



ENVIRONMENTAL SCIENCES SENIOR THESIS SYMPOSIUM

SATURDAY, APRIL 25TH, 2015 - 9AM-4:30PM

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

Kurt Spreyer, ES Lecturer
Dennis Baldocchi, ES Director
John Battles, ES Interim Director
Patina Mendez, ES Lecturer

Anne Murray & Joseph Kantanbacher, GSIs

SESSION AM1: 9:30-10:45

159 Mulford

101 Morgan

BIOGEOCHEMISTRY, ECOSYSTEM ECOLOGY & BIOREMEDIATION

Pascal Polonik Separating Water and Vegetation Carbon Fluxes from Eddy Covariance Measurements in a California Wetland

Alexandra LaPat Polasko Want Clean Drinking Water? Tap into the Incredible Microbe, *Dehalococcoides*: Bioremediation of Trichloroethene in Groundwater

David C. King Plant-Soil Feedbacks of the Invasive Yellow Starthistle

Ayla B. Benavides Quesada The Life and Times of *Pteris vittata*: Quantifying Frond Life Stage and Harvest Strategies for Phytoremediation of Arsenic

Camilla Gardiner Precipitation Effects on Interannual Variability of Rangeland Soil Carbon

ENVIRONMENTAL HEALTH & SUSTAINABILITY

Shrey Goel Challenging Slumification: Collective Women's Group Action as an Environmental Health Intervention in Indian Urban Slums

Lia D'Addario Community-Based Monitoring of Air Quality and Perceptions of Industrial Emissions in University Village

Max Moore Feasibility of a Solar Photovoltaic to Hydrogen Electrolyser System at UC Berkeley's Hydrogen Refueling Station, Richmond, California

Lakpa Sherpa Effects of Household Air Pollution on Women's Pulmonary Function in Bhaktapur, Nepal

Gregory Johnson Outs and Emissions: Reducing Major League Baseball's Carbon Footprint through Travel Schedule Optimization

10:45-11:00 - MORNING COFFEE BREAK [139 MULFORD]

SESSION AM2: 11:00-12:30

159 Mulford

101 Morgan

URBAN LANDSCAPES & SUSTAINABILITY

Manon von Kaenel Urban Stormwater Management at UC Berkeley: A Low Impact Development Solution

Wallace Ho Native Plant Restoration Against Invasive Ivy: Promoting Site-Specific Factors

Julia Mangin Too Sustainable for School: Gardening Practices and Curriculum in Berkeley School Gardens

Luke Walcher Distribution of Urban Forest Benefits from Street Trees in San Francisco, California

Mirit Friedman Urban Vegetation as an Urban Heat Island Effect Mitigation Strategy in Berkeley and Oakland, California

LANDSCAPE & CLIMATE ECOLOGY

Dayton Marchese Predicting Water Temperature During a Century of Climate Change in the Rio Dulce, Guatemala

Bud Dillard Drought and Water Quality: Nitrogen Concentrations in Sagehen Creek, California

Andy Wong Natural Fire Regime Influence on a Watershed's Annual Flow and Flood Characteristics

Bridget Smith Grazing in California Grasslands: Implications for Management of Two Invasive Grass Species

Miguel Naranjo Characterizing and Modeling Vegetation Change in the Illilouette Creek Basin

Clifford Wang Remote Sensing in Suisun Bay Marsh: Vegetation Classification and LAI Prediction

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

159 Mulford

SESSION PM1: 1:30-3:00

101 Morgan

ECOLOGY

Janice Wondolleck Detecting Changes in the San Francisco Estuary Food Web using Stable Isotope Analysis of Zooplankton

Erik Schmielt Species Distribution Models: Co-occurrence of Invasive California Grasses

Cody Schaaf Fishy Free-loaders: Parasite Dynamics of Black Spot Disease in Steelhead Trout

Faith De Amaral Life Without Fire: Oak Succession in a California Maritime Chaparral Ecosystem in the Fort Ord Natural Reserve

Katy Poniatowski A Step in the Right Direction: Restoration of Urban Streams and Benthic Macroinvertebrate Responses

Alyssa Zhang Wildfire Effects on Epigeal Beetle Life History and Distribution

WILDLIFE & HABITAT

Sarah J. Gerlach Oh, Deer! Domestication of Wild Deer on Private Texas Ranches

Rachel L. Taylor Battle of the Kenyan Herbivores: Resource Competition between Native and Domesticated Animals

Brooke Chelsea Harding Changes in Avian Species Diversity in Claremont Canyon over the Past Two Decades

Riva Madan Predictors of Wild Turkey Population Change in California

Jenny Sholar Predicting Chipmunk Presence at Different Spatial Scales in the California Sierra Nevada

Kaela Shiigi A Comparison of Survey Techniques for the Western Burrowing Owl (*Athene cunicularia hypugaea*) in California

3:00-3:15 - AFTERNOON COFFEE BREAK [139 MULFORD]

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SESSION PM2: 3:15-4:30

101 Morgan

PUBLIC INSTITUTIONS & THE ENVIRONMENT

Carly Clusserath AP Environmental Science Curricula: Emphasizing Key Topics through Content and Pedagogy

Sagar Bhatt Technology Turnover and Electronic Waste Management Policy at UC Berkeley

Jamise Caesar Oil and Water? Christian Student Experiences of Faith and the Environment at UC Berkeley

Austin Ehrhardt Allocating the Benefits of Green Infrastructure in Oakland, California

Rosanna Ren Thinking CAPs: Adaptation Strategies in Climate Action Plans in the San Francisco Bay Area

ENVIRONMENTAL POLICY & POLITICS

Erin E. Smith Life Cycle Paralysis: Managing Uncertainty in California and US Biofuel Policies

Rohana Lazo Eat your Vegetables? Consumer Perceptions of Produce Safety

Danielle Petruzzelli Too Ugly to Eat? Consumer Perceptions & Purchasing Behavior Regarding Low-Grade Produce

Chris Williams Hydraulic Fracturing Regulation: Local Government Policies in California

Laura Li Crying Over Spilled Oil: Media Narratives of the Deepwater Horizon Oil Spill Response

CLOSING COMMENTS: 4:30 [IN SESSION]

OUR SINCERE THANKS TO: The faculty, postdoctoral researchers, graduate students, staff, and community members who generously served as mentors for the students - your contributions clearly inspired and enriched the senior thesis experience. We also thank Carina Galicia for help organizing and assisting with this event. Special thanks to ES Director Dennis Baldocchi, Interim ES Director John Battles, ESPM Chair George Roderick, and the Department of Environmental Science, Policy & Management.