

# ENVIRONMENTAL SCIENCES SENIOR THESIS SYMPOSIUM

SUNDAY, APRIL 21ST, 2013 - 9AM-5PM

Dennis Baldocchi, ES Director

Patina Mendez, ES Lecturer  
Kurt Spreyer, ES Lecturer

Carrie Cizauskas, Anne Murray, & Rachael Marzion, GSIs



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

### MORNING SESSION 1 - 9:15-10:45

#### CLIMATE CHANGE ECOLOGY & BIOGEOCHEMISTRY

159 Mulford

**Shiyang Fu** Effects of Global Warming on Sensitive Alpine Microbial and Plant Communities

**Fatemeh Adlparvar** Physiological Effects of Heatwaves on California Native Plant Species

**Robin Kim** Copper Catalyzed Oceanic Methyl Halide Production and Impacts for Ozone Depletion

**Paz Lozano** Viability of *Phytophthora ramorum* on Bay Laurel after Exposure to Temperature Extremes

**Annasophie Lee** Australian Conifer Conservation: A Phylogenetic and Spatial Approach

**Emily Gilson** Controls on Diffusive Fluxes of Methane and Carbon Dioxide from a California Wetland

#### AGRICULTURE & SOCIETY

101 Morgan

**Sarah Edwards** As Told by Maps: A New Look at Bay Area Food Movements

**Katie Clabeaux** Planting Seeds of Knowledge: Sustainability of San Francisco's Bay Area School Gardening Programs

**Charlotte Hryse** Guerrilla Gardening in the East Bay

**Jahon Amirebrahimi** Grass-fed Meat: Peri-Urban Rancher Strategies to Resist Dispossession in California

**Stephanie Indrieri** Conserving California: Land Conservation Organization Strategies

**Kamini Iyer** Food Security in Rural India: A Case Study of Vadamanappakkam, Tamil Nadu

#### LANDSCAPE ECOLOGY & WATERSHED MANAGEMENT

100 GPB

**Christopher Pavia** Benthic Macroinvertebrate Water Quality Metrics and Landscape Variables in the San Francisco Bay Area

**Natalie Solares** Controlling for Pests: The Influence of Vegetation Diversity in Organic Strawberry Farms

**Gabriella Vozza** Riverbed Filtration Clogging on the Russian River, Sonoma County, CA

**Becky Wong** The Role of Pollen Identification in Examining Butterfly Pollination Networks

**Kaysee Tom** Quantifying Hedgerow Effects on Native Bee Movement

**Alan Cai** Simulated Drought and Competition Exclusion in a California Grassland

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

### MORNING SESSION 2 - 11:00-12:30

#### RESTORATION & REMEDIATION

159 Mulford

**Janet Hsiao** Renewing Urban Streams with Recycled Water: Effects of Tertiary Treated Water on Freshwater Biodiversity

**Sara Winsemius** Strategies for Restoration of Coastal Sand Dunes at Point Reyes National Seashore

**Katrina Velasco** Benthic Macroinvertebrate Community Response to Step-Pool Stream Restoration

**Rosemary Havener** Effects of Arbuscular Mycorrhizal Fungi on Desert Plants in Boron-Contaminated Soils

**Pete Moniz** Ecological Benefits of Recycled Water for Dry Season Streamflow Augmentation in Marsh Creek, Brentwood, California

**Robert Nick Cash** A Reference for Restoration: Quantifying Woody Plant Diversity in Riparian Habitats

#### CONSERVATION PRACTICES & PERCEPTION

101 Morgan

**Michelle Chang** How Clean is Your Cleanser? Polyethylene in Facial Exfoliating Scrubs

**Gloria Fong** Residents' Perception of Urban Forestry in Macao

**Mayra Estrada** Every Drop Counts: UC Berkeley Student Water Conservation Behavior

**Qi Huang** Residents' Perception of Low Impact Development in Berkeley

**Raven McGuane** Public Perception of Carbon Capture and Sequestration

**Eric Rubin** How Personalized Normative Feedback Affects Home Thermostat Settings

#### MOLECULAR & MICROBIOLOGY

100 GPB

**Cristina Mora** Function and Localization of Penicillin-Binding Protein 1a Homolog in *Caulobacter crescentus*

**Felicia Chiang** Vermitea as a Remediation Tool for Hydrocarbon Contaminated Soil

**Kanasha Pompey** Compost as an Inhibitor to *Phytophthora ramorum* in Soil

**Hanh Nguyen** Minimum Threshold Levels of Estrogen Affecting Reproductive Copulatory Success in *Xenopus laevis*

**Austin Jones** MiCodes: Fluorescent Cell Barcodes for Microbial Biofuels Production

**Jennifer Jong** The Potential of Rice: Cellulosic Biofuels

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

AFTERNOON SESSION 1 - 1:15-2:45

SUSTAINABILITY & DESIGN	WILDLIFE & HABITAT	ENVIRONMENTAL HEALTH
159 Mulford	101 Morgan	100 GPB
<b>Monica Harnoto</b> A Comparative Life Cycle Assessment of Reusable and Compostable Takeout Clamshells at the University of California, Berkeley	<b>Liling Lee</b> The Influence of Edge Effects on Habitat Suitability of Western Meadowlark in East Bay Park	<b>Thomas Siu</b> Bed Bugs in Berkeley: Assessing Student Social Behavior and Infestation Risk
<b>Cecilia Chu</b> LEED in China: Does it Really Work?	<b>Ryan Salladay</b> Herbivory Defenses of Island Plants and their Mainland Relatives	<b>Jeffrey Wong</b> Spatial Variability of Mercury in Soils Surrounding Coal-Fired Power Plants
<b>Jolie Chan</b> Whose Sustainability are We Addressing? Building Characteristics' Effects on Indoor Air Quality (IAQ) and Occupant Well-being at UC Berkeley	<b>Chad Fong</b> Quantitative Effects of Human Activity on a <i>Sciurus niger</i> Population	<b>Brian Rodriguez</b> Exposure to Carbon Dioxide and Ozone in Oakland
<b>Mashail Arif</b> Residential Solar Panels and California's Carbon Emissions Goals	<b>Matthew Perryman</b> Evaluating the Invasive Potential of South American Spongeplant in the California Delta	<b>Austin Cappon</b> Hybrid Electricity and Human Health: Effects of Renewable Energy Integration on Respiratory Illness
<b>Crystal Sun</b> Trashing the Campus: Organic Waste Diversion and Greenhouse Gas Mitigation at UC Berkeley	<b>Jacqueline Howells</b> Eastern Fence Lizard Microhabitat Use on the White Sands Ecotone	<b>Toby Haass Walpert</b> Measuring Residential Natural Gas Leakage and its Impact on California Methane Emissions
<b>Diana Zheng</b> Does LEED Save Energy? A UC Berkeley Case Study	<b>Alana Reese</b> The Efficacy of Wetland Mitigation for a Black-crowned Night Heron Population in Long Beach, California	<b>Jenny Tang</b> Volcano Gases and Rotten Eggs: Assessing Ambient and Below-ground H2S and CH4 Concentrations in Clearlake, CA

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

AFTERNOON SESSION 2 - 3:00-4:30

ENVIRONMENTAL INSTITUTIONS & POLICY	BIOCONTROL SOLUTIONS IN AGRICULTURAL SYSTEMS	TRANSPORTATION, TRADE & POLITICS
159 Mulford	101 Morgan	100 GPB
<b>Wil Mumby</b> Getting Our Feet Wet: Water Management at Mt. Laguna in Cleveland National Forest	<b>Sage Farrell</b> Measuring the Effect of Nectar Feeding on the Parasitoid <i>Anagrus spp.</i>	<b>Ben Weise</b> A Train To Nowhere? Editorial Coverage of the California High Speed Rail
<b>Esther Santacruz</b> Urban Agriculture Policies in California's Bay Area	<b>Lara Veylit</b> The Pests that Threaten Your Wine: Pesticide and Biological Control Agent Interactions in California Vineyards	<b>Lauren Reyes</b> The Message in the Fumes: The Discourse of Ford and GM Corporate Sustainability Reports
<b>Grecia Elenes</b> The Central Valley's Struggle for Clean Water: A Monson, California Case Study	<b>Dawning Wu</b> Anagrus to the Rescue: Assessing Overwintering Preferences of <i>Anagrus spp.</i> for Control of <i>Erythroneura elegantula</i> Pest Behavior	<b>Abraham Diaz, Jr.</b> A Toxic Convention: Regulating the International Hazardous Waste Trade
<b>Shehan Peiris</b> Waste Management Education Programs: Program Goals, Growth, and Structure	<b>Brynn Cook</b> Making an Impact on Invasives: A Pre-release Efficacy Test for the Psyllid <i>Arytinnis hakani</i> on French Broom	<b>Affrace Chang</b> Reforms in Richmond? The Efficacy of a Climate Action Plan for Richmond, California
<b>Olivia Han</b> Microblogging the Environment: How Generation Y is Talking about Sustainability on the Social Platform Tumblr	<b>Michael Scott</b> Overwintering Habitat of the Western Grape Leafhopper in Sonoma and Napa Vineyards	<b>Rachel Connolly</b> Policy Impacts of Air Quality Advocacy at the Port of Oakland
	<b>Christina Edsall</b> A Different Look at Pest Management: <i>Amyellois transitella</i> Raised on Agricultural and Non-agricultural Plants	<b>Amanda Wolf</b> Transit Villages as a Vehicle for Travel Behavior Change? A Contra Costa Centre Case Study

4:30 - CLOSING COMMENTS [IN SESSION]

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