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| **63rd Annual Northwest Fish Culture Conference**  **Progressive Fish Culture in the Northwest** | | |
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| [Home](http://www.fws.gov/columbiariver/nwfcc2012.html)  [**Program**](http://www.fws.gov/columbiariver/nwfcc2012/NWFCC_Brochure_2012_final.pdf)  [**Proceedings**](http://www.fws.gov/columbiariver/nwfcc2012/2012_NWFCC_Proceedings.pdf)  [**Presentations**](http://www.fws.gov/columbiariver/nwfcc2012/presentations.html)  [**Sponsors**](http://www.fws.gov/columbiariver/nwfcc2012/sponsors.html)  [**Contacts**](http://www.fws.gov/columbiariver/nwfcc2012/contacts.html) | DAY 1: [Keynote](http://www.fws.gov/columbiariver/nwfcc2012/presentations/Smith_keynote.pdf) Speaker: Charlie Smith  **SESSION #1: RECIRCULATING AQUACULTURE AND HATCHERY INNOVATIONS**  Tristan Robbins. Freshwater Fisheries Society of BC, [Advanced, Delayed and Out of Season Spawning Dates in Rainbow Trout](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S1_Robbins.pdf)  Chris Jeszke, IDFG Ashton Fish Hatchery. [Development of Daughterless Technology (Trojan Sex Chromosomes) for control of Introduced Brook Trout](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S1_Jeske.pdf)  Todd Pearsons, Grant County PUD, Ephrata WA. [Hitting the Right Target: Rearing Innovations](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S1_Pearsons.pdf)  KC Hosler, PR Aqua Supplies Ltd., Nanaimo, BC. [Progressive Water Use Strategies Conserve Water and Meet Production Goals.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S1_Hosler.pdf)  Ray Billings, Freshwater Fisheries Society of BC, Victoria BC. [Utilizing Airlift Water Reuse Technology to Help Achieve Electrical Energy Savings.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S1_Billings.pdf)  **SESSION #2: RECIRCULATING AQUACULTURE AND HATCHERY INNOVATIONS**  Jeff Milton, ADFG Sports Fish Hatchery Program Supervisor, Anchorage AK. [Cold Water RAS Hatchery Construction and Operation: Challenges and Successes](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S2_Milton.pdf)  Steve Sharon, Wyoming GFD, [Use of RAS Technology in Serial Re-Use Fish Culture – Why?](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S2_Sharon.pdf)  Ian Adams, [Partial Water Re-Use Systems, Operations and Maintenance.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S2_Adams.pdf)  Brian Vinci, The Freshwater Institute, Shepherdstown, WV. [Water Re-Use Systems, Water Velocities and Fish Fitness – What is the Connection?](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S2_Vinci.pdf)  Grace Karreman, Aquatic Life Sciences, Nanaimo BC. [Biosecurity and Recirculating Systems](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S2_Karreman.pdf)  **SESSION #3: PROGRESSIVE FISH CULTURE**  Chris Tatara, NOAA Manchester. [Transition to a Locally Adapted Steelhead Stock.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S3_Tatara.pdf)  Deborah Harstad, NMFS Seattle, WA. [Variation in Early Male Maturation and Smolting of Juvenile Summer Chinook Salmon and Varying Over-winter Temperature Regimes](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S3_Harstad.pdf)  Eric D. Lauver, Grant County PUD, Ephrata WA. [Precocious Male Straying: A Case Study of Spring Chinook Mini-jack Straying and Distribution from a Captive Brood Program](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S3_Lauver.pdf)  Brian Beckman, NOAA Seattle, WA. [Stuck in the Middle: Contrasting Effects of Release Size on Early Male Maturation and In-river Survival of SCS Smolts](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S3_Beckman.pdf)  **SESSION #4: PROGRESSIVE FISH CULTURE**  Josh Marauskas, Chelan County PUD, Wenatchee WA. [Increased Performance of Spring Chinook Salmon Reared in Partial Re-Use Circular Vessels Compared to Flow Through Raceways.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S4_Marauskas.pdf)  Dina Spangenberg, NOAA Seattle, WA. [Environmental Effects on Smolt Quality and Early Male Maturation in Spring Chinook Salmon.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S4_Spangenbergf.pdf)  Andrew Dittman, NOAA Seattle WA. [Early Imprinting of Hatchery-reared Salmon to Targeted Spawning Locations: A New Imprinting Paradigm for Supplementation Programs?](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S4_Dittman.pdf)  Don Larson, NOAA Fisheries, Seattle WA. [The Effect of Modulating Ration and Dietary Lipid on Growth, Smolting and Early Male Maturation in Yearling Umatilla River Fall Chinook Salmon.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S4_Larsen.pdf)  Lance Clarke, ODFW LaGrande, OR. [Acclimation Strategies Improve Post-release Performance of Hatchery Salmon and Steelhead in NE Oregon](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S4_Clark.pdf)  **SESSION #5: HATCHERY OPERATIONS/ NEW TECHNOLOGY**  Douglas Munson, IDFG, Eagle Fish Health Laboratory. [Renovations at Niagara Springs Hatchery – Benefits and Challenges.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S5_Munson.pdf)  Becky Johnson, Nez Perce Tribe, [Integrating Conservation Hatchery Principles with Tribal Treaty Reserved Harvest Opportunities](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S5_becky_johnson.pdf)  Christina Iverson, WDFW, [Lower Columbia River Hatchery Program Modifications Using Modeling Technology.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S5_Iverson.pdf)  Tom Flagg, NOAA Manchester, [Hatcheries and Management of Aquatic Resources (HaMAR)](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S5_Flagg.pdf).  Patrick Luke, Yakama Nation. [Artificial Propagation of Pacific Lamprey: Lessons Learned and Path Forward](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S5_Luke.pdf).  **SESSION #6: FISH HEALTH AND NUTRITION**  Mary Peters, USFWS, [Successful Disease Management of Spring Chinook Captive Broodstock at Little White National Fish Hatchery.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S6_Peters.pdf)  Guppy Blair & Sonia Mumford, USFWS. [What every fish culturist should know about Antibiotics.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S6_Guppy%20Blair.pdf)  Ray Brunson, Retired USFWS, [Controlling Bacterial Coldwater Disease with Fish Culture Methods](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S6_Brunson.pdf).  Ken Cain, UofI, Coldwater Disease Research: Update on Vaccine Licensing and Commercialization Status.  David Thompson. USFWS, [Larval Pacific lamprey *Entosphenus tridentatus* are not susceptible to common fish rhabdoviruses of the Pacific Northwest.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S6_Thompson.pdf)  Bonnie Johnson, USFWS, [Aquatic Animal Drug Approval Program, Bozeman MT. National INAD Program Overview](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S6_Bonnie%20Johnson.pdf).  **SESSION #7: MISCELLANEOUS TOPICS IN FISH CULTURE**  John Holmes. USFWS, [Differences in Egg Size Between Natural-origin and Genetically Similar Hatchery-origin Winter Steelhead in Abernathy Creek, Washington.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S7_Holmes.pdf)  Dan Magneson, USFWS [Quilcene NFH, Hoover, Bonneville, Shasta, Grand Coulee Dams – The Great Depression, WWII, and Fishery Resources](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S7_Magneson.pdf)  Mitch Combs, WDFW Sherman Creek Hatchery. [White Sturgeon US Conservation Aquaculture on the Trans Boundary Reach.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S7_Combs.pdf)  Mike McLean, CTUIR. [Practical Application of Electro-Anaesthesia in the Field.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S7_McLean.pdf)  Maureen Kavanagh, USFWS, Columbia River. [Does the Use of Electronarcosis on Adult Coho Salmon Prior to Spawning Affect Mortality and Fry Growth?](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S7_%20Kavanagh.pdf)  **SESSION #8 MISCELLANEOUS TOPICS IN FISH CULTURE**  Michael Gauvin, ODFW. [Utilizing Round Butte Hatchery in the Reintroduction of Anadromous Fish in the Deschutes River.](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S8_Gauvin.pdf)  James D. Bowker, USFWS, Bozeman MT. [Sedating Fish with AQUI-S20E: Will My Fish Still Be Alive if I Take Time for Another Cup of Coffee?](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S8_Bowker.pdf)  Beau J. Gunter, IDFG, Grace Fish Hatchery, ID. [Effects of Initial Feed Timing on Triploid Rainbow Trout Fry at Grace Fish Hatchery](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S8_Gunter.pdf)  Helena E. Christiansen. USGS. [Identifying an Optimal Anesthetic for Juvenile Pacific Lamprey](http://www.fws.gov/columbiariver/nwfcc2012/presentations/S8_Christiansen.pdf). |