Shortened title: Tribal Salmon Fisheries Science and Management

Title of Session: Advancements and Perspectives in Tribal Salmon Fisheries Science and Management

Lead organizer: Emily Chen

Contact info: echen@caltrout.org

Additional organizers, emails, and affiliations: Jason Schaffler, Muckleshoot Tribe Fisheries Division, Jason.Schaffler@muckleshoot.nsn.us and Galen Johnson, Northwest Indian Fisheries Commission, gjohnson@nwifc.org

Abstract: Salmon are of cultural, economic, nutritional, and social importance to tribal communities in the Pacific Northwest. Maintaining the relationships with salmon is critical to many tribes in the region. Salmon populations along the West Coast are at a critical juncture in the 21st century facing persistent and evolving threats to recovery and sustainable harvest. Climate change, shifting ocean ecosystems and food webs, and growing demands on water use continue to challenge salmon fisheries management and require adapting to the changing environmental and political landscape. Indigenous and tribal fisheries programs play an important role in fisheries management and advancing the science on fisheries issues that are critical to maintaining linkages to tribal culture. Tribal objectives, research, and approaches are uniquely shaped by specific local issues, values, and history which vary greatly across the West Coast. This symposium will highlight advancements in indigenous fisheries science and tribal fisheries programs and indigenous-led and co-led science and management issues. We invite those working on issues relevant to tribal salmon fisheries to submit a presentation on this topic, and especially encourage indigenous presenters and tribal employees.

Shortened title: Advancing Groundfish Science Through Integrated Research

Title of Session: Advancing Groundfish Science and Management Through Integrated Research and Innovation

Lead organizer: Lara Erikson

Contact info: lerikson@psmfc.org

Additional organizers, emails, and affiliations: Dayv Lowry - dayv.lowry@noaa.gov - NOAA Fisheries, James Selleck - james.selleck@noaa.gov - NRC and Bob Pacunski - robert.pacunski@dfw.wa.gov - WDFW

Abstract: This symposium brings together cutting-edge research and applied science to advance our understanding and stewardship of groundfish species and the ecosystems of which they are integral parts. Topics span the full spectrum of groundfish biology and life history—including morphology, physiology, behavior, growth, reproduction, and evolutionary dynamics—providing foundational insights into species resilience and adaptation. We will explore ecological interactions and habitat relationships, examining spatial distributions, foraging ecology, and the influence of environmental drivers on groundfish communities. Talks will highlight the role of genetics in fisheries science, from species identification and stock delineation to novel applications such as eDNA and kinship analysis, offering tools to address taxonomic challenges and environmental change. Advances in data analysis and modeling will showcase innovations in statistical and computational approaches, spatial and temporal analyses, and ecosystem modeling, emphasizing cross-disciplinary methods for predicting population trends and informing sustainable management. Assessment and monitoring presentations will focus on integrating ecosystem data into stock assessments, leveraging new survey technologies, and incorporating local and traditional knowledge. Presentations will address bycatch reduction, electronic monitoring, and socioeconomic considerations in quota setting and spatial management. Complementing these technical advances, policy and management talks will examine how science informs decision-making, emphasizing adaptive, evidence-based strategies, stakeholder engagement, and communication frameworks that link research to governance. By bridging biology, ecology, genetics, data science, and policy, this symposium fosters collaboration and innovation to meet emerging challenges in groundfish conservation and fisheries management.

S**hortened title:** Managing and Conserving Native Non-game Fishes in the West

Title of Session: Approaches to Native Non-game Fish Management and Conservation in the West

Lead organizer: Brett Bowersox

Contact info: brett.bowersox@idfg.idaho.gov

Additional organizers, emails, and affiliations: Marie Winkowski, ElizabethMarie.Winkowski@dfw.wa.gov, Washington Department of Fish and Wildlife

Abstract: Conservation efforts to preserve or restore western watersheds are often most publicized in high profile gamefish species and associated fisheries, however aquatic systems are complex and require a wholistic approach to conservation. Native non-game species serve important ecological roles, including food web processing and serving as prey items for higher trophic levels, thereby positively benefiting all aquatic species and ecosystem health. There is increasing recognition of this wholistic approach among fisheries management and conservation agencies, which are developing programs and partnerships to integrate native non-game fish and wildlife species into management portfolios. Program priorities are often determined by ESA listings or petitions, as well as State Wildlife Action Plans. Integration of these programs across jurisdictional boundaries and conservation disciplines is an important mechanism to expand the reach and relevance. Presentations included within this symposium will highlight native non-game fish program frameworks, funding mechanisms, prioritization strategies, and research projects that inform management of focal species across various agencies in the western states. The intent of the symposium is to build knowledge of the similarities and differences of approaches to native non-game management and foster collaboration for the future.

Shortened title: Aquatic Community Shifts in Large Impounded Rivers

Title of Session: Aquatic Community Dynamics and Shifts in Large Impounded Rivers and the Consequences to Introduced Nonnative Species

Lead organizer: Marika Dobos

Contact info: marika.dobos@idfg.idaho.gov

Abstract: Most large river environments in the west have been drastically altered since the turn of the century. The most notable changes to these environments resulted from construction of dams for water storage, power generation, and navigation. Impoundment of large rivers results in drastic changes in physical properties from a free-flowing system such as slower flow, thermal gradients, chemical shifts, sediment accumulation, and nutrient enrichment. Changes in physical characteristics can result in changes in aquatic community dynamics, especially when nonnative species are introduced into these altered environments. Reservoirs facilitate invasions and establishment of nonnative species that can result in competition for resources important to native species. Nonnative species that can thrive in reservoir environments can also pose high predatory risk to native species that are vulnerable in these highly altered environments. Large, impounded rivers in the west have experienced drastic changes in their aquatic communities across all trophic levels. Notable nonnative species that have established and are expanding their distribution in western rivers include American Shad (Alosa sapidissima), Smallmouth Bass (Micropterus dolomieui), Walleye (Sander vitreus), Opossum Shrimp (Neomysis mercedis), and more recently, Siberian Prawns (Palaemon modestus). This symposium aims to shed light on the shifting food web dynamics of impounded large rivers and the resource competition and predation risks to native species.

Shortened title: Best of the West: Future of WDAFS Research

Title of Session: Best of the West: The Future of Research in WDAFS

Lead organizer: Amber Steed

Contact info: president-elect@wdafs.org

Additional organizers, emails, and affiliations: Regan Doss, WDAFS Student Representative, rdoss@arizona.edu

Abstract: The 2026 Western Division of the American Fisheries Society's Best of the West symposium is designed to spotlight the future of research within the Western Division AFS, which includes ten chapters throughout the western United States, Canada, and the Pacific Islands. This symposium specifically highlights the work of students from these chapters, showcasing a wide range of research topics as participants move toward building resilience and advancing the fisheries profession. Attendees will be able to support students presenting both oral and poster sessions, learning about the unique work conducted by the future generation of fisheries scientists. Presentations are accepted by invitation only.

Shortened title: Reel Collaboration: Integrating Research, Policy, and Practice

Title of Session: Reel Collaboration: Integrating Research, Policy, and Practice

Lead organizer: Doug Hatch

Contact info: hatd@critfc.org

Additional organizers, emails, and affiliations: Donella Miller, dmiller@critfc.org; Columbia River Inter-Tribal Fish Commission; Hayley Nuetzel, hnuetzel@critfc.org, Columbia River Inter-Tribal Fish Commission

Abstract: Partnerships across agencies and organizations strengthen projects and increase the chance of success. This symposium seeks to attract presentations about fisheries projects with strong collaboration components. Tell the story of the project, how partnerships were forged, and the benefits that fish gained from the collaboration.
During this symposium, we aim to highlight the incredible potential that lies within collaborative efforts. It is through the sharing of resources, knowledge, and expertise that we can address complex challenges and achieve sustainable outcomes. By working together, different entities bring unique perspectives and innovative solutions to the table, fostering a dynamic environment where creativity thrives.
Moreover, collaboration often leads to strengthened relationships and trust among stakeholders. This, in turn, paves the way for long-term partnerships that continue to yield positive results even after the initial project has concluded. We are particularly interested in case studies that showcase the measurable impact of collaboration on fish populations, ecosystems, and local communities.
Presenters are encouraged to delve into the specifics of their collaborative processes. What strategies were employed to facilitate effective communication and coordination among partners? How were conflicts resolved, and what lessons were learned along the way? Additionally, we welcome discussions on how these partnerships have influenced policy-making, funding opportunities, and public awareness about the importance of fisheries conservation.
In essence, this symposium is not only about celebrating successes but also about learning from the experiences of others. We believe that by sharing our stories and insights, we can inspire a collective commitment to collaboration that drives meaningful change in the realm of fisheries management and beyond. Join us in exploring the transformative power of working together for a better future.

Shortened title: Comprehensive Fish Management: A Shared Responsibility

Title of Session: Comprehensive Fish Management: A Responsibility We All Share

Lead organizer: Jay Hesse

Contact info: jayh@nezperce.org

Abstract: Management of fish and their habitats which span discrete and overlapping geopolitical boundaries necessitates a high degree of coordination and collaboration between sovereign states and tribes. While individual state and tribe fish management entities have unique missions, distinct constituents, and independent regulatory authority they generally have a common vision to restore and maintain healthy and abundant native fish stocks. American Fisheries Society annual meetings effectively bring staff from a diversity of entities together to share technical information, however discussion of comprehensive management initiatives and policy issues is less common. This symposium (presentations and panel sessions) will showcase manager level representatives from states and tribes and their shared and individual efforts towards comprehensive fish management.

Shortened title: Migratory Salmon Lessons from the Columbia Basin

Title of Session: Connecting across space and time: lessons about migratory salmon from multiple decades of science in the Columbia River basin

Lead organizer: Aimee Fullerton

Contact info: aimee.fullerton@noaa.gov

Additional organizers, emails, and affiliations: Loren Stearman, Loren.Stearman@noaa.gov

Abstract: Since the onset of rapid declines in Pacific salmon in the late 1900s, fisheries managers have struggled to recover imperiled populations because complex salmon life cycles are affected by experiences in both freshwater and marine habitats. Life history diversity was likely widespread historically, helping bolster population viability when conditions ranged across years. Increasing human influence in the ecosystem has reduced this diversity, challenging populations' abilities to contend with natural and anthropogenic stressors. The Columbia River basin is a hotbed of research, thanks to collaborative and targeted efforts to better understand linkages between environmental effects and salmon behavior and survival within and across life stages. In this session, we bring together experts that have studied salmon populations in the basin to generate a cohesive synthesis of what we have learned from different perspectives. We begin with speakers whose work has focused on natal habitats where fish are spawned, followed by studies of migration downstream through the hydropower system, studies evaluating early marine survival and migration, and migration of adults back upstream. We end the session with synthetic studies that evaluate fish experiences across life stages and life history strategies to examine potential long-term population consequences and identify recovery strategies.

Shortened title: From Observations to Outcomes in Fisheries Data Flow

Title of Session: Connecting Observations to Outcomes: Perspectives on Data Flow in Fisheries Science

Lead organizer: Kasey Bliesner

Contact info: kasey.bliesner@odfw.oregon.gov

Additional organizers, emails, and affiliations: Mari Williams, PSMFC, MWilliams@psmfc.org; Erik Suring, ODFW, erik.suring@oregonstate.edu; Brittany Beebe, ODFW, brittany.a.beebe@odfw.oregon.gov;

Abstract: Fisheries science depends on a complex and dynamic flow of data—from initial field collection to data management, analysis, and ultimately the models and visualizations that inform management decisions. Each step in this process reflects different disciplinary perspectives, institutional priorities, and technical challenges. As data volume and complexity continue to increase, so too does the need for transparency, reproducibility, and collaboration across the data life cycle. This symposium will explore end-to-end data pipelines in fisheries science, highlighting both the technical and human dimensions of how data are generated, managed, and communicated. Talks will span field data collection methods, quality assurance/quality control (QA/QC) processes, database design, metadata standards, visualization tools, and approaches to sharing and archiving data.
Speakers will reflect on how differing perspectives—scientific, managerial, tribal, and community-based—shape data interpretation and use. By bringing together practitioners from across agencies, tribes, universities, and NGOs, this session will illuminate opportunities to improve interoperability, equity, and transparency in support of adaptive management and evidence-based decision-making. The symposium aims to promote shared learning across the Western Division, encouraging participants to think critically about how to connect field observations to end use decision making and sharing frameworks in ways that maintain scientific integrity and practical relevance.
Objectives:
• Highlight the diversity of data management practices across fisheries programs in the Western U.S.
• Explore technical and institutional challenges in maintaining data transparency, reproducibility, and accessibility.
• Share lessons learned from successful data pipelines—from field collection to predictive modeling.
• Foster dialogue on data governance, co-production, and integration across agencies, tribes, and research groups.
• Identify next steps for improving data infrastructure and collaboration within WDAFS networks.

Shortened title: Advancing Salmon Science with Integrated Ocean Data Portals

Title of Session: Connecting the Currents: Advancing Pacific Salmon Science Through Integrated Ocean Data Portals

Lead organizer: Lara Erikson

Contact info: lerikson@psmfc.org

Additional organizers, emails, and affiliations: Kathryn Berry, BECI/PICES

Abstract: Understanding the ocean phase of Pacific salmon remains one of the greatest challenges in forecasting population dynamics and supporting climate-resilient management. This session brings together developers, researchers, and management partners from across the North Pacific to highlight emerging tools that enhance access to, and integration of, data relevant to salmon in marine ecosystems. Presentations will showcase advances in spatial portals such as the Basin-Scale Events and Coastal Impacts (BECI) North Pacific Ocean Knowledge Network and the Salmon Data Discovery Tool and complementary mapping systems that provide insight into ocean conditions, salmon distribution, ecosystem change, and monitoring efforts.

Together, these platforms demonstrate new approaches for data connectivity, visualization, and cross-ecosystem synthesis, reducing barriers to information discovery across agencies, regions, and knowledge systems. The session will explore how shared digital infrastructure can accelerate collaborative science, improve understanding of ocean drivers of salmon survival, and support evidence-based decision-making. By highlighting ongoing work and identifying opportunities for coordination, this session aims to advance a unified vision for Pacific Salmon Ocean Data Portals that empower researchers, managers, and communities across the species' range.

Shortened title: Integrated Approaches to Prespawn Mortality in Salmonids

Title of Session: Connecting the Dots: An Integrated Approach to Prespawn Mortality in Salmonids

Lead organizer: Corbin Schuster

Contact info: schustco@oregonstate.edu

Additional organizers, emails, and affiliations: James Peterson (jt.peterson@oregonstate.edu)

Abstract: Prespawn mortality (PSM) threatens ESA-listed populations and cultural keystone species throughout the Pacific Northwest. Despite decades of recovery efforts, PSM remains elevated in many systems, jeopardizing the persistence of vulnerable stocks and the cultural resources they represent for tribal nations. This symposium brings together researchers, managers, and practitioners to examine the multifaceted nature of prespawn mortality through an integrated lens that spans from landscape-scale processes to pathogen-level interactions.

This session will explore four interconnected domains: (1) habitat and environmental stressors, including thermal conditions, dissolved oxygen, and contaminants; (2) migration barriers and flow regimes; (3) trap-and-haul operations and associated stresses; and (4) pathogens and disease agents affecting fish during spawning migration. Presentations will span diverse geographic contexts across the Pacific Coast of North America, examining PSM challenges in multiple river systems and salmon species.

By synthesizing current research across these interconnected domains, this symposium aims to identify knowledge gaps, highlight successful management interventions, and foster collaborative approaches to reduce the impact of PSM. Presentations will feature case studies from diverse systems, innovative research methodologies—from molecular diagnostics to community-engagement approaches—and management strategies that integrate knowledge from regional stakeholders. The sessions will conclude with a panel discussion focused on actionable recommendations for resource managers, research priorities, and collaborative pathways forward for protecting salmon populations throughout the Pacific Northwest.

Shortened title: Deschutes RiverLab: A New Model for Collaboration

Title of Session: Deschutes RiverLab: A New Model for River Research Collaboration

Lead organizer: Liz Perkin

Contact info: Liz.K.Perkin@odfw.oregon.gov

Additional organizers, emails, and affiliations: Seth White, seth.white@oregonstate.edu, OSU/ODFW; Ian Tattam, Ian.A.TATTAM@odfw.oregon.gov, ODFW

Abstract: The Deschutes River in Central Oregon is one of the most culturally and economically important inland fisheries in the state, attracting anglers from across the US as well as internationally. In addition to its importance for angling, the Deschutes is also heavily used for irrigation and is home to a major hydroelectric project. Despite this, the Deschutes is relatively under-studied; the only long-term projects we are aware of in the basin are regular monitoring by Oregon Department of Fish and Wildlife's district fish staff, the Confederated Tribes of Warm Springs, and Portland General Electric (as part of the licensing requirements for their hydroelectric projects), with a majority of these efforts focused on the lower 100 miles of the Deschutes. As a result, there are many unanswered questions in the Deschutes that need to be addressed to improve fisheries and river management in the basin.

To address these shortcomings, we propose the creation of a Deschutes "RiverLab," a real-world learning site where researchers, students, and other interested parties collaboratively test ideas, generate data, and co-produce solutions using tools from social-ecological systems thinking. A Deschutes RiverLab will also serve as field-based classroom and outreach hub, engaging audiences from university students to rural communities, tribes, emerging water professionals, resource agencies, and natural resource practitioners. In this special session, presenters from various partners in the Deschutes River Basin will describe their work in the watershed and how they could contribute to and/or benefit from the creation of a Deschutes RiverLab.

Shortened title: Integrating Hatchery and Wild Fish: Research and Education

Title of Session: Divided We Fall: Integrating Hatchery and Wild Fish Research, Education, and Conservation

Lead organizer: Seth White

Contact info: seth.white@oregonstate.edu

Additional organizers, emails, and affiliations: Kai Lorenzen, mailto:klorenzen@ufl.edu, University of Flordia; Tommy Sheridan, mailto:tmsheridan@alaska.edu, University of Alaska Fairbanks; Ford Evans, mailto:ford.evans@oregonstate.edu, Oregon State University

Abstract: Hatchery and wild fish programs are deeply interconnected, yet the scientific and management communities that work on them often operate in parallel rather than in partnership. Although AFS has historic roots in fish culture, modern conferences and the broader fisheries profession frequently reinforce a divide between "ecology" and "hatchery" science, even though many conservation, restoration, and management programs in the American West rely on both. Fish ecologists can benefit from hatchery research and hatchery managers' insights into physiology, disease, and early life history development, while hatchery practitioners can benefit from ecological perspectives on habitat conditions, population interactions, and post-release performance in recipient river, estuary, coastal environments. This symposium directly addresses the 2026 meeting theme, The Power of Perspective, by highlighting how the perspectives of hatchery and ecology professionals are shaped by the places they work, the species they study, their institutional constraints, and their training. As the field faces unprecedented ecological, social, and political challenges including climate impacts, funding instability, and rising public scrutiny, integrating these perspectives is essential for building trust and making progress in fish conservation. The symposium will bring together agency, tribal, academic, and hatchery experts to explore shared challenges and opportunities, showcase case studies where collaboration has improved outcomes, and identify strategies for greater integration through dialogue, co-produced research, data sharing, education, and co-management. By examining how our different viewpoints create blind spots as well as unique strengths, the session invites participants to think creatively about how hatchery and fish ecology communities can learn from one another.

Shortened title: Effects of Roads on Aquatic Ecosystems and Fishes

Title of Session: Effects of roads on aquatic ecosystems and fishes

Lead organizer: Paul Kusnierz

Contact info: pkusnierz@alumni.nmu.edu

Abstract: The presence of roads on the landscape can dramatically affect aquatic ecosystems and the organisms that rely on them. Road prisms and their maintenance can introduce sediment and salts, vehicle traffic can contribute oils and chemicals, and bridges and culverts can lead to impaired organism passage. Recognizing these effects, in recent years substantial effort has gone into removing and reclaiming forest roads, replacing stream crossings with appropriately sized bridges, and researching the effects of road-associated chemical inputs. The Western Division AFS Resource Policy and Environmental Concerns Committee (RPECC) is planning this symposium to provide a forum for those that deal with road-associated effects to aquatic ecosystems. The RPECC is seeking a diverse lineup of presentations that include research, management, education, economics, and technology. If your topic involves the nexus between roads and aquatic ecosystems, we would like to hear about it. In addition, we are interested in hearing different perspectives and hope that members of academia, private industry, government, non-profits, and the public will contribute presentations.

Shortened title: Pacific Estuary Restoration for Fish Habitat

Title of Session: Estuary restoration on the Pacific Coast: diverse perspectives on recovering habitat for fishes

Lead organizer: Correigh Greene

Contact info: cgreene@skagitcoop.org

Additional organizers, emails, and affiliations: Michael LeMoine (Skagit River System Cooperative, mlemoine@skagitcoop.org)
Joshua Chamberlin (NOAA Northwest Fisheries Science Center, joshua.chamberlin@noaa.gov)

Abstract: Estuaries are important places for both fishes and people. Numerous species of fish on the Pacific coast utilize estuaries as juveniles, particularly diadromous species like Pacific salmon. Additionally, estuaries are immensely important to people, who have established estuaries as agricultural bread baskets, deepwater ports, and household centers. Most estuaries are now a fraction of their historic extent, and these changes have contributed to declines in fish populations dependent on estuarine environments. Since the 1980s, people have responded with a renewed focus on restoring the resilience of estuarine environments, and many of the Pacific Coast's large estuaries have now benefited from restoration projects seeking to recover these areas for native populations. However, estuary restoration takes much effort to go from concept to moving earth. Recognizing both the importance of estuaries for fish and various rates of ecological change, how can we effectively collaborate to "move the needle" on estuarine recovery? Importantly, habitat restoration is itself a human endeavor: planning and implementing restoration takes years of coordination and input from stakeholders and must account for the constraints imposed by people and infrastructure. From a more ecological standpoint, examining the effectiveness of restoration projects for fishes requires diverse biological skill sets for understanding the complex ecology of recovering habitat function. This symposium will place applied restoration science within the context of human dimensions to help biologists and practitioners better appreciate diverse perspectives on fisheries-centric estuary habitat restoration. We are interested in highlighting not only studies of fish response to various restoration projects, but also examinations of how restoration efforts can leverage collaborations to more quickly jump-start ecological function for estuarine-dependent fish populations, as well as lessons learned from successful (or underperforming) projects. Likewise, we welcome perspectives from a variety of organizations: tribes, local, state, and federal governments, academia, or consulting and engineering firms.

Shortened title: Fire, Fish, and Freshwater: Regional Perspectives in Western North America

Title of Session: Fire, Fish, and Freshwater: Regional Perspectives in Western North America

Lead organizer: Emma Svatos

Contact info: emma.svatos@oregonstate.edu

Additional organizers, emails, and affiliations: Allison Swartz, allison.swartz@oregonstate.edu, Oregon State University; Brooke Penaluna, brooke.penaluna@usda.gov, USDA Forest Service; Becky Flitcroft, rebecca.flitcroft@usda.gov, USDA Forest Service

Abstract: Across western North America, wildfire regimes are shifting toward a greater frequency and intensity, yet their effects on aquatic habitats and fish populations are anything but uniform. Just as places and experiences shape our scientific perspectives, fish and freshwater ecosystems are shaped by the diverse landscapes they inhabit. Each region offers a distinct ecological lens on how fire influences freshwater systems, from southern and Baja California's fire-adapted chaparral to the Southwest's monsoonal rivers, Canadian boreal forest tributaries, continental Rocky Mountain creeks, and rainy streams of western Oregon. Every watershed represents a unique combination of geology, climate, hydrology, and biological communities, which in turn is influenced by the multi-dimensional aspects of fire in terms of severity, extent, and frequency. Together, these forces can generate a mosaic of ecological outcomes, from habitat loss to habitat creation, and from acute disturbance to long-term recovery and renewal. In the spirit of this year's focus on personal and scientific perspectives, this session invites participants to share insights on the complex responses of fish and aquatic systems to fire through the lens of the unique ecosystems and fire characteristics through which they occur. We aim to integrate diverse perspectives on ecological research, management, conservation, restoration, and social considerations in order to advance our understanding of wildfire effects on fish and freshwater ecosystems in western North America.

Shortened title: Fish Perspectives Around Hydropower Dams

Title of Session: Fish perspectives above, through and below hydropower dams

Lead organizer: Nick G. Bertrand

Contact info: nicholas.g.bertrand@usace.army.mil

Abstract: Much of the Western United States utilizes hydropower to produce electricity. The ability to flex dam operations to generate power and minimize impacts to imperiled fish species represents a parallel and competing responsibility for government and non-government entities. The quantitative information provided by experimental and monitoring data is the foundation of adaptive management for hydropower programs. Dam operations and rates of fish passage in both upstream and downstream directions may set important boundaries for cost-benefit choices made by policy makers. Research programs that engage in tying metrics of fish passage to operations and then effectively communicate those findings to all parties have the greatest potential to inform dam operations. Hydropower operations are most adaptive when comprehensive information is gathered on fish populations above, passing through and persisting below a dam. All three of these locations may present challenges for different imperiled species which are all impacted through operational choices about hydropower.

Shortened title: Flows, Fish and FIRO

Title of Session: Flows, Fish and FIRO

Lead organizer: Anne Mullan

Contact info: anne.mullan@Noaa.gov

Additional organizers, emails, and affiliations: Andy Martin, USACE; Andrew.C.Martin@usace.army.mil. Others TBD

Abstract: Human, fish, and aquatic habitats are woven into a tapestry of managed flows and reservoirs in the Willamette Valley. Through partnerships between NOAA National Marine Fisheries Service, US Fish and Wildlife Service, US Army Corps of Engineers, tribes and Oregon state agencies, multiple and novel operations of the 13 dams in the Willamette Valley System weave these threads together. These organizations span a range of perspectives, and fully support opportunities to learn from each other and move toward adaptively managing water resources, both live flow and storage reservoir releases. Three areas are undergoing extensive planning and implementation currently: modified flows, fish passage and habitat, and changing reservoir operations. We will convene the symposium with shared perspectives of

- instream flows, competing uses, and connecting floodplains to enhance habitat;
- salmonid passage challenges and successes; and
- related operations of key reservoirs, using deep drawdowns and FIRO (Forecast Informed Reservoir Operations).

For instream flows, unique Oregon water law require describing and protecting Minimum Perennial Flows, while simultaneously addressing allocations for diversions to serve current and future demand for agricultural, municipal, and industrial uses. These complex activities unfold alongside changing juvenile salmonid downstream passage operations, to complete the cycle of successfully outplanted Chinook salmon spawning above dams. Water management has also weathered changes in storms delivering inflows to reservoirs, with the innovative FIRO program in several other western states, now coming to the Willamette Valley System dams and reservoirs. This proposed alternative management strategy aims to use data from watershed monitoring and state of the art weather and streamflow forecasting to improve water supply reliability without impairing flood protection. We will cover these overlapping topics during this session.

Shortened title: Hatchery Science

Title of Session: Hatchery Science

Lead organizer: Jennifer Krajcik

Contact info: jenniferkrajcik@ctuir.org

Abstract: Fish hatcheries and fish culture are vital to maintaining a population of salmonids and other game fish available for harvest. As climate change, aging infrastructure, and uncertain funding sources become more the norm in these industries, hatchery staff and those interested in hatchery fish research must adapt and learn. Some ways that this can be achieved is through reducing stress, improving culture techniques, and encouraging good fish health and biosecurity. This session provides a forum to present research in how to better produce fish in these challenging conditions.

Shortened title: Cross-Disciplinary Historical Benchmarks and Shifting Baselines

Title of Session: Integrating cross-disciplinary approaches to build historical benchmarks and address shifting baselines

Lead organizer: Remi Murdoch

Contact info: remi.murdoch@umconnect.umt.edu

Additional organizers, emails, and affiliations: Alexandra Fraik - alexandra.fraik@usda.gov - Forest Service

Note: Though I have only listed Alex Fraik officially as an additional organizer (as she is my advisor), I am supported in the background by a team of interdisciplinary collaborators in archaeology, ecology, geochemistry, and genetics.

Abstract: In aquatic systems, anthropogenic and climatic factors have accelerated shifts in species composition, abundance, distribution, life-histories, and resilience. Tracking these biological changes is difficult as baselines often lack historical reference points for demographic and trait variation. This challenges our ability to detect, measure, and effectively respond to significant longitudinal changes in populations and their life-history strategies. Without historical anchors, we risk underestimating change, leading to lowered standards and misguided conservation actions. Countering shifting baselines requires building temporally explicit, cross-disciplinary benchmarks that integrate ecological, evolutionary, and cultural perspectives. Ideally, these benchmarks capture conditions before major anthropogenic or climatic impacts reshaped population dynamics and life-history traits. Recent scientific and methodological breakthroughs across disciplines have greatly expanded our ability to reconstruct historical baselines, yet many approaches remain underutilized because they fall outside of traditional aquatic conservation. This symposium will draw on scientific, cultural, and technological perspectives to highlight innovative and integrative strategies for building robust historical benchmarks and addressing shifting baselines. The goals are to foster cross-pollination of ideas, inspire participants to rethink assumptions in their own research and practice, and generate frameworks for creating and integrating historical benchmarks into conservation planning. By benchmarking the past, we can more accurately evaluate present systems, guide policy and management decisions, and respond with conservation actions that preserve the resilience and future of aquatic ecosystems.

Shortened title: Pacific Lamprey: Perspective and Partnership

Title of Session: Listening to the River: Pacific Lamprey, Perspective, and Partnership

Lead organizer: Christina Kaltsukis

Contact info: ckaltsukis@critfc.org

Additional organizers, emails, and affiliations: porl@critfc.org, gadams@nrccorp.com

Abstract: Many people enter fisheries and natural resource work through education and lifestyle, learning to manage land and water as "resources." But for many communities, especially Indigenous communities, rivers and fish are not resources but living relatives. When that difference in perspective is missed, it can create fundamental gaps between science, community, and conservation work on the ground.

This symposium uses Pacific Lamprey (our most ancient relative) to discuss those gaps and how they can be bridged. Centered on the Pacific Lamprey Conservation Initiative (PLCI), the session shares how relationship based work brings together Tribal Nations, agencies, students, and the public through outreach, communication, and collaboration.

Drawing from personal experience moving from a natural resources academic path into outreach-focused work, this session reflects on how higher education and professional spaces often overlook the importance of communication and lived relationships with place. Speakers will share how PLCI's work supports youth engagement, community connection, and broader understanding of why Lamprey matters culturally, ecologically, and relationally. Sharing lived experiences and lessons learned.

Rather than focusing solely on technical projects, this symposium invites participants to reflect on how they talk about their work, whom they are trying to reach, and what perspectives are missing from the conversation. By sharing stories and lessons from PLCI, this session offers a space for students, professionals, and all community members to listen, reflect, and reconnect from the rivers, to fish, and to each other.

Shortened title: Managing Disturbance: Aquatic Biota and Habitat

Title of Session: Managing Through Disturbance: Aquatic Biota and Habitat Response to Natural Events

Lead organizer: Jason Walter

Contact info: jason.walter@weyerhaeuser.com

Abstract: In our increasingly complex world, aquatic systems are influenced by both anthropogenic change and natural disturbances that are becoming more intense, more frequent, and more pervasive. An important theme in disturbance ecology is evaluating the individual and cumulative impacts of recurrent environmental stressors, whether natural or human caused. From broad-scale impacts of climate change on habitat elements to direct effects of high-severity wildfire, natural disturbances are layered on top of changes to habitat from forest management, human development, and other effects. Ecological communities may vary in their resistance to change from repeated disturbances and with their ability to recover. Conservation and management actions can best be delivered with a deep understanding of responses of fish, wildlife, and their habitats to disturbances.
This symposium aims to bring together "all lands" perspectives and include representative examples of post-disturbance management actions and aquatic research for public, private, and tribal lands in the Pacific Northwest. I propose a symposium that broadly covers environmental stressors from storm-associated debris flows, severe wildfire, timber harvesting, and other disturbances.

Shortened title: Maximizing Catch-and-Release Survival: Status and Opportunities

Title of Session: Maximizing Catch-and-Release Survival Rates: Current State and Future Opportunities

Lead organizer: Karla Upadhyay

Contact info: upadhyaykarla@gmail.com

Abstract: My perspective on catch-and-release (C&R) fishing has been shaped by synthesizing fisheries science with observations of recreational angling behavior and conservation-oriented education. Catch-and-release is widely promoted as a sustainable practice in modern fisheries management, yet post-release mortality remains a persistent challenge with implications for fish welfare, population resilience, and public trust. In this presentation, I examine the current state of knowledge on post-release survival while emphasizing how different perspectives, those of anglers, educators, researchers, and fisheries managers, shape both the problems we identify and the solutions we pursue.

Drawing upon Marine Recreational Fisheries Statistics Survey (MRFSS) data and peer-reviewed literature, I evaluate how physiological stress, hook design, handling time, and environmental conditions such as water temperature influence post-release outcomes across species and fishing contexts. Evidence consistently indicates that excessive air exposure, deep hooking, and elevated temperatures are primary contributors to reduced survival, with many of these risks mediated by angler handling practices.

From my perspective, improving C&R outcomes also requires addressing practical barriers faced by everyday anglers. Informal surveys and conversations conducted during this work indicated that many participants, particularly beginners and casual anglers, struggle with hook removal, leading to prolonged handling times, increased stress for fish, and reduced enjoyment of the fishing experience. These challenges can unintentionally undermine conservation goals, even when anglers intend to release fish responsibly.

In response, this presentation introduces a novel quick-release hook concept developed as a case study in translating research into practice. The design aims to simplify hook removal, reduce handling time, and promote efficient in-water releases, particularly in family, educational, and high-use recreational fisheries. By integrating biological, environmental, and human dimensions, this work reflects the conference theme The Power of Perspective and highlights how inclusive, applied innovation can contribute to resilience, relevance, and respect within the fisheries profession.

Shortened title: Native Fishes of the Western United States

Title of Session: Native Fish of the Western United States

Lead organizer: Brian Bangs

Contact info: brian_bangs@fws.gov

Additional organizers, emails, and affiliations: Pete Baki, pete.baki@odfw.oregon.gov, Oregon Dept. of Fish and Wildlife

Abstract: Oregon Chapter AFS Native Fish Committee is hosting "Native Fish of the Western United States" symposium, to highlight research, monitoring, and other conservation topics on the lesser known yet fascinating species that are often relegated to miscellaneous columns of datasheets. Native fish fauna within the western United States is dominated by these typically nongame native species, which often make up the bulk of aquatic vertebrate communities. Despite the diversity, the ecology of many western nongame fishes is often poorly understood, many species are not particularly valued by society, and many species have suffered declines in range and face numerous conservation threats. Unless the species is federally listed, they are usually not a priority to project sponsors and are often studied less. However, these fishes can play important roles in ecosystems and have many have unique traits. This symposium will feature recent results of research and monitoring studies, highlight unique techniques used to study species and their ecosystems, and other topics of conservation interest for native fishes.

Shortened title: Human Dimensions of Catch and Release Fisheries

Title of Session: Paradigms, Perspectives and Human Dimensions Surrounding Catch and Release Fisheries

Lead organizer: Dave Banks

Contact info: david.t.banks@odfw.oregon.gov

Abstract: State wildlife management agencies use catch-and-release regulations to allow angling for fish on waterbodies or within populations while minimizing mortality. While state wildlife agencies implement regulations to manage fisheries other entities such as fisheries conservation organizations and researchers have viewpoints as well. Recent articles in Fisheries (volume 50 Issue 4) emphasized two differing opinions about this management tool along with areas of consensus. While the articles provide a spotlight on catch-and-release fisheries paradigms there are some questions that can be explored further. Do all states have similar philosophies surrounding catch-and-release fisheries? What is the science surrounding catch-and-release fisheries management? What perspectives do fisheries conservation organizations bring to the discussion? And what can social scientists add to the discussion? This session seeks to further that discussion by engaging with Western Division AFS members to understand their perspectives on this topic. A panel discussion to synthesize information and answer further questions will occur at the end of the session.

Shortened title: Cutthroat Trout in the Genomics Era

Title of Session: Perspectives on the Cutthroat Trout species complex in the genomics era

Lead organizer: Alexandra Fraik

Contact info: alexadra.fraik@usda.gov

Additional organizers, emails, and affiliations: Morgan Sparks, USDA FS Rocky Mountain Research Station, morgan.sparks@usda.gov
Daniel Pierce, USDA FS Rocky Mountain Research Station, daniel.pierce2@usda.gov

Abstract: Effective conservation of Cutthroat Trout depends on a methodologically robust consensus of the evolutionary relationships and management units that comprise the taxa in the species complex. Consensus on nomenclature has remained elusive despite a long history of scientific interest in Cutthroat Trout, since phylogenies built from phenotypic or very limited genetic data have produced conflicting genetic trees. In a special session of the Names of Fishes Committee (a joint committee of the American Fisheries Society and the American Association of Ichthyologists and Herpetologists), a new nomenclature was proposed and accepted, changing Cutthroat Trout from a species complex of as many as 16 subspecies to 4 species. Numerous Cutthroat Trout genomes have been generated in the last few years, highlighting complex patterns of diversity and differentiation among lineages. This symposium will focus on current research and development of genomic resources that help clarify remaining gaps in our understanding of the units of management and conservation for Cutthroat Trout.

Shortened title: Perspectives on the Northeast Pacific

Title of Session: Perspectives on the Northeast Pacific

Lead organizer: Morgan Johnston

Contact info: morgan.johnston@oregonstate.edu

Additional organizers, emails, and affiliations: Olivia Boisen/OSU/olivia.boisen@oregonstate.edu; Wave Moretto/OSU/wave.moretto@oregonstate.edu; Scott Heppell/OSU/scott.heppell@oregonstate.edu

Abstract: Over the past century, the Northeast Pacific Ocean has experienced immense ecological and environmental change and increased human use. Early efforts to study the region focused largely on collecting basic environmental data, describing species, mapping coastlines, and establishing foundational knowledge of the system. Today, the Northeast Pacific faces an increasingly complex suite of stressors, including intensifying marine heatwaves, hypoxic events, coastal development, and a shifting resource landscape. At the same time, fisheries management and scientific capacity have advanced dramatically, contributing to successful stock recoveries and habitat restoration, while modern tools such as remote sensing, environmental DNA, acoustic telemetry, and ecosystem modeling now allow dynamic tracking of ecosystem change at scales and resolutions unimaginable a century ago. Despite these advances, critical challenges persist across local and regional management, academia, and ocean-user communities. This symposium brings together marine experts from the Western Division of the American Fisheries Society to examine how ecological and management conditions in the Northeast Pacific have evolved, drawing on innovative research and technologies. Our goal is to connect across disciplines and share perspectives that strengthen our understanding and stewardship of marine systems in the coming decades.

Shortened title: PIT Tags in Action: Research and Management in the Northwest

Title of Session: PIT Tags in Action: Advancing Fisheries Research and Management in the Pacific Northwest

Lead organizer: Warren Leach

Contact info: warren@oregonrfid.com

Additional organizers, emails, and affiliations: Brian Beckley, Voda IQ, brian.beckley@vodaiq.com

Abstract: Passive Integrated Transponder (PIT) tags are a cornerstone of fisheries research, providing precise, long-term data on survival, movement, and population dynamics across a wide range of species. Since their introduction in the Pacific Northwest in the 1980s, PIT tags have been central to salmonid recovery efforts and are now broadly applied to other fisheries species.

Discover the latest innovations and applications of PIT tags in fisheries, spanning stock assessments, migration studies, data management, and conservation. This symposium will highlight technological advancements, address standardization challenges, and explore strategies to enhance sustainable management practices.

By fostering collaboration among researchers, managers, and industry, the session will examine emerging research needs and showcase how PIT tag technologies continue to evolve as versatile, cost-effective tools. The presentations will emphasize innovative uses, novel technologies, and management outcomes that strengthen fisheries science and conservation efforts in Washington, British Columbia, and beyond.

Shortened title: Investing in Repair of Fish Hatcheries

Title of Session: Repairing and Appropriately Investing in Our Fish Hatcheries

Lead organizer: Zach Penney

Contact info: zpenney@critfc.org

Abstract: Many hatcheries in the United States and Canada rely on fluctuating, generally decreasing, funding streams provided by various levels of government. Policymakers can be unaware of how a lack of direct hatchery funding creates chronic uncertainty for facility operations, workforce retention, avoiding catastrophes, and adapting to changing conditions. Unpredictable funding requires many hatchery facilities to operate under triage, where core functions and release targets must be prioritized, while essential maintenance, system modernization, and infrastructure upgrades are continually deferred. Inflation, changes in political administration, and other economic pressures further widen the gap between static or slow-growing appropriations and escalating maintenance costs. These accumulating deficits affect fish production capacity, mitigation obligations, endangered species recovery, tribal and non-tribal fishing opportunities, and the safety of staff and fish. Aging infrastructure compounds vulnerability to extreme environmental events, including floods, fires, and landslides—which are expected to increase in frequency and severity, placing older facilities at disproportionate risk. While recent grant programs and targeted funding opportunities have enabled critical repairs and installation of more modern, efficient systems at a few hatcheries, most facilities remain critically under-resourced. This symposium offers a forum for hatchery professionals and fisheries policy staff to exchange knowledge, experiences, lessons learned, and advance solutions for navigating funding instability, prioritizing infrastructure needs, implementing system upgrades, and proactively strengthening emergency preparedness in an era of limited resources and environmental uncertainty.

Shortened title: Genetics in Fisheries: Science, Management, Conservation

Title of Session: Seeing Fisheries Through a Genetic Lens: Bridging Science, Management, and Conservation

Lead organizer: Rebekah Horn

Contact info: rhorn@critfc.org

Additional organizers, emails, and affiliations: Audrey Harris, Audrey.Harris@idfg.idaho.gov, Pacific States Marine Fisheries Commission/IDFG

Abstract: Genetics has long been intertwined with fisheries science, providing powerful tools to identify distinct fish stocks, delineate population boundaries, and inform sustainable management strategies. As genetic technologies evolve, so too does our perspective on what defines and connects fish populations. Modern genomic approaches now reveal fine-scale local adaptation, reproductive success, and the role of structural genomic variation in population resilience. These advances are transforming how we view connectivity, management units, and the adaptive capacity of aquatic species in an era of rapid environmental change.

This symposium, Seeing Fisheries Through a Genetic Lens, brings together leading experts to explore how genetic insights are reshaping fisheries science and management. Presentations will showcase applications spanning foundational population genetics to cutting-edge genomics, illustrating how tools—both new and old—paired with interdisciplinary collaborations can inform conservation, enhance sustainability, and strengthen the link between science and practice.

Shortened title: ESA De-Listings: So Close Yet So Far

Title of Session: So Close Yet So Far Away: ESA De-Listings

Lead organizer: Ian Tattam

Contact info: Ian.A.Tattam@odfw.oregon.gov

Additional organizers, emails, and affiliations: Adrienne Averett, Jim Brick, Chris Lorion

Abstract: Endangered Species Act listings are ubiquitous across Pacific Northwest fish populations. Since many of our projects are centered around data and decision support systems to improve depressed populations and achieve de-listing; there are many different perspectives surrounding this process. This session will focus on uniting around consideration of the science and data collection underlying de-listing processes. Sharing perspectives from successful de-listing processes, even with those working on vastly different species, can help us all advance via lessons learned.

This session will:

1. Share lessons-learned from populations where we have achieved de-listing or are potentially close to de-listing. Realizing that some non-salmonid populations have unique characteristics and have faced different challenges than anadromous salmonid populations; we can learn from sharing perspectives about the key social and biological elements that helped achieve recovery and de-listing.

2. Share perspectives on monitoring strategies for populations at varied levels of their de-listing goal. Investing in de-listing criteria monitoring for low abundance populations may limit our flexibility. Can we focus emphasis in monitoring of de-listing required metrics (i.e., spatial structure, abundance, productivity) on populations close to recovery (e.g., Oregon Coast coho; Hood Canal chum)? In turn, can we shift toward mechanistic research into factors limiting abundance when further from de-listing?

3. Discuss monitoring after de-listing. How can we leverage new technologies or strategies to build long-term monitoring plans with reduced resources after listing designations are removed?

4. Create a "reflective review" of ESA-delisting successes, challenges, lessons learned, and adaptation recommendations. Presenters would contribute to a synthesis document in advance of the session. This would be presented in a panel discussion format following the session; creating opportunity for audience input.

Shortened title: Stream Temperature Monitoring for Restoration Outcomes

Title of Session: Stream Temperature Monitoring for Better Restoration Projects: tools and outcomes

Lead organizer: Dr. Mousa Diabat

Contact info: mousa.diabat@nv5.com

Additional organizers, emails, and affiliations: TBD

Abstract: Stream temperature is a critical driver of river ecosystem health, influencing habitat suitability, species survival, and restoration success. Accurate monitoring is essential for identifying thermal stressors and evaluating project outcomes. This session will focus on advanced tools and deliverables that support effective temperature assessment in river restoration.

We will explore ground-based sensor networks, GIS-integrated dashboards, and airborne thermal infrared (TIR) mapping, which provides high-resolution spatial data to detect thermal refugia, groundwater inflows, and localized hotspots often missed by traditional methods. Beyond single-sensor approaches, the session will emphasize the power of data fusion, integrating TIR imagery with true color aerial photography and topobathymetric lidar. This combination enhances interpretation by linking thermal patterns to physical habitat features, channel morphology, and riparian conditions, enabling a comprehensive understanding of river systems.

Key deliverables such as multi-layer thermal maps, 3D habitat models, and predictive analytics will be showcased, demonstrating how these outputs inform adaptive management and restoration design. Attendees will gain practical insights into selecting monitoring technologies, integrating airborne and in-situ data, and translating temperature metrics into actionable strategies for resilient river ecosystems.

Shortened title: Sturgeon Spotlight: Modern Perspectives

Title of Session: Sturgeon Spotlight: Modern Perspectives for Ancient Fish

Lead organizer: Andrea Carpenter

Contact info: andrea.l.carpenter@odfw.oregon.gov

Additional organizers, emails, and affiliations: Laura Heironimus, Laura.Heironimus@dfw.wa.gov, Washington Department of Fish and Wildlife

Abstract: Sturgeon are an iconic species in the Pacific Northwest. They occur in the Columbia and Snake rivers. While White Sturgeon appear through these areas, each population differs. They are long lived species and having decades of data for these ancient fish bring new perspectives from the aspects of science, research, and management.

Shortened title: Implementing Change in the Columbia River Basin

Title of Session: Swimming Against the Current: Overcoming Challenges to Implement Change in the Columbia River Basin

Lead organizer: Christopher Page, PhD

Contact info: cmp3@pdx.edu

Additional organizers, emails, and affiliations: Steve Waste, PhD, stevewaste1@gmail.edu, Western Fisheries Research Center, USGS, Scientist Emeritus

Abstract: Governance as related to salmonids in the Columbia River basin is complex. There is a diverse array of stakeholders, perspectives, interests, and jurisdictions that intersect directly and indirectly with the salmonid lifecycle. This complexity influences how the governance structure functions, the types of outcomes it produces, and the effects it has on salmonids. This governance structure is also unique in its level of autonomy due to laws such as the Northwest Power Act. This combination of factors creates challenges and opportunities for producing policies (e.g., laws, regulations, decisions) that can support healthy and robust fisheries in light of systemic issues such as climate change. The policies that ultimately, directly or indirectly, impact salmonids cover a broad range of issues including economic, social, and natural resource management considerations. These issues combined with the diversity of perspectives in the Columbia River Basin provides an opportunity for presenters to shed light on these issues and offer solutions from multiple angles. This includes but is not limited the effects of exogenous impacts (e.g., climate, invasive species, etc.) on restoration efforts under the Four Hs of Hydro, Hatchery, Habitat, and Harvest. Similarly, how have the Four Hs impacted social, economic, and cultural perspectives on salmon recovery? Other topics that are ripe for analysis include current or future efforts to align people such as the Columbia River Collaborative and/or processes in areas like budgets cycles. Additionally, topics that address how to leverage different perspectives, forms of knowledge (e.g., Traditional Ecological Knowledge), and experiences (e.g. First Foods) to produce better policy in the basin are welcome. Overall, this symposium will address current challenges in successful policy development, solutions for addressing these issues, examples of successful policy and/or governance outcomes, and recommendations for future research and collective action. The symposium will conclude with a panel discussion.

Shortened title: Habitat Modeling: From Data to Decisions

Title of Session: The Power of Perspective in Habitat Modeling: From Data to Decisions

Lead organizer: Forrest Carpenter

Contact info: forrest.carpenter@icf.com

Additional organizers, emails, and affiliations: Laura McMullen, laura.mcmullen@icf.com, ICF

Abstract: Habitat based species modeling has become an essential tool for understanding the distribution, abundance, and resilience of fish and other aquatic species in dynamic environments and evaluating the effects and benefits of management actions. These models inform decisions ranging from restoration planning to regulatory compliance, yet their effectiveness depends on the perspectives we bring to their design and interpretation. This symposium will explore how diverse approaches to habitat modeling—spanning spatial scales, ecological processes, and analytical frameworks—can provide a more holistic understanding of aquatic ecosystems and improve conservation outcomes.

The theme of the 2026 joint Oregon and Western Division AFS meeting, "The Power of Perspective," underscores the importance of integrating multiple viewpoints in fisheries science. Habitat modeling exemplifies this principle: models can be developed from physical habitat metrics, species-specific life history traits, climate projections, or socio-ecological considerations. Each perspective offers unique insights but also introduces assumptions and uncertainties that influence management decisions. By examining these perspectives collectively, we can identify synergies, reconcile trade-offs, and advance adaptive strategies that are robust under changing environmental conditions.

This symposium will feature case studies and methodological innovations that highlight the role of perspective in habitat modeling for fish and aquatic species. Topics could include mechanistic versus empirical models, multi-species and ecosystem-based approaches, integration of remote sensing and hydrodynamic data, and applications for climate adaptation and habitat connectivity. A focus of the session would show how habitat modeling can inform conservation and restoration planning, inform natural resource management, and provide actionable science backed insights for agencies, stakeholders, and practitioners. Contributions that challenge conventional paradigms, incorporate Indigenous and local knowledge, or demonstrate collaborative frameworks bridging disciplines and jurisdictions are encouraged. This symposium aims to illuminate how expanding our perspectives in habitat modeling can lead to more inclusive, resilient, and effective conservation and management strategies for aquatic ecosystems.

Shortened title: Adaptive Management for Fish Passage in Willamette

Title of Session: The Power of Perspective in Practice: Evolving Adaptive Management for Fish Passage in the Willamette Valley System

Lead organizer: Richard Piaskowski

Contact info: richard.m.piaskowski@usace.army.mil

Additional organizers, emails, and affiliations: Rose Wallick, , U.S. Geological Survey, Oregon Water Science Center, rosewal@usgs.gov

Abstract: Harnessing the conference theme, "The Power of Perspective," this symposium examines the decades-long effort to restore fish passage for ESA-listed salmon and steelhead in Oregon's Willamette River Basin as a powerful case study in navigating complex challenges. The monumental task of restoring passage at high head dams provides a unique lens to explore how differing viewpoints—shaped by institutional mandates, scientific uncertainty, and competing recovery goals—forge a dynamic adaptive management framework.

This session will deconstruct the web of connections among agencies, stakeholders, and researchers. We will seek comparisons to other ESA recovery programs to better inform approaches in the Willamette. By dissecting the history and future of the Willamette Valley System, this symposium provides a transformative look at how the fisheries field can build resilience and relevance.

Presentations will explore the program's history, methods for integrating stakeholder perspectives into operational tradeoffs, developing actions and hypotheses for a complex system, acknowledging limitations when operating a multipurpose water system, and how technology can reshape the future of high head dam management. Our goal is to demonstrate how embracing diverse perspectives is critical to moving forward amid uncertainty, limited resources, and competing demands.

Prospective Co-facilitators:
Jim Peterson, U.S. Geological Survey, Oregon Cooperative Fish and Wildlife Unit
Murdoch McAllister, Institute for the Oceans and Fisheries, University of British Columbia

Shortened title: Transforming Effectiveness Monitoring in the Northwest

Title of Session: Transforming Effectiveness Monitoring in the Pacific Northwest

Lead organizer: Erin Benham

Contact info: EBenham@psmfc.org

Additional organizers, emails, and affiliations: Jen Bayer (jen.pnamp@gmail.com), USGS emeritus

Abstract: After 25 years of coordinated monitoring, the Pacific Northwest faces a critical juncture in salmon recovery. Recent reviews point to a lack of success in species de-listing, with some citing restoration failures, while others interpret the prevention of extinction as evidence of resilience despite mounting pressures from climate change, invasive species, and toxics. Some point to a lack of monitoring evidence as the source of our uncertainty about success and failure. These perspectives reveal both the complexity of our challenge and the opportunity before us. Inconsistent monitoring results across spatial and temporal scales have obscured linkages between restoration actions, habitat improvements, and fish population responses. Lessons from some IMWs reveal that projects with strong community support and outreach achieved greater success, demonstrating social factors as vital as technical design.

Emerging technologies like remote sensing, UAVs, and AI now offer transformative potential to economize monitoring efforts. At the same time, restoration efforts have now been underway for decades and our sample size and level of impact have potentially reached a point at which we could look more broadly at restoration effectiveness in different scenarios.

PNAMP recognizes that advancing effectiveness monitoring requires integrating diverse viewpoints from across the Columbia River Basin, Puget Sound, and Klamath River Basin, and among researchers, managers, practitioners, and communities. This symposium will harness these perspectives to:

1. Synthesize lessons from IMWs and regional programs, support transfer of findings to broader restoration efforts, and emphasize human dimensions critical to project success.

2. Explore how new monitoring approaches and technologies can improve understanding of which restoration actions work, where, and why, while enhancing cost-effectiveness.

3. Identify ideas to be developed into actionable recommendations leveraging regional and cross-agency collaboration to guide restoration investments, while incorporating innovative methods.

Following presentations, a panel will discuss ideas to develop into actionable next steps.

Shortened title: Tribal Fish Restoration in the West

Title of Session: Tribal Fish Restoration Projects in the West

Lead organizer: Eric Fetherman

Contact info: Eric.Fetherman@state.co.us

Additional organizers, emails, and affiliations: Emily Chen, echen@caltrout.org, California Trout
Ryan Branstetter, brar@critfc.org, CRITFC

Abstract: Indigenous peoples in North America have relied on and managed fish populations since time immemorial and are critical to the restoration of fish populations and habitat. Tribal fish restoration projects can have unique sets of objectives that reflect the importance of restoring cultural traditions, food sovereignty, and ecosystem health. Tribes often focus on restoring fish populations and habitats through initiatives such as dam removals, improvements in fish passage, restoration of riparian areas, and reintroducing native species, among others. These projects can be crucial for maintaining Indigenous traditions or ways of life and reasserting indigenous stewardship over their ancestral land. Traditional Ecological Knowledge (TEK) provides a valuable perspective on the approaches that can be undertaken with habitat restoration projects. The need to share Indigenous perspectives and values come at an important time when the number and scale of aquatic habitat restoration projects continue to greatly grow across the West, and both TEK and Western Science are needed to develop effective restoration goals and practices. The objective of this symposium is to highlight Tribal fish restoration activities, understand how habitat restoration activities led by Tribes or on Tribal lands occur, and share Indigenous perspectives for future projects on both Tribally-managed and non-Tribally-managed land. We invite those conducting relevant work to submit a presentation on this topic.

Shortened title: Watershed and Habitat Assessments for Project Prioritization

Title of Session: Watershed and Habitat Assessments: Candidate Project Development and Prioritization

Lead organizer: Larry Dominguez, MES

Contact info: LD50_@msn.com

Additional organizers, emails, and affiliations: Jaime Mostellar, MS Ecologist Jaimimostellar@gmail.com; EcoAssets Environmental

Abstract: Watershed and Habitat Assessments: Candidate Project Development and Prioritization.

Watershed and habitat assessments are fundamental tools for identifying limiting factors to fish production, aquatic ecosystem productivity, and hydrologic function. However, the cost, complexity, and duration of these assessments are increasing at a time when resource managers, tribes, NGOs, agencies, and local watershed stakeholder groups are under growing pressure to direct limited funds toward on-the-ground restoration actions. This half-day technical symposium, proposed for the Western Division of the American Fisheries Society and the Oregon Chapter of the American Fisheries Society, will showcase a range of assessment frameworks and decision-support tools that explicitly link data collection and analysis to defensible project development and prioritization.

We invite 15–20 minute presentations spanning multiple spatial and temporal scales—from reach-scale habitat inventories and barrier assessments to subbasin- and basin-scale limiting factor analyses, geomorphic/hydrologic modeling, and multi-criteria prioritization frameworks. Case studies highlighting cost-effective approaches, scalable methods, and tiered assessment designs are encouraged, as are examples integrating fish population response, habitat condition, climate and flow forecasts, and social or implementation feasibility. A key emphasis of this symposium is on technical robustness, transparency, and reproducibility, including clear articulation of assumptions, uncertainty, and sensitivity of prioritization outcomes to input data and model structure. We particularly encourage contributions that evaluate or validate assessment and prioritization methods using monitoring data, retrospective analyses of implemented projects, or comparative studies among tools and approaches. Presentations that demonstrate how assessment results have been successfully communicated to funders and stakeholders, leveraged in competitive grant processes, or incorporated into watershed and subbasin plans are also welcome. Overall, this symposium aims to advance a shared understanding of how to design and apply watershed and habitat assessments that are scientifically defensible, cost-conscious, and directly actionable, thereby improving our collective ability to target restoration investments where they will provide the greatest ecological benefit.

Shortened title: Western Native Fishes

Title of Session: Western Native Fishes

Lead organizer: Timothy D'Amico

Contact info: timothy.damico@idfg.idaho.gov

Additional organizers, emails, and affiliations: Luke Schultz luke.schultz@wyo.gov, Wyoming Game & Fish Department; WDAFS Western Native Fishes Committee

Abstract: Native nongame freshwater fishes are an integral component of aquatic ecosystems, and as such their management is often found at the intersection of humans, fish and aquatic habitats. For many fisheries professionals, management, conservation and persistence of native nongame fishes is a matter of perspective, whether for intrinsic value or otherwise. The eleventh-annual native fishes symposium hosted by the Western Native Fishes Committee (WNFC) aims to further the mission of WNFC to explore topics including threats to native fishes and their conservation, innovative management approaches, and successful case studies of conservation. Ultimately, this symposium will highlight native freshwater nongame fishes research and management, providing a platform to build relationships, share knowledge, and discuss technologies and methods to build resilience, relevance and respect for native nongame fishes.

Shortened title: Technology Meets Ecology: Innovations in Environmental Response

Title of Session: Where Technology Meets Ecology: Practical Innovations for Improving Environmental Response

Lead organizer: Claire Vaage

Contact info: claire.vaage@whooshh.com

Additional organizers, emails, and affiliations: Vincent Bryan III, v3@whooshh.com, CEO

Abstract: Fisheries professionals face mounting ecological, operational, and social challenges that demand solutions that are both effective and accessible. This symposium, Where Technology Meets Ecology, explores how innovative technologies and freely available tools can accelerate recovery goals without requiring large budgets or controversial measures. By focusing on practical applications, we aim to equip fisheries biologists with actionable strategies that bridge the gap between ecological theory and technological capability.

The session will showcase a suite of tools and technologies designed to deliver measurable benefits across organizational levels. Topics include optimizing attraction flows without increasing water use, reducing predation risk through non-invasive methods, restoring connectivity at existing barriers, and enabling selective fish passage using AI-driven recognition systems. Presentations will highlight applied examples and provide guidance on implementation, emphasizing cost-effective solutions that collectively address diverse priorities.

To enhance engagement, the symposium will incorporate interactive components between technical sessions. Attendees will have hands-on opportunities to explore desktop modeling tools that estimate the ecological and economic impacts of deploying these technologies. These exercises will foster discussion on scalability, adaptability, and integration into existing management frameworks.

Centered around interdisciplinary collaboration, this symposium leverages the power of perspective to uncover where technology complements ecological insight. By sharing innovative methods and practical applications, we aim to empower managers, biologists, and engineers in shaping solutions that promote resilience, relevance, and respect throughout the fisheries field.