

# ENVIRONMENTAL SCIENCES SENIOR THESIS SYMPOSIUM

SATURDAY, APRIL 20TH, 2019

Dennis Baldocchi, ES Program Director  
Patina Mendez, ES Lecturer  
Kurt Spreyer, ES Lecturer  
Leslie McGinnis & Ellen Plane, GSIs



9:00-9:30. WELCOME [159 MULFORD]

SESSION 1. 9:30-10:45

ECOLOGY & EVOLUTION	MARINE & FRESHWATER SCIENCES	THE BUSINESS OF GREENING
159 Mulford	101 Morgan	132 Mulford
<p><b>Sean O'Neil</b> <i>Batrachochytrium dendrobatidis</i> is a Really Big Word and a Really Big Problem</p> <p><b>Claudia Ruslim</b> Into the Spider-verse of Sulawesi: Changes in Spider Community along Gradients of Elevation and Loss of Forest Cover</p> <p><b>Kavya Niranjana</b> As the Bee Flies: Native Bee Diversity in Brentwood, CA</p> <p><b>Chellam Nayar</b> Composition and Diversity of a Frog-killing Fungus in the California Bay Area</p> <p><b>Shuanger Li</b> Ginger Invasion in Hawaii: Sampling Arthropod Assemblages through Metagenomics of Spider Gut Contents</p>	<p><b>Fatima Mahmud</b> Habitat fragmentation Impacts on Productivity of Seagrasses in the Central Red Sea</p> <p><b>Colette Christensen</b> Pretty Fly for a Caddisfly: Species Identification via Wing Morphometrics</p> <p><b>Marc Leong</b> Buried Alive? The Effect of Sediments on White Abalone Larvae Settlement</p> <p><b>Daisy Cervantes-Hernandez</b> Suisun Bay, California: How are Fish Assemblages Organized?</p> <p><b>Nika Hoffman</b> Water Quality and Autonomous Surface Vessel Technology in the Ala Wai Canal</p>	<p><b>Andrea A. Bassetti</b> Leveraging Ecolabel Standards to Propose Sustainable Practices for Products without Certifications</p> <p><b>Emily Yan</b> Green Business or Greenwashing: The Value of Green Business Certifications to Berkeley Students</p> <p><b>Roxanne "Roxi" Shiu</b> Care to Share? Perceptions and Uses of Ford GoBikes</p> <p><b>Alina Xu</b> Fashion Futures: Designers &amp; Green Values</p> <p><b>Sky Daye Lee</b> Capitalizing on Social Media Addiction in South Korea: Green Marketing Opportunities for the Cosmetics Industry</p>

10:45-11:00. MORNING COFFEE BREAK [MORGAN PATIO & LOUNGE]

SESSION 2. 11:00-12:30

ECOSYSTEM ECOLOGY & FOREST MANAGEMENT	SUSTAINABILITY & WASTE MANAGEMENT	ENVIRONMENTAL EDUCATION, HEALTH & CULTURE
159 Mulford	101 Morgan	132 Mulford
<p><b>Sophia B. Bagshaw</b> Coast Redwoods and Climate Change: Age-based Differences in Hydraulic Traits</p> <p><b>Maeve O'Brien Hanafin</b> Mapping the Route of the Problem: Bark Beetle and Drought Induced Tree Mortality in the Sierra Nevada</p> <p><b>Robin Zhang</b> Deadliest Fire in California History: Air Quality in Berkeley during the Camp Fire</p> <p><b>Clemente Arreguin</b> Maximizing Carbon Sequestration in Oak Woodlands: Disturbance Influences on Live Tree Carbon Stocks</p> <p><b>Benjamin Kopania</b> A Comparison of Methods for Obtaining Aboveground Biomass Estimates Using Terrestrial LiDAR</p> <p><b>Caroline Ayala</b> Fuel Treatment Effects on Species Composition in Mixed-Conifer Forests of the Sierra Nevada</p>	<p><b>Sophie K. Babka</b> A Breakdown of Compostable Plastic Recovery in California</p> <p><b>Scott Silva</b> Optimizing the UC Berkeley Plastic Recycling Facility</p> <p><b>Jon Abdon</b> Wetland Restoration using Biosolids as a Soil Amendment</p> <p><b>Ryan DeGeer</b> A Source of Sexual Dysfunction: Estrogen Output from Wastewater Treatment Plants to the San Francisco Estuary</p> <p><b>Karina Aguilera</b> Environmental Health Impacts of an Unregulated Landfill on Residents of Salamanca, Mexico</p> <p><b>Yirong Chen</b> Evaluating the Long-Term Impact of Pilot Programs on Waste Separation in Shanghai</p>	<p><b>Cindy Valdivia</b> Home is Where Your Food is: Cal Students and Culturally Appropriate Food</p> <p><b>Giselle Serafin</b> Bridging Connections: Environmental Justice Organizing in the Inland Empire</p> <p><b>Sinareth Sagn</b> Regeneration after Year Zero: Khmer Elders' Perspectives on PTSD and Gardening</p> <p><b>Helena Chang</b> Escaping the Gap: Escape Rooms as an Environmental Education Tool</p> <p><b>Kumi Yanagihara</b> What Did You Really Learn in High School? AP Environmental Science Student Perspectives on Environmental Problems</p> <p><b>Bori Kozek</b> End of the world or beginning of hope? How high school students engage with global environmental discourse</p>

12:30-1:30. LUNCH [MORGAN PATIO & LOUNGE]

SESSION 3. 1:30-2:45

POLITICAL ECONOMY OF NATURAL RESOURCES	LANDSCAPE & CLIMATE	AGRICULTURAL SYSTEMS
159 Mulford	101 Morgan	132 Mulford
<b>Neena Mohan</b> Land Grabbing in Sub-Saharan Africa: Drivers of Investment Under Climate Change	<b>Victoria Marie Glynn</b> Keeping Healthy in California's Central Coast: Interactions between Land Use and Avian Life History	<b>Erin Murphy</b> Nutrient Cycling in Organic and Conventional Agricultural Systems with Winter Cover Crops
<b>Aditya Mistry</b> "Netas" vs Nature: A Review of Corruption's Effects on Natural Resource Management in India	<b>Emily Cox</b> Daisies in Distress: Growth responses of <i>Lasthenia gracilis</i> to Simulated Drought over a Geographic Gradient	<b>Le "Tim" Lu</b> Assessing Gross Primary Productivity of Cropland – An Index and Instrument Perspective
<b>Lisa Mengqi Wu</b> Water Stress and the International Soy Bean Trade	<b>Shuhan Song</b> To Be or Not to Be: The Fate of Ten Amphibians in the Sierra Nevada in a Warming Climate	<b>Carter Ly</b> Playing with Dirt: Organically-coated Biochar, Compost and Soil Quality
<b>Nidhi Menon</b> Food Expenditure and Household Welfare in India: MGNREGA Program Outcomes	<b>Madeleine Zuercher</b> Bat Conservation: Species Presence and Activity across Landscapes in Iowa	<b>Guozheng Li</b> GIS-based Agricultural Land-use Evaluation in the East Bay
<b>Martin Zhou</b> The Future of Hydropower in Sichuan Province, China: Effects of Expanding the Grid System on Installed Capacity	<b>Katelyn Yu</b> Looking from Space: Water Use Efficiency of California Evergreen Species from OCO-2 Satellite Data	<b>Isaac Vendig</b> Getting to the Roots: No-Till Soil Structure and Hydrology

2:45-3:00. AFTERNOON COFFEE BREAK [MORGAN PATIO & LOUNGE]

SESSION 4. 3:00-4:30

WILDLIFE ECOLOGY, CONSERVATION & MANAGEMENT	SOIL & PLANT ECOLOGY
159 Mulford	101 Morgan
<b>Michael Gallegos</b> Just Keep Digging: Searching for Elusive Legless Lizards	<b>Annie McElvein</b> The Permafrost Is Thawing and This Is How
<b>Trisha Daluro</b> Is Wildlife Afraid of You and Your Dog? Of Cows? Camera Trap Monitoring of Human Disturbances to Mammals	<b>Zahira Chaudhry</b> Carbon Sequestration in the San Joaquin Delta
<b>Brice Hagan</b> Mitigating Conflict Between Tule Elk Conservation and Point Reyes Ranching	<b>Hans Singh</b> A Comparison of Winter and Summer Microbial Culture Libraries from an Alpine Soil Ecosystem
<b>Alexa Frederick</b> Who's Covering the Bill? The Role of Compensation Schemes in Human Wildlife Conflict	<b>Alicia Sadowski</b> Short-term Response to Catastrophic Disturbance: Biogeochemistry of Plant Litter in Puerto Rico after Hurricane Maria
<b>Yujing Wu</b> Impacts of Urbanization on Bird Abundance and Diversity in the East Bay	<b>Hannah Marsh</b> Can Applying Food Waste Compost to Grassland Soils Mitigate Climate Change?
<b>Christopher Orner</b> Occupancy of Riparian Birds in the Southern Central Valley	

4:30 - CLOSING COMMENTS  
[IN SESSION]

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