# Spring 2024 Program on the Environment CAPSTONE SYMPOSIUM Event Program

Wednesday, May 22nd, Online, 4:30 - 7:30 pm

Tuesday, May 28th, 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

# (May 22nd; Online Presentations)

DAY 1: Online Poster Symposium (Wednesday, May 22)

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 - Natural Science, Business, & Sustainability

## Listen Up! Remote Acoustic Bird Monitoring for Assessing Forest Management Actions Session A, Room #1

**Jeron Atlas**, Program on the Environment, University of Washington **Site Supervisor:** Adrian Wolf, The Great Peninsula Conservancy

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

#### Snowpack and Snow Water Equivalent: Monitoring in a Washington Forest Treated By Thinning Session A, Room #2

**Dray Banfield**, Program on the Environment, University of Washington **Site Supervisor:** Rowan Braybrook, Northwest Natural Resource Group

Faculty Advisor: Laura Prugh, School of Environmental and Forest Sciences, University of

Washington

#### Using Data To Bring UW Air Travel Emissions Down To Earth Session A, Room #3

Forrest Baum, Program on the Environment, University of Washington

Site Supervisor: Rebecca Neumann, Hydro-Biogeochemistry Research Group, University of

Washington

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

# Act Now? Evaluating Local Perception and Implementation Limitations of Assisted Plant Migration Session A, Room #4

Chelsea Bressler, Program on the Environment, University of Washington

**Site Supervisor:** Lisa McGinty, Friends of Lincoln Park

Faculty Advisor: Eric Higbee, Department of Landscape Architecture, University of

Washington

## Advancing Healthcare Sustainability: UW Medicine's Energy and Waste Dashboard Session A, Room #5

Mara Bridwell, Program of the Environment, University of Washington

Site Supervisor: Juan Escalante, UW Medicine

Faculty Advisor: Lubna Alzaroo, Program of the Environment, University of Washington

#### Surf, Sand, and Sediment: Forage Fish Sediment Surveys as a Case Study for Responding to Insufficient Datum Session A, Room #6

Sierra Briggs, Program on the Environment, University of Washington

**Site Supervisor:** Terence Lee, Nisqually Reach Nature Center

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

#### Brilliant Biomethane: Opportunities of Renewable Natural Gas in Propelling a Sustainable Future Session A, Room #7

Joe Bruun-Jensen, Program on the Environment, University of Washington

Site Supervisor: Lars Byberg, AgroFora Bioenergy Systems

Faculty Advisor: Aaron Flaster, UW Medicine, University of Washington

# Threatened Green Sturgeon: How Video Analysis Can Be Used To Quantify & Reduce Bycatch Session A, Room #8

**Taylor Clementz**, Program on the Environment, School of Public Health, University of Washington

Site Supervisor: Susan Wang, NOAA Fisheries, West Coast Region

Faculty Advisor: Andre Punt, School of Aquatic and Fishery Sciences, University of

Washington

# Adaptive Sampling Strategies to Capture Shifting Fishery Stocks in the Eastern Bering Sea Session A, Room #9

**Dylan Fournier**, Program on the Environment, University of Washington

**Site Supervisor:** Lewis Barnett, NOAA Fisheries

Faculty Advisor: Anna Nisi, University of Washington

# Snow Problem: How Forest Adaptation Strategies Can Mitigate the Effects of Warming Winters Session A, Room #10

**Errol Funk**, Program of the Environment, University of Washington **Site Supervisor:** Rowan Braybrook, Northwest Natural Resource Group

Faculty Advisor: Martha Groom, School of Interdisciplinary Arts & Sciences, University of

Washington, Bothell

# Sustainable Business Communication: Strategies for Effectively Conveying Sustainability Efforts to Consumers Session A, Room #11

Valerie Gwyneth, Program on the Environment, University of Washington

Site Supervisor: Erica Carlson, Perennial Zero Waste

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

Washington

#### Analyzing Western Hemlock Decline in Seward Park Session A, Room #12

Eric Holmquist, Program on the Environment, University of Washington

**Site Supervisor:** Paul Shannon, Friends of Seward Park

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

#### Evaluating Social Infrastructure's Impacts on Community Networks to Build Resilience Session A, Room #13

Jason Kung, Program on the Environment, University of Washington

**Site Supervisor:** Zackary Thill, Climate Impacts Group

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

#### Forage Fish Distribution Across Tidal Elevations: Implications for Habitat Management Session A, Room #14

**Tabitha Lederer**, Program on the Environment, University of Washington

**Site Supervisor:** Terence Lee, Nisqually Reach Nature Center

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

#### Measuring the Sustainable Impact of a Construction Tool Reuse System Session A, Room #15

**Lena Lewis**, Program on the Environment, University of Washington

**Site Supervisor:** Anna Wilson, Seattle REconomy

Faculty Advisor: Kat Huybers, Atmospheric Sciences, College of the Environment, University

of Washington

# How Invasive Blackberry Affects Soil Conditons and the Implications for Ecological Restoration Session A, Room #16

**Colin MacDonald**, Program on the Environment, University of Washington

**Site Supervisor:** Sebastian Ritacco, City of Sammamish

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

# Visualizing a Path Towards Sustainability: A Model Of Data Management for the Future Session A, Room #17

James Moy, Program on the Environment, University of Washington

Site Supervisor: Juan Escalante, UW Medicine - Harborview Medical Center

Faculty Advisor: Jeremy Jess, Public Health Phd., Sustainability, University of Washington

# Strategic Alignment in Information Systems and Corporate Sustainability: A Knowledge Management Perspective Session A, Room #18

Lia Pecunies, Program on the Environment, University of Washington

Site Supervisor: Gabriella Henkels, Harborview Medical Center

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

# Sustainability Within Hospitals: How Hospitals Like Harborview Medical Center Can Become More Sustainable By Using Sustainability Frameworks To Track, Benchmark & Find Solutions Session A, Room #19

**Timothy Reagan**, Program on the Environment, University of Washington

**Site Supervisor:** Gabriella Henkels, Harborview Medical Center

Faculty Advisor: Nancy Simcox, Department of Environmental & Occupational Health

Sciences, University of Washington

# What are We Wasting: A Deep Dive Analysis into Public Waste Receptacles and Waste Characterization Session A, Room #20

Jacob Smith, Program of the Environment, University of Washington

Site Supervisor: Meara Heubach, Public Works Department, City of Renton

Faculty Advisor: Clare Ryan, Environmental and Forest Sciences, College of the Environment,

University of Washington

# The Power of Purchasing and Partnerships: Government Money Makes Sustainability Go 'Round Session A, Room #21

Maya Smith, Program on the Environment, University of Washington

**Site Supervisor:** Erica Carlson, Perennial Zero Waste

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

Washington

#### Evaluating the Impact of Invasive European Green Crabs on Native Fish Abundance and Size in Willapa Bay Session A, Room #22

Miriam Stearns, Program on the Environment, University of Washington

Site Supervisor: P. Sean Mcdonald, Program on the Environment, and Lisa Watkins,

Washington Sea Grant Crab Team

Faculty Advisor: Tim Essington, School of Aquatic and Fishery Sciences, University of

Washington

# Life and Death: How Does Western Hemlock Mortality in a City Park Affect Pileated Woodpecker Livelihoods? Session A, Room #24

Muwei Zhang, Program on the Environment, University of Washington

**Site Supervisor:** Paul Shannon, Friends of Seward Park

Faculty Advisor: Timothy Billo, Program on the Environment, 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; Education &

Outreach; Policy & Regulation

Go RainWise: Outreach and its Impacts on Community Perception of Green Stormwater

**Infrastructure**. Session B, Room #1

**Hibo Abdi**, Program on the Environment, University of Washington

Site Supervisor: Jenny Heins, Sustainable Ballard

Faculty Advisor: Lubna Alzaroo, Program on the Environment, University of Washington

Why Should We Consider Them a Stakeholder Group? Increasing Youth Engagement with

Complex Waste Management Policies. Session B, Room #2

**Gracia Anderson**, Program on the Environment, University of Washington

**Site Supervisor:** Pam Clough, Environment Washington

**Faculty Advisor:** John Meyer, College of the Environment, University of Washington

To Seed or Not To Seed: How A Community Garden Can Combat Food Deserts. Session B,

Room #3

**Bella Bartlett**, Program on the Environment, University of Washington

Site Supervisor: Levi Casto, Cactus Park Elementary School

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

The Complexity of Inequity: Investigating Accessibility to Environmental Education

Resources for Underrepresented Students. Session B, Room #4

Abigayle Cariño, Program on the Environment, University of Washington

Site Supervisor: Katie Luxa, Lisa Hiruki-Raring, and Erin Moreland, NOAA Fisheries

Faculty Advisor: Lubna Alzaroo, Program on the Environment, University of Washington

Tracking the eco-pulse, community environmental awareness and light rail development.

Session B, Room #5

Kitto Davison-Kunhardt, Program on the Environment, University of Washington

Site Supervisor: Arthur Bachus, Seattle Subway Foundation 501 (c)(3)

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

Redefining Impact: Unlocking the Transformative Power of Individual Environmental

Action. Session B, Room #6

**Brandon Espiritu**, Program on the Environment, University of Washington

**Site Supervisor:** Lisa McGinty, Friends of Lincoln Park, Green Seattle Partnership **Faculty Advisor:** Eli Wheat, Program on the Environment, University of Washington

Living In A City Doesn't Have To Mean Living Disconnected From Nature. Session B, Room

#7

Graham Gaimari, Program on the Environment, University of Washington

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

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

#### Growing a Better Tomorrow: Exploring the Role of Community Gardens in Promoting

Sustainability and Community Well-Being. Session B, Room #8

Jayce Gilles, Program on the Environment, University of Washington

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

Faculty Advisor: Perry Acworth, College of the Environment, University of Washington

#### **Diving into Marine Science: Using Telemetry to Teach Ecological Responsibility.** Session B,

Room #9

**Grace Glisson**, Program on the Environment, University of Washington

Site Supervisor: Michelle Lander, NOAA National Marine Mammal Laboratory

Faculty Advisor: Jennifer Tennessen, Department of Biology, University of Washington

#### Healing from the INside OUT: a research study on the impacts of outdoor environmental

learning on overall student well-being. Session B, Room #11

Faith Murray, Program on the Environment, University of Washington

**Site Supervisor:** Kaelie Spencer and Brittany Ahmann, Sound Salmon Solutions **Faculty Advisor:** Jodi Newman, College of Education, University of Washington

#### Modernizing Environmental Education: Integrating Telemetry Data into Academic

Practices. Session B, Room #12

**Emily Muterspaugh**, Program on the Environment, University of Washington

Site Supervisor: Michelle Lander, NOAA National Marine Mammal Laboratory

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

#### Evaluating outreach opportunities within RainWise to increase participation in

homeowner green infrastructure and support clean water goals. Session B, Room #13

Quynhnhu Nguyen, Program of the Environment, University of Washington

Site Supervisor: Jenny Heins, RainWise Outreach Program

Faculty Advisor: Mark Scheuerell, School of Aquatic and Fishery Sciences

#### Farming in the Desert: Equitable and Sustainable Agriculture in Arid Climates. Session B,

Room #14

Miranda O'Herron, Program of the Environment, University of Washington

**Site Supervisor:** Levi Casto, Cactus Park Elementary School

Faculty Advisor: Perry Acworth, UW Botanical Gardens, University of Washigton

#### Interdisciplinary Environmnetal Education: A Solution for Educational Inequities and

**Climate Inaction**. Session B, Room #16

John Romano-Olsen, Program on the Environment, Art: Interdisciplinary Visual Arts,

University of Washington

Site Supervisor: Emilene Castillo, Partner In Employment

Faculty Advisor: Jonathan Rodriguez, Art, University of Washington

Breaking the Sound Barrier: Promoting Marine Environmental Outreach Across Formal and Informal Settings. Session B, Room #17

Brit Skolnik, Program on the Environment, University of Washington

**Site Supervisor:** Lisa Hiruki-Raring, Katie Luxa, and Erin Moreland, NOAA Fisheries **Faculty Advisor:** Kristi Straus, Program on the Environment, University of Washington

#### Centering Environmental Justice: Fostering Equitable and Sustainable Communities in the

Classroom. Session B, Room #18

**Ayla Stone**, Program on the Environment, University of Washington

Site Supervisor: Terrell Engmann, Basilica Bio

Faculty Advisor: Jason Groves, German Studies, University of Washington

#### How Hospitals Can Focus On Health In Regards To The Environment. Session B, Room #19

**Keara Taylor**, Program on the Environment, University of Washington

**Site Supervisor:** Gabriella Henkels, Harborview Medical Center

Faculty Advisor: Tania Busch Isaksen, Department of Environmental & Occupational Health

Sciences, University of Washington

**Protecting Seattle's Urban Canopy: Policy Revisions & Education**. Session B, Room #20 **Lauren Williams**, Program on the Environment, Political Science, University of Washington

Site Supervisor: Mary Manous, Cascaida Climate Action

Faculty Advisor: Kathleen Wolf, School of Environmental and Forest Sciences, University of

Washington

#### Exploring the Gifts of Community Gardening: Environmentally, Economically, and Socially.

Session B, Room #21

Jasmine Yu, Program on the Environment, University of Washington Site Supervisor: Grace Stiller, Weed Warriors, Nature Stewards Program

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

7:15 PM – 7:30 PM Closing

# DAY 2: ORAL PRESENTATIONS SYMPOSIUM & CELEBRATION

(May 28th)

DAY 2: Oral Presentation Symposium & Celebration (Tuesday, May 28)

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

Skyrocketing Social Media for Small Businesses: From Ground Zero to Success.

**Rexford Curtiss**, Program on the Environment, University of Washington

**Site Supervisor:** Shannon Bly, Whidbey Island Grown Cooperative

Faculty Advisor: Theresa Maloney, Global Business Center, University of Washington

Moving Beyond the Like: Crafting Captions for Meaningful Environmental Engagement.

Jillian Evans, Program on the Environment, University of Washington

Site Supervisor: P. Sean McDonald, Program on the Environment, University of Washington

Faculty Advisor: Francesca Valsesia, Michael G. Foster School of Business, University of

Washington

Transportation Transformation: How Seattle Wants the Link Light Rail to be Fixed and Why.

Sydney Belden, Program on the Environment and School of Music, University of Washington

Site Supervisor: Karl Alex Pauls, Seattle Subway Foundation 501 (c)(3)

Faculty Advisor: Lubna Alzaroo, Program on the Environment, University of Washington

Exploring Personal Food Sovereignty: The Relationship Between Perception and Action in the Food Justice Movement.

Maddie Keating, Program on the Environment, University of Washington

**Site Supervisor:** Shannon Bly, Whidbey Island Grown Cooperative

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

Who's Been Touching Your Food?: An Analysis of Local Food Systems and their Impact on the Community, Economy, and Environment.

Lizzie Hackett, Program of the Environment, School of Art, University of Washington

Site Supervisor: Sara Hughes and Lindsay Gilliam, Carnation Farmers Market

Faculty Advisor: Carly Sheehan, School of Art

6:25 PM - 6:35 PM Intermission

Oysters Gone Wild: Exploring Pacific Oyster Naturalization in the Salish Sea.

**Kiley Foster**, Program on the Environment, University of Washington

Site Supervisor: Jordan Hollarsmith, Rebecca Cates, and Henry Fleener, NOAA Fisheries, Alaska

Faculty Advisor: Mark Scheuerell, School of Aquatic and Fishery Sciences, University of

Washington

Playing for Keeps: Multimodal Learning in Outdoor Environmental Education.

**Ruby O'Malley**, Program on the Environment, University of Washington

**Site Supervisor:** Kaelie Spencer, Sound Salmon Solutions

Faculty Advisor: Lubna Alzaroo, Program on the Environment, University of Washington

Wellbeing Over Waste: Engaging Youth on Addressing Plastic Pollution.

Isaac Olson, Program on the Environment, Oceanography, University of Washington

**Site Supervisor:** Pam Clough, Environment Washington

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

Fostering Youth Engagement in Sustainability; Discovering Motivating Factors and Pathways to Action.

Stephanie Schmidt-Pathmann, Program on the Environment, University of Washington

**Site Supervisor:** Peter Donaldson, Sustainability Ambassadors

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

Carbon, Communication, and Climate: How We Can Reach Net Zero with Less Than 1000 Acres.

**Midori Sylwester**, Program on the Environment, Department of Economics, University of Washington

Site Supervisor: Rowan Braybrook, Northwest Natural Resource Group

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

7:35 PM – 7:40 PM Closing Remarks

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

We THANK YOU to all the faculty advisors, site supervisors, Program on the Environment Staff, and to the audience for your support! We could not have done this without you!