

CELINA SCOTT-BUECHLER

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EDUCATION

Cornell University: MS, Atmospheric Science

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

Thoughtful Inc.: Data Science (Python track) “micro-masters”

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

- College Scholars Honors Major: Earth Systems Science & Environmental Justice Policy

SCHOLARSHIPS & FELLOWSHIPS

- [John Knauss Policy Fellowship](#) for climate & oceans
- Cornell Presidential Graduate Research Fellowship
- Univ. New Hampshire Sustainability Fellowship
- [Harry S. Truman Scholarship](#) for civic leadership
- [Udall Scholarship](#) for environmental leadership
- [NOAA Ernest F. Hollings Scholarship](#)
- [Hunter R. Rawlings Presidential Research Scholarship](#)
- Lynch Scholars Ocean Research Fellowship
- Telluride Association Scholarship
- Cornell Engaged Learning & Research Fellowship

AWARDS & GRANTS

- Cornell Alumni Association Research Grant
- Atkinson Biodiversity Fund Grant
- Oceanography Society Rising Leaders Spotlight
- [Cornell Student Leadership Recognition](#)
- Cornell Delegate for the 24th UN Conference of Parties
- Carbon180 Science Communication Award
- Cornell Urban Scholars Award
- Womensphere Foundation, Student Leadership Recognition
- Pack Natural Resources Management Essay Contest
- Cornell University Dean's List

CLIMATE POLICY EXPERIENCE

Senior Fellow, Data for Progress

September 2020 to present

- Leading a report on progressive negative emissions strategies and coordinating institutional relationships in the carbon removal space.

Legislative Fellow, US Senator Cory Booker (D-NJ)

January 2020 to present

- Co-leading environmental and climate justice policymaking for the Booker office.
- Coordinating efforts with the Senate Environmental Justice Caucus, taking advocate and constituent meetings, writing industry and agency letters, and drafting legislation.
- Co-led and saw through introduction the [Environmental Justice Legacy Pollution Cleanup Bill of 2020](#).

Co-Chair, Marine Circular Economy Taskforce of the Ocean Visions Consortium

March 2020 to present

- Select group of ocean scientists and policymakers shaping a roadmap for jumpstarting the marine circular economy, emphasizing sustainable economic and social benefits to frontline communities.
- Bringing together stakeholders in ocean-based carbon removal deployment, scaling, and sociopolitical and economic viability.

Policy Fellow, CarbonPlan

August 2020 to October 2020

- Analyzed potential, capacity, and risks associated with various carbon removal strategies.

Consultant, UN Environment Programme

October 2019 to September 2020

- Lead coordinator for upcoming report on frontier technology and big data in environmental peacebuilding.

Deputy Director & Policy Lead, [Peace Rising](#)

March 2019 to February 2020

- Led policy research on US foreign policy, climate-driven violent conflict, and sustainable development.
- Oversaw outreach, campaign-building, institutional partnerships, and “research-to-action.”

Climate Policy Advisory Network, Warren 2020 Presidential Campaign

October 2019 to January 2020

- Remained on-call to review policy plans related to climate change and the environment.

Sustainable Agriculture Intern, Tree Gate Farm, Ithaca, NY

July 2018 to January 2019

- Helped develop and implement sustainable agricultural practices for application on small-scale farms in upstate New York. Shared with local legislators for constituent affairs.

Intern, [West Harlem Environmental Action \(WE ACT\)](#)

May 2015 to December 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.

CLIMATE SCIENCE EXPERIENCE

Research Associate, Quantifying & Deploying Responsible Negative Emissions Consortium *September 2020 to present*

- Investigating the near-term deployment of negative emissions technologies and practices across Europe.
- Methods: technoeconomic & life-cycle assessment, machine learning, stakeholder mapping, policy analysis.

Graduate Researcher, Dr. Charles Greene, Cornell University *November 2017 to present*

- Investigating the potential of natural ocean processes and ocean-related technologies in negative emissions and sustainable, equitable nutrition.
- Project lead on international collaboration modelling marine microalgae potential to fill sustainable protein gaps through mid-century.

Research Fellow, [Project Drawdown](#) *August 2019 to January 2020*

- Helped construct a model to evaluate ocean-based solutions to climate change. Worked with researchers across disciplines to determine the most technologically feasible, cost-effective means for carbon drawdown.
- Primarily used SQL, Python, and QGIS for analysis and model development.

Summer Fellow, Integrated National Climate Assessment Consortium *May 2018 to August 2018*

- Assisted with research 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.

Research Fellow, Dr. Anne Cohen, [Woods Hole Oceanographic Institute](#) *May 2017 to August 2018*

- Analyzed role of anthropogenic warming as well as natural modes of climate variability on Caribbean bleaching, 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 2017 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.

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

- Co-authored World Bank white paper, "Evaluating the impact of ocean warming and coral bleaching on social ecological resilience of small-scale fishermen households in Indonesia."

Research Exp. for Undergrad. Intern, [Smithsonian Environmental Research Center](#) *May 2016 to August 2016*

- Conducted independent research for MarineGEO project on global marine ecosystem services.

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

LEADERSHIP & OUTREACH

Board of Directors, Development Committee Chair, [Telluride Association](#) *June 2016 to present*

- Nonprofit offering free educational programs to promising students from underserved demographics.
- Lead financial and programmatic development drawing on TA's \$60 million endowment.
- Spearheaded and currently lead association-wide Racial Justice Learning Group series.

Show Host, [New Books in Environmental Studies Podcast](#) *July 2020 to present*

- Engage authors of recent books on climate and the environment in critical dialogue.
- Podcast has thousands of listeners.

Advisory Board Member, Peace Rising *February 2020 to present*

- Advise on issues related to US policymaking, climate change, and global food security.

Advisory Board Member, [Global Climate Corps](#) *June 2017 to present*

- Aims to educate, train, and empower global youth to become leaders in addressing the root causes of climate change through immersive experiences.

STEM Mentor, [1000 Girls, 1000 Futures Program](#) *January 2019 to September 2019*

- Mentored aspiring female scientists across the globe.

- Co-Founder, Director, [Millennial Voices Project](#)** *April 2017 to August 2019*
- Online publication for and by rising leaders in environment science, policy, and activism.
 - Coordinated member efforts, oversee submission solicitation, strategic planning, and organizational relations.
- Delegate, US (“We’re Still In”) Volunteer, UN COP23** *November 2017*
- Assisted with international climate change summit. Participated & represented Cornell in 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.
 - Coordinated membership, initiated and led climate justice campaigns, negotiated with university administration.
- 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.
- Co-Founder, President, Critical Thought at Cornell** *October 2014 to May 2017*
- Student coalition for social & environmental justice. Organized meetings, set agendas, led outreach.

TEACHING EXPERIENCE

- Co-Instructor, [Cornell Satellite Remote Sensing Training Program](#)** *Summer 2019 Term*
- Led instruction on Python, SQL, version control, and other basics of computer programming.
 - Oversaw student projects on climate change, climate impacts on the ocean, and others. Held regular office hours.
- Research Instructor, [Cornell Ocean Research Apprenticeship for Lynch Scholars](#)** *Spring 2019 Term*
- Oversaw an undergraduate thesis on ocean-based options for sustainable food security through 2050.
 - Helped with course logistics, research projects, provided general mentorship for undergraduate participants.
- Teaching Assistant, EAS 3500: Dynamics of Marine Ecosystems in a Changing Ocean** *Fall 2018 Term*
- Held office hours, oversaw students’ final projects, conducted lecture segments, graded papers and exams.

PUBLICATIONS

- Scott-Buechler, C.M.,** Ng, C., Greene, C.H., Beal, C., Correa, D., Schenk, P. (In progress). Feeding the world of 10 billion: Potential contributions from marine microalgae.
- Jensen, D., Matthew, R., Zia, A., Novack, R., Dills, B., **Scott-Buechler, C.M.**, Kellogg, M., Sequero, A. (In progress). Big Data & Frontier Technology in Environmental Peacebuilding: Assessing Risks and Opportunities. UN Environment Programme, Geneva, CH.
- Scott-Buechler, C. M.,** & Greene, C. H. (2019). Role of the ocean in climate stabilization. In *Bioenergy with Carbon Capture and Storage: Using Natural Resources for Sustainable Development* (pp. 109-130). Pires, J.C.M. & da Cunha Goncalves, A.L., eds. Elsevier.
- Mollica, N.R., Cohen, A.L., Alpert, A.E., ...**Scott-Buechler, C.M.**, Solow, A.R., Young, C.W. (2019). Skeletal records of bleaching reveal different thermal thresholds of Pacific coral reef assemblages. *Coral Reefs*, 38(4), pp.743-757.

SELECTED SPEAKER PRESENTATIONS

- Communicating Science to Policymakers** (*invited speaker*) *October 2020*
American Geophysical Union Science Policy Workshop
- US Policymaking for Environmental Justice** (*invited panelist*) *September 2020*
Environmental Justice & Health Disparities Symposium
- Incorporating Environmental Justice into CDR Science & Policy** (*invited keynote*) *August 2020*
Telluride Association Summer Program
- US Federal Policy Opportunities for Ocean CDR** (*invited panelist*) *June 2020*
Energy Futures Initiative Working Group
- Role of US Foreign Policy in Global Environmental Peacebuilding** (*invited panelist*) *October 2019*
First International Conference of Environmental Peacebuilding
- The Untimely Decline of Caribbean Coral Reefs: Natural & Anthropogenic Climate Drivers** (*speaker*) *June 2018*
The Effects of Climate Change on the World’s Oceans: 4th International Symposium

- Communicating Negative Emissions Strategies to Lay Audiences** (*video*) May 2018
International Conference on Negative CO2 Emissions
- Constraining Thermal Thresholds of Coral Reefs using a Paleo-Bleaching Proxy** (*co-author, poster*) February 2018
Ocean Sciences Meeting
- Taking the pulse of coastal oceans: Standardized methods for measuring near-shore predation** (*poster*) August 2017
The Ecological Society of America (ESA) Annual Meeting
- The Role of Anthropogenic Warming in the Decline of Caribbean Reefs** (*speaker*) August 2017
Woods Hole Oceanographic Institute Summer Student Showcase
- Coral Reef Bleaching and Coastal Poverty in Indonesia** (*speaker*) December 2016
Cornell Undergraduate Research Board Student Showcase
- Environmental Trauma and Political Action: A Discourse of Dissociation** (*speaker*) November 2016
Cornell Branch of the Telluride Association
- Deeply Rooted Intelligence: Exploring Plant "Knowledge"** (*speaker*) April 2016
Cornell Branch of the Telluride Association

OTHER WRITING

- Data-Driven Op-Ed: How Climate Change is Amplifying Global Conflict** March 2020
Outrider Post
- Op-Ed: It's Not Surprising that Beneath his Toxic Politics, Brett Kavanaugh is a Toxic Man** September 2018
BuzzFeed News
- Policy Whitepaper: Impact of ocean warming & coral bleaching on social ecological resilience of Indonesian artisanal fishers.** December 2017
Deen, S., Sullivan, P., Monger, B., Scott-Buechler, C. Prepared for and funded by the World Bank.

QUALIFICATIONS SUMMARY

- **Environmental Policy:** 5+ years, with focus on mitigation & adaptation policy, racial justice, gender issues, agriculture, sustainable development, renewable energy, and carbon dioxide removal.
- **Scientific Research:** 5+ years, in climate science, GIS, socioeconomic analysis, resource conservation.
- **Programming:** strong command of Python, SQL, R, MATLAB, remote sensing.
- **Campaigns:** 3 elections, proficient with policy memos, press releases, constituent affairs, quick turn-around.
- **Graphic design & media:** Adobe Creative Cloud, website-building, social media.
- **Languages:** Spanish & German proficiency; 9 years' international living experience (Mexico, India, Germany).
- **Communication:** grant writing, outreach, public speaking, media campaigns, podcasting.
- **Character:** attention to detail, follow-through, creativity, critical thinking, collaboration, adaptability, empathy.