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*, @rachelleroutsos, 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 Coghan, 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 Zajaczkowski*, @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 PNWCLIMATE
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!