

Autumn 2023  
Program on the Environment  
CAPSTONE SYMPOSIUM  
Event Program



Scan QR Code for All Student Abstracts

Wednesday, November 29<sup>th</sup>, Online, 4:30 – 7:30 pm  
(<https://washington.zoom.us/j/95748800932>)

Wednesday, December 6<sup>th</sup>, In-Person, 4:30 – 7:30 pm  
([UW School of Aquatic Fisheries & Science FSH 102 & Lobby](#))

The Capstone experience is a three-course series (ENVIR 490, 491, 492) centered on a quarter- long project-based internship with a community site partner. Capstone sites range from community-based nonprofits and government agencies to faculty research projects and private sector initiatives. With the mentorship of a faculty advisor and the support of the site supervisor, students gain valuable hands-on experience, explore career possibilities, and build a wide spectrum of professional communication skills.

# DAY 1: ONLINE POSTER SYMPOSIUM

## (November 29th; Online Presentations)

4:30 PM – 4:40 PM Welcome & Session Overview

4:40 PM – 4:50 PM Session A Speaker Intros

4:50 PM – 5:50 PM Poster Session A – Education & Outreach; Policy & Regulation

### **LIKE, COMMENT, AND SHARE: HOW SOCIAL MEDIA CAN BOOST ENGAGEMENT FOR TRANSIT JUSTICE**

Session: A, Breakout Room: #1

Jasmine Barreto, @\_jasminebarreto, Program on the Environment, Cinema & Media Studies, University of Washington

Site Supervisor: Keith Kyle, Seattle Subway Foundation

Faculty Advisor: Erin Gilbert, Program on the Environment, University of Washington

### **“GO GREEN! STORMWATER INFRASTRUCTURE” - BRIDGING THE EDUCATIONAL GAP BETWEEN HOMEOWNERS AND GSI**

Session: A, Breakout Room: #2

Carina Baxter, carina\_baxter36, Program on the Environment, University of Washington

Site Supervisor: Jenny Heins, Sustainable Ballard

Faculty Advisor: Jason Benscher, Athletics Department, University of Washington

### **LEARNING TO LIVE IN A CHANGING WORLD: PLANNING AGAINST THE THREAT OF EXTREME HEAT**

Session: A, Breakout Room: #3

Julian Gonzales, @JulianG1021, Julian Gonzales\*, Program on the Environment, University of Washington

Site Supervisor: Jillian Edge, Public Health - Seattle & King County, Preparedness Section

Faculty Advisor: Jeremy Hess, Emergency Medicine, Environmental & Occupational Health Sciences, and Global Health, University of Washington

**DAM! BRIDGING THE DAM: PERCEPTION AND APPROACHES TO BEAVER-RELATED RESTORATION WORK IN SCATTER CREEK**

Session: A, Breakout Room: #4

Florencia Gonzalez-Martinez, Program on the Environment, University of Washington

Site Supervisor: Kirsten Harma, Chehalis Basin Partnership and Chehalis Basin Lead Entity for Salmon Recovery, Watershed Coordinator

Faculty Advisor: Gunwha Oh, Department of Geography, University of Washington

**ROOTS OF CHANGE: ACTIONS PLANT CONSERVATORIES & BOTANICAL GARDENS CAN TAKE TO SHARE PLANT KNOWLEDGE IN MORE CULTURALLY INCLUSIVE WAYS**

Session: A, Breakout Room: #5

Patrick Harper, @patrickk\_harper, Program on the Environment, Global and Regional Studies, University of Washington

Site Supervisor: KL Bentrup and Lauren Moore, Friends of the Conservatory

Faculty Advisor: Brittany Johnson, School of Environmental and Forest Sciences, University of Washington

**FINDING BARRIERS TO USING SALVAGED LUMBER AND SOLUTIONS TO INCREASE USE IN KING COUNTY**

Session: A, Breakout Room: #6

Lauren Harris, Program on the Environment, Political Science, University of Washington

Site Supervisor: Kinley Deller and Alex Erzen, King County Solid Waste Division

Faculty Advisor: Indroneil Ganguly, School of Environmental and Forest Sciences, University of Washington

**URBANIZATION OR GENTRIFICATION? THE BENEFITS AND CHALLENGES OF EXPANDING LINK LIGHT RAIL IN SEATTLE**

Session: A, Breakout Room: #7

Palmer Holt, Program on the Environment, University of Washington

Site Supervisor: Keith Kyle, Seattle Subway Foundation

Faculty Advisor: Manish Chalana, Urban Design and Planning, University of Washington

**THE GREENEST BELT: UNDERSTANDING THE MOTIVATIONS AND BARRIERS TO ENVIRONMENTAL VOLUNTEERING IN URBAN GREEN SPACES**

Session: A, Breakout Room: #8

Matthew Koay, Program on the Environment, University of Washington

Site Supervisor: Linda Becker, Friends of Harrison Ridge

Faculty Advisor: Tim Billo, Program on the Environment, University of Washington

**REIMAGINING THE SOUND TRANSIT DISTRICT: HOW A REVISED FARE MODEL COULD TRANSFORM THE REGION'S RELIANCE ON PUBLIC TRANSPORTATION**

Session: A, Breakout Room: #9

Mae Langford, Program on the Environment, University of Washington

Site Supervisor: Keith Kyle, Seattle Subway Foundation

Faculty Advisor: Tim Billo, Program on the Environment, University of Washington

### **USING REBATES TO PROTECT OUR WATERS: INCREASING EQUITABLE UTILIZATION IN THE RAINWISE REBATE PROGRAM FOR DISADVANTAGED COMMUNITIES**

Session: A, Breakout Room: #10

Matthew Mason, Program on the Environment, University of Washington

Site Supervisor: Jenny Heins, Sustainable Ballard

Faculty Advisor: Sergey Rabotyagov, School of Environmental and Forest Sciences, University of Washington

### **ENVIRONMENTAL EDUCATION: EXPANDING ACCESS HERE, THERE, AND EVERYWHERE**

Session: A, Breakout Room: #11

Caitlin Naqvi, @NaqviCait, Program on the Environment, University of Washington

Site Supervisor: Julia Glassy, Fiddleheads Forest School, University of Washington Botanical Gardens

Faculty Advisor: Timothy Billo, Program on the Environment, University of Washington

### **OPPORTUNITIES FOR MINORITIES: HOW EXPANDING THE SCOPE OF ENVIRONMENTAL INTERNSHIPS CAN IMPROVE DIVERSITY**

Session: A, Breakout Room: #12

Jaiden Reese, @jaidenreese22, Program on the Environment, University of Washington

Site Supervisor: Dan Tonnes, National Oceanic and Atmospheric Administration

Faculty Advisor: Kristie Ebi, Center for Health and the Global Environment, University of Washington

### **BRIDGING THE GAP BETWEEN TRADITIONAL WISDOM AND SCIENTIFIC ADVANCEMENTS**

Session: A, Breakout Room: #13

Ayana Sabbas, Program of the Environment, University of Washington

Site Supervisor: Jason Gobin and Melissa Gobin, Tulalip Tribes Natural Resources

Faculty Advisor: Charlotte Coté, Department of American Indian Studies, University of Washington.

### **CIRCULAR ECONOMY ADOPTION IN CONSTRUCTION: STAKEHOLDER PERSPECTIVES AND STRATEGIES**

Session: A, Breakout Room: #14

Anna Schmitz, @AnnaSchmitz56, Program of the Environment, University of Washington

Site Supervisor: Kinley Deller, King County Solid Waste Division and Alex Erzen, King County Department of Natural Resources and Parks

Faculty Advisor: Ben Packard, EarthLab, University of Washington

### **SOCIAL MEDIA FOR SOCIAL CHANGE: HOW NONPROFITS CAN USE SOCIAL MEDIA TO INCREASE STAKEHOLDER COMMUNICATIONS AND GAIN FUNDING**

Session: A, Breakout Room: #15

Nina Shuken, Program on the Environment, University of Washington

Site Supervisor: Peter Donaldson, Sustainability Ambassadors

Faculty Advisor: Nives Dolsak, School of Marine and Environmental Affairs, University of Washington

**DRY RIVER, WET EYES: AN EXPLORATION OF WHAT MAKES OR BREAKS COLLABORATION AS A TOOL FOR ENVIRONMENTAL PRACTITIONERS**

Session: A, Breakout Room: #16

Gracie Thomsen, @gthomsenuw37, Program on the Environment, English

Site Supervisor: Alison Schweitzer and Mary Rabourn, King County Stormwater Services

Faculty Advisor: Yen-Chu Weng, Program on the Environment, University of Washington

**BEAVERS: AGRICULTURE'S FOE TURNED FRIEND**

Session: A, Breakout Room: #17

Charlotte Till, @CharlotteTilll, Program on the Environment, Business Administration:

Entrepreneurship, University of Washington

Site Supervisor: Linda Lyshall, Snohomish Conservation District

Faculty Advisor: Clare Ryan, Environmental and Forest Science, College of the Environment, University of Washington, University of Washington

**THE THREE C'S OF MARKETING TO UNDERSERVED COMMUNITIES: CONNECTION, COMMUNICATION, AND CULTURE**

Session: A, Breakout Room: #18

Anna Marie Wing, @enviranna, Program on the Environment, University of Washington

Site Supervisor: Josh Epstein, NE Seattle Tool Library

Faculty Advisor: Rebakah Daro Minarchek, Integrated Social Sciences, International Studies, University of Washington

**FROM DATA SCIENCE TO WORKFORCE DIVERSITY: REVOLUTIONIZING ENVIRONMENTAL RECRUITMENT STRATEGIES**

Session: A, Breakout Room: #19

Shirley Yao, Program on the Environment, Information School, University of Washington

Site Supervisor: Dan Tonnes, National Oceanic and Atmospheric Administration

Faculty Advisor: Ott Toomet, Information School, University of Washington

**5:50 PM – 6:00 PM BREAK**

**6:00 PM – 6:05 PM Session B Overview**

**6:05 PM – 6:15 PM Session B Speaker Intros**

**6:15 PM – 7:15 PM Poster Session B – Agriculture & Food systems; Natural Science & Restoration; Sustainability**

**WHY WE SHOULD CARE ABOUT WETLAND AND HOW TO RESTORE IT EFFICIENTLY**

Session: B, Breakout Room: #1

Justin Chao, @JustinChao1127, Program on the Environment, University of Washington

Site Supervisor: Grace Stiller, Weed Warriors, Nature Stewards Program

Faculty Advisor: Tim Billo, Program on the Environment, University of Washington

**MAKING FRUITFUL HABITATS: ESTABLISHING BEST PRACTICES FOR FRUIT GLEANING ORGANIZATIONS TO EASE THE EFFECTS OF CLIMATE CHANGE ON POLLINATORS**

Session: B, Breakout Room: #2

Rachel Ellingwood, @ellinrac, Program on the Environment, University of Washington

Site Supervisor: Bennett Walkes, City Fruit

Faculty Advisor: Eli Wheat, Program on the Environment, University of Washington

**GROWING RESILIENCY: APPROACHING YEAR-ROUND FOOD SECURITY IN THE GREATER SEATTLE AREA**

Session: B, Breakout Room: #3

Althea Ericksen, @altheaericksen1, Program on the Environment, University of Washington

Site Supervisor: Perry Acworth, The UW Farm

Faculty Advisor: Eli Wheat, Program on the Environment

**DON'T SAVE ALL THE TREES! ENSURING THE SURVIVAL OF PACIFIC NORTHWEST FORESTS THROUGH ECOLOGICALLY-FOCUSED THINNING TREATMENT**

Session: B, Breakout Room: #4

Jessica Fragoso, @jessicanoemifr1, Program on the Environment, University of Washington

Site Supervisor: Rowan Braybrook, Northwest Natural Resource Group

Faculty Advisor: Ernesto Alvarado, School of Environmental and Forest Sciences, University of Washington

**GOING WITH THE FLOW: HARNESSING SOCIAL NORMS FOR REUSABLE WATER BOTTLE ADOPTION**

Session: B, Breakout Room: #5

Amelie Gahagan, @GahaganAmelie, Program on the Environment, Foster School of Business, University of Washington

Site Supervisor: Liesel Hans, Alliance for Water Efficiency

Faculty Advisor: Sergey Rabotyagov, School of Environmental and Forest Sciences, University of Washington

**DRINKING RESPONSIBLY: THE ROLE OF SUPPLIER PERFORMANCE ASSESSMENTS IN COLLABORATIVE SUSTAINABLE SUPPLY CHAIN MANAGEMENT**

Session: B, Breakout Room: #6

Emma Haener, @EmmaHaener, Program on the Environment, University of Washington

Site Supervisor: Erik Throndsen, Talking Rain Beverage Company

Faculty Advisor: Ben Packard, EarthLab, University of Washington

**O, SOIL! WHAT O HORIZON THICKNESS CAN TELL US ABOUT SUMMER SOIL MOISTURE IN PACIFIC NORTHWEST FORESTS AMIDST GLOBAL WARMING**

Session: B, Breakout Room: #7

Niki Kirihaara, @nikiKirihaara, Program on the Environment, University of Washington

Site Supervisor: Rowan Braybrook, Northwest Natural Resource Group

Faculty Advisor: Tim Billo, Program on the Environment, University of Washington

### **NAVIGATING THE FUTURE: SUSTAINABLE LAND SURVEYING TECHNIQUES**

Session: B, Breakout Room: #8

Darcy McCluskey, @darcy\_mccluskey, Program of the Environment, Environmental Studies, University of Washington

Site Supervisor: Brian Belvis, 1 Alliance Geomatics

Faculty Advisor: Gerald Beltran, Sellen Construction and University of Washington

### **EVALUATING A RURAL COMMUNITY'S FOOD ENVIRONMENT: HOW FOOD ACCESS PROGRAMS AT A FARMERS MARKET CAN IMPROVE FOOD EQUITY**

Session: B, Breakout Room: #9

Leila Misallati, Program on the Environment, University of Washington

Site Supervisor: Lindsay Gilliam, Carnation Farmers Market

Faculty Advisor: Eli Wheat, Program on the Environment, University of Washington

### **TRACKING THE TIDE: INVESTIGATING CRAB BIODIVERSITY AND SPAWN TIMING SHIFTS**

Session: B, Breakout Room: #10

Christine Nguyen, @ChristineSzR, Program on the Environment, University of Washington

Site Supervisor: Aerial Wauhob, Highline MaST Center Aquarium

Faculty Advisor: John Horne, School of Aquatic and Fishery Sciences, University of Washington

### **WORKING HARD OR HARDLY WORKING? HOW TO INCREASE EMPLOYEE ENGAGEMENT WITH SUSTAINABILITY**

Session: B, Breakout Room: #11

Jen Ortiz, @JenO\_capstone, Program on the Environment, University of Washington

Site Supervisor: Erik Throndsen, Talking Rain

Faculty Advisor: Fred Pursell, Foster School of Business, University of Washington

### **CREATING FRUITFUL COMMUNITIES: IDENTIFYING BARRIERS AND SOLUTIONS TO ESTABLISHING AN EQUITABLE FOOD SYSTEM THROUGH URBAN AGRICULTURE**

Session: B, Breakout Room: #12

Mya Sands, @myasando, Program on the Environment, University of Washington

Site Supervisor: Tiare Gill, City Fruit

Faculty Advisor: Eli Wheat, Program on the Environment, University of Washington

### **CONVENTIONS, CARBON, AND CENTRALITY: METHODS FOR REDUCING EMISSIONS FROM TRAVEL IN THE EVENT AND CONVENTION INDUSTRY**

Session: B, Breakout Room: #13

Erin Schobbe, @erinschobbe, Program on the Environment, University of Washington

Site Supervisor: Robert Gottschalk, AQ Green TeC

Faculty Advisor: Caitlin Ainsley, Department of Political Science, University of Washington

**DRIVING CHANGE: SOLAR-POWERED TRANSPORTATION PATH TO A CARBON-FREE FUTURE**

Session: B, Breakout Room: #14

Eddie Shelton, Program of the Environment, University of Washington

Site Supervisor: Jaime Cantos, Merlin Solar

Faculty Advisor: Barry Erickson, Foster School of Business, University of Washington

**THE ROLE OF SOCIAL NORMS IN WATER CONSERVATION BEHAVIOR INTERVENTIONS**

Session: B, Breakout Room: #15

Rhea Shinde, @rheashinde2, Program on the Environment, Philosophy, University of Washington

Site Supervisor: Site supervisor: Liesel Hans, Alliance for Water Efficiency

Faculty Advisor: Salar Jahedi, Affiliate Professor, Economics, University of Washington and Principal Economist, Amazon

**HARVESTING SOLUTIONS: A STUDY OF BARRIERS TO ACCESS WITHIN ALTERNATIVE FOOD NETWORKS**

Session: B, Breakout Room: #16

Ella Simmons, @ell\_a\_simmon, Program on the Environment, University of Washington

Site Supervisor: Shannon Bly, Whidbey Island Grown

Faculty Advisor: Eli Wheat, Program on the Environment, University of Washington

**REGENERATING PACIFIC NORTHWEST SALMON HABITAT THROUGH RIPARIAN RESTORATION**

Session: B, Breakout Room: #17

Felicity Strzelec, @fsstrz, Program on the Environment, University of Washington

Site Supervisor: Whitney Neugebauer, Whale Scout

Faculty Advisor: Jason Toft, University of Washington School of Aquatic and Fishery Sciences

**BE A GOOD SPORT, DON'T FORGET TO SORT: BEST PRACTICES FOR WASTE DIVERSION PROGRAMS IN SPORTS STADIUMS**

Session: B, Breakout Room: #18

Maysen Westling, Program on the Environment, University of Washington

Site Supervisor: Karen Baebler, University of Washington Athletics

Faculty Advisor: Kristi Straus, Program on the Environment, University of Washington

**SUSTAINABLE ONLINE PRODUCE: GREEN MARKETING & KEY VARIABLES INFLUENCING CONSUMER PURCHASING BEHAVIOR**

Session: B, Breakout Room: #19

Serena Zheng, Program on the Environment, University of Washington

Site Supervisor: Josh DeWitt, Kitsap Fresh Local Food Online

Faculty Advisor: Betsy Sperry, Marketing and International Studies, Foster School of Business, University of Washington

**7:15 PM – 7:30 PM Closing Remarks**



---

# DAY 2: ORAL PRESENTATIONS

## SYMPOSIUM & CELEBRATION

### (December 6th)

4:30 PM – 4:40 PM Welcome & Housekeeping

4:40 PM – 5:10 PM Poster Highlights\*\* & Refreshments

5:10 PM – 5:20 PM BREAK

5:20 PM – 5:25 PM Session Introduction

5:25 PM – 6:25 PM Lightning Talks Session A

#### **MYCO-FILTRATION FOR CLIMATE RESILIENCE AND CIRCULARITY**

Session: Day 2, In-Person

Keya Roy, @KeyaRRoy, Program on the Environment, University of Washington

Site Supervisor: Tatiana Brown, University of Washington Campus Sustainability Fund

Faculty Advisor: Ken Yocom, Landscape Architecture, University of Washington

#### **FROM FIELDS TO TABLES: THE POWER OF FOOD PRESERVATION IN GLEANING ORGANIZATIONS**

Session: Day 2, In-Person

Ezra Thomason, @oliveplanter, Program on the Environment, University of Washington

Site Supervisor: Bennett Walkes, City Fruit

Faculty Advisor: Yona Sipos, Department of Environmental and Occupational Health Sciences, University of Washington

#### **SMALL BUT MIGHTY: FORAGE FISH SIGNAL THE NEED FOR SHORELINE RESTORATION IN THE PUGET SOUND**

Session: Day 2, In-Person

Arianna Fardad, Program on The Environment, University of Washington

Site Supervisor: Bianca Perla, Vashon Nature Center

Faculty Advisor: Jason Toft, Principle Research Scientist, Wetland Ecosystem Team, UW School of Aquatic and Fishery Sciences

**INTEGRATED IS BEST: HOW LIGHT RAIL AND BUSES WORKING IN CONJUNCTION WILL INCREASE THE USABILITY OF SEATTLE'S TRANSIT SYSTEM**

Session: Day 2, In-Person

Jordan Priest, Program on the Environment, University of Washington

Site Supervisor: Arthur Bachus, Seattle Subway Foundation

Faculty Advisor: Lyle Bicknell, University of Washington

**TRANSIT-ORIENTED-DEVELOPMENT (TOD): A BLESSING OR ROADMAP TO GENTRIFICATION?**

Session: Day 2, In-Person

Aliyah Recasner, @Aliyah\_UW, Program on the Environment, University of Washington

Site Supervisor: Arthur Bachus, Seattle Subway Foundation

Faculty Advisor: Kessie Alexandre, Department of Geography, University of Washington

**FROM THE GROUND UP: HOW TO INCORPORATE COMMUNITY VOICES ON ENVIRONMENTAL JUSTICE INTO THE NATIONAL ENVIRONMENTAL POLICY ACT**

Session: Day 2, In-Person

Lucy Toner, @lucyjtoner, Program on the Environment, Law, Societies & Justice, University of Washington

Site Supervisor: Arthur Bachus, Seattle Subway Foundation

Faculty Advisor: Lawrence Watters, Guest Faculty in Environmental Law, University of Washington

6:25 PM – 6:40 PM Intermission

6:40 PM – 7:40 PM Lightning Talks Session B

**TO BETTER SERVE OUR COMMUNITIES: INFORMING GOVERNMENT STAFF ON CONNECTIONS BETWEEN CLIMATE CHANGE AND SOCIAL JUSTICE**

Session: Day 2, In-Person

Lyn Tampi, @LynTampi, Program on the Environment, School of Public Health, University of Washington

Site Partner: Vicky Raya, King County Department of Natural Resources and Parks

Faculty Advisor: Meagan Doll, Department of Communication, University of Washington

**CREATE YOUR OWN PATH: FIVE WAYS TO HELP CHILDREN MAKE BETTER CONNECTIONS WITH THE ENVIRONMENT**

Session: Day 2, In-Person

Olivia Johnson, @oliviajohnson, Program on the Environment, University of Washington

Site Partner: Amanda Hipp, Islandwood

Faculty Advisor: Eli Wheat, Program on the Environment, University of Washington

**CONSERVE TO PRESERVE: HOW CITIES AND CITIZENS CAN COLLABORATE TO PROTECT WATER RESOURCES**

Session: Day 2, In-Person

Lauren Church, @laurechurch\_, Program on the Environment, University of Washington

Site Partner: Kirsten Harma, Chehalis Basin Partnership

Faculty Advisor: Kristi Straus, Program on the Environment, University of Washington

**CO-PRODUCING HOPE: EXPLORING THE BENEFITS AND CHALLENGES OF COMMUNITY-ENGAGED LEARNING IN UNIVERSITIES TO ENHANCE CLIMATE RESILIENCE**

Session: Day 2, In-Person

Isabella Garrido, @bella\_capstone, Program on the Environment, University of Washington

Site Partner: Zackery Thill, Climate Impacts Group, University of Washington

Faculty Advisor: Megan Ybarra, Department of Geography, University of Washington

**SAVING THE ENDANGERED BLACK ABALONE: RECOMMENDATIONS FOR TRANSLOCATIONS AND CHARACTERIZING JUVENILE RECRUITMENT HABITAT**

Session: Day 2, In-Person

Tiffany Shin, @tiffanyshin6, Program on the Environment, Political Science, University of Washington

Site Partner: Susan Wang, National Marine Fisheries Service, West Coast Region

Faculty Advisor: Lawrence Watters, Visiting Faculty of the College of the Environment, University of Washington

**TACKLING TRASH: UNDERSTANDING HUMAN WASTE BEHAVIOR IN HUSKY STADIUM**

Session: Day 2, In-Person

Riley Ramirez, Program on the Environment, University of Washington

Site Partner: Karen Baebler, UW Athletics

Faculty Advisor: Christian Primack Metcalfe, Foster School of Business, University of Washington

**7:40 PM – 8:30 PM Symposium ends & celebration continues in Lobby**

---

**WE THANK YOU** to all faculty advisors, site supervisors, Program on the Environment staff and to the audience for your support. We could not have done any of this without you!