

# 2017 Senior Thesis Poster Session

April 20, 4:30-6:30 pm

4:30-5:00 pm 30 Second Overviews

5:00-6:30 pm Poster Presentations & Reception



For more information about senior theses and the joint Barnard/Columbia Senior Seminar, or if you like to work on a research project with an undergraduate student in the future, contact Martin Stute (mstute@barnard.edu) or visit:

<http://cool.barnard.edu/envsci/>

Thanks for coming!

**Environmental Science, Barnard College**  
**Earth and Environmental Sciences, Columbia University**  
**Ecology, Evolution, and Environmental Biology, Columbia University**  
**Sustainable Development, Columbia University**  
**The Earth Institute at Columbia University**

1. **Domingos, Armando:** Microstructures of Ammonia and Ice
  2. **Mayo, Evelyn:** Seafloor Changes in the Long Island Sound 1990-2013
  3. **Shi, Kai:** Numerical Thermal Modeling of 10 Meter Magnitude Near Earth Asteroids Affected by The Yarkovsky Effect
  4. **Wilding, Jack:** Thermodynamic Modeling of the Lithosphere-Asthenosphere Boundary Beneath the Colorado Plateau
  5. **Zebker, Molly:** Structure in the Lithosphere From Love Wave Phase Velocity Measurements in NoMelt and Plume
  6. **Spierer, Hannah:** Quantifying Geomorphological Changes at Two Hydrothermal Vent Fields on the Lau Back-Arc Basin
  7. **Siritzky, Meghan:** Paleomagnetic Excursion in Mono Lake, CA
  8. **Mehmel, Nick:** Hydrothermal Response to Glaciation
  9. **Jenkins, Christy:** Measuring Cooling of Lava Lakes via Remote Sensing
  10. **Olson, Jennifer:** Modeling Large Volcanic Eruptions with Higher Temporal Resolution
  11. **Markey, Kelsey:** Impact of Barite Associated with Deepwater Horizon Oil Spill
  12. **Riechelson, Hailey:** Boron Isotope Fractionation to Reconstruct Oceanic Conditions
  13. **Prend, Channing:** Quantifying the Total Marine Carbonate Budget Using Regional Models of the Calcite Compensation Depth
  14. **Kelly, Colette:** Variation in Carbonate Chemistry of Waquoit Bay, MA
  15. **Smith, Emerald:** Rate of Water Imbibition into Peridotite Rocks from the Semail Ophiolite
  16. **Vieira, Max:** Transport of Hydraulic Fracturing Chemicals Through Sandstone Cores to Identify Indicators of Groundwater Contamination and Implications for Potential Health Impacts
  17. **Secular, Deborah:** Low-temperature Serpentinization and Magnesium Leaching in Maryland Ultramafics
  18. **Huang, Claire:** Shifting Baselines in Oregon Black Rockfish Size and Age at Maturity
  19. **Taylor, Madalyn:** Community Composition and Island Biogeography of Mobile Fauna on Pelagic *Sargassum* in the Caribbean Sea, 2015-2016
  20. **Williams, Jordan:** Enhancing the Thermal Tolerance of *Symbiodinium* Through Experimental Evolution
  21. **Williamson, Olivia:** Effects of Elevated pCO<sub>2</sub> on growth rate and net H<sub>2</sub>O<sub>2</sub> production in Harmful Algal Bloom Species *Heterosigma akashiwo*
  22. **Buhler, Karina:** Using Macrofossils to Reconstruct the Paleoenvironmental History of Cedar Bog in High Point State Park, New Jersey
  23. **Garcia, Andres:** Leaf-level Respiration and Inhibition of Photosynthesis
  24. **Gonzalez, Ana Camila:** The Role of Organic Phosphorus in Microbial Phosphorus Cycling
  25. **Chen, Helen:** The Relationships Between Host Life History Traits and Viral Richness in Birds
  26. **Liakos, Samuel Elias:** *Orosi* Orchids: Investigating Isotopic Composition in Coexisting Orchid Species and their Potential Nutrient Pools
  27. **Brodsky, Olivia:** Soil Influence on Plant Water Conductance in New York City Green Infrastructure
  28. **Kane, Elsbeth:** Diversity of *Borrelia burgdorferi* in a Lyme endemic site
  29. **Glinskis, Emmalina:** Oil Palm Expansion in the Amazon: Land Cover Change Detection, Carbon Mapping, and Social Interest Analysis under Big Industry and Smallholder Regimes
  30. **Fang, Dorthy:** Seed Movement Through Varying Urban Land Cover Types in NYC
  31. **Myers, Kimberly:** A Spatiotemporal Analysis of land cover, precipitation and fire relationships in the Colombian Eastern Plains
  32. **Rhee, Sophia:** Mining Legacies: Understanding Community Conflicts around Biharamulo Gold Mine, Tanzania
  33. **Young, Jonathan Brandon:** Assessing the Efficacy of Low-Cost Air Monitors on Measuring Particulate Matter Concentrations on New York City Streets
  34. **Sutter, Sugal:** Designing and Testing a Solar Thermoelectric Device with the Potential of Providing Rural Households in Honduras with Electricity
  35. **Engel, MJ:** Coffee Dreamscapes: Reimagining Geographies of the Global Coffee Supply Chain in an Age of Climate Change
  36. **Abaraoha, Jacob:** Air Quality and Education Outcomes
  37. **Liu, Tianjia:** A New CO<sub>2</sub> Emissions Inventory for Winter Agricultural Fires in Northwestern India: Rapid Multi-sensor and Multi-temporal Estimation of Agricultural Burned Area
  38. **Sulakshana, Elana:** Before and After Hurricane Sandy: The Role of Social Capital in Disaster Recovery
- Fall semester students, not present today:**
39. **Schank, Maya:** Ascertaining Patterns of Agrobiodiversity in Multistrata Agroforestry Systems of Southern Belize
  40. **Pries, Christine:** Modeling Arsenic, Iron and Sulfur Cycling under Biologically Mediated Reduction
  41. **Hise, Jeremy:** A Low-Cost Automatic Water Collector to Observe Variations in Nitrate Concentrations in Streams
  42. **Shaeffer, Scottir:** Stormwater Management Services from Green Roof Plants: Comparison of Plant Functional Groups Using Native and Introduced Species
  43. **Merwin, Jon:** Non-Adaptive Morphological Divergence and Island Radiation in Lorius Parrots
  44. **Judge, Phoebe:** A Better Understanding of the Swede Midge\
  45. **Chi, Daniel:** The Effects of Plant Community Functional Diversity on Ecohydrology
  46. **Jang, Bo Yeon:** Determining Drivers of Kuznet Curves in Air Pollution: A Case Study of India
  47. **Huang, Claire :** Shifting Baselines in Oregon Female Black Rockfish Size and Age of Maturity
  48. **Erazo, Natalia:** Sequencing the Microbiome of a Marine Cyanobacteria
  49. **Williams, Jordan:** Enhancing the Thermal Tolerance of *Symbiodinium* through Experimental Evolution
  50. **Zucker, Cynthia:** What Are the Sources of High Ozone Contributing to High Pollution Events in Texas in 2011-2012
  51. **Leshko, Shana:** Surprises Under the Ice: Carbonate Chemistry and 2016 Antarctic Sea Ice Anomaly
  52. **So Yon, Jun:** *Ixodes scapularis* Phenology on Rhode Island (Block Island) and Connecticut: The Role of Climate and Implications for Lyme Disease Surveillance