



INTERNATIONAL CONFERENCE ON ENGINEERING AND ECOHYDROLOGY FOR FISH PASSAGE

JUNE 19-21, 2017 | Oregon State University Corvallis, Oregon (USA)



June 19 – 21, 2017
Oregon State University
Corvallis, Oregon, U.S.A

Preliminary Conference Program

Monday - June 19th (Morning Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
8:00	Registration and Breakfast			
8:30	Introduction and Welcome			
8:50	Plenary Speaker: John Sirois “Monumental Opportunity”			
9:40	Plenary Speaker: Dr. Futoshi Nakamura “Fish passage as a linkage between forest, stream, and marine ecosystem; evidences from nationwide and local studies in Japan”			
10:30	Break			
	Session A1: Large-Scale Migratory Fish Testing Facilities I	Session B1: Fishway Design & Efficiency I	Session C1: Turbine Passage I	Session D1: Screens I
10:50	D. Zielinski; FISHPASS: Developing Selective Bi-directional Fish Passage in the Great Lakes	H. Marques; Evidence of a Fishway Restoring River Connectivity in the Neotropical Region	D. McCoskey; Overview of U.S. Department of Energy Fish Passage Research	C. Shupe; Improving Data Collection Methods for Hydraulic Evaluations of Fish Screens
11:10	T. Castro-Santos; Opportunities and Limitations: Lessons Learned from 20 years of Research at a Large Flume Facility	M. Wilkes; Fishway Design in the Temperate Southern Hemisphere	G. Johnson; Biologically-based Design & Evaluation of Hydro-Turbines (BioDE): A Comprehensive Multi- Year Research Effort	W. Simpson; A Decade of Steelhead Smolt Entrainment: Fish Diversion Patterns of Irrigation Dams in the Umatilla River Basin, Oregon
11:30	R. A. Goodwin; Fish Guidance and Passage: Findings from a Method for Confronting Changes in Fish Response to Unchanging Hydraulics	C. Henn; The Piracema Channel of ITAIPU, Paraná, Brazil: Engineering Lessons and Proposed Improvements to the Transposition of Neotropical Fish	A. Colotelo; Laboratory-Based Dose-Response Experiments to Rapid Decompression and Shear	N. Scribner; Fish Screening and Passage at the Harmony Diversion near Manderson, WY: Harmony Can Be Tortuous.
11:50	R. Rodrigues; Using a Temporary In- River Experimental Flume to Study the Influence of Hydraulics on Passage of Amazon Migratory Fishes	F. Groux; Knowledge Update on Shad Upstream Migration: Fishway Design and Efficiency	M. Bevelhimer; Simulating Turbine Blade Strike in the Laboratory to Better Assess Injury and Mortality during Turbine Passage	R. Stephen; Retrofit of a Flat Plate Fish Screen with an Air Burst System for Sediment Transportation
12:15	Lunch			

Monday - June 19th (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A2: Large-Scale Migratory Fish Testing Facilities II	Session B2: Fishway Design & Efficiency II	Session C2: Turbine Passage II	Session D2: Screens II
1:30	N. Johnson; A New Laboratory Flume Facility to Study Migratory Fishes of the Great Lakes Basin	S. Milligan; Fish Passage Concerns with Rebuilt Jetty at Main Fishway Entrance at Little Goose Lock and Dam	M. O'Farrell; Injury to Adult Atlantic Salmon from Contact with Turbine Runners after Swimming Upstream into Draft Tubes.	S. Kingsley; Tokul Creek Fish Passage and Hatchery Intake Improvements
1:50	M. Keefer; The Value of Big Data: Insights from Two Decades of Columbia River Fish Passage Research	K. Muraoka; Cloister to Improve Fish Passage for Bottom-Swimming Fish and Weak Swimmers	B. Pracheil; Sources of Injury and Mortality During Downstream Hydropower Turbine Passage and Spatial Distribution of Mitigations	S. Tétard; The Efficiency of Inclined and Oriented Racks to Prevent Atlantic Salmon Smolts from Entering Turbines
2:10	G. Fiedler; Evaluation of Fishway Design for German Federal Waterways by Means of Fish Studies	T. Swarr; Steep Grade Ahead – Developing Fishway Design Criteria for Small-Bodied Great Plains Fishes	C. Hoffman; A Comparison of Direct Survival/Injury of Eels Passed Through Francis and Propeller Turbines	L. Perkins; Size Matters: Using Experience, Data, and Modeling to Scale the Farmers Screen For Large Diversion Applications
2:30	J. Wey; Gathering Reliable Fish Data in Large-scale Research Facilities on German Federal Waterways	J. Waldrip; Design and Development of Fish Passage for Shortnose Sturgeon and Other Migratory Fish Species at a Northeast Hydropower Project	D. Deng; Development of Fish- friendly Hydropower Guidelines for Lower Mekong River Fish: Turbine using Sensor Fish	
2:50	Break			

Monday - June 19th (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A3: Large-scale migratory fish testing facilities III	Session B3: Regional Evaluation of Barriers	Session C3: Swimming Performance	Session D3: Dam Removal
3:10	E. Bruins Slot; Actual Fish Migration projects Rhine Delta: Fish Migration River, Haringvliet & Markerwadden	C. Garcia de Leaniz; Reconnecting Europe's Rivers: Challenges & Opportunities for the AMBER Project	K. Kappenman; Swimming Performance of Sauger (Sander canadensis) in Relation to Fish Passage	H. Wannigen; Dam Removal Europe: a Movement Needed to Support Practitioners and to Refute Myths
3:30	Catharina J.M. Philippart; Towards a Conceptual Framework to Study Tidal Migration of Diadromous Fish	J. Barry; SNIFFER with ICE: a Taster of Barrier Assessment Issues	E. Ryan; Arctic Grayling and Denil Fishways: A Study to Determine How Water Depth Affects Passage of Arctic Grayling through Denil Fishways	S. Wright; Monumental Legacy: Rogue River Basin Dam Removals
3:50	K. Terwisscha van Scheltinga; Fish Migration River: No Innovative Solution Flourishes without Public Support	L. Alonso; Fish Passages in International Hydropower Projects: Challenges and Opportunities	F. Sanz-Ronda; Fishway Location, Entrance and Passage for Potamodromous Mediterranean Cyprinids.	M. Kacmarcik; Hogansburg Dam Removal: Repatriation of Tribal Lands, Fish Passage, and Collaboration
4:10		X. Cao; The Laws, Regulations and Technical Standards for Fish Passage in China	E. Pereira; Modelling Up-and Downstream Movements of a Catadromous Species through a Vertical-slot Fish Pass	B. Norris; Unknowns Associated with Dam Removal and Managing Risk to Fish Passage
4:30		J. Wen; Status of Fishway Construction in China and Typical Case Analysis	J. Fuentes-Pérez; Artificial Lateral Lines: Assessing Fish Passages Sensing like a Fish	N. Jepsen; Smolt-loss in Reservoirs and the Effects of Removing Dams in Lowland Rivers
4:50		A. Pervin; Fish Passages From Past to Future in Turkey	R. Traczyk; Development of the Perception of Changes in Position, Swimming Speed and Sounds in Fish and its Influence on Passage.	G. Goll; Hughesville Dam Removal: A Lesson in Sediment Management
5:30 to 7:30	Technology Social			

Tuesday - June 20th (Morning Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
8:00	Breakfast			
8:30	Introductions and Updates			
8:50	Plenary Speaker: Dr. Paul Jacobson “Tractable and Intractable Problems in Fish Passage: R&D Successes, Areas of Progress, and Hard Spots”			
9:40	Plenary Speaker: Dr. Tony Farrell Title “Some physiological rules and strategies for fish passage”			
10:30	Break			
	Session A4: Downstream Passage I	Session B4: International Case Studies	Session C4: Rock Channels & Nature-Like Fishways I	Session D4: Eel & Lamprey Passage I
10:50	C. Noyes; Lake Cushman Floating Surface Collector Downstream Migrant Smolt Evaluation	B. Verep; The Dam Effects on the Distributions of Fish Assemblages and Water Quality in Yeşilirmak River (Turkey) Using Principle Component Analysis	R. Jesien; Regenerative Stream Channel Serves As A Nature-Like Fish Passageway	P. Jacobson; The Eel Passage Research Center at Age Five – What Have We Learned
11:10	D. Grimardias; Downstream Migration of Adult and Juvenile Lake Trout (Salmo trutta) Across Two Hydropower Plants on Versoix River, Switzerland	A. Baniya; The Upper Trisuli Fish Passage : A Fish Ladder in the Upper Part of a Fish Migration Section of a Snow Fed River in Nepal	J. Howard; Observations of Constructed Roughened Channel Hydraulic Characteristics and Comparisons with Self- Formed Channels	Z. Anwar; Optimizing Climbing Substrates for Upstream Passage of Juvenile Eel
11:30	B. Pyper; Effects of Attraction Flow on Downstream Passage of PIT-tagged Juvenile Chinook and Steelhead at Round Butte Dam, Oregon, USA	D. Grimardias; Ecological Connectivity of the Rhône River Near Geneva: From Fish Behaviour Below Dams to Crossing-Over Efficiency Assessment	M. Conte; Truckee River Fish Passage Improvement Project: Restoring 121 Miles of River for Spawning Migration of Lacustrine Lahontan Cutthroat Trout	J. Wechsler; A Robust, Permanent Upstream Passage System for Juvenile Eels at a Low-Head Dam, Penobscot River, Maine, USA
11:50		K. Hughes; Fish Passage Mitigation Toolbox	J. McLean; Nature-Like Fish Passage in the Gulf of Maine: Case Studies in the Design and Implementation of Nature-like Fishways for Diadromous Fishes	S. Amaral; Theoretical Assessment of Downstream Passage Survival of Silver American Eel at a Small Hydropower Project
12:15	Lunch			

Tuesday - June 20th (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A5: Downstream Passage II	Session B5: Ecological Consequences of Barriers	Session C5: Rock Channels & Nature-Like Fishways II	Session D5: Eel & Lamprey Passage II
1:30	L. Schenk; Monitoring the Collateral Effects of a Deep Reservoir Drawdown for Downstream Fish Passage, Fall Creek Lake, Oregon, U.S.A.	C. Caudill; Predicting Travel Time and Pre-spawn Mortality in Spring-Summer Chinook salmon in the Columbia-Snake Hydrosystem and Salmon River Basin	A. Hunt; Manton Mill Pond Dam - Nature-Like Fishway Bypass, Johnston, RI	O. Calles; European Eel Conservation Strategy: From Passage Solutions to Release of Imports and Back Again
1:50	G. Taylor; Use of Deep Drawdowns for Downstream Juvenile Chinook Salmon Passage at Fall Creek Reservoir, Willamette Basin, Oregon, USA	Q. Payton; Endangered Salmon and the Birds Who Love (to Eat) Them	D. Nyqvist; Upstream and Downstream Passage of Migrating Adult Atlantic Salmon: Remedial Measures Improve Passage Performance at a Hydropower Dam	D. Aldvén; Evaluation of Intake Rack Solutions for Downstream Fish Passage Using a Large Scale Fish Flume
2:10	C. Murphy; Examining Responses of Reservoir Conditions and Food Webs Following Deep Drawdowns for Downstream Chinook Salmon Passage at Fall Creek Reservoir, Willamette Basin, Oregon, USA	S. Smith; Anadromous Fish Reintroduction in the Upper Columbia River Basin - An Overview	H. Mader; Development and Performance Verification of the Enature® Fishpass	K. McCarthy; Analysis of Silver-Phase European Eel Population Dynamics at an Upper River Erne Catchment Site Used in a Trap and Truck Conservation Measure.
2:30	J. Hegna; Juvenile Lake Sturgeon Downstream Passage Behavior and Survival at Two Hydroelectric Dams	B. Penaluna; Using eDNA to Understand Changes in Aquatic Biodiversity Above and Below a Barrier	B. Sullivan; Evaluation of Bull Trout Passage Behaviour at a Nature- Like Fishway Built After Partial Dam Removal in Forty Mile Creek, Alberta, Canada	E. Lenihan; Effects of Regulated Flow on Nocturnal Patterns of Silver-Phase European Eel Migration Upstream of an Irish Hydropower Plant.
2:50	Break			

Tuesday - June 20th (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A6: Downstream Passage III	Session B6: Balancing Hydro Power Developments & Conservation: The Icelandic Master Plan	Session C6: Prioritization I	Session D6: Eel & Lamprey Passage III
3:10	F. Khan; A Study of Fish Injury and Survival at the High Head Bypass at Green Peter Dam, Oregon, USA	I. Jónsson; Hydro Power Plants in Iceland and Their Impact on Freshwater Fishes	J. Capurso; Salmon Superhighway: Fish, Habitat, and Community Connections at a Landscape Scale	R. Kroes; Fatal Attraction of Freshwater Flows: Migration of Glass Eel (<i>Anguilla anguilla</i> L.) from Sea to Inland Waters
3:30	P. Rauch; Downstream Passage of Potamodromous Fish at Small Hydropower Plants: Case Studies from Alpine Rivers	T. Eiríksson; Integrated Biological, Geological and Cultural Diversity of River Basins with Hydroelectric Potential	S. Bailey; Strategic Culvert Replacement: a Catalyst for Habitat Enhancement, Community Development and Improving Socio- Ecological Resiliency	R. McLaughlin; Spatial Mismatch Between Sea Lamprey Behaviour and Trap Location Explains Low Success at Trapping for Control
3:50	T. Lyons; Floating Trash Boom Design for the Cowlitz Falls Dam Fish Collector	G. Gíslason; The Use of Aquatic Organisms in Ecosystem Evaluation and How They Are Affected by Potential Hydro Power Development	R. Weiter; Watershed-Based Planning to Enhance Flood Resiliency and Ecosystem Benefits in New England and New York, USA	N. Corniuk; Passive Sorting of Invasive Sea Lamprey Using Selective Fish Passage
4:10	S. Müller; Numerical Investigation of the Influence of a Guide Wall in a Fish- Friendly Weir	S. Skúlason; The concept of the Icelandic Master Plan for Nature Protection and Energy Utilization: an Integrated Process Based Ecosystem Approach to Evaluating River Basins	A. Bowden; Measuring Performance of Nature Based Solutions to Demonstrate Multiple Benefits for Fish and People	M. Scurlock; Dynamic Structure Operations for Sea Lamprey Barriers
4:30	A. Babin; Atlantic Salmon Kelt Overwintering Behaviour and Spring Migration Rates in the Mactaquac Reservoir and Saint John River, Canada	T. Thordarson; Role of River Basin Geology and Geological Processes in Relation to Potential Hydro Power Developments in a Volcanic Environment	A. Singler; Using Prioritization Tools to Advance River Restoration On-the- Ground	N. Johnson; Efficacy of Pulsed Direct Current to Guide Migrating Sea Lamprey
4:50			L. Walter; Enhanced Aquatic Connectivity in the Great Lakes through Regional Collaboration	B. Quintella; Attraction and Passage Efficiency of a Vertical-Slot Fish Pass for Sea Lamprey
5:30 to 7:30	Poster Session, Social, Banquet			

Wednesday - June 21st (Morning Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
8:30	Breakfast			
8:45	Introduction			
8:55	Plenary Speaker: Dr. Kurt Fausch “What is Essential about Rivers for Fish and Humans”			
9:45	Film Screening			
10:30	Break			
	Session A7: Downstream Passage IV	Session B7: Culvert & Tide Gate Passage	Session C7: Ecology and Planning for Passage	Session D7: Water Quality
10:50	N. Ackerman; Successful Downstream Passage of Juvenile Salmonids at a Run-of- River Hydro Project in the Pacific Northwest	N. Bergeron; Brook Trout Exhibit Non-Continuous Swimming Behavior When Ascending a Corrugated Circular Culvert	I. Arismendi; Linking Hydroclimate and Fish Phenology to Fish Passage Using Ichthyographs	R. Laughery; Design and Evaluation of Lower Granite Dam Fishway Temperature Improvement Project in 2016
11:10	G. Wyatt; Population Level Response to 21st Century Fish Passage Infrastructure in the Upper Clackamas River Basin, Oregon, USA	A. Zucker; Fish Passage Culvert Designs and Retrofits – Case Studies from the Pacific Northwest	P. Adamsen; Denmark’s Largest Fauna Passage and the Integrated Conflicts Between Stakeholders	M. Politano; A Numerical Model to Estimate Fish Exposure to Elevated Temperature in McNary Dam
11:30	J. Renholds; Design of Surface Passage from Lower Granite Juvenile Bypass System Gatewells	P. Drobny; Drop Height and Water Velocity as Determinants of Successful Culvert Entry and Passage for Coastal Cutthroat Trout	W. Stewart; Building Barriers to Protect Southwestern Native Fish	A. Peters; Effects of an Intake Barrier Curtain to Reduce Algae Concentrations: The Iron Gate Dam Experience.
11:50	D. Trachtenberg; Assessment of Surface Passage from Lower Granite Juvenile Bypass System Gatewells	P. Smith; Fish Passage at Intertidal Obstructions	A. Gilmanov; Computational Agent- Based Model of Fish Swimming Through Mississippi River Locks and Dams Can Be Used as a Tool to Selectively Block Invasive Carp Passage	
12:15	Lunch			

Wednesday - June 21st (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A8: New Technology	Session B8: Telemetry I	Session C8: Road Crossings and Connectivity	Session D8: Passage Behavior I
1:30	A. Haro; Development of a Computer Vision System to Identify Sea Lamprey at Barrier Traps and Fishways	P. Hilgert; Tracking Adult Chinook Salmon Passage in White River, Washington, USA	C. Mount; An Update on the Fish Passage File in British Columbia, Canada	K. Cogliati; The Making of Designer Fish for Passage Studies
1:50	A. Colotelo; Regulatory Considerations for New Fish Passage Technologies	T. Steig; Evaluation of Two Acoustic Telemetry Signal Types on Fish Passage Studies	I. Kroll; Enhancing Aquatic Connectivity by Preventing Unintentional Fish Passage Barriers	M. Zaman; Multispecies Fish Passage Behaviour in a Vertical Slot Fishway in Laboratory System
2:10	L. Robinson; Review of Fish Passage Technologies at High- Head Dams	R. Cuthbert; Going Beyond Visible Light: Monitoring Adult Fish Passage in Turbid Conditions with Technological Advancements and a Sense of Public Outreach	S. Cierebiej; Washington State Department of Transportation's Fish Passage Program	G. Johnson; Smolt Responses to Hydrodynamic Conditions in the Forebay Flow Net of the Sluiceway Surface Flow Outlet at the Dalles Dam
2:30	T. Deligan; Whooshh Fish Passage – Results and Extrapolations from 2016 Scientific Studies	K. See; Estimating Salmon Escapement Across the Snake River Basin: a Novel Approach Using PIT tags	A. Chin; Determining Potential Functional Connectivity of Fish Species with Various Life History Traits	A. Pinheiro; Passage Behaviour of Potamodromous Cyprinids Negotiating a Small Experimental Weir: Passage by Swimming or Jumping?
2:50	Break			

Wednesday - June 21st (Afternoon Session)				
Time	Track A (Room #)	Track B (Room #)	Track C (Room #)	Track D (Room #)
	Session A9: Fishway Hydraulics	Session B9: Telemetry II	Session C9: Involving Stakeholders in Passage Solutions	Session D9: Passage Behavior II
3:10	M. Love; The Next Generation of Pool and Chute Fishways	A. Peter; Evaluation of the Effectiveness of Upstream Fish Passage Facilities in the River Rhine Using PIT-Tag Technology	R. Weiter; Struggles for Flood Resiliency and Aquatic Organism Passage in Rhode Island, USA.	S. Kucukali; An Investigation of the Hydrodynamic and Fish Behavior Characteristics of the Brush-Type Fish Passage: Iyidere Field Study, Turkey
3:30	B. Foster; An Investigation of the Hydraulics in a Prototype Pool-and-Chute, Vortex Weir Fishway for Anadromous Fish Passage.	E. De Oliveira; Predation of Atlantic salmon (<i>Salmo salar</i>) by the European catfish (<i>Silurus glanis</i>) in a Fishway: Analysis by Video and Acoustic Camera and RFID Telemetry.	C. Bozek; The National Fish Passage Program: Where We've Been, Where We're going, and Why We Need You!	F. Romão; Does Season Matter? Addressing Motivation of a Potamodromous Fish Species in an Experimental Full- Scale Vertical Slot Fishway
3:50	K. Plymesser; Effects of Froude Scaling on Turbulence in a Denil Fishway	D. Daniel; Acoustic Telemetry Development for Fish Passage		F. Romão; Passage Performance of Two Cyprinids with Different Ecological Traits in a Fishway with Distinct Vertical Slot Configurations
4:10	A. Haro; Hydraulic and Biological Analysis of Fish Passability of a Low- Head Stream Gauging Weir	J. Hughes; Evaluation of Juvenile Salmonid Passage and Behavior at Foster Dam Utilizing Radio Telemetry, 2015 and 2016		M. Gordos; Fish on the Move: Vertical-Slot Fishway PIT Monitoring Results for Two Australian Native Fish in the Murray-Darling Basin.
4:30	A. Quaresma; Can Vertical Slot Fishways (VSF) Operate with Less Water without Compromising Effectiveness?	K. Nebiolo; Removing False Positive Detections from Telemetry Data: An Algorithmic Approach		A. Ballu; Influence of the Presence of Sills on the Behavior of Brown Trout (<i>Salmo trutta</i>) in an Experimental Vertical Slot Fishway.
4:50	M. Garelo; The Reality of Fish Passage in Concrete Flood Channels			B. Kumar Ghosh; Seasonal Variation of Fish Migration in Sariakandhi Fish Pass
5:30	Conference Ends			