



Spring 2022

CAPSTONE SYMPOSIUM

Wednesday, May 25, 2022
Online, 4:30 – 7:30 pm

Wednesday, June 1, 2022
In-Person, 5:00 – 7:30 pm

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 non-profits 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.

Share your thoughts on Twitter

Students will be live-tweeting all sessions so if you miss one, follow the updates. If you tweet, we encourage you to share what you learn and use the hashtag, #POEcap.



Scan QR code to view capstone abstracts

DAY 1: ONLINE POSTER SYMPOSIUM (May 25)

4:30 – 4:40 pm **WELCOME & SESSION OVERVIEW**

4:40 – 4:50 pm **Session A Speaker Intros**

4:50 - 5:50 pm **Poster Session A - Natural Science & Restoration; Policy & Regulation**

MAKE SEATTLE GREEN AGAIN: ATTEMPTS TO RESTORE FOREST HEALTH IN MAGNOLIA'S THORNDYKE PARK

Session: A, Breakout Room #1

Samuel Akomea*, @akomea_sam, Program on the Environment, University of Washington

Site Supervisor: Walter Hughson, Green Seattle Partnership

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

THE IMPACT OF AIRCRAFT POLLUTION: ENVIRONMENTAL HEALTH & JUSTICE

Session: A, Breakout Room #2

Lily Astone*, @lilyastone, Program on the Environment, University of Washington

Site Supervisor: Nancy Belcher, King County Medical Society

Faculty Advisor: Thomas Burbacher, Environmental and Occupational Health Sciences,
University of Washington

MONITORING FOR FUTURE MANAGEMENT: GREAT BLUE HERON HABITAT IN DISCOVERY PARK

Session: A, Breakout Room #3

Carina Bixby*, @capstonecarina, Program on the Environment, University of Washington

Site Supervisor: Garrett Esperum, Friends of Discovery Park

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

INCREASING WATER DEMAND FORECAST ACCURACY THROUGH THE INCLUSION OF WEATHER DATA

Session: A, Breakout Room #4

Travis Boyle*, @TravisB_PoE, Program on the Environment, University of Washington

Site Supervisor: Elizabeth Garcia, Seattle Public Utilities

Faculty Advisor: Jean Darlington, Enterprise Reporting and Analytics, University of Washington

PROTECTING URBAN FOREST: HOW VISITOR ACTIVITIES HARM A PARK'S NATURAL SPACES

Session: A, Breakout Room #5

To Chang*, @ThomasChang_UW, Program on the Environment, University of Washington

Site Supervisor: Lisa McGinty, Friends of Lincoln Park

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

**URBAN GREEN SPACES: UNDERSTANDING THEIR IMPACTS AND EFFECTIVENESS
ON HUMAN WELL-BEING AND HEALTH**

Session: A, Breakout Room #6

Jasmine Chau*, @jasminechau_, Program on the Environment, University of Washington

Site Supervisor: John Coghlan, Homegrown Organics

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

**DECENTRALIZATION: A PATH TOWARD WASTEWATER RESILIENCY IN COASTAL
CITIES**

Session: A, Breakout Room #7

Crystal Chen*, @CrystalChen234, Program on the Environment, University of Washington

Site Supervisor: Kiran Singh and Jim Simmonds, King County Wastewater Treatment Division

Faculty Advisor: Jessica Ray, Civil and Environmental Engineering, University of Washington

PREPARING FOR THE CLIMATE OF TOMORROW

Session: A, Breakout Room #8

Aaron Fisher*, @AaronF_017, Program on the Environment, University of Washington

Site Supervisor: Walter Hughson, Green Seattle Partnership

Faculty Advisor: Kristiina Vogt, School of Environmental and Forest Sciences, University of Washington

**FEEDING THE FUTURE: SUGGESTIONS TO IMPROVE WASHINGTON'S
REGULATORY REGIME FOR SHELLFISH AQUACULTURE**

Session: A, Breakout Room #9

Paulo Frank*, @PauloFrank14, Program on the Environment, Political Science, University of Washington

Site Supervisor: Dan Tonnes, NOAA, West Coast Region

Faculty Advisor: Chris Anderson, School of Aquatic and Fishery Sciences, University of Washington

THE IMPACT OF HEAT: A WESTERN REDCEDAR (THUJA PLICATA) CASE STUDY

Session: A, Breakout Room #10

Angela Gaither*, @GaitherMabel, Program on the Environment, University of Washington

Site Supervisor: Joseph Hulbert, Forest Health Watch / WSU Research and Extension Center in Puyallup

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

**MITIGATING THE INEVITABLE: CHALLENGES WITH HAZARD MITIGATION
PLANNING IN THE FACE OF CLIMATE CHANGE**

Session: A, Breakout Room #11

Jessica Goulet*, @Jessica_Goulet, Program on the Environment, University of Washington

Site Supervisor: Jared Schneider, King County Office of Emergency Management

Faculty Advisor: Terry Swanson, Earth and Space Science, University of Washington

SAVING THE STELLER SEA LION: HOW AI AIDS CONSERVATION IN ALASKA

Session: A, Breakout Room #12

Mary Kennelly*, @MaryKennelly99, Program on the Environment, University of Washington

Site Supervisor: Molly McCormley, NOAA Alaska Fisheries Science Center

Faculty Advisor: Chris Anderson, School of Aquatic and Fishery Sciences, University of Washington

PROTECTING CHILDREN FROM WILDFIRE SMOKE: INVESTING IN INDOOR AIR QUALITY IN CALIFORNIA SCHOOLS

Session: A, Breakout Room #13

Zoe Lew*, @zoelew10, Program on the Environment, University of Washington

Site Supervisor: Lisa Patel, Sean N. Parker Center for Allergy and Asthma Research at Stanford Medicine

Faculty Advisor: Amy Lim, Department of Civil and Environmental Engineering, University of Washington, Tania Isaksen, Department of Environmental Health and Occupational Sciences, University of Washington

THE IMPACT OF CLIMATE CHANGE ON ABALONE: WHAT CAN WE DO?

Session: A, Breakout Room #14

Shanze Madhani*, @ShanzeFM, Program on the Environment, University of Washington

Site Supervisor: Susan Wang, NOAA Fisheries

Faculty Advisor: Jacqueline Padilla-Gamiño, School of Aquatic and Fishery Sciences, University of Washington

CONTENTION IN THE CONSERVATION OF THE WESTERN STELLER SEA LION

Session: A, Breakout Room #15

Rachel Neroutsos*, @rachelneroutsos, Program on the Environment, Economics, University of Washington

Site Supervisor: Katie Sweeney and Burlyn Birkemeier, NOAA, Marine Mammal Lab

Faculty Advisor: LuAnne Thompson, School of Oceanography, University of Washington

SWIMMING UPSTREAM: THE CHALLENGES OF SCIENCE COMMUNICATION AND SALMON HABITAT RESTORATION

Session: A, Breakout Room #16

Vanessa Stokel*, @vanessastokel, Program on the Environment, University of Washington

Site Supervisor: Mara Zimmerman, Coast Salmon Partnership

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

VOLUNTEERING AND FOREST RESTORATION IN A NEIGHBORHOOD PARK PROVIDE POSITIVE EXPERIENCES AND WELLBEING

Session: A, Breakout Room #17

Hanbo Sun*, @AlanSun96186908, Program on the Environment, University of Washington

Site Supervisor: Lisa McGinty, Friends of Lincoln Park

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

OBSERVING RESPONSE OF HALIBUT TO FISHING GEAR

Session: A, Breakout Room #18

Cole Svec*, @cole_svec, Program on the Environment, University of Washington

Site Supervisor: Susan Wang, NOAA Fisheries

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

GETTING OUR BEARINGS: BEST METHODS FOR MONITORING POLAR BEAR POPULATIONS

Session: A, Breakout Room #19

April Tea*, @aprilptea, Program on the Environment, Political Science, University of Washington

Site Supervisor: Erin Moreland, NOAA Alaska Fisheries Science Center

Faculty Advisor: Alex McInturff, School of Environmental and Forest Sciences, University of Washington

CLAMS & SHRIMP & WHALES, OH MY! UTILIZING INVASIVE VARNISH CLAMS IN PUGET SOUND

Session: A, Breakout Room #20

Lucy Zhu*, @LucyZhu22, Program on the Environment, University of Washington

Site Supervisor: Dan Tonnes and Grace Adams, NOAA, West Coast Region

Faculty Advisor: Jacqueline Padilla-Gamiño, Aquatic and Fishery Sciences, University of Washington

5:50 – 6:00 pm	BREAK
6:00 – 6:05 pm	Session B Overview
6:05 – 6:15 pm	Session B Speaker Intros
6:15 – 7:15 pm	Poster Session B – Agriculture & Food Systems; Business & Sustainability; Education & Outreach

APPLICATION BASED LEARNING IN STEM: IMPLEMENTING ENVIRONMENTAL HEALTH LEARNING TOOLS IN A PHYSIOLOGY LAB COURSE

Session: B, Breakout Room #1

Madeleine Ambrose*, @AmbroseMadi, Program on the Environment, Interdisciplinary Honors, University of Washington

Faculty Advisor: Oscar Chacon, Biology, University of Washington

SUSTAINABILITY EDUCATION AT THE UNIVERSITY OF WASHINGTON

Session: B, Breakout Room #2

Heather Boyce*, @heatherboycee, Program on the Environment, University of Washington

Site Supervisor: Daimon Eklund, UW Sustainability

Faculty Advisor: Gary Handwerk, Program on the Environment, University of Washington

CAN RENEWABLE ENERGY AND THE FASHION INDUSTRY GO HAND-IN-HAND? EXPERIENCES FROM NORDSTROM

Session: B, Breakout Room #3

Hannah Christofferson*, @HannahChristof3, Program on the Environment, University of Washington

Site Supervisor: Rima Mehta, Nordstrom, Inc

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

INTERTWINING GAMING ASPECTS WITH ENVIRONMENTAL LEARNING

Session: B, Breakout Room #4

Vy Chung*, @vy_chungt, Program on the Environment, University of Washington

Faculty Advisor: Alexa Schreier, Program on the Environment, University of Washington

PEST AND DISEASE MANAGEMENT OF URBAN FRUIT TREES: HOW TO MANAGE YOUR BACKYARD FRUIT TREES

Session: B, Breakout Room #5

Justice Correa-West*, @JusticeCorrea, Program on the Environment, University of Washington

Site Supervisor: Annie Nguyen, City Fruit

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

THE IMPACT OF URBAN GREEN SPACES ON PEOPLE AND THE ENVIRONMENT

Session: B, Breakout Room #6

Hongze Deng*, @DannyDeng0108, Program on the Environment, University of Washington

Site Supervisor: Annie Nguyen, City Fruit

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

TITLE TBA

Session: B, Breakout Room #7

Max Hagler*, @hagler_max, Program on the Environment, University of Washington

Site Supervisor: John Coghlan, Homegrown Organics

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

ENERGIZE! HEAT PUMP PROGRAM: ADDRESSING BARRIERS REGARDING RENEWABLE ENERGY

Session: B, Breakout Room #8

Mollie Hetlage*, @MollieHetlage, Program on the Environment, University of Washington

Site Supervisor: Nicole Sanders, King County Permitting Division

Faculty Advisor: Christine Bae, Urban Design and Planning, University of Washington

ECO-ANXIETY: HOW DO WE COPE WITH ENVIRONMENTAL CRISES?

Session: B, Breakout Room #9

Katie Jerauld*, @KatieJerauld2, Program on the Environment, University of Washington

Faculty Advisor: Alexa Schreier, Program on the Environment, University of Washington

FOOD FORESTS FOR THE FUTURE

Session: B, Breakout Room #10

Peter Johnson*, @PeterJenvir490, Program on the Environment, University of Washington

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

**IS IT TIME TO SAY GOODBYE TO YOUR GAS STOVE?: BARRIERS TO AND
RECOMMENDATIONS FOR COOKING METHOD CONVERSION**

Session: B, Breakout Room #11

Nawon Kim*, @kim_nawon, Program on the Environment, University of Washington
Site Supervisor: Rachel Brombaugh, Office of King County Executive Dow Constantine
Faculty Advisor: Elena Austin, School of Public Health, University of Washington
**BECOMING RAINWISE: WHAT MOTIVATES PEOPLE TO MANAGE THEIR
STORMWATER?**

Session: B, Breakout Room #12

Jade Kuo*, @capstonejade, Program on the Environment, University of Washington
Site Supervisor: Jenny Heins, Sustainable Ballard
Faculty Advisor: Guillaume Mauger, Climate Impacts Group, University of Washington

**MIND THE GAP: HOW TO CONNECT SCIENTISTS AND STAKEHOLDERS THROUGH
CLIMATE COMMUNICATION**

Session: B, Breakout Room #13

Siobhan Moreno*, @samoreno8, Program on the Environment, University of Washington
Site Supervisor: Kirstin Holsman, NOAA Alaska Fisheries Science Center
Faculty Advisor: John Meyer, College of the Environment, University of Washington

**GROWING PLANTS FOR GROWING STUDENTS: HOW EXPERIENTIAL LEARNING IN
CONSERVATORIES CAN SUPPORT STUDENT LEARNING**

Session: B, Breakout Room #14

Ian Murphy*, @ianmmurph, Program on the Environment, University of Washington
Faculty Advisor: Alexa Schreier, Program on the Environment, University of Washington

**“SUSTAINABLE” DEVELOPMENT? CREATING AN EQUITABLE AND JUST SOCIETY
THROUGH CAPITAL PROJECT DEVELOPMENT**

Session: B, Breakout Room #15

Camila Nakashima*, @492camila, Program on the Environment, Geography, University of Washington
Site Supervisor: Nori Catabay, King County Solid Waste Division
Faculty Advisor: Will McKeithen, Geography, University of Washington

**CITIZEN SCIENCE: BEST PRACTICES FOR CONNECTING WITH THE MORE-THAN-
HUMAN WORLD**

Session: B, Breakout Room #16

Maddie Rutter*, @maddie_rutter, Program on the Environment, University of Washington
Site Supervisor: Melissa Fleming, Stillwaters Environmental Center
Faculty Advisor: Simone Des Roches, School of Aquatic and Fishery Sciences, University of Washington

I LIKE THAT! HOW SOCIAL MEDIA IMPACTS YOUR VIEWS OF THE ENVIRONMENT

Session: B, Breakout Room #17

Aly Stobie*, @SustainableStob, Program on the Environment, University of Washington

Site Supervisor: Maggie Brown, Cedar Grove

Faculty Advisor: Leah Ceccarelli, Communication, University of Washington

**URBAN FARMING AND FOOD JUSTICE: HOW URBAN FOOD STEWARDSHIP
ENHANCES COMMUNITY AID AND ACCESS TO CULTURALLY RELEVANT FOODS**

Session: B, Breakout Room #18

Riley Wilmart*, @rileywilmart, Program on the Environment, University of Washington

Site Supervisor: Annie Nguyen, City Fruit

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

FROM LAWN TO GARDEN: TRANSFORMING LANDSCAPES AND PERSPECTIVES

Session: B, Breakout Room #19

Ian Wyborski*, @wyboian, Program on the Environment, University of Washington

Site Supervisor: Gina Mariano Cunningham, CultivateTheTown

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

**SUSTAINABILITY APPROACHES IN HIGHER-LEVEL EDUCATION: SUSTAINABILITY
CURRICULUM IN THE UNIVERSITY OF WASHINGTON**

Session: B, Breakout Room #20

Ruisi Xu*, @RuisiXu0321, Program on the Environment, University of Washington

Site Supervisor: Daimon Eklund, UW Sustainability, University of Washington

Faculty Advisor: Marilyn Ostergren, UW Sustainability, University of Washington

**BUILDING A BRIDGE: BRINGING CULTURAL RELEVANCE TO GOVERNMENT-RUN
ENVIRONMENTAL ENGAGEMENT PROGRAMS IN ALASKA**

Session: B, Breakout Room #21

Elizabeth Zajackowski*, @ElizabethZajacz, Program on the Environment, University of Washington

Site Supervisor: Lisa Hiruki-Raring, NOAA Alaska Fisheries Science Center

Faculty Advisor: Kirsten Foot, Communication, University of Washington

7:15 – 7:30 pm Closing

DAY 2: ORAL PRESENTATION SYMPOSIUM & CELEBRATION (June 1)

5:00 – 5:10 pm	WELCOME & HOUSEKEEPING
5:10 – 5:40 pm	Poster Highlights & Refreshments
5:40 – 5:50 pm	BREAK
5:50 – 5:55 pm	Session Introduction

ELECTROFISHING EFFECTS ON ENDANGERED FISH SPECIES

Session: In-Person

Leander Van de Fen*, @LeanderVandefen, Program on the Environment, University of Washington

Site Supervisor: Diana Dishman, NOAA Fisheries Protected Resources Division

Faculty Advisor: Thomas Quinn, School of Aquatic and Fishery Sciences, University of Washington

BIRDS AS INDICATORS OF HABITAT QUALITY IN THE FACE OF CLIMATE CHANGE

Session: In-Person

Samantha Zink*, @the_zinker3, Program on the Environment, History, University of Washington.

Site Supervisor: Teddy Minkova, Washington Department of Natural Resources

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

COMBINING ECOLOGICAL FORESTRY AND INDIGENOUS KNOWLEDGES TO ADAPT FORESTRY TECHNIQUES TO A CHANGING PNW CLIMATE

Session: In-Person

Rachel Luther*, @racheluther, Program on the Environment, Political Science, University of Washington

Site Supervisor: Rowan Braybrook, Northwest Natural Resource Group

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

IT'S GETTING HOT IN HERE: THE RELATIONSHIP BETWEEN CLIMATE CHANGE, ENVIRONMENTAL HEALTH DISPARITIES, AND SEATTLE STREET TREES

Session: In-Person

Lyndsay Felthoven*, @lyndslovesearth, Program on the Environment, University of Washington

Site Supervisor: Joseph Hulbert, Forest Health Watch / WSU Research and Extension Center in Puyallup

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

ENVIRONMENTAL JUSTICE IN SEATTLE: PRACTICES TO INCREASE ACCESS TO GREEN SPACE IN HISTORICALLY UNDERINVESTED NEIGHBORHOODS WITHOUT CAUSING GENTRIFICATION AND DISPLACEMENT

Session: In-Person

Anya Gavrylko*, @annagavv, Program on the Environment, Community, Environment and Planning, University of Washington

Site Supervisor: Cesar Garcia, Lake City Collective

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

ONLINE LEARNING: BEST PRACTICES FOR ENVIRONMENTAL SCIENCE WEBINARS WITH ALASKA NATIVE COMMUNITIES

Session: In-Person

Emma Radisch*, @EmmaRadisch, Program on the Environment, History, University of Washington

Site Supervisor: Lisa Hiruki-Raring, NOAA Alaska Fisheries Science Center

Faculty Advisor: Dawn Hardison-Stevens, American Indian Studies, University of Washington

HOW BUILDING RELATIONSHIPS BETWEEN AND AMONG SCIENTISTS AND POLICYMAKERS CAN STREAMLINE ENVIRONMENTAL POLICY

Session: In-Person

Victoria Harmon*, @_victoriaharmon, Program on the Environment, University of Washington

Site Supervisor: Kirstin Holsman, NOAA Alaska Fisheries Science Center

Faculty Advisor: Lubna Alzaroo, Department of English, University of Washington

BACK THE PAC: SUSTAINABILITY VIEWS AMONG STUDENT ATHLETES AND NON-ATHLETES

Session: In-Person

Shae Holmes*, @ShaeHolmes_, Program on the Environment, University of Washington

Site Supervisor: Karen Baebler, Athletics, University of Washington

Faculty Advisor: Kristie Ebi, Global Health and Environmental and Occupational Health Sciences, University of Washington

SMALL BUSINESS COMMUNITIES: OVERCOMING SUSTAINABILITY OBSTACLES TOGETHER

Session: In-Person

Kailin Spencer*, @SpencerKailin, Program on the Environment, Business Administration, University of Washington

Site Supervisor: Jacob Huskey, Enweave - The Marketplace on a Mission

Faculty Advisor: Lauren Brohawn, Buerk Center for Entrepreneurship, University of Washington

7:25 – 7:30 pm Symposium End & Celebration Continues in Lobby/Lawn

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!