



ENVIRONMENTAL SCIENCES SENIOR THESIS SYMPOSIUM

SATURDAY, APRIL 26TH, 2014 - 9AM-4:30PM

9:00-9:15 - WELCOME
[159 MULFORD]

Kurt Spreyer, ES Lecturer
Ron Amundson, ESPM Chair
Patina Mendez, ES Lecturer

Rachael Marzion & Anne Murray, GSIs

159 Mulford

SESSION AM1: 9:15-10:45

101 Morgan

CLIMATE CHANGE & SPECIES DISTRIBUTIONS

Luke S. Tillmann Climate Change in the Rockies: Topographic Control over Vegetation Shifts

Maia Kapur Too Hot to Handle: Modeling Climate Change Sensitivity of Mayfly Species in California

Riley McDonald Snowpack in California's Sierra Nevada: Modeling & Prediction of Water Supply

Michael Choi Ecological Correlates of Genetic Variation in the Flying Lizard genus *Draco*, Sulawesi Island

Carley O'Connell Phytoplankton Community Response to Commonly Limiting Nutrients in Lake Tahoe

Anna Hiller Mapping the Diversification of Hawaiian Swordtail Crickets using Ecological Niche Modeling

ECONOMICS, TECHNOLOGY & POLICY

Kanav Duggal Case Study of Solar Cooker Use by Retirees in Chandigarh, India

Tara Yavorsky A Sustainable Alternative for Consumers in the Dry Cleaning Industry

Nikhil Gargeya Techno-economic Analysis of Photovoltaic Microgrids Using the DER-CAM Optimization Model in Rural Andhra Pradesh, India

Lianna A. Martin Electric Vehicle Fast Charging & California Markets: Will DC Charging Attract Electric Vehicle and Retail Customers?

Qusai Bhajjeewala Incentivizing Investment in Oil Recovery Technologies

Scott Kaplan A Leaky Future for Natural Gas: Assessing its Substitution for Oil in the Transportation Sector through 2020 and the Effect on Greenhouse Gas Emissions

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

159 Mulford

SESSION AM2: 11:00-12:30

101 Morgan

LANDSCAPE ECOLOGY

Kelsey Lyberger Restoring Whitebark Pine in the Sierra Nevada: Prescribed Burning Suitability Analysis

Clayton J. Sodergren Relative Effects of Fog, Competition, and Tree Size on Coast Redwood Growth in Strawberry Canyon, Berkeley, California

Brian J. Gong Restoration Potential from Afar: Suitability Analysis using Remotely Sensed Data in the Palo Verde Valley

Abel Mouton The Effect of Ground Cover and Proximity to Neighborhood Parks on Bird Diversity in San Francisco's Mission District

Emilie R. Maddison Infection Potential of Urban Green Spaces by Sudden Oak Death Pathogen, *Phytophthora ramorum*

Grace A. Smith Spider Response to Changes in Habitat Diversity at the Field and Landscape Scales of Vineyards in Napa and Sonoma

AGROECOLOGY

Danielle Ngo Influences of Composting Approaches on Plant Growth: Case study of VEGGI Farmers Cooperative

Rebecca Samuel The Role of Soil Content in Pea Aphid (*Acyrtosiphon pisum*) Reproduction

Gerardo Tinoco, Jr. Habitat Assessment of the Western Grape Leafhopper in Northern California Vineyards

Erika So Conservation Biocontrol of the Western Grape Leafhopper: Plant Host Preference of the Parasitoid *Anagrus* spp. in Napa and Sonoma

Derek Lau Selected Pesticides Effects on the Convergent Lady Beetle (*Hippodamia convergens*)

Sejin Chung No Leaf Left Unturned: Dispersal Behavior of Vine mealybug (*Planococcus ficus*)

12:30-1:15 - LUNCH [MORGAN LOUNGE & PATIO]

159 Mulford

SESSION PM1: 1:15-3:00

101 Morgan

COMMUNITIES, CONSUMERS & ENVIRONMENTAL POLITICS

Sam Syde Environmental Knowledge and its Role in Public Opinion Formation

Flora Champenois The Wolf's Comeback in France: A Content Analysis of National Press Coverage

Alexandra M. Chou How the Web Discriminates Against You: A Study of Green Product Marketing

Annie Gray An Imagined Community: Sense of Place of Living Walls at the Drew School, San Francisco, CA

Tiffany Tran How Sustainability Initiatives Influence Consumer Perceptions and Drive Brand Value

Juan Hurtado Bay Area Youth Healthy Food Programs Assessment Practices

Judy J. Li Restoring Civic Engagement & Stakeholder Participation: A Case Study of Wetland Restoration Management in Alviso, California

ECOLOGY, BEHAVIOR & CHEMISTRY

Zane Rankin Evolutionary Pressure of a Fish Kill: Reconstructing Steelhead Trout (*Oncorhynchus mykiss*) Life History Using Scale and Otolith Microanalysis

Rachel Phoa Improving the Management of Invasive Golden Apple Snails (*Pomacea canaliculata*) in the Singapore Quarry

Carolyn Lam Life History of the Minnow Mayfly (*Baetis tricaudatus*) in the Russian River Watershed

Angela Zhang Influences of Vegetation and Seed densities on Seed Predation of Two Invasive Thistles in California

Kristen Chen Simple Shape Learning in Two Stomatopod Species, *Haptosquilla trispinosa* & *Pseudosquilla ciliata*

Kyle Carbajal Kinetics of Microbial Sulfate Reduction Processes at Pescadero Marsh Natural Preserve

Kathryn E. Liu Synthesis and Reactivity Studies of Catalysts for Efficient C–C and C–H Bond Activation

3:00-3:15 - AFTERNOON COFFEE BREAK [MORGAN LOUNGE & PATIO]

159 Mulford

SESSION PM2: 3:15-4:30

101 Morgan

ENVIRONMENTAL ISSUES ON THE UC BERKELEY CAMPUS

Claire E. Porter Eco-tragedy or Business Opportunity: How UC Berkeley Students Constitute Environmental Issues

Michelle Nacouzi Governance and Operations Obstacles Faced by Student-Run Cooperatives at UC Berkeley

Emily McKeon The Effectiveness of Interventions on Waste Management Behavior in University Sorority Houses

Annie Lu Low Level Contaminant Effects on Benthic Macroinvertebrates in Strawberry Creek, California

Diana L. Lopez To Remove or Not to Remove? Influence of Climate Change on Public Perception of Proposed Fire Risk Mitigation in Strawberry Canyon

BEHAVIOR, DESIGN & SUSTAINABILITY

Kareem C. Hammoud Low-flow Shower Valve and Environmental Education Effects on Gas and Water Use in University Village

Jasmine Thai Decoding Presbycusis: How Nutrition Can Affect Hearing

Yan Cao Chinese College Student Choice Concerning Disposable and Reusable Chopsticks

Noah Pitts Living Wall Impact on the Thermal Performance of the Building Envelope in the San Francisco Bay Area, California

Riley O'Brien Pollute-and-Ride: Emissions from Bay Area Rapid Transit Station Access

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, ESPM Chair Ron Amundson, Professor John Battles, and the Department of Environmental Science, Policy & Management.