<table>
<thead>
<tr>
<th>Time</th>
<th>Session, workshop, plenary, etc</th>
<th>Speakers</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:30</td>
<td>Welcome and Land Acknowledgement</td>
<td>Brad Johnson, Provost and Executive VP of Academic Affairs, WWU</td>
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<tr>
<td>8:35</td>
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<td>WELCOME TO THE LANDS OF THE LHAG'TEMISH, THE LUMMI PEOPLE</td>
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<tr>
<td>8:35</td>
<td>Plenary 1</td>
<td>Frank Lawrence III</td>
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<td>9:15</td>
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<td></td>
<td>GIANT ICE-AGE FLOODS – AN EXAMPLE FROM BRITISH COLUMBIA</td>
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<td>10:15</td>
<td>Coffee Break</td>
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<tr>
<td>10:30</td>
<td>Session 1: The science of making change: occupying the political space</td>
<td>Session 1: The science of making change: occupying the political space: moderated by Sam Gutierrez</td>
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<tr>
<td>11:50</td>
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<td>Senator John Lovick</td>
<td>JOIN US FOR A (MOSTLY) VIRTUAL DISCUSSION REGARDING DATA DRIVEN APPROACHES AT DIFFERENT LEVELS OF GOVERNMENT.</td>
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<td></td>
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<td>Senator Patty Kuderer</td>
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<td>Senator Lisa Wellman</td>
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<td></td>
<td></td>
<td>and others</td>
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<tr>
<td>10:30</td>
<td>Session 2: Climate impacts and adaptations One</td>
<td>Session 2: Climate impacts and adaptations One: moderated by Upekala Wijayratne</td>
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<tr>
<td>11:50</td>
<td></td>
<td>Jessica Halofsky</td>
<td>INTRO TO FIRE AND CLIMATE</td>
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<td></td>
<td></td>
<td>Brian Harvey</td>
<td>SPATIAL PATTERNS OF BURN SEVERITY IN NORTHWESTERN CASCADEIA: CHARACTERISTICS, DRIVERS, AND IMPLICATIONS FOR POST-FIRE LANDSCAPES.</td>
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<tr>
<td></td>
<td></td>
<td>Kris Jaeger</td>
<td>DEVELOPMENT OF A STREAMFLOW DATA CATALOG AND EVALUATION OF THE VULNERABILITY OF SENSITIVE FISH SPECIES TO CLIMATE CHANGE ACROSS THE PACIFIC NORTHWEST.</td>
</tr>
<tr>
<td></td>
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<td>Robert Mitchell</td>
<td>MODELING 21ST CENTURY PEAK FLOWS IN THE NOOKSACK RIVER USING DYNAMICALLY DOWNSCALED CLIMATE PROJECTIONS</td>
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<tr>
<td></td>
<td></td>
<td>Nicole DeCrappeo</td>
<td>ADVANCING CLIMATE ADAPTATION SCIENCE AND PRACTICE (INTRODUCE RAD)</td>
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<tr>
<td></td>
<td></td>
<td>Meade Krosby</td>
<td>CO-PRODUCTION AS A CLIMATE ADAPTATION STRATEGY</td>
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<td></td>
<td>Session 3: Animal ecology</td>
<td>Session 3: Animal ecology</td>
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<td></td>
<td>Harlow Huber</td>
<td>ANIMAL CLASSIFICATION WITH MACHINE LEARNING</td>
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<td></td>
<td>Sarah Deshazer</td>
<td>INVESTIGATION OF SMALL MAMMAL DIVERSITY AND ABUNDANCE AT THE EASTERN WASHINGTON UNIVERSITY</td>
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</tbody>
</table>
AAAS-PD – NWSA – NWL 2023 Preliminary schedule

12:00 – 1:00 lunch

1:00 – 3:00 Session 4: Climate impacts and adaptations Two (1:00-2:00): moderated by Upekala Wijayaratne

Nikhil Amin
THE RECONSTRUCTION OF MATERNAL MIGRATION PATTERNS OF STEELHEAD: A LA-ICP-MS OTOLITH ANALYSIS.

Dietmar Schwartz
CASCADING ADAPTATION TO ABIOTIC ENVIRONMENTAL VARIATION ACROSS TWO TROPHIC LEVELS OF PARASITES.

Eric Grossman
NATURE-BASED STRATEGIES ASSESSMENT TO INFORM RESILIENCE PLANNING FOR HIGHER SEA LEVEL AND STREAM RUNOFF IN THE PACIFIC NORTHWEST.

Lindsay Thurman
ADAPTIVE CAPACITY TO INFORM CLIMATE ADAPTATION PLANNING.

Kylie Avery
aquatic species and habitats in the Pacific Northwest.

Session/panel 5: Tribal Sovereignty and Climate Impacts (2:00-3:00)

Cecelia Gobin

Meade B. Krosby
The Tribal Coastal Resilience Project: Lessons in Ethical and Effective Collaboration Among Tribal and Academic Partners.

George Swanaset Jr

Session 6: Coding and simulation: moderated by Calvin Deutschbein

Juni DeYoung
Aphrodite: Security Properties of RISC-V.

Lincoln Huber
Visual Knowledge Discovery for Machine Learning.

Harlow Huber
MONOTONE FUNCTION VISUAL ANALYTICS.

Terrence Miles
A PRACTICAL, QUANTITATIVE APPROACH TO CRYSTAL FIELD THEORY USING MATHEMATICA.

Frank Jacobitz
SIMULATION OF THE FLOW OVER A ROUGHNESS ELEMENT.

Ruhul Kuddus
Application of Artificial Neural Network method and nonparametric statistical tools in analyzing the effects of the COVID-19 pandemic on heart and kidney transplantation in 30 countries.

Session 7: Geology and environmental change: moderated by Richard Waitt

Patrick Pringle
(radio presentation)
RADIOCARBON DATING OF SUBFOSSIL TREES IN LANDSLIDE-DAMMED LAKE CRESCENT, OLYMPIC MOUNTAINS, WASHINGTON.

Richard Waitt
LARGE FLOWS AT MOUNT ST. HELENS 18 MAY 1980 TIMED BY ASHFALL MARKER BEDS AND EYEWITNESSES.
### AAAS-PD – NWSA – NWL 2023 Preliminary schedule

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Presenters/Details</th>
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<tbody>
<tr>
<td>3:00-3:20</td>
<td>Break</td>
<td>Jozef Stec, Marshall B. Ketchum University; President, AAAS-Pacific Division</td>
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<tr>
<td>3:20-4:20</td>
<td>Plenary Speaker 3</td>
<td>Ancient and modern infectious diseases: An overview of their impacts on global health, economy, and security</td>
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<tr>
<td>4:30-6:30</td>
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</table>

#### Lichens+
- Judged student posters: Miles Berkey (The Immensity of Minutiae: Utilizing Bryophytes to Detect an Ice Age Refugium in the North Cascades)
- Unjudged posters: Morris, Claire (THE <i>PUNCTELIA SUBRUDECTA</i> (LICHENIZED FUNGI:Parmeliaceae) GROUP IN THE PACIFIC NORTHWEST)
- Unjudged posters: Luehl, Thomas (EFFECT OF SOIL TRANSPLANTATION ON ECTOMYCORRHIZAL FUNGUS COMMUNITIES DURING REVEGETATION)
- Unjudged posters: Jacobson, Eleonore (EXPLORING THE <i>RHIZOCARPON GEOGRAPHICUM</i> GROUP (LICHENIZED FUNGI) IN WESTERN NORTH AMERICA)
- Judged student posters: Sharrett, Stephen (A COMPREHENSIVE CONSERVATION ASSESSMENT FOR THE OLD GROWTH SPECKLEBELLY LICHEN, <i>PSEUDOCYPHELLARIA RAINIERENSIS</i>)
- Unjudged posters: Eleanor Schwarz (EXPLORING THE <i>RHIZOCARPON GEOGRAPHICUM</i> GROUP (LICHENIZED FUNGI) IN WESTERN NORTH AMERICA)
- Judged student posters: Ruth Taygan (<i>CLADONIA</i>-MOSS ASSOCIATIONS IN THE EVERGREEN STATE COLLEGE FORESTS. IDENTIFICATION OF BASIDIOMYCETE YEASTS IN ENDANGERED REINDEER LICHENS, <i>CLADONIA CILIATA</i> AND <i>CLADONIA PORTENTOSA</i> OF PUGET SOUND PRAIRIES)
- Judged student posters: Jake Anderson (NORTH CASCADES ALPINE MEADOWS: FLOWERING PHENOLOGY AND POLLINATORS IN THE CONTEXT OF CLIMATE CHANGE)
- Unjudged posters: Singh-Cundy, Anu (POST-FIRE REGENERATION IN SECOND GROWTH REDWOOD FORESTS: MODELING ENVIRONMENTAL, TREE AND STAND FACTORS CONTRIBUTING TO BASAL SPROUT MASS)
- Judged student posters: Carrasco, Jackson (BASAL FUELS CHARACTERIZATION FOR LEGACY HARDWOOD TREES IN KARUK ABORIGINAL TERRITORY)
- Unjudged posters: Rickard, Heather (Unjudged posters: Rickard, Heather)
# AAAS-PD – NWSA – NWL 2023 Preliminary schedule

<table>
<thead>
<tr>
<th>Type of Poster</th>
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<tbody>
<tr>
<td>Judged student posters</td>
<td>Fletterick, Kelsey</td>
<td>POST-FIRE ARRIVAL TIME AND COHORT SURVIVORSHIP OF SEXUALLY-REPRODUCING TREES. THE IMPACT OF RIPARIAN BUFFERS ON N LOADING IN THE NOOKSACK RIVER TRANSBOUNDARY WATERSHED.</td>
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<tr>
<td>Judged student posters</td>
<td>Tershy, Astoria</td>
<td>ADDING A COMPLEX EARLY-SERALED STAGE IN PRODUCTION FORESTRY</td>
</tr>
<tr>
<td>Unjudged posters</td>
<td>Devine, Warren</td>
<td>How is Soil Carbon affected by Old-Growth Forest Restoration Activities? REUSE, RECYCLE, INCINERATE, OR LANDFILL? LCA-BASED ENVIRONMENTAL IMPLICATIONS OF END-OF-LIFE SCENARIOS FOR MASS TIMBER BUILDINGS.</td>
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<tr>
<td>Judged student posters</td>
<td>Quick, Steven</td>
<td>IMPACT OF RIPARIAN BUFFERS ON N LOADING IN THE NOOKSACK RIVER TRANSBOUNDARY WATERSHED.</td>
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<tr>
<td>Judged student posters</td>
<td>Bjarvin, Christina</td>
<td>IMPACT OF RIPARIAN BUFFERS ON N LOADING IN THE NOOKSACK RIVER TRANSBOUNDARY WATERSHED.</td>
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<tr>
<td>physics</td>
<td>Judged student posters</td>
<td>Tracy, Patrick</td>
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<tr>
<td>physics</td>
<td>Judged student posters</td>
<td>Klein, Nicholas</td>
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<tr>
<td>physics</td>
<td>Judged student posters</td>
<td>Lowery, Seth</td>
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<tr>
<td>Environment?</td>
<td>Unjudged posters</td>
<td>Danyluk, Liesl</td>
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<tr>
<td>Environment?</td>
<td>Judged student posters</td>
<td>Emily Smoot</td>
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<tr>
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<td>Unjudged posters</td>
<td>Gavin, Daniel G.</td>
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<tr>
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<td>Judged student posters</td>
<td>Weets, Marlee</td>
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<tr>
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<td>Judged student posters</td>
<td>Li, Zihan</td>
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<tr>
<td>Environment?</td>
<td>Judged student posters</td>
<td>Tellinghusen, Blake</td>
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<tr>
<td>Environment?</td>
<td>Unjudged posters</td>
<td>Yamanour, Srihari</td>
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<tr>
<td>Environment?</td>
<td>Judged student posters</td>
<td>Callahan, Jocelyn</td>
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## THURSDAY 23 MARCH

<table>
<thead>
<tr>
<th>Time</th>
<th>Session number/type</th>
<th>Speakers</th>
<th>Title</th>
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<tbody>
<tr>
<td>8:00</td>
<td>Plenary 4</td>
<td>Nathan Kuwada, Central Washington University</td>
<td>Dynamic mechanisms responsible for structure and organization in bacterial cells</td>
</tr>
<tr>
<td>9:15</td>
<td>Session 8: Forests and Fires One</td>
<td>William Nanavati, James Johnston, Skye Greenler</td>
<td>POSTGLACIAL CLIMATE-VEGETATION-FIRE INTERACTIONS ALONG THE WESTERN CASCADES OF SOUTHERN WASHINGTON AND OREGON. Exceptional variability in historical fire regimes of the west slope of the Oregon Cascades, USA. TOO HOT, TOO COLD, OR JUST RIGHT: CAN FIRE RESTORE PACIFIC NORTHWEST DRY FORESTS?</td>
</tr>
<tr>
<td>10:15</td>
<td>Session 9: Psychology and Social Science</td>
<td>Crystal Goldman, Gary Myers</td>
<td>HARNESSING INTERGROUP CONTACT THEORY IN LEADERSHIP DEVELOPMENT. CREATING INSTRUMENT FOR SUCCESSION PLANNING IN HIGHER EDUCATION. APPLYING THE MOTIVATION BELIEFS INVENTORY (MBI) IN ACADEMIC LIBRARIES</td>
</tr>
<tr>
<td>10:15</td>
<td>Workshop 1</td>
<td>Joan Horvath</td>
<td>Making Calculus Accessible with 3D Prints and LEGO Bricks</td>
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<tr>
<td>10:15</td>
<td>Workshop 2</td>
<td></td>
<td>Lichens</td>
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<tr>
<td>10:15</td>
<td>Section 11: Historical and Philosophical Issues in Biology</td>
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</tbody>
</table>
AAAS-PD – NWSA – NWL 2023 Preliminary schedule

Aaron Chavez
VALUES AND METHODS IN CLASSIFYING CANCER.
I, ORGANISM: REFLECTIONS ON A PARTICULAR HISTORY AND PHILOSOPHY OF THE ORGANISM CONCEPT.

Michael Brown
DISEASE ENTANGLEMENTS: HUMAN-ANIMAL-ENVIRONMENT.

Barbara Canavan

Session 12: Lichens and cacti
Session 12: Lichens and cacti: moderated by Xinhui Yu

Xinhui Yu
Geographic variation in the chemistry of Pacific Northwest endemic cyanolichens

Daphne Stone
THE PROOF IS IN THE PUDDING – <i>LEPTOGIUM</i> and <i>SCYTINIUM</i>. ASSESSING NITROGEN DEPOSITION IN MOUNTAINOUS REGIONS USING EPIPHYTIC LICHEN COMMUNITIES.

Meaghan Petix
EPiphytic Lichen Communities.

Dillon-Zuppelli, Zarha
Pediocactus nigrispinus </i> Demography and Habitat Associations

workshop 3
Rich Cameron
3D Printing and other Maker Tech for Your Classroom and Lab

11:50 1:30 NWSA and AAASPD lunches

1:30 2:30 Plenary Speaker 5
Michele Koppes, University of British Columbia
Braiding knowledges of braided rivers: embracing place-based, local and indigenous knowledges and lived experience in the science of landscapes

2:30 4:30 Session 13: Forests and Fires three
Session 13: Forests and Fires three: moderated by Lucy Kerhoulas

Lucy Kerhoulas
BIGLEAF MAPLE WITHIN-CROWN SEASONAL PHYSIOLOGY. THE EMERALD ASH BORER HAS ARRIVED IN OREGON: WHAT DO WE KNOW ABOUT OREGON ASH?

David Shaw
PRESCRIBED FIRE INCREASES RESILIENCE OF PLANT-POLLINATOR NETWORKS IN WESTERN WASHINGTON PRAIRIE-OAK SAVANNAH.

Susan Waters
NOT FIERY ENOUGH: WHY THE MODERN ERA OF LARGE WILDFIRES IN EASTERN OREGON AND WASHINGTON ACTUALLY NEEDS MORE FIRE

Daniel Donato
FOREST CARBON SEQUESTRATION IN WEST COAST FORESTS: MYTHS AND REALITY.

Andrew Gray
NUTRIENT LEACHING POTENTIAL ALONG A TIME SERIES OF FOREST WATER RECLAMATION FACILITIES IN NORTHERN IDAHO.

Eureka Joshi

Session 14: Birds and drones
Session 14: Birds and drones: moderated by Graham Frank

Andrew Merschel
Time and Disturbance: Using Dendrochronology to Understand the Development History of Marbled Murrelet Nesting Habitat

Jake Verschuyl
ARE BIRDS SENSITIVE TO CHANGES IN FOREST MANAGEMENT INTENSITY?
DOES COMPLEXITY MATTER FOR BIODIVERSITY IN EARLY SERAL FORESTS?
RESPONSES OF BIRD AND CARABID BEETLE COMMUNITIES TO FIRE- AND
HARVEST-GENERATED STANDS IN SOUTHWEST OREGON.
Graham Frank
DRONE-BASED PHOTOGRAMMETRY TO PLAN, DOCUMENT, AND MONITOR
SALMON RESTORATION PROJECTS (INSTREAM LARGE WOODY DEBRIS) IN THE
ANADROMOUS FISH PORTIONS OF THE NOOKSACK RIVER.
Gerry Gabrisch
"USING DRONE FOR MITIGATION AND MONITORING PROGRAM IN THE KING
COUNTY WASTEWATER TREATMENT DIVISION"
SPATIAL ANALYSIS OF TRENDS IN TUFTED PUFFIN BREEDING HABITAT ON THE
OREGON COAST
Peter Keum
Karina Kusaka (via zoom)

Session 15a: Historical and
Philosophical Issues in Science
Communication

Session 15a: Historical and Philosophical Issues in Science Communication: moderated by Roberta Millstein or Sarah Roe

C. Tyler DesRoches
CLIMATE CHANGE, CIVILIZATION COLLAPSE, AND CLIMATE ETHICS.
A COMPARATIVE ANALYSIS OF PLURALISTIC APPROACHES AND THE TENSIONS
THAT ARISE IN THEM.
Natasha Haddal
Melinda Fagan
"LOW EFFORT" INTERDISCIPLINARY EXPLANATIONS.
HOW THEY KNOW WHAT THEY KNOW AND HOW THEY ADAPT: UNDERSTANDING
TRADITIONAL CLIMATE CHANGE ADAPTATION STRATEGIES OF PASTORALISTS
IN CENTRAL KARAKORAM
Nicholas Kager
THE DIFFERING VOICES OF ETHNOHISTORY

Sarah Perrault and Veronica
workshop 4
Galvan
How to Use Low-Stakes Writing in Science Classes to Promote Scientific Thinking

4:45 6:45 Poster awards ceremony and final social