

**Publications In Progress**

**Bioenergy with Carbon Capture and Storage: Nature and Technology Can Help** (Elsevier)

***Chapter 2:* *Role of Ocean in Climate Action****.*Scott-Buechler, C., Greene, C.

**Constraining Thermal Thresholds of Coral Reefs using Skeletal Signatures of Bleaching.** (Coral Reefs, in review) Mollica, N., Cohen, A., Scott-Buechler, C., et al.

**The role of anthropogenic warming in the decline of Caribbean reefs**.Scott-Buechler, C., Cohen, A., Gebbie, J., Mollica, N.

**Identifying ecological correlates of respiratory microstructure morphology in sculpins (Cottoidea)**. Pakzad, I., Klohmann, C., Scantlebury, S., Scott-Buechler, C., Vompe, A., Fiorenza, A., Farina, S.

**Impact of ocean warming & coral bleaching on social ecological resilience of Indonesian artisanal fishers**. Deen, S., Sullivan, P., Monger, B., Scott-Buechler, C.

**Presentations**

**Communicating Negative Emissions Strategies to Lay Audiences** *May 2018*

International Conference on Negative CO2 Emissions

**Constraining Thermal Thresholds of Coral Reefs using a Paleo-Bleaching Proxy** (co-author) *February 2018*

Ocean Sciences Meeting

**Taking the pulse of coastal oceans: Standardized methods for measuring near-shore predation** *August 2017*

The Ecological Society of America (ESA) Annual Meeting

**The Role of Anthropogenic Warming in the Decline of Caribbean Reefs** *August 2017*

Woods Hole Oceanographic Institute Summer Student Showcase

**Coral Reef Bleaching and Coastal Poverty in Indonesia** *December 2016*

Cornell Undergraduate Research Board Student Showcase

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**Environmental Trauma and Political Action: A Discourse of Dissociation** *November 2016*

Cornell Branch of the Telluride Association

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**Taking the Pulse of Coastal Oceans: Relative Rates of Near-Shore Predation** *August 2016*

Smithsonian Environmental Research Center

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**Deeply Rooted Intelligence: Exploring Plant "Knowledge"** *April 2016*

Cornell Branch of the Telluride Association