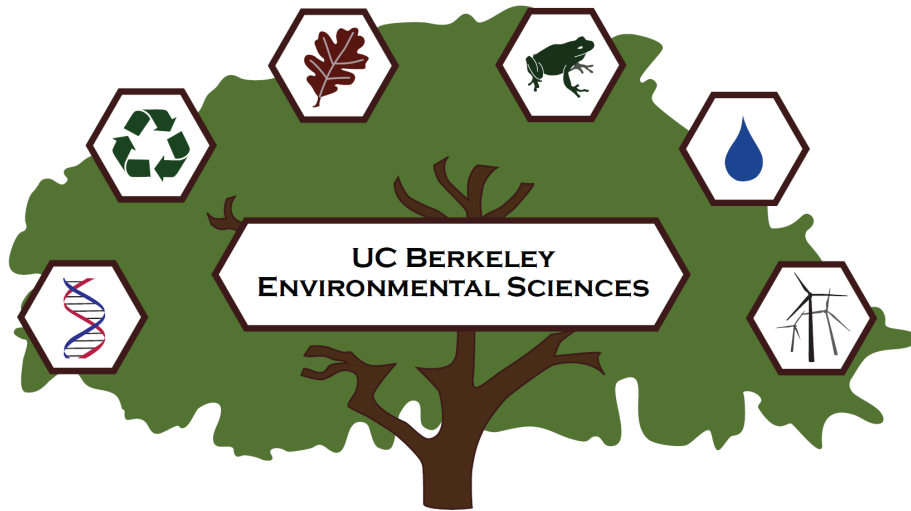


Environmental Sciences Senior Thesis Symposium

University of California, Berkeley



Sunday, April 23rd, 2023
9:00AM - 5:00PM



Dear Seniors, Mentors, Families, Friends and Alumni,

Spring is here and it's time to celebrate the great accomplishments of our seniors! This year we're delighted that the Environmental Sciences Senior Thesis Symposium brings another chance to be together in person.

This year we are again sharing the amazing work of our Environmental Sciences Seniors in moderated sessions on campus! But we're also sharing them online so that those far away can listen to the presentations. We are happy that you can be part of our community supporting undergraduate research.

If you're joining us in person:

We look forward to seeing you in the session rooms! Please make it to your seat a few minutes before the session begins and we hope that you can stay for a whole session to support the students. Please ask questions of our presenters right after their talk or after the session.

If you're joining us online:

Please join us via Zoom ([download](#)) using the links below that will be posted the morning of the symposium. You must have a zoom account to view the talks. Each presentation is allocated 15 minutes (presentation + questions) and presenters will answer questions from the audience. We may have limited ability to monitor the chat in zoom.

Looking forward to seeing you!

Tina Mendez, Danielle Perryman & Robin Lopez

For More Info Contact:

Patina Mendez (patina.mendez@berkeley.edu)
Thesis Website & Repository: <http://nature.berkeley.edu/classes/es196/>

Berkeley Rausser
College of Natural Resources

Morning Sessions

[If you are joining us on zoom, you must use the unique link for each session column]. Links will be posted about 10 minutes before the session starts. You may need to refresh your browser to see the links.

	159 Mulford	101 Morgan	132 Mulford
9:00 AM	Opening Comments & Welcome		
	Welcome: Patina Mendez	<- Opening comments are in 159 Mulford	<- Opening comments are in 159 Mulford

	159 Mulford 9:15 AM	101 Morgan 9:15 AM	132 Mulford 9:15 AM
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9:15 AM	<hr/> <p>1 - Environmental Health & Justice 1 (Zoom Link)</p> <hr/> <p>Georgiana Prevost Urban Food Deserts: K-5 Education and Food Resource Proximity</p> <p>Kenneth Guan Environmental Health Impacts on Asian American Elders in San Francisco</p> <p>Jailine Cardenas Life After Hurricane: How Does Socioeconomic Status of Victims and Their Communities Influence Recovery</p> <p>Anthony Migliacci Incorporating the Unincorporated: Environmental Violence and Resistance in the Warehouses of the Inland Empire</p> <p>Priyanka Venkatesh Green vs. Gray Infrastructure: A Case Study of Perungudi, India</p>	<hr/> <p>2 - Greenspaces & the Urban Environment (Zoom Link)</p> <hr/> <p>Wanees Hannan Urban Green Spaces as a Tool to Combat Loneliness</p> <p>Fiona Starsiak Environmental Equity: Case Studies on East Bay Urban Creeks and Community Access</p> <p>Hellas Lee Urban Heat Island Adaptations: Planting Small-scale Green Infrastructure in Hong Kong</p> <p>Ridge Coughlin Themes in Residential Garden Design in Berkeley, CA</p> <p>Hannah Sy How do Green Schoolyards Support Student Academic Achievement?</p>	<hr/> <p>3 - Environmental Policy & Sustainable Business (Zoom Link)</p> <hr/> <p>Christina Schulte Quantity or quality? How Corporate Environmental Reporting Metrics Affect Third-party Sustainability Ratings</p> <p>Anna Smith Comparing Modelling Approaches for Predicting Greenhouse Gas Emissions from Universities</p> <p>Ana Wong Is it Really Zero Waste? Comparative Analysis Between Plastic and Compostable Plastic</p> <p>Jenny Ye The Impact of Community Solar Legislation on Equitable Community Solar Access within the United States</p> <p>Cody Zhou A Hybrid Approach to Climate Change: Comparing AB/SB-32 in California and the Global Warming Solutions Act of 2008 in Massachusetts</p>
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Coffee Break! Join us at Morgan Patio @ 11:00 AM. Bring your travel mug if you can.

159 Mulford

11:15 AM

101 Morgan

11:15 AM

132 Mulford

11:15 AM

11:15 AM

4 - Identity, Perceptions & Behavior
([Zoom Link](#))

Shifali Kerudi The Impact of Social Media on Consumer Perceptions of Fashion Sustainability and Ethics

Sachi Land Ecotourism and Nonprofit Influence in Rural Balinese Villages

Tay Kavieff A Silent Pandemic: Intersectional Identity and Eco Anxiety Among College Students At UC Berkeley

Agnes Villaroman Is the Water Ok? Cultural Influences of Treated Wastewater Acceptability

Chloe Suarez Interactive Exhibits at the Lawrence Hall of Science as a Tool for Environmental Education

5 - Environmental Health & Justice 2
([Zoom Link](#))

Justin S. Kim Environmental Human Health Effects of Chlorpyrifos in the Central Valley

Ximena Verduzco-Villanueva Community-Based Air Monitoring in Impacted Neighborhoods in Eastern San Francisco

Runru Shen Responses of Macroinvertebrate Abundance to Effluent Discharge on the Los Angeles River

Emma Yakutis Orthohantaviridae in Barbados: How Tropical Climates affect Viral Prevalence in the Caribbean

Kimberly Peña Diaz A Case Study of Environmental Racism Impacts on Latine Communities

6 - Biogeochemistry
([Zoom Link](#))

Annie Miller Incorporating Community Science into Arctic Sea Ice Models

Stella Ban Environmental Implications of Anaerobic and Aerobic Copper Sorption onto Various Substrates

Caroline Combs A Field Study of Ground Rock and Compost Amendments to Soil for Climate Change Mitigation

Sofía Margarita Swaff Wetland Greenhouse Gas Exchange: Time Series Analysis to Detect Causality

Luis Vargas Salinity and Wetland Biogeochemistry at Eden Landing Ecological Reserve

Lunch for ES Students and families is at the Morgan Patio @ 12:30 PM. ES Seniors group photo on the Mulford steps at 1:35 PM.

Afternoon Sessions

[Note that you must use the unique link for each session column] If you're having trouble connecting, open zoom and enter the meeting ID into the box and you should be able to connect. Links will be posted about 10 minutes before the session starts. You may need to refresh your browser to see the links.

	159 Mulford 1:45 PM	101 Morgan 1:45 PM	132 Mulford 1:45 PM
1:45 PM	<hr/> 7 - Sustainability (Zoom Link) <hr/>	<hr/> 8 - Landscape Management (Zoom Link) <hr/>	<hr/> 9 - Remote Sensing (Zoom Link) <hr/>
	<p>Ashley Yip ESG in Asia: A Closer Look at Sustainability in the Asian Food System</p> <p>Julia R. Goswick Composting and the California Healthy Soils Program Demonstration Projects</p> <p>Tiana Wong Stakeholder Mapping of California's Precision Weeding Ecosystem</p> <p>Daniel A. Escajeda Student Perception of Access of the California High-Speed Rail</p> <p>Sharon Trisha Can Surface Water be an Alternative to Groundwater in Jakarta, Indonesia?</p>	<p>Maddy Chapman Fuel Treatment Strategies for Decreasing Fire Risk in Sonoma County, CA</p> <p>Théa C. Adumitroaie Seasonal Dynamics of Soil Moisture and Plant Productivity in the Sierra Foothills</p> <p>Danielle Fujimoto California Wildfires: Investigations of Root Causes Impacting Burning Forests</p> <p>Shea Rousseau Drought Disturbance Impacts on Sierra Nevada Ecosystems: A Remote Sensing Approach</p> <p>Delaney Siegmund Impacts of Severe Wildfire on Vegetation Type Conversion in Southern California Chaparral</p>	<p>Madison Chi Climate Impacts of Particulate Matter Levels and Land Surface Temperature</p> <p>Jess Belloch Future Climate Change Risk in the California Ski Industry</p> <p>Yichao Sun Using Remote Sensing to Assess the Effectiveness of 31 Afforestation Projects in China</p> <p>Sarah Zhang Sensing Snow Over Arctic Sea Ice Using GNSS Interferometric Reflectometry</p> <p>Sophia Kennedy Assessing Water Use for Almond and Alfalfa Fields in the San Joaquin Valley Using Remote Sensing</p>

Coffee Break! Join us at Morgan Patio @ 3:00 PM. Bring your travel mug if you can.

159 Mulford

3:15 PM

101 Morgan

3:15 PM

132 Mulford

3:15 PM

3:15 PM

10 - Microbial Ecology
([Zoom Link](#))

Mariam Alsaïd Groundwater Necrophagy: The Role of Dead Microbes on the Subsurface Microbiome

Isra Raza Biological adaptations to stressful environments: The effect of pH and nitrate on microbial growth and community interactions

Yizhou Yang Creating and Characterizing Inducible BBM-WUS Transgenic Sorghum Lines to improve transformation efficiency

John H. Hopkins The Potential for Toxic Cyanobacteria Growth in the San Francisco Bay Estuary

Karina Gadkari The Characterization of Growth Curves and Evolutionary Trajectories in Hosts of *Xylella fastidiosa*

11 - Animal Behavior, Morphology & Physiology
([Zoom Link](#))

Maxine Mouly Physiological Limitations and Behavioral Responses of Northern Elephant Seals (*Mirounga angustirostris*) to Climate Change

Riley Croghan Up After Dark: Artificial Light at Night and Insect Activity

Martha Gomez Mateo Biological Adaptations Assessed by Morphological Changes with the Crowned Sparrows: A focus on Climate Change Impacts

Francesca Stepanov Ecological Implications of Increasing Sea Surface Temperature on White Shark Habitat Range and Sea Otter Interactions

Julia Choi Look Both Ways: The Influence of Floral Orientation on Feeding Behaviors of the Anna's Hummingbird

Hannah Goldsobel COVID Impacts of Tourism on Marine Biodiversity in Hawaii

12- Community Ecology
([Zoom Link](#))

Julius Bronola Estimating the Spatiotemporal Patterns of the Illegal Wildlife Trade across the Philippines

Russell Trutane Effects of Grazing on Plant Functional Groups in California Grasslands

Arianna Standish Investigating the Impact of Varying Sheep Grazing Treatments on Spider Diversity and Abundance

Charlynn Teter Anthropogenic Activity in Forested Campgrounds: Water Quality and Stream Health

Mauricio González Water Quality of Urban Streams in a High Rainfall Year

Alexandra Santas Pollinator Exclusion and Limitations on Sunflower Yield and Seedling Vigor

Thank You!

Our Sincere Thanks to the faculty, postdoctoral researchers, graduate students, staff and community members who generously mentored students - your contributions clearly inspired and enriched the senior thesis experience. We thank Bodo, Josh Dullaghan, Kate O'Neill and the RCNR Advising team. Special thanks to ES Director Manuela Giroto, ESPM Chair Michael Mascarenhas, the Department of Environmental Science, Policy & Management and the Rausser College of Natural Resources.
