

ENVIRONMENTAL SCIENCES SENIOR THESIS SYMPOSIUM

SUNDAY, APRIL 22ND, 2012 - 9AM-5:30PM

9:00-9:15 - WELCOME

[159 MULFORD]
Kurt Spreyer, ES Lecturer
Dennis Baldocchi, ES Director
Susan Kishi, ES Advisor
Patina Mendez, ES Lecturer

Seth Shonkoff & Melissa Eitzel, GSIs

159 Mulford SESSION AM 1: 9:15-11:00

100 GPB

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#### **ECOLOGY & ECOSYSTEM SCIENCE**

**Anna E. Bischoff** Exploring the Effects of Climate on Mechanisms of Carbon Stabilization in Soil

**Emily Chow** Investigating Methane Flux from Sacramento-San Joaquin Delta Soils

**Taichi Natake** Soil Texture Pattern in a Tropical Forest of Puerto Rico

**Katya Cherukumilli** Testing the Maximum Entropy Theory of Ecology at the Rocky Mountain Biological Laboratory

**Shalika Gupta** Family Matters: Relatedness and Niche Similarity in the Genus *Heliconia* 

**Sereyvicheth Kaing** Ecological Effects of Flow Augmentation on Benthic Macroinvertebrate Communities in Strawberry Creek

**Gary Gao** Digging up the Dirt: Decomposition of Compost Addition in Grasslands

#### FOREST MANAGEMENT & ECOLOGY

**Sophia Ashton** The 2007 Financial Crisis, Lazy Renters, and Urban Tree Mortality–What's the Connection?

Yuki Ohashi Optimal Management of Agroforestry Landscape for Pollination Services

**Diana Castro** The Sudden Oak Death Epidemic: Do Bay Laurel and Madrone act as Important Hosts to the Spread of Sudden Oak Death in Coast Live Oak?

**Anna Szendrenyi** Assessment of Microclimate Conditions in a Lower Subalpine Warming Experiment at Niwot Ridge, Colorado

Marissa Montjoy Oh So Sudden (Oak Death); The Heritability of Resistance to Sudden Oak Death in Tanoaks

**Patrick Hennessy** A History of Perception: Eucalyptus Trees in the East San Francisco Bay Area

Tara Lynn DiRocco Accountable Accounting: Carbon Quantification in Malaysian Tropical Rainforests

## 11:00-11:15 - MORNING COFFEE BREAK [260 MULFORD]

159 Mulford SESSION AM2: 11:15-1:00

## **INDUSTRY & CONSUMPTION**

# Lauren Thomas ARTES: The Future of Innovative Oil

Spill Remediation **Rachel Spiciarich** "Breaking Down" the Problem:

Aligning Policy and Practice in the Compostable Plastics Industry

Taylor Zhou The Cost of Conserved Energy for

Residential Appliances in Australia, Korea and Japan

**Katarina Makmuri** Green Food, Cleaning Products, and Electronics: Consumer Attitudes and Behaviors

**Kimberly Lam** Slick, Sloppy and Spilling: Effects of Alaska Crude Oil and Diesel on Native and Hybrid Marsh Cordgrass

**Cynthia Gaw** Sleeping On Toxins? A Study of Flame Retardants in Sleep Products

**April Shannon McGrath** Fashioning Sustainability: How the Clothes we wear can support Environmental and Human Well-Being

## **URBAN LANDSCAPES & INSTITUTIONS**

**Lian Boos** A Farmers' Market in a Food Desert: Evaluating the Impact on Local Food accessibility

Mandy Jones Turning Ideas into Reality: Assessing Efforts to Incorporate Public Health Goals into City Planning in Richmond, CA

**David Pon** The Nature of the Berkeley Campus: Evolving Landscapes and Ideologies, 1956-2012

**Kelley Doyle** Converting University Spending to Greenhouse Gas Emissions: A Supply Chain Carbon Footprint Analysis of UC Berkeley

**Andre Adao** Greening the Curriculum: Environmental Content in Cal Undergraduate Courses

Marielle Pinheiro Travel Behavior and Choice in a Suburban Setting: Pleasanton, CA Case Study

**Danika Desai** What Happened at Fukushima? Mixed Messages from the New York Times and the Wall Street Journal

159 Mulford SESSION PM1: 1:45-3:30 100 GPB

## WILDLIFE & HABITAT

## AGRICULTURE & AGROECOSYSTEMS

**Jacob Finkle** Monsters of the Deep? The North American Bullfrog in Central California

**Evelyn Christina** Wildlife Hunting in The Changing Landscape of Sumatra, Indonesia

**Vickie Ly** Nuts 'n bolts: Characterizing the Microhabitat of *Tamias alpinus* and *Tamias speciosus* in Yosemite NP over the past 100 Years

**Christina Kastely** Say What! The Correlation Between Alarm Call Structure and Genetic Relatedness in Belding's Ground Squirrels

Uriel García Sea Otter foraging in Elkhorn Slough, CA

**Benjamin H. Wheeler** Bats: Geographic Modelling from present to 2080

Carolina Méndez Seasonal Movement of two Common Stream Fishes in Strawberry Creek, a Small Urban Mediterranean-Climate Stream **Austin Roughton** Wasps in Winter: An Overwintering Habitat Assessment of *Anagrus* spp. in Northern California Vineyards

**Alyssa Tison** Do Organic Food Consumers care about Labor? Consumer Knowledge, Attitudes and Behavior regarding Labor in Organic Farms

**Ming Stephens** Wasps vs. Aphids: Density Dependence in Behaviors of a Parasitoid Wasp

**Sean Kodani** Fluorosulfate Enzyme Targets: Insights into Novel Aspects of Sulfuryl Fluoride Fumigant Toxicity

**Stephanie Baker** Repurposing Parcels: Evaluating the Feasibility of Urban Agriculture on Oakland's Private Land

**Jaclyn laquinta** Parasitism-Induced Metabolic Changes in the Light Brown Apple Moth

**Hanna Scardina** Agricultural Hedgerows: An Alternative to Honeybee Crop Pollination

# 3:30-3:45 - AFTERNOON COFFEE BREAK [260 MULFORD]

159 Mulford SESSION PM2: 3:45-5:15 100 GPB

#### **CLIMATE & ENERGY**

# **HEALTH & SOCIAL JUSTICE**

**Sarah Cohen** San Diego's IPCCC: The Implications and Politics of Climate Change Confusion

**Alexander Y. Daniel** Buy American, Sell Nature? What Energy Independence Could Mean for the Environment?

**Jack Jeong** City Heat: Temperature Effect of Impervious Surfaces in South Berkeley, CA

**Tiffany Chang** Flexible Nanotechnology: Potential Substrates for Low-Cost Supercapacitors

**Jordan Woods** Rooftop Reflectance: A Case Study in San Jose, CA

**Katherine He** Pushing the Back of the Envelope: Calculating the Environmental Footprint of Regenerating Granular Activated Carbon **Jennifer Kahng** Inhaler, Anyone? The Association Between Aeroallergens and Asthma

**Daniel Ruiz** *In vitro* Identification of Potential Anti-Cancer and Anti-inflammatory agents from Peruvian medicinal plants

**Amy Chan** What's Smokin' West Oakland? Mapping Air Pollution Sources

Caroline Ro From Food Desert to Food Oasis: Community Food Security Assessment of the Grub Box Program in West Oakland

**Nina Xu** Lean, Mean, Green Cleaning Machine: One School District's Quest for Sustainability

**Lan Ngo** What's Agent Orange? Second-Generation Vietnamese Americans and the Legacy of War

## CLOSING COMMENTS: 5:15 [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 Susan Kishi for help organizing and assisting with this event. Special thanks to ES Director Dennis Baldocchi, ESPM Vice Chair for Instruction Neil Tsutsui, and the Department of Environmental Science, Policy, & Management.