

Environmental Science Senior Thesis Poster Session

Thursday, April 24

4:30-5:00 pm Summary Presentations

5:00-6:30 pm Poster Session

Event Oval, LL100, Diana Center,
Barnard College

Environmental Science, Barnard College
Earth & Environmental Sciences, Columbia University
Ecology, Evolution & Environmental Biology,
Columbia University
Sustainable Development, Columbia University

Grotte di Frasassi, Italy. Photo: Michelle Chen

BARNARD

 **COLUMBIA CLIMATE SCHOOL**
Climate, Earth, and Society

 **COLUMBIA COLLEGE**
COLUMBIA UNIVERSITY IN THE CITY OF NEW YORK

 **COLUMBIA GS**
School of General Studies

Agnew, Quinn
Astley, Charlotte

Bace, Sarah

Beechler, Anne

Brzezicki, Rachel

Carlson, Skyler

Carman, Sophie

Carollo, Radha

Chen, Michelle

Avian Nesting Phenology in a Subtropical Monsoon Region

Flooding and American Oystercatcher Breeding Success

Characterizing the Delocalized Mobilization of Arsenic and Uranium in
Groundwater on Pine Ridge Reservation

Moving Into a New Group: Grooming Partners and Social Integration
in Blue Monkeys

How Does Public Participation Shape Green Infrastructure Planning?
A Case Study of the Tibbetts Brook Daylighting Project

Examination of Atmospheric Gas-Particle Partitioning of Ammonium
Nitrate over Los Angeles and Chicago During the 2023 AEROMMA
Campaign

Establishing Environmental Baselines of the Kotzebue Estuary in a
Changing Climate

Turbidity and Precipitation in the Hudson River Estuary

The Effect of Farmer Input Subsidy Programs on Crop Price Stability:
A Comparative Analysis of Maize Markets Within Zambia

Chin, Sarah	Reframing Success in Afforestation: NYC Million Trees as a Case Study
Chin-Drachman, Julianne	Arsenic and Uranium Water Treatment Using a Biofilter Based on Active Iron Cycling
Cohen, Althea	Long-Term Responses of Black-and-White Ruffed Lemurs to Deforestation
Cohen, Esmé	Rags & Riches: Investigating Secondhand Fashion Consumption & Socioeconomic Status
Das, Eva	Climate-Induced Human Migration: Assessing the Impact of the Climate on Migration in the Central American Dry Corridor
de Castro Basto, Mia	Advancing Zooplankton Research through Phylogenomics and Molecular Diversity Analysis
De Loia, Giovana	The Identification and Quantification of Microplastics and Nanoplastics in New York City Tap Water: An Update on Methodology
Degu Endeshaw, Yezena	Growing Equality: Community Gardens, Mutual Aid, and Food Accessibility in the South Bronx
Fields, Madeline	Policy Implications of Alternative Methodologies of Mapping NYC Heat Vulnerability
Filer, Alexandra	Mapping a Cereal Killer: potential outbreaks of a fungus, <i>M. oryzae</i> , using predicted temperatures for 2040-2059 in Japan
Fitzgerald, Grace	Understanding and Remediating the Harmful Algal Bloom in Morningside Park, Manhattan
Fitzgerald-Diaz, Grace	Environmental Impacts of Recreational Rock Climbing: A Washington State Case Study
Gerson, Harrison	University Global Centers and Sustainability Leadership
Gollerkeri, Maya	Impacts of mycorrhizal association on the nitrogen concentration of forest reproductive litter in Black Rock Forest, Cornwall, NY
Harlan, Devan	An Analysis of Glacier Calving in SE Greenland Through Seismic and Remote Sensing
Harris, Amelia	Trees in the Tundra? Phenology of Balsam Poplar Beyond the Arctic Treeline
Hiam, Eliana	Toe-Winged Beetles Take Side, Others Don't Mind the Edge: Urban Forest Edge Types Have Little Effect on Beetle Family Richness and Abundance
Hill, Jordan	Air Pollution and Health Impacts in Kinshasa, Democratic Republic of Congo
Huntsman, Caitlin	14,000 Years of Vegetation and Hydrologic Change in the Catskill Mountains of NY from Sedimentary Leaf Waxes
Jimenez, Nick	How Weather Disasters Influence Migration: A Case Study on Hurricane María
Jones, Kailey	Examining the Historical Trends of Tropical Cyclone Frequency in the NOAA 20CRv3 Reanalysis

Karam, Esha	Organizational Structures and Decarbonization on University Campuses in the United States
Kim, Yoon	Influence of U.S. State Policies on Community Solar Development
Klem, Maisie	Towards Comprehensive Heat Protections for New York City Outdoor Workers
Lang, Amelia	Icebergs Far From Home: An Analysis of Ice-Rafted Debris Near the Subantarctic Front of the Southern Ocean
Leal, Carmelli	Factors Influencing Net Zero Pledges in Steel
Levin, Aidyn	Using Trematodes as Indicators of Fish Abundance
MacLeod, Eilidh	Remote Sensing of Coastal Dynamics in an Arctic Estuary Near Kotzebue, Alaska
Madrid, Fiona	An Alkenone-Based Holocene Temperature Record from Kulusuk Lake, Southeastern Greenland
Malik, Sarina	Principles in Practice: Evaluating Climate Resilience Co-Production Through the AA1000SES Framework
Matthews, Macy	A 0.5-Million-Year Record of Climate and Deep-Ocean Variability at the Iberian Margin
McDonald, Ollie	Marine Air Pollution in Pristine Environments
Mergelkamp, Parker	The Impact of Future Ocean Conditions on Phytoplankton Carbon Fixation Rates
Mulholland, Maura	Reconstructing Early Holocene Temperature in the Catskill Mountains: Alkenone Records from Perch Lake, New York
Napoli, Julien	Light Effects on Coral Skeletal $\delta^{13}\text{C}$: Implications For Reconstructing Past Sea Level
Nystrom, Malin	How do People Assign Value to NYC Parks? Relationships With and Within Urban Greenspace
Paerels, Celeste	Temperature Dependent Measurements of Extremophile Rubredoxins
Pront, Lianna	Tracking Seasonal Variability in Indian Hydroclimate Using Stalagmite Trace Element Data
Qureshi, Tehreem	Characterizing the Unprecedented Co-Occurrence of 2023 Boreal Summer Heat Extremes in Central America, Western Europe, and Central Asia
Roberson, Asha	Tiny With a Big Appetite?: Investigating Trophic Specificity and Prey Preference in Nudibranchs.
Sanghvi, Hannah	Heat Exposure and Cooling Infrastructure in Carceral Domains
Schwartzman Miles, Flora	Quantifying the Accuracy, Precision, and Applicability of Field- and Lab-Based Hydrogen Detectors to Explore Dissolved Hydrogen Gas (H_2) in Shallow Groundwater
Shirai, Renge	Flood Resilient Underground Transit: A Comparative Case Study on Subway Systems in New York City and Tokyo
Singla, Tanvi	The Lifecycle of Legacy Plastic Use: Following Plastic From Disposal to Deposition and Degradation in the New York Area

Stovall, Qais	Tracking Wisconsin Frog Occurrence and its Relationship to Environmental Stressors
Su, Allison	Inclusion of Youth Visions in Planning for Future Urban Resilience: Investigating Co-Produced Solutions From High Schoolers in New York City
Subramaniam, Lauren	Mating behavior plasticity in field-collected <i>Ae. aegypti</i> mosquitoes exposed to sterile males
Toubia, Ahinoam	Geochemical Analysis of Serpentinization Process in Supra-Subduction Zone (SSZ) Ophiolites, Cuba
Tougher, Cailen	How Grazing Intensity Affects Long-Term Soil Organic Carbon
Wang, Alice	Systematic Review Integrating Phylogenomics and Morphology to Describe a New Genus of Freshwater Fish in West-Central Africa
Waxman, Katherine	Warm Nests Predict Female-biased Sex Ratios in Leatherback Sea Turtles in Southeastern Florida, USA
Waxman, Milly	Overcoming Barriers to Implementing Renewable Energy in Tierra del Fuego, Argentina
Zeldin, Avital	Quantifying Variations in Particulate Air Pollution in New York Subway Stations Using PM2.5 Monitoring