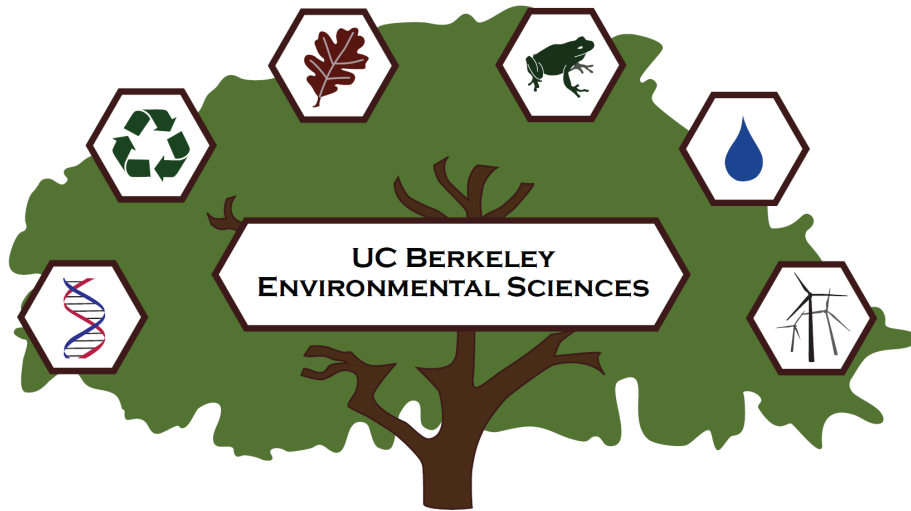


# Environmental Sciences Senior Thesis Symposium

University of California, Berkeley



Saturday, April 17th, 2021  
9:00AM - 3:45PM



DEPARTMENT of ENVIRONMENTAL  
SCIENCE, POLICY, AND MANAGEMENT

Dear Seniors, Mentors, Families, Friends and Alumni,

Spring is here and it's time to celebrate the great accomplishments of our seniors! Although we can't be together in person, the Environmental Sciences Senior Thesis Symposium is a chance for us all to be together virtually.

This year we are again sharing the amazing work of our Environmental Sciences Seniors in moderated sessions online so that you can join in, listen to the presentations and hear about the great research experiences of our students.

Please join us via Zoom ([download](#)) using the links below that will be posted about 5 minutes before the session. Each presentation is allocated 15 minutes (presentation + questions) and presenters will answer questions submitted via voice or chat to the moderator.

Looking forward to seeing you!

Tina Mendez, Leslie McGinnis & Kyle Leathers

**For More Info Contact:**

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Project Website: <http://nature.berkeley.edu/classes/es196/>

**Berkeley Rausser**  
College of Natural Resources

**Morning 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.

	Session 1	Session 2	Session 3
9:00 AM	<p>Opening Comments &amp; Welcome</p> <p><b>Welcome: Patina Mendez</b> <b>Guest: John Battles</b></p>	<- Opening comments are in Session 1	<- Opening comments are in Session 1
9:15 AM	<p>Wildfire Risks &amp; Perceptions</p> <p><b>Natalie Coy</b> Fires in Mixed Conifer Forests in California: Does the Method for Estimating Fine Woody Debris Matter?</p> <p><b>Grant Nguyen</b> How does Smoke Affect Seed Germination in Tilden Park?</p> <p><b>Sarah Hettema</b> How Do Fuels Influence California's Fire Regimes?</p> <p><b>Joneil D. Manansala</b> A Deep Breath In: Environmental and Public Health Risks from Wildfires in the San Francisco Bay Area</p> <p><b>Grace Zhuang</b> Climate Change and Wildfire: Examining Influences on Public Opinion in the Bay Area</p>	<p>Perceptions, Preferences &amp; Consumption</p> <p><b>Jackie Davis</b> UC Berkeley Fast-fashion Loyalty and Avoidance Behaviors</p> <p><b>Zhenshan Guo</b> Controlling the Population of Asian Carp in America Through Human Consumption</p> <p><b>Anna Kate Stephenson</b> Totally Buggin! How Education on Entomophagy Influences Customer Willingness To Purchase Edible Insects</p> <p><b>Serafina Casey</b> Greenwashing in Sustainable Clothing Brands</p> <p><b>Hillary Thuy Nhien Tran</b> Produce Packaging Alternatives to Plastic: Consumer Insights on Circular Economy and Compostability</p>	<p>Environmental Policy &amp; Energy</p> <p><b>Emily Gracheva Yen</b> Using Near-Real-Time Emission Data to Assess Climate Policy Ambition and Effectiveness</p> <p><b>Elizabeth Shehter</b> Wind Energy Generation Potential Under Climate Models across California: A Downscaling Approach with Artificial Neural Networks</p> <p><b>Noah McDonald</b> Battery Electric Vehicle (BEV) Market Growth and Life Cycle Analysis of Greenhouse Gas Emissions in California</p> <p><b>Katie Wimsatt</b> Climate, Congress, and Conflict: Environmental Priorities in the National Defense Authorization Act</p>

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**Session 4**

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**Session 5****Session 6**

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10:45  
AM

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**Water Quality & Management**

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**Jackson Gillespie** A Deep Look at the Mokelumne River Water Quality near Lodi Lake

**Jasmine Casey** Mapping Flooding Hazard in the Sacramento-San Joaquin Delta

**Matthew Oh** Using Geographic Information Systems to Mitigate Nonpoint Source Pollution across Oahu, Hawaii

**Hayden Street** Maximizing Eastern Sierra Nevada Snowpack: Determining Optimal Canopy Cover and Terrain Features for Snow Accumulation and Retention

**Sion Calabretta** Supporting the Human Right to Water: Modeling Groundwater Quality in California's Central Valley and Coast

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**Freshwater & Marine Ecology**

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**Anna Ramji** Cryptic Behavior Strategies of *Octopus chierchiae*

**Queenie Li** Mediterranean Climate Flows and In-Stream Fauna: Mosquitofish and Invertebrate Abundances in Grayson Creek, California

**Ellie Pumpkin** No Place Like Home: Habitat Heterogeneity and Endangered Coho Salmon in Lagunitas Creek, California

**Cole Westwood** *Minidiscus trioculatus* Growth in Response to Climate Change

**Aileen Lavelle** What's Eating Florida's West Coast Turtles? Buildings and Caging Mediate Predator effects on Loggerhead Sea Turtle Hatchling Mortality

**Elizabeth Pyle** Global Patterns of the Amphibian Disease Chytridiomycosis

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**Environmental Health & Justice**

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**Isabela Avila Breach** Perceptions and Lived Experiences with Environmental Change among Central American Migrants

**Yuna Tae** Supply Chain Connections: Chinese Refineries and DRC Cobalt Mines, 2015-2020.

**Phoebe Goulden** Neoliberalism, Protest, and Environmentalism in Chile: The Role of Environmental Concerns in the 2019 "Social Outburst"

**Sarah Thảo Nguyễn Bùi** Building Bridges to Mitigate Air Pollution in the Mekong Delta, Vietnam

**Savannah Sturla** Air Quality Disparities and Youth Asthma in the San Francisco Bay Area: Spatial Analysis and Youth Environmental Justice Narratives

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**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.

	Session 7	Session 8	Session 9
1:00 PM	<hr/> <p>Connecting to the Environment in a Global Pandemic</p> <hr/> <p><b>Daisy Knobloch</b> Parks in Pandemics: How COVID-19 has Transformed Urban Green Space Perception</p> <p><b>Gabriella Naylor</b> Air Pollution Levels During the COVID-19 Pandemic Shelter-in-place Orders</p> <p><b>Miracris Tiguelo Villanueva</b> To Mask or Not to Mask: Assessing Face Covering Behavior and Motivations During COVID-19 Pandemic at Lake Chabot Regional Park</p> <p><b>Lauren Rocheleau</b> COVID-19 PPE Litter on U.S. Coastlines: Artifacts of a Global Pandemic</p> <p><b>Haylee Oyler</b> It's Not Just for the Birds: Citizen Science Participation During COVID-19</p>	<hr/> <p>Community Engagement and Education</p> <hr/> <p><b>Sasha Mizenin</b> Indigenous Visions of Climate Resilience in the Bay Area</p> <p><b>Annika Levaggi</b> Berkeley Student Farms: A Community-Informed Model for Urban Agriculture Education</p> <p><b>Alyssa Plascencia</b> High School Environmental Education in California: Is it really "Environmental Literacy for All"?</p> <p><b>Genna M. Fudin</b> Community Composting in the East Bay, CA: A Dynamic Educational Research Approach with Berkeley Student Farms</p> <p><b>Emily Ann Robles</b> FAIR Motivated Metadata: Requirement Variability within Environmental Science Data Repositories</p>	<hr/> <p>Forests &amp; Fields</p> <hr/> <p><b>Gisel De La Cerda</b> Within the Matrix: Specialist Pollinators in Monocultures, Polycultures, and Urban Gardens</p> <p><b>Madalyn Miles</b> Food in the Forest: Helping the Soil by Growing Crops With Agroforestry</p> <p><b>Jennifer Symonds</b> Remote Sensing of Winter Cover Crops in California's Central Coast Region</p> <p><b>Hannah Qiang</b> Environmental Benefits and Impacts of Rooftop Greenhouses in Oakland, California</p> <p><b>Holden Payne</b> Modified Group Selection Silvicultural Regimes: Supplanting Herbicide Application on Establishing Coniferous Seedlings in a Mixed Conifer Forest in the Sierra Nevada</p>

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## Session 10

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## Session 11

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2:30 PM

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### Plant & Soil Ecology

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**Alex Gueorguieva** Cya-no-more! Engineering Reduced Cyanogenic Glucoside Accumulation in Cassava Roots

**Matthew French** Long and Short-Term Antibiotic Exposure Impacts on Fitness in *Arabidopsis thaliana*

**Nicole Elgersma** Vegetative Responses to Climate Change Induced Drought Events in California Grasslands

**Greg Hinson** Understanding Structural Changes of Dunes after Invasive Species Plant Restorations

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### Green Spaces & the Urban Environment

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**Laura Mackenzie** Berkeley Treehuggers?! UC Berkeley Undergraduates and Campus Green Spaces

**Chunyao Stephanie Huang** Urban Stream Litter: Are the Current Protections Enough for us to Care About our Creeks?

**Meghan Cruz** Green Spaces in Berkeley: An Equity Approach

**Brian Price** Low Impact Development for Stormwater Management on the UC Berkeley Campus

**Andrea G. Uribe** Not Just a Nickel! Social Justice Implications of California's Bottle Bill in Bakersfield

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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 Jenny Miner, Josh Dullaghan, Lynn Huntsinger and the CNR Advising team. Special thanks to John Battles, ESPM Chair Paolo D'Odorico, the Department of Environmental Science, Policy & Management and the Rausser College of Natural Resources.

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