

Room	The Conference Center - 301	The Conference Center - 302	The Conference Center - 303	The Conference Center - 304
TUESDAY, SEP. 6	<u>Challenges in Monitoring, Outmigrating Juvenile Salmonids</u>	<u>Fisheries and Hard Rock Mining</u>	<u>Protecting Fish at Power Plant Cooling Water Intakes: New Developments and Science on Clean Water Act §316(b), Part 2</u>	<u>Nature-Like Fishways: Design, Assessment & Monitoring</u>
Moderator	Matthew Klungle	Bob Hughes	Thomas Englert	Laura Wildman
8:00 AM	Outmigrant Trapping in the Napa River – How to Start a Monitoring Program from Scratch Jonathan Koehler 44-1	Metal Mining Effects on Aquatic Biota: North American and South American Examples and Perspectives Robert M. Hughes 51-1	Speed Presentations: Hydrolox Fish Friendly Polymer Screens - Designed for Compliance with 316(b) Tim Woodrow 56-1 Fish Deterrent and Protection Using Non-Physical Barriers & Special Intake Screens Kaveh Someah 56-2	A Categorization of Nature-Like Fishways Worldwide Laura Wildman 54-1
8:15 AM	Estimating Chinook and Coho Salmon Smolt Abundance and Migration Timing Using a Rotary-Screw Trap, Anchor River, Alaska Jeffry Anderson 44-2	Water Quality and Fisheries Impacts of Mining in the North Fork Coeur D'alene River Subbasin, Idaho Kajsa E. Stromberg 51-2	Fine Slot and Mesh Size Screen Alternatives for Protecting Fish Eggs and Larvae at Cooling Water Intakes John A.D. Burnett 56-3	Nature-Like Fishways: Proceed, but Use Caution Brian Graber 54-2
8:30 AM	Mark-Recapture Estimates of Atlantic Salmon Smolts in Maine Rivers: Habitat and Trapping- Location, Location, Location Christine Lipsky 44-3	Fish Presence and Water Quality in a Proposed Copper Mining District, Alaska Sarah L. O'Neal 51-3	Role of Entrainment Survival in the BTA Selection Process John Young 56-4	Latest Experience with Nature-Like Fishpasses in Germany/Europe Uli Dumont 54-3
8:45 AM	The Influence of Holding Time and Mark Type on Trap Efficiency Estimates Todd L. Miller 44-4	Bristol Bay Salmon and Proposed Copper Mining: Risks to Fisheries Carol Ann Woody 51-4	Cooling Water Intake Study: Engineering, Costs, & Biological Efficacy on a Narrow, Sediment-Laden, & Barge-Heavy River Lorin K. Hatch 56-5	Inverted Partial Rock Ramp Fishway: Winchell-Smith Dam Case Study Jacob Helminiak 54-4
9:00 AM	Predation on Juvenile Salmon In Downstream Migrant Traps in Prairie Creek, California Walter Duffy 44-5	Integrating Sublethal Copper Neurotoxicity in Coho Salmon Across Scales of Biological Complexity Jenifer McIntyre 51-5	Abundance and Composition of Fish and Shellfish Impinged and Entrained at Power Plant Intakes Based on a Survey of Over 220 Power Plants Greg Seegert 56-6	Coastal Oregon Fish Passage Cara Mico 54-5
9:15 AM	A Comparative Analysis of Juvenile Steelhead Demographics in a Hydrologically Altered Watershed Richard B. Hartson 44-6	Neurobehavioral Effects of Copper on Salmon James A. Hansen 51-6	Coastal Fish Populations Fluctuate Independent of Once-Through-Cooling Water Use Eric Miller 56-7	Hydraulic and Biological Evaluation and Monitoring of Non-Traditional Fish Passage Structures Melissa Belcher 54-6
9:30 AM	Comparison of Juvenile Life History Strategies Exhibited by Steelhead within the Pottlatch River Drainage, Idaho Brett Bowersox 44-7	Avoidance of Salmonids to Copper: Does the BLM-Based Water Quality Criteria Provide Protection? William J. Adams 51-7	Relationships Between Entrainment and Larval Drift At a Large-River Power Plant Based on 2600 Samples Collected During a 2-Year Period John Thiel 56-8	Evaluation of Nature-Like Fishways at Two Coastal Streams in New England Abigail Franklin 54-7
TUESDAY AM BREAK				
Moderator	Justin Miller	Carol Ann Woody	Chuck Coutant	Laura Wildman
10:15 AM	Intra-Annual and Diel Variation in Catch Rates of Juvenile Chinook Salmon in the Sacramento-San Joaquin River Delta Peter Hrodey 44-8	Protectiveness of Water Quality Criteria for Copper in Western United States Waters Relative to Olfactory Responses in Pacific Salmon David K. DeForest 51-8	Using CODAR Data on Surface Currents to Estimate the Source Water Area for Fish Larvae Potentially Subject to Entrainment by the Diablo Canyon Power Plant Along the Coast of Central California John R. Steinbeck 56-9	Salmon Creek Chute-Pool Channel: Design and Performance Gary Wolff 54-8
10:30 AM	Species Composition and Migration Timing of Juvenile Fishes in the Upper Yukon River Parker Bradley 44-9	Challenges for Implementation of Copper Aquatic Life Criteria Using the Biotic Ligand Model: What Are We Waiting for? Robert W. Gensemer 51-9	Selectivity of Impingement at Power Plants along the Ohio River Ron King 56-10	Deformable Boulder Cascade Design Kathy Hoverman 54-9
10:45 AM	Non-natal Rearing by Canadian-Origin Chinook Salmon in Yukon River Tributary Streams David Daum 44-10	Should Lakes be Used for Mine Waste Disposal? David Chambers 51-10	Entrainment Sample Differs from Source Water Ichthyoplankton at Plant Vogtle, Savannah River, GA Tony Dodd 56-11	Integration of a Technical Fishpass and Eroded Natural Channel to Restore Upstream Fish Passage, Somes Brook, Somesville, Maine David Huntress 54-10
11:00 AM	Abundance and Survival of Juvenile Spring Chinook Salmon in the Chiwawa River, WA Andrew Murdoch 44-11	Design Concepts for Mitigating the Impacts of Metal Mines on Fish and Fish Habitat Greg Smyth 51-11	EPA's New 316(b) Rule: Do Biologists Have a Role? James N. Christman 56-12	Designing a Rock Ramp Fishway on Maine's Sedgeunkedunk Stream Matt Bernier 54-11
11:15 AM	Indexing Smolt Population Abundances with Trap Catches: Does it Work? Michael Sparkman 44-12	Comparison of Predicted and Actual Water Quality at Hard Rock Mines Ann S. Maest 51-12	Adverse Impacts of Cooling Water Withdrawals on Populations and Ecosystems: Separating Fact From Conjecture Larry Barnhouse 56-13	Rock Arch Rapids, Lock and Dam #1, Cape Fear River, NC Frank Yelverton 54-12
11:30 AM	Using Aerial Imagery and Fish Capture Data to Estimate Juvenile Pacific Salmon Abundance Jesse M. Coleman 44-13	Cleaning up after Mother Nature - the Red Dog Mine Experience Jonathan Houghton 51-13	Investigations into the Relationships between Fish Impingement and Fish Health Bill Garrett 56-14	Designing Fishways Based on the Natural Morphology of Steep Streams Michael Love 54-13
11:45 AM	Extending Spatial Resolution in Juvenile Salmon Migration Studies Using Otolith Microchemistry and GIS Prediction Jens Hegg 44-14	Restoring Trout Habitat in a Landscape of Western Abandoned Mines Pam Elkovich 51-14	Speed Presentations: Nearshore Biological Baseline and Fisheries Assessment at Marine Corps Base Camp Pendleton: A Regional Data Source to Supplement Site-Specific Assessments Brian Dresser 56-15 Climate Change: 316 to the Future John Balletto 56-16	Whychus Creek –Fish Passage and Screening in the Upper Deschutes Basin Troy Brandt 54-14

Room	The Conference Center - 305	Washington State Convention Center - 3A	Washington State Convention Center - 3B	Washington State Convention Center - 401
TUESDAY, SEP. 6	<u>Rigorous Adaptive Management Approaches to Benefit Fish Populations and Aquatic Ecosystems</u>	<u>Larval Dispersal, Population Connectivity and the Management of Marine Species</u>	<u>Food and Space Revisited: Drift-Foraging Ecology and Habitat Selection - Review</u>	<u>San Francisco Estuary: A Dynamic Confluence of Fisheries, Policy, and Resource Management</u>
Moderator	David Marmorek	Lorenz Hauser	John Hays; John Piccolo	Larry Brown
8:00 AM	Putting the M&E Back into Adaptive Management David R. Marmorek 57-1	Genetic Analysis and Mechanisms Shaping Larval Connectivity Gary R. Carvalho 53-1	A Review of Drift Foraging Models and Future Prospectus John Hayes 34-1	A Primer for Understanding Aquatic Resource Issues in the Upper San Francisco Estuary Larry R. Brown 58-1
8:15 AM	An Adaptive Management Approach for Coho Salmon and Steelhead Enhancement in Dry Creek (Russian River), CA David J. Manning 57-2	Larval Advection and Control Regulating Recruitment and Population Connectivity in an Upwelling System Steven Morgan 53-2		Crisis Management: The Decline and Fall of the Fishes of the San Francisco Estuary Ted Sommer 58-2
8:30 AM	Designs and Analytical Tools for Large Scale Habitat Enhancement Actions Chris Jordan 57-3	Larval Transport Mechanisms Along the Yucatan Coast of Mexico and into the Gulf of Mexico Trika Gerard 53-3	Historical Perspective on Drift Foraging Models for Stream Salmonids Kurt Fausch 34-2	Changes in the Foodweb Supporting Fishes of the Upper San Francisco Estuary: Why Species Matter Wim Kimmerer 58-3
8:45 AM	Reliably Determining the Status of Listed Salmonids: Valuable Insights for AM Practitioners Darcy Pickard 57-4	Climate Variability and Larval Transport from Spawning Aggregations Claire Paris 53-4	Experimental Data for Drift Foraging Models: What's New and What's Next John Piccolo 34-3	The New Low Carbon Diet Taking San Francisco Estuary Fish by Storm Lindsay Sullivan 58-4
9:00 AM	Adapting Monitoring to Management: the Elwha Dam Removal Martin Liermann 57-5	Modeling Reef Slope Coral Connectivity Daniel M. Holstein 53-5	The Effect of Drifting Debris on Drift-Feeding Fish and Foraging Models Jason R. Neuswanger 34-4	Histopathology Biomarkers as Tools to Characterize the Health Status of Delta Smelt Swee Teh 58-5
9:15 AM	Tradeoffs Between Implementation and Evaluation: Insights from the Trinity River Restoration Program Joe Polos 57-6	The Role of Local Retention Versus Subsidies in the Connectivity of Caribbean Spiny Lobster Populations Andrew Kough 53-6	Hydro-Morphologically Related Variance in Benthic Drift and Its Importance for Numerical Habitat Modelling Christoph Hauer 34-5	Variation in Reproductive Output of Cultured Female Delta Smelt Joan Lindberg 58-6
9:30 AM	M&E Challenges in Platte River Program Adaptive Management Chadwin Smith 57-7	Reef Soundscapes and Larval Fish Settlement Erica Staaterman 53-7	Empirical Salmonid Habitat Suitability Criteria and Bioenergetics Predictions Compared Craig Adley 34-6	Modeling Stressor Effects on Delta Smelt Population Dynamics Kenneth A. Rose 58-7
TUESDAY AM BREAK				
Moderator	David Marmorek	Gary Carvalho	John Hays; John Piccolo	Larry Brown
10:15 AM	Nisqually Delta Restorations: Design, Monitoring and Evaluation Isa Woo 57-8	Modeled Connectivity Between Northern Rock Sole Spawning and Settlement Areas in the Eastern Bering Sea Dan Cooper 53-8	Scaling up from Drift Foraging to Population Responses Steven F. Railsback 34-8	The Intersection of Science and Policy in the Management of Delta Smelt Victoria Poage 58-8
10:30 AM	Developing an AM Plan to assist in the recovery of two ESA-listed species in the Middle Rio Grande. Carol L. Murray 57-9	Basin-Scale Connectivity of Blue Marlin in the Western Atlantic Jay R. Rooker 53-9		Application of a Particle Tracking Model for San Francisco Estuary Striped Bass Eggs and Larvae Erik Loboschewsky 58-9
10:45 AM	Adaptive Management in Coastal Louisiana Barrier Island Restoration: Improved Implementation Through Design, Monitoring and Evaluation Denise J. Reed 57-10	Natal Source Contributions of Pacific Cod Recruits in the Southeastern Bering Sea Ruth A. DiMaria 53-10	Not All Drift Feeders Are Trout Gary Grossman 34-7	Assessing the Impacts of Microcystis on Threadfin Shad in the San Francisco Estuary Shawn Acuña 58-10
11:00 AM	Kissimmee River: Adaptive Learning on Multiple Scales M. Kent Loftin 57-11	Efficacy of Inducing Sr Marks in Otoliths of Larval Viviparous Fishes: Comments on the Utility of Larval Otolith Marking in Determining Dispersal of US Fishery Resources Raymond Buckley 53-11	Stream Foraging Brown Trout: Responses to Woody Debris and Terrestrial Invertebrates Eva Bergman 34-9	Genetic Structure and Patterns of Annual Genetic Diversity Among Collections of Longfin Smelt in the San Francisco Bay-Delta Joshua Israel 58-11
11:15 AM	Evaluating Supplementation Hatcheries Against Expectations and Revising Operations Jay Hesse 57-12	Untangling Gene Flow and Reproductive Success in Highly Fecund Marine Species with Type-III Survival Dennis Hedgecock 53-12	Juvenile Salmonid Prey in the Lower Columbia River: Availability and Consumption of Invertebrates Kate H. Macneale 34-10	The Use of Otolith Strontium Isotopes (⁸⁷ Sr/ ⁸⁶ Sr) to Identify Nursery Habitat for a Threatened Estuarine Fish James Hobbs 58-12
11:30 AM	Okanagan Sockeye Re-Introduction to Skaha Lake: Progress 4 Years into an Adaptive Management Experiment Richard J. Bussanich 57-13	Discovery of Genes Under Selection in Marine Species: Impact on Estimates of Connectivity and Local Adaptation Steven Palumbi 53-13	Relation of Prey Availability to Habitat Selection for Red Drum in an Urban Waterway in New Orleans, LA Patrick W. Smith 34-12	Invaders Helping Invaders: Brazilian Waterweed Facilitates Expansion of Largemouth Bass in Sacramento-San Joaquin Delta Kelly Weinersmith 58-13
11:45 AM	AM in Real Time: Fish-Water Management Tool Applied to Okanagan Sockeye Kim Hyatt 57-14	Direct and Indirect Genetic Methods Reveal Patterns of Larval Connectivity in Space and Time Mark Christie 53-14		Vegetation Associated Invertebrates in the Sacramento-San Joaquin Delta Matt Young 58-14

Room	Washington State Convention Center - 4C-1	Washington State Convention Center - 4C-2	Washington State Convention Center - 4C-3	Washington State Convention Center - 4C-4
TUESDAY, SEP. 6	<u>The Cutting Edge of Bycatch Management: Science, Policy and Engineering, Part 1</u>	<u>Connecting Climate Science to Fisheries Management and Ecology in a Changing World</u>	<u>Coastal Cutthroat Trout Symposium: Research, Status, and Conservation</u>	<u>Colonization and Reintroduction of Anadromous Salmonids</u>
Moderator	Ted Castro-Santos	Andrea Ray	Xan Augerot	George Pess; Peter Galbreath
8:00 AM	The First U.S. National Bycatch Report Samantha Brooke 38-1	Overview of the Session: Understanding and Responding to Climate Change Impacts on Marine and Coastal Fisheries Roger B. Griffis 48-1	Spatial Segregation in Spawning Sites of Coastal Cutthroat Trout and Steelhead and Implications for Hybridization Thomas Buehrens 45-1	Salmon and Trout Transplants to New Environments Thomas Quinn 46-1
8:15 AM	Bycatch, Biodiversity and Understudied Species in the Northwest Atlantic Adrian Jordaan 38-2	On the Use of IPCC-Class Models to Assess the Impact of Climate Change on Living Marine Resources Charles Stock 48-2	Can Landscape Models Discriminate Where Steelhead or Cutthroat Rear? Ron Ptolemy 45-2	Captive Breeding for the Restoration of Endangered Atlantic Salmon Ian Fleming 46-2
8:30 AM	Spatial and Temporal Characteristics of Bycatch in Northern Shrimp Fisheries in the Gulf of Maine Christopher Rillahan 38-3		Use of Acoustic Telemetry to Reveal the Movements of Anadromous Coastal Cutthroat Trout in Hood Canal, WA Fred Goetz 45-3	Dam Removal Allows Re-Colonization of Historic Habitat by Three Species of Anadromous Fish in Sedgeunkedunk Stream, Maine Rory Saunders 46-3
8:45 AM	Discarding and Total Fishing Mortality Trends in the U.S. Pacific West Coast Groundfish Demersal Trawl Fishery Marlene A. Bellman 38-4	Ocean Acidification, the Other CO2 Problem Richard Feely 48-3	Cold Water Refuges and Coastal Cutthroat Trout Movement in the Willamette River Stanley Gregory 45-4	Adaptive Phenotypic Plasticity and the Successful Invasion of New Habitats by Non-Native Brown Trout Peter Westley 46-4
9:00 AM	Bycatch of Protected Species and Species of Concern in US East Coast Commercial Fisheries Erika Zollett 38-5	Climate Modeling for Ecosystems Studies: Ensemble Approaches Nicholas Bond 48-4	Snorkeling and Electrofishing: Comparing Cutthroat Population Estimate Methodologies at the Basin Scale Erik Suring 45-5	Natural Salmonid Colonization of Streams Following Glacial Retreat; Drivers and Implications for Natural Recovery Alexander Milner 46-5
9:15 AM	Unraveling Bycatch: The Multi-Layered Policy Context for Bycatch Management Doug Rader 38-6	Downscaling Climate Simulations Using a Multi-Scale Model: Ecosystem Considerations Enrique Curchitser 48-5	Biology of Coastal Cutthroat Trout at the Northern Extent of Their Range Thomas Williams 45-6	The Ecological Effects of Salmon Colonization: Cedar River, WA George R. Pess 46-6
9:30 AM	Implications of Ecosystem-Based Fisheries Management for Defining, Assessing and Addressing Bycatch Michael Fogarty 38-7	Modeling Climate Impacts on Northeast Fisheries and Ecosystems Jonathan Hare 48-6	Growth Dynamics of Coastal Cutthroat Trout in Headwater Streams Douglas Bateman 45-7	Return of the King Salmon: Dispersal Patterns for Spawning Cedar River Chinook Salmon after Circumvention of a Century-Old Migration Barrier Karl Burton 46-7
TUESDAY AM BREAK				
Moderator	Jake Kritzer	Charlie Stock	Roger Harding	George Pess; Peter Galbreath
10:15 AM	Evaluating Bycatch to Inform Seafood Consumers and Businesses Robin Pelc 38-8	Expansion of the Subtropical Biome in the North Pacific Under Global Climate Change Jeff Polovina 48-7	Putting Coastal Cutthroat Trout on the Map: Increasing Knowledge Through Documented Occurrence Data Kitty Griswold 45-8	Colonization of Wild and Hatchery Steelhead in a Small Tributary After Barrier Removal Dana E. Weigel 46-8
10:30 AM	Application of Environmental Management Systems to Meet Bycatch and Energy Conservation Goals Steve Eayrs 38-9	Predictions of Pacific Top Predator Diversity Using Global Climate Change Models Elliott Hazen 48-8	Cutthroat Trout Data and Conservation Planning Xanthippe Augerot 45-9	Efforts to Reinvoke the Steelhead Life History in Beaver Creek Patrick J. Connolly 46-9
10:45 AM	Designing Catch Shares to Effectively Manage Bycatch Kate Bonzon 38-10	Climate Change and Location Choice in the Pacific Cod Longline Fishery Lisa Pfeiffer 48-9	Population Structure of Coastal Cutthroat Trout in Mt. Hood National Forest Christian Smith 45-10	Study Designs and Preliminary Results in the Evaluation of Various Steelhead Responses to the Removal of a Dam on a Key Tributary to the Wind River in Southwest Washington Daniel Rawding 46-10
11:00 AM	Developing Risk Pools to Work within Bycatch Quota Constraints Merrick Burden 38-11	Integrative Research for Assessing the Impacts of Climate Change on Pacific Salmon Mark D. Scheuerell 48-10	Coastal Cutthroat and Intermittent Island Streams Russel Barsh 45-11	Evaluating Best Practices for Reintroductions: Case Studies in the Columbia Basin Michelle McClure 46-11
11:15 AM	Managing Rare Bycatch Events in the Pacific Groundfish Trawl Fishery Dan Holland 38-12	Infusing Climate Change Information into Biological Opinions and Assessments Robert S. Webb 48-11	Population Fluctuations of Coastal Cutthroat Trout in Irely Creek, Washington Robert L. Vadas Jr. 45-12	Yakama Nation Mid-Columbia Coho Reintroduction Programs Cory M. Kamphaus 46-12
11:30 AM	The Impacts of Cooperatives for Bycatch Reduction in the Multispecies Trawl Fleet of the Bering Sea/Aleutian Islands Joshua Abbott 38-13	Incorporating Environmental Variability into a Management Strategy Evaluation Z. Teresa A'mar 48-12	Smolting in Coastal Cutthroat Trout Joseph Zydlewski 45-13	Colonization of Coho Salmon Above Natural Barrier Falls in Oregon: A History of Supplementation and the Expansion of Coho Salmon Range Above Willamette Falls Todd Aisbury 46-13
11:45 AM	Protecting Sea Turtles and Improving Fisheries Pamela Baker 38-14	Forecasting Returns of Coho and Chinook Salmon in the Northern California Current in the Face of Climate Change: a Role for High-Frequency Long Term Observations William T. Peterson 48-13	Early Marine Migration Patterns of Coastal Cutthroat, Steelhead, and Their Hybrids Megan Moore 45-14	Reintroduction of Spring Chinook Salmon into Lookingglass Creek, Oregon Steve Boe 46-14

Room	Washington State Convention Center - 602	Washington State Convention Center - 603	Washington State Convention Center - 604	Washington State Convention Center - 606
TUESDAY, SEP. 6	<u>Effects of Renewable Energy Installations on Marine Eco-systems</u>	<u>Contributed Papers- Anadromous, Diadromous, and More-Striped Bass and Others</u>	<u>Best Student Paper, Part 2</u>	<u>Human Influence on Connectivity and Population Structure for River Fishes</u>
Moderator	Mark Hartl	Roy Leidy	Tracy Galarowicz; Jill Leonard	Aimee Fullerton
8:00 AM	Setting Priorities for Environmental Effects of Tidal and Wave Development Andrea Copping 50-1	An Evaluation of Exclusionary Devices at the Taunton River Desalination Plant Stephanie Wilson 32-1	Examining the Distribution and Spatial Interaction of Juvenile and Adult Sea Scallops with High-Resolution Still Imagery Jonathan D. Carey 31-1	Channel Fragmentation by Dams: How It Interacts with Species Diversity and a Changing Climate, From Global to Regional Scales Catherine Reidy Liermann 52-1
8:15 AM	Assessment of Benthic Habitats and Communities in Areas Targeted for Offshore Wave Energy Development Sarah K. Henkel 50-2	Quantifying the Contribution of Diadromous Species to the Diets of Marine Predators in the Gulf of Maine Nicole C. Mehaffie 32-2	Resolving Mixed Stocks In Highly Migratory Species Utilizing Bayesian Clustering, SNPs, and High-Resolution Melting Brad L. Smith 31-2	Connectivity, Fish Communities, and Human Impacts: an Integrated River Systems Perspective Scott G. Leibowitz 52-2
8:30 AM	Waves, Beaches and Critical Fish Spawning Habitats: Potential Impacts of Marine Energy Development Karen L. Martin 50-3	Predicting the Impact of Poor Nutritional Status on Immune Function in Striped Bass <i>Morone saxatilis</i> Lonnie Gonsalves 32-3	Heavy Metal Food Chain Amy K. Koske 31-3	Discontinuities in River Networks Peter Kiffney 52-3
8:45 AM	Effects of Fluid Forces of Conventional Hydroelectric Turbines on Fish – Implications for Hydrokinetic Projects Sharon H. Kramer 50-4	Testing Predictions of Striped Bass Habitat Use with Telemetry Richard Kraus 32-4	The Effects of Electropositive Metals on Shark Catch Rates and Feeding Behavior Melanie Hutchinson 31-4	Role of Connectivity in Survival and Persistence of Potamodromous and Non-Migratory Salmonids Robert E. Gresswell 52-4
9:00 AM	Near-Field Interactions of Hydrokinetic Turbines and Fish Paul T. Jacobson 50-5	Which Tissues Provide the Best Results in Evaluating Striped Bass Diet Using Fatty Acid Signatures? E.J. McGinley 32-5	Effects of Geoduck Aquaculture On Predation and Growth of Non-Target Clams Hans Hurn 31-5	Potential Influences of Individual Mobility and Habitat Use on Vulnerability of Stream Fish Populations to Habitat Fragmentation Paul L. Angermeier 52-5
9:15 AM	Modeling Probability of Encounter with Hydrokinetic Devices in Riverine and Ocean Currents Peter E. Schweizer 50-6	Reproductive Characteristics of the Albemarle/Roanoke Striped Bass Stock Jacob Boyd 32-6	Delta-AdaBoost: An Alternative Approach In Catch and Bycatch Analyses with High Percentage of Zeros Yan Li 31-6	Assessing Migration Success in Altered River Corridors Christopher C. Caudill 52-6
9:30 AM	Challenges When Characterizing Biological Communities at Marine Kinetic Energy Sites John Horne 50-7	Biological Reference Points for Nutritional Status of Chesapeake Bay Striped Bass John Jacobs 32-7	Ontogeny of Visual Ecophysiology in Black Sea Bass (<i>Serranidae: Centropomus striata</i>) Kendyl E.C. Crawford 31-7	Damming in the Mekong River and Its Impacts on Fish Migration Michio Fukushima 52-7
TUESDAY AM BREAK				
Moderator	Andrea Copping	Roy Leidy	Tracy Galarowicz; Jill Leonard	Aimee Fullerton
10:15 AM	Field Evaluation of Fish Interactions with a Commercial-Scale Marine Hydrokinetic Device Haley A. Viehman 50-8	How Suitable Are Highly Productive, North-Temperate Reservoirs for Hybrid Striped Bass Growth? Emily A. Burbacher 32-8	Science for Marine Spatial Planning: Fisheries Ecosystem Dynamics of Rhode Island's Coastal Waters Anna Malek 31-8	Habitat Fragmentation and Degradation Driving Danube Salmon (<i>Hucho hucho</i>) to Extinction Stefan Schmutz 52-8
10:30 AM	Developing Capabilities for Tidal Hydrokinetic Blade Strike Monitoring Brian Polagye 50-9	Density and Migration of Age 0 Striped Bass throughout a Natal Estuary: an Ideal Free Distribution? Christian W. Conroy 32-9	Nekton Responses to an Anthropogenically-Fragmented Salt Marsh Landscape. Michael R. Lowe 31-9	Case Studies of Connectivity and Non-Native Fish Dispersal in the U.K. Gordon Copp 52-9
10:45 AM	Assessing Risk to Migrating Fishes of Interactions with Turbines in Minas Passage, Bay of Fundy Anna M. Redden 50-10	Interannual Variation in Female Reproductive Energetics: The Importance of Energy Reserves on Chesapeake Bay Striped Bass Reproductive Potential Adam C. Peer 32-10	Fine-Scale Population Genetic Structure of Lake Erie Yellow Perch Timothy J. Sullivan 31-10	Connectivity Influences Translocation Success of Arkansas Darter in Fragmented Streams of the Western Great Plains Matt Groce 52-10
11:00 AM	Approaches to Ambient Noise Characterization at Tidal Energy Sites Christopher S. Bassett 50-12	Natal Origin of North Carolina Central Southern Management Area Striped Bass Determined by Otolith Chemistry Jeffrey M. Dobbs 32-11	Pollution of Tropical Island Stream Ecosystems: Relation of Biotic Accumulation to Land Use and Trophic Dynamics Elissa N. Buttermore 31-11	Hybridization in Native Redband Trout in the Context of Hatchery Introductions and Habitat Modifications in the Boise River Helen Neville 52-11
11:15 AM	Synthesizing the Effects of Acute Ship Noise Associated with Liquid Natural Gas Terminals on the Blood Chemistry of Selected Marine Teleosts John Mandelman 50-13	The Geomorphological Complexity of a New England Estuary and Its Role in Shaping Seasonal Habitat Use and Site Fidelity of Striped Bass on a Foraging Migration Cristina G. Kennedy 32-12	Effects of Contaminants on the Reproductive Success of American Eels Andrea Carey 31-12	Juvenile Coho Salmon Distribution in Stream Networks of the Mid-Oregon Coast: Implications for Conservation Rebecca Flitcroft 52-12
11:30 AM	Marine Mammals, Noise and Tidal Turbine Demonstration Sites Dominic Tollit 50-14		Quantifying Ingress Patterns of Atlantic Menhaden Using Spectral Analysis Renee Reilly 31-13	The Effects of Hatcheries on Estuarine Life History Expression by Wild Juvenile Salmon Daniel L. Bottom 52-13
11:45 AM	Acoustic Based Compliance Monitoring for Tidal Turbines Thomas Carlson 50-15		Pre-Migration Patterns of Growth, Energy Dynamics, and Resource Use in Multiple Cohorts of Juvenile Bluefish in the Hudson River Estuary, New York David Stormer 31-14	Contrasting Different Classes of Connectivity Among Salmon Populations: Syntheses and Synergism of Genetics and Demographics Paul Moran 52-14

Room	Washington State Convention Center - 607	Washington State Convention Center - 608	Washington State Convention Center - 609	Washington State Convention Center - 611
TUESDAY, SEP. 6	<u>Effective Fish Habitat Conservation: Assessment, Protection, and Rehabilitation, Part 1</u>	<u>Salmon Spawning Levels and Ecosystem Connections</u>	<u>Parameters That Aren't: Time-Varying Effects in Stock Assessment</u>	<u>Using Models to Evaluate Predator/Prey Balance (or Imbalance) in the Great Lakes</u>
Moderator	Sarah Sandstrom	John Lombard	Mike Wilberg	Mike Jones
8:00 AM	Quantifying the Impacts of Shoreline Armoring on Puget Sound Nearshore Ecosystems Sarah M. Heerhartz 49-1	Long-Term Perspective on Salmon Abundance and Effects on Aquatic Ecosystems Bruce Finney 37-1	Nonlinearity in the Relationship Between CPUE and Abundance for Orange Roughy Allan Hicks 55-1	Advancing Through the Scales of Modeling Endeavor James Kitchell 59-1
8:15 AM	Shoreline Restoration: Lessons Learned from Highly Developed Lakes in Northern Indiana Mark Prancus 49-2	Salmon as Geomorphic Agents in Gravel-Bed Rivers Marwan Hassan 37-2	Catch-at-Age Assessment in the Face of Time-Varying Selectivity Brian Linton 55-2	
8:30 AM	Evaluation of Ecological Impacts of Living Shoreline Restoration: Connection to Policy and Management Jana Davis 49-3	Using Dendrochemistry to Detect Marine Derived Nitrogen in Annual Tree Rings Jody R. Gerdtz 37-3	Designing Regulatory Systems That Are Robust to Uncertainties Caused by Changes in Production and Observation Parameters Carl Walters 55-3	Overview of Trophic Dynamics in Great Lakes Food Webs David B. Bunnell 59-2
8:45 AM	Ecological Responses to Habitat Enhancements of an Urban Intertidal Seawall Maureen Goff 49-4	Grass-Fed Salmon? Using Stable Isotopes to Discriminate Energy Pathways in Headwater Streams, Kenai Lowlands, Alaska Matthew P. Dekar 37-4	Multivariate Autoregressive Processes for Estimating the Covariance of Time-Varying Pre-Recruit Productivity Colin Minto 55-4	Invasive Fish: To Manage for the Ecosystem or Economics? John M. Dettmers 59-3
9:00 AM	Habitat for Hard Places: Concepts and Lessons from the Ship Channel of the Cuyahoga River Jim White 49-5	Marine-Derived Nutrients, Bioturbation, and Ecosystem Function Gordon Holtgrieve 37-5	Decreasing Selectivity at Large Sizes or Higher Mortality on Fast-Growing Fish? Ian Taylor 55-5	The Effect of Different Balancing Approaches on a Food-Web Model of Lake Huron Brian J. Langseth 59-4
9:15 AM	Improving the City of Bellingham Shoreline by Integrating Cleanup, Habitat Restoration, and Public Access Renee LaCroix 49-6	Aquatic Insect Production as Related to Pacific Salmon Spawning and Carcass Availability: Insights from Research to Date Jason Walter 37-6	Using Random Walks for Time Varying Parameters: Some Positives, Drawbacks, and Alternatives James R. Bence 55-6	Exploring Ecosystem-Level Impacts of Alternative Salmonid Stocking Strategies in Lake Michigan Mark Rogers 59-5
9:30 AM	Restoration Alternatives for Armored Puget Sound Public Shorelines Peter Hummel 49-7	Spawning Salmon and Bats Scott Florin 37-7	Stock Status Estimates Using Integrated Models With Functional-Form and Random-Walk Catchability James Thorson 55-7	Exploring How Invasive Species Have Altered Biomass Flow and Food Web Properties in Lake Huron Yu-Chun Kao 59-6
TUESDAY AM BREAK				
Moderator	Sarah Sandstrom	John Lombard	Jim Bence	David Bunnell
10:15 AM	Balancing Fish Habitat, Marina Design, Shoreline Preservation, and Public Access in High Value Salmon Rearing Habitat on Shuswap Lake Darryl Arsenault 49-8	Interspecies Relationships between Pink and Coho Salmon in Ford Arm Creek, Southeast Alaska Leon Shaul 37-8	Density-Dependent Growth and Biological Reference Points Jon Brodziak 55-8	Potential Impacts of Asian Carps on the Food Web and Fisheries in a Lake Michigan Estuary Hongyan Zhang 59-7
10:30 AM	Shoreline Master Program Updates: Using Policy to Improve Shoreline Conditions in Washington State Dan Nickel 49-9	The Use of Habitat Models to Set Ecosystem-Based Escapement Targets and a Plan for Achieving Them Hal Michael Jr. 37-9	Consequences of Alternative Catchability Models for a Stock Assessment of American Eels Michael Wilberg 55-9	Assessing Changes in Prey Abundance in Relation to Salmonine Predation in Lake Michigan IyobTsehaye 59-8
10:45 AM	Bring Back the Beach: Removing Barriers While Improving Habitat Mark Garff 49-10	Forecasting Contaminant Transport to Great Lakes Tributaries by Introduced Pacific Salmon David J. Janetski 37-10	Spatial Modeling in a Changing Environment Peter Hulson 55-10	Lower Food Web Dynamics in the Great Lakes: Implications for Changes in Prey Fish Production Richard Barbiero 59-9
11:00 AM	Estuarine Restoration – Urban Industrial Context George Blomberg 49-11	Focused Discussion John Lombard 37-11	Propagation of Process Error Through the Linkage of Forecasts to Assessments Richard D. Methot Jr. 55-11	Invertebrate Planktivory in Lake Ontario Lars G. Rudstam 59-10
11:15 AM	Green Shorelines: Multi-Agency Coordination to Encourage Shoreline Enhancement Through Voluntary and Policy Approaches Joe Burcar 49-12		Time Variation in Natural Mortality, Gear Selectivity, and Maturity in Sitka Sound Herring Terrance J. Quinn II 55-12	Can Fish Planktivores Exert Top-Down Control on the Lake Huron Mysid Population? David M. Warner 59-11
11:30 AM	Fish Utilization of Habitat Features Incorporated into Levee Repairs on the Lower Sacramento River, California David Zajanc 49-13		SCAA Estimates of Lake Trout Natural Mortality in Lake Huron: Constant, Age-Specific, or Time-Varying Age-Specific Ji X. He 55-13	Prey Supply and Demand in Offshore Waters of Lake Superior: Does Diel Vertical Migration Stabilize Predator-Prey Fluctuations? Thomas R. Hrabik 59-12
11:45 AM	Integration of Aquatic Habitat Restoration, Superfund Clean-up and Industrial Development in Commencement Bay Jason Jordan 49-14		Surplus Production Models with Time-Varying Parameters for Multispecies Complexes Genevieve Nessler 55-14	Recent Invasive Species Induced Changes to the Saginaw Bay Food Web: Insights from Bioenergetics Analyses Tomas O. Höök 59-13

Room	Washington State Convention Center - 612	Washington State Convention Center - 613	Washington State Convention Center - 614	Washington State Convention Center - 615
TUESDAY, SEP. 6	<u>Aquatic Invasive Species Control and Native Species Restoration: Technical and Regulatory Challenges</u>	<u>Contributed Papers - Ecosystem Management</u>	<u>Contributed Papers- Population Dynamics</u>	<u>Disease Ecology</u>
Moderator	Brian Finlayson	Donald MacDonald	Tucker Jones	Diane Elliott; Paul Hershberger
8:00 AM	Overview of Technical and Regulatory Challenges Facing Invasive Alien Species Control and Native Fish Restoration Brian Finlayson 42-1	Regulation of Reservoir Food Webs by External Nutrient Inputs Bryan Kinter 39-1	Stage-specific Biomass Compensation by Juveniles in Response to Increased Adult Mortality Jan Ohlberger 41-1	Fish Disease Ecology in the Great Lakes Stephen C. Riley 33-1
8:15 AM	Aquatic Invasive Species in British Columbia's Lakes and Streams; Who Are They and What Is Being Done? Leif-Matthias Herborg 42-2	SEFA - System for Environmental Flow Analysis Thomas Payne 39-2	Evaluating the Flexibility of Fine-Scale Individual-Based Movement Models Calibrated with a Genetic Algorithm Katherine E. Shepard 41-2	Characterizing the Adaptive Potential of Chinook Salmon to Resist Disease Maureen Purcell 33-2
8:30 AM	Invasive Spiny-Ray Fish Eradication Program, Thompson Drainage, British Columbia Andrew D. Klassen 42-3	Stream Mitigation: a New Approach on the Texas Coastal Plain Michael Morgan 39-3	Detecting Potential Population Trends in Non-Commercial Northeast Species Anna R. Webb 41-3	Emergence and Spread of Viral Hemorrhagic Septicemia in the Laurentian Great Lakes: Status of Knowledge and Lessons Learned Mohamed Faisal 33-3
8:45 AM	Piscicide Use on Forest Service Lands Dan Duffield 42-4	How Road Networks Affect Stream Fish Assemblages Laura MacPherson 39-4	Resource Competition Induces Heterogeneity and Beneficial Population Selection Jennifer L. Gosselin 41-4	Are Round Goby a Model Species for Studying the Ecology of VHSV in the Wild? Rod Getchell 33-4
9:00 AM	Challenges in Nevada for Recovery of Lahontan and Bonneville Cutthroat Trout Christopher Crookshanks 42-5	Measuring the Implementation Success of Watershed-Based Fisheries Management Plans Christine L. Tu 39-5	An Evaluation of the Synchronization of Blue Crab Populations Along the Atlantic Coast Using Landings and Survey Data Amanda R. Colton 41-5	Ecology of Diseases in Pacific Herring Paul K. Hershberger 33-5
9:15 AM	A Decade of Chasing a Fish Tail: Thwarted Recovery of Paiute Cutthroat Trout in California-What Have We Learned William Somer 42-6	Arriving at a Framework for Classification of Representative Aquatic Ecosystems in Ontario Stephanie J. Melles 39-6	The Effect of Dreissenid Mussels on the Strength of Density Dependent Growth and Recruitment of Lake Whitefish in Lake Huron Jenilee Gobin 41-6	Causes of Emergence of a Novel Virus in Washington Coastal Steelhead Trout Gael Kurath 33-6
9:30 AM	A Retrospective of the Cherry Creek Westslope Cutthroat Trout Introduction Project, 1997-2011 Carter Kruse 42-7	The Fish Habitat Web - Online Presence and Communication Tools Jon Marshall 39-7	Three Forms of a Juvenile Index for River Herring Linda S. Barker 41-7	Impaired Compensatory Growth Following Disease Exposure in Fasting Herring J. J. Vollenweider 33-7
TUESDAY AM BREAK				
Moderator	Don Skaar	Donald MacDonald	Tucker Jones	Diane Elliott; Paul Hershberger
10:15 AM	Using New Technologies for the Control of Filter-Feeding Aquatic Invasive Species Like Asian Carps Jon J. Amberg 42-8	Cumulative Effects Assessment in an Intensively Mined Central Appalachian Watershed E. R. Merriam 39-8	Oceanographic, Watershed and Anthropogenic Drivers of River Herring Productivity Adrian Jordaan 41-8	Ecosystem Predictors for a Bacterial Infection in Puget Sound Juvenile Chinook Salmon Linda D. Rhodes 33-8
10:30 AM	Eradication of Invasive Fishes on Pacific Islands Leo G. Nico 42-9	Comparison of Large River Fish Index of Biological Integrity (IBIs) in the Allegheny and Monongahela Rivers in Pennsylvania Richard Spear 39-9	Channel Catfish Population Estimates in the Lower Platte River, Nebraska Aaron J. Blank 41-9	Temperature Effect on Pre-Spawn Mortality of <i>Ichthyophonus</i> -Infected Chinook Salmon in the Yukon River Richard Kocan 33-9
10:45 AM	Enhancing Efforts to Control an Invasive Species: The Northern Snakehead Josh Newhard 42-10	Assessing Land Use Regulations in Developing, Rural King County, WA Gino Lucchetti 39-10	Current and Historic Status of Shortnose Sturgeon in the Altamaha River, Georgia Michael S. Bednarski 41-10	Fishing Out Marine Parasites? Impacts of Fishing on the Abundance and Diversity of Fish Parasites Chelsea L. Wood 33-10
11:00 AM	Regulatory Challenges in New York for Native Fish Restoration and Invasive Alien Species Control Chris VanMaaren 42-11	Habitat Status and Trends: an Adaptive Approach to the Diagnosis & Treatment of Ecosystems Jesse Schwartz 39-11	Shovelnose Sturgeon Population Characteristics in the Lower Platte River, NE Jeremy J. Hammen 41-11	Mycobacteriosis in Chesapeake Bay Striped Bass Wolfgang K. Vogelbein 33-11
11:15 AM	Roteneone and Live Gene Banking: Conservation and Rebuilding of Local Stocks After Treatment Arne Sivertsen 42-12	Missouri River Basin Aquatic Gap Gust M. Annis 39-12	Spatial and Temporal Distribution of Spawning Effort for White Bass in Pool 4 of the Arkansas River Brandon W. Baker 41-12	Does Biodiversity of the Alternative Host Influence Whirling Disease Dynamics? Billie Kerans 33-12
11:30 AM	Technical and Political Challenges Facing <i>Gyrodactylus salaris</i> Control in River Vefsna, Norway JarleSteinkjer 42-13	A Decision Support Framework for Sustaining Alabama's Fisheries Resources: A Risk-Based Triple Bottom Line Approach David Hanson 39-13	Using Large-Scale Population Manipulation to Understanding Source-Sink Dynamics of Invasive Brown Trout W. Carl Saunders 41-13	Ecology of Ceratomyxosis in the Klamath River Jerri Bartholomew 33-13
11:45 AM	Water Quality and Biological Response Following Roteneone Treatment of Diamond Lake, Oregon Joe Eilers 42-14	Development of the Asotin Creek Intensively Monitored Watershed Project with Specific Emphasis on Experimental Design and Implementation Considerations Tom Loughin 39-14	Development of A Life-History Framework for the Assessment of Arctic Charr Stocks in the Canadian Arctic Marie-Julie Roux 41-14	Atlantic Salmon and <i>Gyrodactylus</i> parasite: Coevolution Jaakko Lumme 33-14

Room	Washington State Convention Center - 616	Washington State Convention Center - 617	Washington State Convention Center - 618	Washington State Convention Center - 619	Washington State Convention Center - 620
TUESDAY, SEP. 6	Hatchery Nutrition: Feeding Fish for Tomorrow's Changing	Improving Research and Management of Columbia River Fish and Wildlife: Two Decades of Independent Scientific Review	Comparative Analysis of Marine Fisheries and Ecosystems	Assessing the Role of Marine Protected Areas in Restoring, Sustaining, and/or Enhancing Fisheries	Contributed Papers- Marine and Estuarine Fishes
Moderator	Heidi Lewis	Bob Naiman	Olaf Jensen	Robert Brock	Hem Nalini Morzaria-Luna
8:00 AM	Overview of the U.S. Fish and Wildlife Service Pacific Region's Fish Feed Quality Control Program Heidi Lewis 35-1	The Microscope and the Kaleidoscope: Independent Science in the Columbia River Basin Erik Merrill 36-1	Collapse and Recovery of Marine Stocks: How Different are Conservation Biology and Fisheries Science Criteria? Julia K. Baum 47-1	MPAs Matching the Tools to the Objectives Ray Hilborn 43-1	Sustainable Lobster Fisheries Management: Reproductive Value As a Criteria Cailin Xu , 138-1
8:15 AM	NOAA/USDA Alternative Feeds Initiative Michael Rust 35-2	Hatchery Science: Toward Adaptive Management Eric Loudenslager 36-2	Compensatory Dynamics in Marine Fish Communities Rich Bell 47-2	A National Perspective on the Role of Marine Protected Areas in Sustaining Fisheries Lauren Wenzel 43-2	Evidence of Segregated Spawning in a Single Marine Fish Stock: Sympatric Divergence of Ecotypes in Icelandic Cod? Timothy B. Grabowski 40-2
8:30 AM	Vitamin B1 (Thiamine) Deficiency in Fish of American Great Lakes Konrad Dabrowski 35-3	The Science-Policy Interface: Risk Assessment in the Columbia River Basin Richard Alldredge 36-3	Comparative Analysis of Shelf-Slope-Oceanic Ecosystems in an Upwelling Region: Implications for Juvenile Salmon Hongsheng Bi 47-3	MPAs as Management Tools in Northern Boreal Ecosystems: What Are Our Goals and How Do We Get There? John Olson 43-3	Converting Life History Information into an Ecological Forecast Gary C. Matlock 40-3
8:45 AM	Brazilian Efforts Towards Minimization of the Use of Live Feed in Neotropical Fish Larviculture Maria Celia Portella 35-4	The Lawyer Perspective John Shurts 36-4	Fishing and Population Sensitivity to Climate Louis W. Botsford 47-4	What Are We Protecting? the Challenges of Marine Protected Areas for Multispecies Fisheries Alan Haynie 43-4	Spatiotemporal Patterns of Representative Groundfish Species in the California Current Large Marine Ecosystem Blake E. Feist 40-4
9:00 AM	Feeds and Feeding Methods for Larval and Fingerling Walleye J. Alan Johnson 35-5	Columbia Basin Food Webs: Developing a Broader Scientific Foundation for Fish and Wildlife Restoration Robert J. Naiman 36-5	Trophic Changes in Marine Ecosystems Trevor A. Branch 47-5	Using Marine Reserves to Inform Fishery Management Elizabeth Babcock 43-5	Trade-offs Between Fisheries and Conservation of the Critically Endangered Yaquina Porpoise Hem Nalini Morzaria-Luna 40-5
9:15 AM	Influences of Feed Type on Alligator Gar Production in Tanks Brett A. Timmons 35-6	Bioenergetic Evaluations of Factors Limiting Growth and Survival of Juvenile Salmonids in the Columbia River David A. Beauchamp 36-6	Continental Scale Variability in Feeding and Resource Ecology of Juvenile Chinook Salmon Along Coastal North Pacific Asit Mazumder 47-6	Legitimacy and Collaborative Process: Factors Influencing Public Support of Puget Sound Marine Protected Areas Kristin Hoelting 43-6	Essential Feeding Habitat of Atka Mackerel in the Aleutian Islands, Alaska Kimberly Rand 40-6
9:30 AM	Flatfish Stocking - Cage Conditioning: Feeding-Related Behaviors of Two Species Reared on Different Hatchery Feeds Michelle L. Walsh 35-7	Do Releases of Hatchery Fishes into the Columbia River Basin Affect Growth and Survival of Wild Salmon? Greg Ruggerone 36-7	Temporal and Spatial Comparisons of Pelagic Apex Predator Foraging Ecology Jeffrey A. Buckel 47-7	How Marine Reserves Could Affect the Performance of Spatial and Conventional Stock Assessments Carey R. McGilliard 43-7	Movement Patterns and Home Ranges of Fishes of the Redfish Rocks Marine Reserve Tom Calvanese 40-7
TUESDAY AM BREAK					
Moderator	Heidi Lewis	Nancy Huntly	Olaf Jensen	Susanne McDermott	Hem Nalini Morzaria-Luna
10:15 AM	Feeding Rate and Frequency Affect Growth of Juvenile Atlantic Spadefish, An Emerging Aquaculture Species John Bowser 35-8	The Changing Food Web of Flathead Lake, Montana Bonnie Ellis 36-8	A Climate-to-Fish-to-Fishers Model for the Eastern Pacific Sardine and Anchovy Systems Enrique Curchitser 47-8	Assessment of Sea Scallops in the Presence of MPAs Dvora Hart 43-8	Life History Characteristics of Coexisting Platycephalidae Lachlan Barnes 40-8
10:30 AM	Amending Reduced Fish Meal Feeds with 'Conditionally Essential' Nutrients to Improve Performance of Hybrid Striped Bass Brian R. Gause 35-9	Thinking Big to Conserve and Restore the Columbia River Basin Nancy Huntly 36-9	Individual-Based Modeling in Comparing Marine Ecosystems Donald DeAngelis 47-9	Evaluation of Closed Areas for Fish Stocks with Maternal Effects in Larval Survival Paul Spencer 43-9	Changes in Acoustic Characteristics of in Situ Mulloway Miles J.G. Parsons 40-9
10:45 AM	Diet Optimization of Juvenile Rio Grande Silvery Minnow Colleen Caldwell 35-10	A Landscape Perspective in Tributary Habitat Restoration: Paradox or a Path Forward? Bruce Rieman 36-10	Ecological Effects of Catch Share Fisheries Revealed Through a Global Comparative Analysis Timothy E. Essington 47-10	The Dependence of Biomass and Yield on Movement and Fishery Rates Louis W. Botsford 43-10	Dynamically Linking Marine Zooplankton, Fishes and Environmental Variables in the George Bank Ecosystem Hui Liu 40-10
11:00 AM	Evaluation of Dietary Lipids for Bull Trout Ron Twibell 35-11	Adaptive Management: Compass and Gyroscope Need Fine Tuning Court Smith 36-11	Comparing the Status of Stocks and Overfishing Across Marine Ecosystems Ray Hilborn 47-11	Integrating MPA Monitoring with Population and Ecosystem Models to Inform Fisheries Management Mark Carr 43-11	Population Structure of Albacore Tuna in the Eastern Pacific Ocean David Wells 40-11
11:15 AM	Warning! That BIG Smolt May be a Tiny Adult: Prevalence, Causes and Consequences of Chinook Salmon Minijacks Donald Larsen 35-12	Scientific Review for Large Ecosystems: Comparisons and Contrasts John M. Epifanio 36-12	An Assessment of the Role of Zoogeography in Considerations of Trophic Stability in Marine Ecosystems Matthew Baker 47-12	Evaluating the Efficacy of US Virgin Islands MPAs: Look Before You Leap! Mark Monaco 43-12	Loss of Top Predators and Diversity from 2003 to 2009 Indicates Rapid and Important Changes in the Community Structure of Groundfishes in the California Current Ecosystem Nick Tolimieri 40-12
11:30 AM	Does Contaminant Accumulation Occur in Hatchery-Reared Pacific Salmonids? Jay W. Davis 35-13	Panel Discussion: Response and View to the Future of the Science-Policy Interface Featuring Paul Lumley, Barry Thom, and Phil Rockefeller Erik Merrill 36-13	Predator-Prey Spatial Overlap in Relation to Demographic and Climate Variables in North Pacific Ecosystems Mary Hunsicker 47-13	Monitoring Framework for Oregon's Marine Reserves Alix Laferriere 43-13	Effects of Meteorological Events on the Distribution of Spotted Seatrout in a Louisiana Estuary Determined by Telemetry Jody L. Callihan 40-13
11:45 AM	Contaminant Bioaccumulation in Pacific Salmon Alec G. Maule 35-14		Understanding the Portfolio Effect: a Global Meta-Analysis of Exploited Marine Ecosystems Olaf Jensen 47-14	Common Fishing Effects on Reef Fish Trophic Structure Across Diverse Coral Reef Ecosystems in the Tropical Atlantic and Pacific Burton Shank 43-14	Tuna Research Activities at the Inter-American Tropical Tuna Commission Achnotines Laboratory Vernon Scholey 40-14

Room	The Conference Center - 301	The Conference Center - 302	The Conference Center - 303	The Conference Center - 304
TUESDAY, SEP. 6	<u>Challenges in Monitoring Outmigrating Juvenile Salmonids</u>	<u>Fisheries and Hard Rock Mining</u>	<u>Protecting Fish at Power Plant Cooling Water Intakes: New Developments and Science on Clean Water Act §316(b), Part 2</u>	<u>Nature-Like Fishways: Design, Assessment & Monitoring</u>
Moderator	Matthew Klungle	Sarah O'Neal	Stephanie Wilson	Laura Wildman
1:15 PM	Estimation of Kenai River Sockeye Salmon Smolt Abundance Using a Genetic Mark-Recapture Method Mark Willette 44-15	Navigating Liability Issues for Good Samaritan Clean-Ups Elizabeth Russell 51-15	Entrainment Models for Cumulative Impacts of Multiple Power Plants on Larval Fishes in the Southern California Bight John Hedgepeth 56-17	Concrete to Cobble, Lessons Learned on Small Dams and Constructed Fishways Sean Welch 54-15
1:30 PM	Stratification of Juvenile Migrant Data: Finding the Balance Between Bias and Precision Matthew Klungle 44-16	Removing a Dam, Restoring a River: The Story of Milltown, Montana Robert M. Hughes 51-16	Economic and Biologic Benefits of Cooling Tower Retrofits Bill Dey 56-18	Howland Dam Bypass Channel Michael Chelminski 54-16
1:45 PM	Modeling Chinook Salmon Lifestages in the California Central Valley Joseph Merz 44-17	Defining Aquatic Resource Baseline Conditions for Mining Projects Dudley Reiser 51-17	Evaluating the Role of Nonuse Values in Estimating the Benefits of a National Closed-Cycle-Cooling Retrofit Requirement Jason Kinnell 56-19	Experience and Assessment of Nature-Like Fishways in the Western U.S Mike McGowan 54-17
2:00 PM	A Bayesian Analysis of a Closed Population with Assumption Testing and Multimodel Inference Applied to Capture-Mark-Recapture Studies of Steelhead Smolts in the Wind River, WA Daniel Rawding 44-18	How Long-Term Data Track Response Of Aquatic Systems For An Open Pit Copper Mine In Central Arizona. William J. Miller 51-18	Economic and Financial Impacts of a National Retrofit of Closed-Cycle Cooling Systems for Fish Protection Matthew F. Bingham 56-20	European Nature-Like Bypass Channels in Review Piotr Parasiewicz 54-18
2:15 PM	Bayesian Time-Stratified-Petersen Estimators for Abundance Carl Schwarz 44-19	Using Otolith Microchemistry as a Proxy for the Environmental Effects of Metal Mining Lisa A. Friedrich 51-19	The Role of Cost-Benefit Analysis in 316(b) BTA Determinations: The Road Ahead David Harrison Jr. 56-21	Efficiency Improvements of Step-Pool Channel Janusz Ligieza 54-19
2:30 PM	Comparing the Relative Performance of Downstream Migrant Abundance Estimation Methods Through Simulation Steve Tussing 44-20	Teaching Alaska's Miners about Alaska's Fisheries Stephen T. Grabacki 51-20	The Use of Closed-Cycle Cooling at New Nuclear Power Stations and Its Potential Impact on the Aquatic Environment Michael Masnik 56-22	Design and Control of Interstitial Flow for Steep Rock Ramps Brent Mefford 54-20
2:45 PM	An Integrated System for Storing, Analyzing, & Reporting Juvenile Chinook Salmon Data Collected with Rotary Screw Traps Doug Threlhoff 44-21	EPA's New Regulations and Initiatives Related to Hard Rock Mining Patty McGrath 51-21	Results of EPRI's Closed-Cycle Cooling Research Program on Retrofit Costs, Financial Impacts, Energy Production, Environmental and Social Impacts and Retrofit Environmental Benefits David Bailey 56-23	Use of Nature-Like Fishways for Improving Diadromous Fish Passage at Northeast U.S. Dam Removal Sites James Turek 54-21

Room	The Conference Center - 305	Washington State Convention Center - 3A	Washington State Convention Center - 3B	Washington State Convention Center - 401
TUESDAY, SEP. 6	<u>Rigorous Adaptive Management Approaches to Benefit Fish Populations and Aquatic Ecosystems</u>	<u>Larval Dispersal, Population Connectivity and the Management of Marine Species</u>	<u>American Shad of the Pacific Coast: A Benign Introduction or Harmful Invasive Species?</u>	<u>San Francisco Estuary: A Dynamic Confluence of Fisheries, Policy, and Resource Management</u>
Moderator	David Marmorek	Bill Templin	Daniel J. Hasselman	Ted Sommer
1:15 PM	Resizing a River: Using Adaptive Management to Develop a Downscaled Flow Regime in a Regulated River Paul S. Higgins 57-15	Dispersal Processes in Puget Sound Brown Rockfish from Parentage and Oceanography Lorenz Hauser 53-15	Status of American Shad in Its Introduced Range Daniel J. Hasselman 63-1	Recruitment Variability of Largemouth Bass Along Environmental Gradients in the Sacramento – San Joaquin Delta Frederick Feyrer 58-15
1:30 PM	Adaptive vs. Environmental Management in BC's Water Use Planning Process Brent Mossop 57-16	Gene Flow in Antarctic Fishes: The Role of Oceanography and Life History Emma F. Young 53-16	Spawning Migrations of American Shad in the Columbia River Christopher Noyes 63-2	Understanding Vulnerability of Prey Fishes Matthew Nobriga 58-16
1:45 PM	Surprise and Opportunity in Adaptive Management of the Grand Canyon Aquatic Ecosystem Carl Walters 57-17	Defining Boundaries for Ecosystem-Based Management: A Multispecies Case Study of Marine Connectivity Across the Hawaiian Archipelago Robert Toonen 53-17	The Effects of Increased Water Temperature and Dam Construction on the Spatial Distribution and Increased Abundance of Invasive American Shad in the Columbia River Basin Richard A. Hinrichsen 63-3	Using Comparative Mass-Balanced Trophic Models to Understand Food-Web Changes in the Sacramento-San Joaquin Delta Marissa Bauer 58-17
2:00 PM	Making the Connection from Monitoring and Evaluation to Adjustment in the Glen Canyon Dam Adaptive Management Program Dennis M. Kubly 57-18	Connectivity Among Deep Water Fishes in the Hawaiian Archipelago Michelle Gaither 53-18	American Shad in the Columbia River Estuary Laurie A. Weitkamp 63-4	Deciphering Impacts of The 2007 CoscoBusan Spill Oil Spill on Herring Spawning Habitats in San Francisco Bay John Incardona 58-18
2:15 PM	Using Structured Decision Making and Adaptive Management to Reduce Critical Uncertainties in Water Resource Decisions: Examples from ACF Basin James T. Peterson 57-19	Adult and Larval Dispersal: Complex Population Structures in a Crab with Potentially High Gene Flow Paul Shaw 53-19	Verification of a 'Freshwater-Type' Life History Variant of Juvenile American Shad in the Columbia River Lisa A. Wetzel 63-5	Pesticides and the Decline of Pelagic Fishes in Western North America's Largest Estuarine Ecosystem Nathaniel L. Scholz 58-19
2:30 PM	Lessons from Active Adaptive Management Experience C.S. Holling 57-20	Pacific Cod in the Salish Sea: Population Connectivity and Implications for Conservation Mike Canino 53-20	American Shad and Altered Parasite/Disease Dynamics in Oregon Waters Barbara A. Shields 63-6	Over Under Sideways Down*: Characterizing Dynamic Regime Shifts in the San Francisco Estuary (*the Yardbirds, 1966) William A. Bennett 58-20
2:45 PM	Panel Discussion: What Enables or Inhibits Rigorous Adaptive Management of Aquatic Ecosystems and Fisheries? David R. Marmorek 57-21	Implications of Uncertainty in Larval Dispersal for Management with MPAs Louis W. Botsford 53-21		Evolving Conceptual Models for Understanding the Upper San Francisco Estuary Anke Mueller-Solger 58-21

Room	Washington State Convention Center - 4C-1	Washington State Convention Center - 4C-2	Washington State Convention Center - 4C-3	Washington State Convention Center - 4C-4
TUESDAY, SEP. 6	<u>Using Fixed Electronic Fish Counting Systems for Real Time Monitoring of Freshwater</u>	<u>Connecting Climate Science to Fisheries Management and Ecology in a Changing World</u>	<u>Coastal Cutthroat Trout Symposium: Research, Status, and Conservation</u>	<u>Colonization and Reintroduction of Anadromous Salmonids</u>
Moderator	Shaara Ainsley	Roger Griffiths	Robert Vadas	George Pess; Peter Galbreath
1:15 PM	Validating Bull Trout Redd Count Surveys Utilizing an Electronic Fish Counter Over Multiple Migration Years Don McCubbing 67-1	Does Connectivity Mitigate the Impact of Climate Change on Antarctic Silverfish in the Southern Ocean? Jason W. Ferguson 48-14	Occupancy and Distribution of Coastal Cutthroat Trout in the Lower Columbia River Michael Hudson 45-15	Relative Reproductive Success of Reintroduced Hood River Spring Chinook Maureen A. Hess 46-15
1:30 PM	The Relationship Between Environmental Variables and Migration Behavior of Adult Salmon Returning to the Stanislaus River, CA Doug Demko 67-2	Understanding Ecosystem Processes in the Bering Sea Jeff Napp 48-15	Coastal Cutthroat Trout Conservation Planning Marci Koski 45-16	Genetic Monitoring of Reintroduced Chinook Salmon in Newsome Creek, Idaho Andrew P. Matala 46-16
1:45 PM	Design and Performance of an Autonomous Video Counting Tower to Monitor Salmon Escapement on Remote Streams Ted Otis 67-3	Natural Variability in Climate Model Projections Michael Alexander 48-16	Estuarine Migration and Expression of Anadromy by Coastal Cutthroat Trout in Two Lower Columbia River Tributaries David K. Hering 45-17	Barrier Removal and Range Expansion of Sea Lamprey: Quantifying Habitat Conditioning in Atlantic Salmon Nursery Streams Stephen M. Coghlan Jr. 46-17
2:00 PM	Using Underwater Video to Estimate Salmon and Steelhead Abundance Kenneth S. Gates 67-4	Climate Impacts on Bering Sea Ecosystem and Fisheries Jeff Napp 48-17	Life History Variability, Habitat Use, and Migratory Behavior of Coastal Cutthroat Trout in the Salmon River, Oregon Trevan J. Cornwell 45-18	Prioritizing Salmon Populations to Re-Establish Aimee H. Fullerton 46-18
2:15 PM	Video Surveillance of Spawning Fish: Real-Time Peeps into Nesting Behavior Elise Irwin 67-5	Global Perspectives on Climate Change Effects on Fish and Fisheries Anne Hollowed 48-18	Coastal Cutthroat Trout Maturity Studies in Southeast Alaska Roger Harding 45-19	A Hands on Approach to Anadromous Reintroduction in Oregon's Deschutes River Michael W. Gauvin 46-19
2:30 PM	An Evaluation of the Use of Resistivity Counters in the Touchet River in Washington and the Imnaha River in Oregon Jason Vogel 67-6	Moderated Panel Discussion with Speakers & Discussants Andrea J. Ray 48-19	Panel Discussion	Quantitative Baseline for Elwha River Chinook Salmon Mara Zimmerman 46-20
2:45 PM	Estimating Chinook Escapement to Medium Sized Rivers Using Combined Resistivity and Multibeam Sonar Fish Counters Daniel Ramos-Espinoza 67-7			Life Cycle Modeling to Quantify Population Level Effects of Reintroduction Noble Hendrix 46-21

Oral Presentations

Tuesday September 6

Room	Washington State Convention Center - 602	Washington State Convention Center - 603	Washington State Convention Center - 604	Washington State Convention Center - 606
TUESDAY, SEP. 6	<u>Effects of Renewable Energy Installations on Marine Ecosystems</u>	<u>Leading Edge Tools for Investigative Fish Science</u>	<u>Far-Reaching Technologies: Ecosystem Conservation Via International Technical</u>	<u>Human Influence on Connectivity and Population Structure for River Fishes</u>
Moderator	Brian Polagye	Phil Gaskill; Scott Blankenship	Lawrence Dominguez	Becky Flitcroft
1:15 PM	EMF Effects from Marine Hydrokinetic Devices Stephen Kajjura 50-16	Using Quantitative PCR as a Monitoring Tool to Detect Cryptic Aquatic Species Gregg Schumer 65-1	Making a Difference in Faraway Places: Lessons from Engineers without Borders Pete Sturtevant 64-1	Habitat Connectivity via Netmap Daniel Miller 52-15
1:30 PM	Assessing the Behavioral Responses of Dungeness Crab Exposed to Laboratory-Induced Electromagnetic Fields Dana Woodruff 50-17	Unifying Biological Data Acquisition Via Genetic Information Scott Blankenship 65-2	Fisheries and Wildlife Technical Assistance in Developing Nations: Keys to Successful Interventions Roger C. Palm Jr. 64-2	Taking a Leap of Faith: Assessing the Passability of Fish Through Road Culverts Shad Mahlum 52-16
1:45 PM	Behavioral Responses of Paddlefish, Lake Sturgeon, and Fathead Minnows to Electromagnetic Fields Mark S. Bevelhimer 50-18	The Application of Otolith Geochemistry in Forensic Fisheries Science James Hobbs 65-3	Putting Tools in the Hands of Fish Culturists—the Role of the Fish Culture Section Jesse Trushenski 64-3	Quantifying and Restoring Aquatic Connectivity in Atlantic Canada's National Parks David Cote 52-17
2:00 PM	Assessing the Impacts of Electromagnetic Fields on Aquatic Organisms Irvin Schultz 50-19	Maternal Life-History Type and Natal Rearing Origin of Adult Steelhead in the Yakima Basin Ian Courter 65-4	Linking Landscapes: Emerging Technologies, Culture, and Ecosystem Function David Fornander 64-4	Climate Change Impacts on Streamflow Connectivity and Endangered Desert Fishes in the Verde River, Arizona Kristin L. Jaeger 52-18
2:15 PM	Working with Fisheries Stakeholders for Marine Spatial Planning and Renewable Energy David Beutel 50-20	Tracking Ocean Salmon from Hook to Plate Pete Lawson 65-5	Building-Integrated Aquaculture Andy J. Danylchuk 64-5	The Downside of Aquatic Connectivity Frank Rahel 52-19
2:30 PM	A Process for Developing Monitoring Standards to Assess the Effects of Offshore Renewable Energy on Fisheries Sarah L. Smith 50-21	A PIT Tag System for Pacific lamprey in the Columbia River Chris Peery 65-6	The Dubai Palms: Can Large-Scale Coastal Development Provide Shelter for Overfished Species? Paolo Usseglio 64-6	Increasing Resistance or Susceptibility to Exotic Invasion? - Contrasting Effects of Fish Barriers Johan Spens 52-20
2:45 PM		Gravel to Gravel: The Use of PIT Tags to Monitor Salmon and Steelhead Populations in the Columbia Basin Dave Marvin 65-7		

Room	Washington State Convention Center - 607	Washington State Convention Center - 608	Washington State Convention Center - 609	Washington State Convention Center - 611
TUESDAY, SEP. 6	<u>Effective Fish Habitat Conservation: Assessment, Protection, and Rehabilitation, Part 1</u>	<u>Contributed Papers - Salmon and Steelhead Recovery</u>	<u>Parameters That Aren't: Time-Varying Effects in Stock Assessment</u>	<u>Using Models to Evaluate Predator/Prey Balance (or imbalance) In the Great Lakes</u>
Moderator	Paul DeVries; Sue Madsen	Mike Reed	Jim Thorson	John Dettmers
1:15 PM	Using Assessments to be Strategic: Developing and Implementing a Strategy to Protect and Restore Critical Chinook Salmon Habitat on Ohop Creek in the Nisqually River Watershed, Washington Jeannette Domer 49-15	Subsidized Predation on Imperiled Species: Gulls, Landfills, and Salmonids Ann-Marie K. Osterback 60-1	The Key Drivers of Global Fish Production: Fishing or Environment Katyana Vert-Pre 55-15	Evidence for Predatory Control of the Invasive Round Goby Charles P. Madenjian 59-14
1:30 PM	Using a Watershed-Based Feasibility Assessment to Identify and Prioritize Restoration Projects in Day Creek, Washington Sue Madsen 49-16	Hemlock Dam Removal and Fish Rescue Effort Stephanie Caballero 60-2	Understanding Changing Patterns of Size-Specific Marking of Lake Trout by Sea Lamprey Carson Prichard 55-16	Model-Based Evaluation of How Stocking Pacific Salmonids Influences the Fish Communities of Lakes Huron and Ontario Travis Brenden 59-15
1:45 PM	Assessment Methods and Strategies for the Restoration of Streams in Switzerland Armin J. Peter 49-17	A New Legal Frontier for Protection and Restoration of Salmon Habitat---the Stevens Treaties of the 1850's John J. Hollowed Sr. 60-3	An Evaluation of Natural Mortality Assumptions in Stock Assessments Amy M. Schueller 55-17	Lake Trout Bioenergetics in Rapidly Changing Lake Huron Ji X. He 59-16
2:00 PM	Use of a Decision Support Framework to Guide Native Fish Conservation in Streams of the Edwards Plateau Timothy Birdsong 49-18	Recovering an Economically Viable Population of Coho Salmon in the Siuslaw River, Oregon Charley Dewberry 60-4	New Developments in Length-Based Mortality Estimation for Data Limited Fisheries Nathan R. Vaughan 55-18	Are Salmonid Foraging Costs Increasing in Lake Ontario? Gordon Paterson 59-17
2:15 PM	Finding Simplified Assessment Tools for Identifying Restoration Projects with Different Channel Sizes: Case Studies Bob Aldrich 49-19	A Method for Asking Experts about the Biological Status of Salmon Conservation Units in British Columbia Elysia Brunet 60-5	Space-for-Time Substitutions in Predictive Models Amanda I. Banet 55-19	Lake Trout as an Apex Predator in Lakes Ontario and Huron Scott Rush 59-18
2:30 PM	Thermal Refuge Habitat Assessment and Restoration Options for Adult Chinook Salmon in the Sammamish River, WA Paul DeVries 49-20	Characterizing Juvenile Steelhead Abundance, Growth, and Survival at Multiple Spatial and Temporal Scales During the Pretreatment Period of a Large Restoration Experiment Stephen Bennett 60-6	Integrating Time Series of Reef Fish Community Monitoring Data Elizabeth E. Holmes 55-20	How River Plumes Benefit Recruitment of a Coastal Fish Population: The Relative Importance of Top-Down Versus Bottom-up Processes Stuart A. Ludsin 59-19
2:45 PM	Restoring Blueback Sockeye Salmon Habitat on the Upper Quinault River -- Quinault Indian Nation's Strategic Planning, Projects Selection and Early Results Bill Armstrong 49-21	A Place for Fish? Contemporary Senses of Place and Implications for Atlantic Salmon and Other Native Species on the Brink Katrina Mueller 60-7	Defining Fisheries Reference Points Given Time-Varying Life History Parameters Gavin Fay 55-21	Asian Carps Establishment in the Great Lakes: Modeling Foraging Behaviour and Food Sources Warren J.S. Currie 59-20

Room	Washington State Convention Center - 612	Washington State Convention Center - 613	Washington State Convention Center - 614	Washington State Convention Center - 615
TUESDAY, SEP. 6	<u>Aquatic Invasive Species Control and Native Species Restoration: Technical and Regulatory Challenges</u>	<u>Contributed Papers - Ecosystem Management</u>	<u>Contributed Papers- Population Dynamics</u>	<u>Contributed Papers- Pathogens</u>
Moderator	JarleSteinkjer	Donald MacDonald	Tucker Jones	Peter McHugh
1:15 PM	Piscicide Pesticide Reregistration and NPDES Permit Processes Dirk Helder 42-15	A Novel Application of a Management Area Prioritization Method Supporting the Conservation of Freshwater Fishes Thomas Pool 39-15	Population Assessment of Canadian Northern Dolly Varden Kimberly Howland 41-15	ELISA-based Management of BKD A. Douglas Munson 61-1
1:30 PM	New Use Restrictions and Standard Operating Procedures for Rotenone and Antimycin Brian Finlayson 42-16	Incorporating Stakeholder Input for Identifying Research Priorities in the Aleutian Island Region Rachael Wadsworth 39-16	Sockeye Salmon Return After an Absence of Nearly 90 Years: a Case of Reversion to Anadromy Lyse Godbout 41-16	The Effect of Ocean Conditions on Bacterial Kidney Disease Infections in Early Marine Phase Chinook and Coho Salmon Todd Sandell 61-2
1:45 PM	American Fisheries Society Training Course: Planning and Executing Successful Rotenone and Antimycin Projects Don Skaar 42-17	The Role of Eelgrass in Marine Community Interactions and Ecosystem Services Chris J. Harvey 39-17	Impacts of Hatcheries on Wild Chinook Salmon Productivity: Lessons from Long-Term Monitoring Eric Buhle 41-17	Brown Trout Removal: Managing Whirling Disease Resistant Rainbow Trout Introductions in Brown Trout Dominated Streams Eric R. Fetherman 61-3
2:00 PM	Effects of Rotenone on Amphibians Hilary Billman 42-18	Strategic and Cooperative Conservation Efforts in Action: USFWS Maine Fishery Resources Office Collaborations in Downeast Maine Scott Craig 39-18	The Influence of Demography on Population Dynamics of Iteroparous Fish Species Jason J. Van Tassel 41-18	Probiotic Effect of Indigenous Skin Bacteria of Brook Charr Sebastien Boutin 61-4
2:15 PM	Piscicide, Adaptive Management, and Nepa; The Yellowstone National Park Native Fish Conservation Plan Mike Ruhl 42-19	Temporal and Spatial Patterns of Interspecific Abundance–Occupancy Relationships Across Western Atlantic Fishery Ecosystems Christopher M. Martinez 39-19	Modeling Nonlinearity in Population Dynamics of Atlantic Salmon Hui-Yu Wang 41-19	Use of Diagnostic Assays to Evaluate Transmission of Bacterial Coldwater Disease Amy Long 61-5
2:30 PM	Panel Discussion	A Framework for Evaluating and Ranking Ecosystem Indicators for the California Current Large Marine Ecosystem (CCLME) Gregory Williams 39-20	Characteristics of Local Populations of Steelhead Trout in Three South-Central Lake Superior Streams Kevin A. DUBY 41-20	Aquaculture-Induced Changes to Dynamics in Pink Salmon and Sea Lice: Predictions of a Theoretical Model Jaime Ashander 61-6
2:45 PM		Filling in a Data Gap of Area-Based Management: Fish Community Structure Across Landscape-Scale Habitat Patches Kristin Hunter-Thomson 39-21	Southern California Steelhead Spawning Observations in Two Dammed Rivers Richard Bush 41-21	

Room	Washington State Convention Center - 616	Washington State Convention Center - 617	Washington State Convention Center - 618	Washington State Convention Center - 619	Washington State Convention Center - 620
TUESDAY, SEP. 6	<u>Diversity Management Solutions</u>	<u>Contributed Papers-Trophics, Part 1</u>	<u>Comparative Analysis of Marine Fisheries and Ecosystems</u>	<u>Assessing the Role of Marine Protected Areas in Restoring, Sustaining, and/or Enhancing Fisheries</u>	<u>Contributed Papers- Marine and Estuarine Fishes</u>
Moderator	Jarrad Kosa	John Woodling	Mary Hunsicker	Dvora Hart	Anne H. Beaudreau
1:15 PM	What Do We Mean by Managing Diversity? Caleb Rosado 66-1	Salmonid Consumption in the Sanpoil River Arm of Lake Roosevelt by Walleye Using Bioenergetic Modeling Dana H.P. Stroud 62-1	Kill, Kill, Kill! : Simulating Marine Ecosystems without Dogfish (or Cod, or Herring, or Birds) Janet Nye 47-15	Assessing Reef Fish Changes and Marine Reserve Dynamics in the Dry Tortugas, Florida Jerald S. Ault 43-15	Response of Estuarine Fish to Large-Scale Oyster Reef Restoration Katherine Pierson 40-15
1:30 PM	Best Practices and Beyond: The Fish and Wildlife Service's Diversity and Inclusion Plan Kofi Fynn-Aikins 66-2	Effects of Trophic Polymorphism on Population Dynamics and Resiliency William Fetzer 62-2	Can Catch-Share Fisheries Better Track Management Targets? Michael Melnychuk 47-16	Sustainability in an Aquarium Fishery within a network of MPAs in Hawaii Brian Tissot 43-16	Summer Site Fidelity, Movement Patterns, and Habitat of Acoustic-Tagged Pacific Halibut in an Alaskan Fjord Julie K. Nielsen 40-16
1:45 PM	Managing and Sustaining Cultural Diversity in the Ocean Sciences: The Woods Hole PEP Program Larry A. Alade 66-3	Trophic Ecology of Apex Predators in Pelagic Food-Webs Determined from Food Habits and Stable Isotope Analyses Michelle Staudinger 62-3	Decadal Comparisons of Predation by a Generalist Pelagic Predator in the Eastern Tropical Pacific Robert Olson 47-17	Investigating the Spillover Effect for a Marine Protected Area in Hawai'i Kostantinos Stamoulis 43-17	Is There a 'Cryptic Biomass' of Relatively Old and Large Red Snapper in Southeast US Continental Shelf-Break Waters? Todd Kellison 40-17
2:00 PM	Engaging Indigenous Youth in Natural Resource Conservation Stuart Leon 66-4	Food Web Structure in Habitat Engineered to Improve Chinook Salmon Spawning Success in a Central Valley (CA) River Ryan M. Utz 62-4	The Effects of Fish Spatial Segregation on the Mixed Stock Fishery Kotaro Ono 47-18	Larval Connectivity in an Effective Network of Marine Protected Areas Mark Christie 43-18	Perceptions of Change in Puget Sound: Reconstructing Historical Trends in Marine Species Abundance from Local Ecological Knowledge Anne H. Beaudreau 40-18
2:15 PM	Workforce Diversity: How Hutton Increases Minority Participation in Fisheries Kathryn Winkler 66-5	Food Web Characteristics of an Alpine Lake in Relation to Cutthroat Trout Reintroduction Michael H. Meeuwig 62-5	Unexpected Patterns of Fisheries Collapse in the World's Oceans Malin L. Pinsky 47-19	Thirty Years of Change in Reef Fish Communities in the Florida Keys Benjamin I. Ruttenberg 43-19	Reproductive Biology of Pacific Ocean Perch Christina Conrath 40-19
2:30 PM	Caribbean Freshwater Fisheries Research: an Opportunity to Enhance Diversity Thomas J. Kwak 66-6	Factors Affecting the Diets of Groundfish in the Gulf of Alaska Kevin Thompson 62-6	Drivers of Global Fishery Development Patterns: Chasing Dollars throughout the Food Web Suresh A. Sethi 47-20	Distribution of Sensitive Habitats and Trawl-Marks (from MAREANO): Implications for Selection and Monitoring of MPAs Lene Buhl-Mortensen 43-20	Effects of Temporal and Environmental Factors on Seasonal Spiny Dogfish Abundance in the Northwest Atlantic Skyler Sagarese 40-20
2:45 PM	The National Cooperative Fisheries Scholars Program: A Model for Producing Minority Fisheries Professionals Michael A. Eggleton 66-7	Organic Matter Flow or Organism Movement- Evaluating Mechanisms of Food Web Connectivity in Puget Sound Estuaries Emily R. Howe 62-7	A Management Strategy Evaluation of Harvest Control Rule Performance John Wiedenmann 47-21	Can Sport Fishing be Ecological Sustainable in a Marine Protected Area? – A Case Study from the Galapagos Islands Anna Schuhbauer 43-21	

POSTERS INCLUDED IN SPECIFIC SYMPOSIA - TUESDAY					
The Conference Center - 301	Washington State Convention Center - 4C-1	Washington State Convention Center - 4C-4	Washington State Convention Center - 603	Washington State Convention Center - 615	Washington State Convention Center - 616
<u>Challenges in Monitoring Outmigrating Juvenile Salmonids</u>	<u>The Cutting Edge of Bycatch Management: Science, Policy and Engineering, Part 1</u>	<u>Colonization and Reintroduction of Anadromous Salmonids</u>	<u>Leading Edge Tools for Investigative Fish Science</u>	<u>Ecology of Infectious and Parasitic Diseases in Populations of Wild Fish</u>	<u>Hatchery Nutrition: Feeding Fish for Tomorrow's Changing World</u>
Evaluating the efficacy of the calcein solution SE-mark batch mark on salmon fry to measure trap efficiency and evaluate estimator assumptions Justin Miller	Proposed Plan to Reduce False Killer Whale Bycatch in the Hawaii-Based Longline Fisheries Nancy Young	Umatilla River Spring Chinook Reintroduction Craig Contor	Developing Real Time Quantitative PCR for rapid and reliable identification of cryptic aquatic species Gregg Schumer	Non-Lethal Samples for Detecting Salmonid Pathogens: Potential for Investigations of Wild Fish Populations Diane G. Elliott	Plant-Based Lipid Blends Can Completely Replace Menhaden Fish Oil in Female White Bass Broodstock Diets Without Impacting Embryonic or Larval Survival
Outmigration monitoring of juvenile rainbow trout using a coanda wedge wire screen and a picket weir Anne Marie Emery	Effect of a New, Larger TED Design on Catch Performance in the Summer Flounder Trawl Fishery Sarah Simons	Using Adult Coho Salmon to Recolonize Yakima Basin Tributaries Todd Newsome	Who's Your Mommy? The application of otolith strontium isotope ratios 87SR:86Sr to determine the contribution of resident rainbow trout to the threatened steelhead population in the Yakima River, Washington. Jim Hobbs		Insoluble Canola Protein Concentrate Partially Replaces Fish Meal in Largemouth Bass Diets Without Affecting Growth Performance
Using the right tool for the job: gear types used in Western Washington to monitor outmigrating juvenile salmonids Devin West	Evaluation of a Turtle Excluder Device Designed for Use in the U.S. Mid-Atlantic, Atlantic Croaker (<i>Micropogoniasundulatus</i>) Fishery Jeff Gearhart	Tribal Coho Reintroduction Programs in the Wenatchee and Methow Rivers: Using a Phased Approach to Reestablish Extirpated Populations Corey Kamphaus	Stock-specific Distributions of Ocean Resident Chinook Salmon Renee Bellinger		
	Reducing the Capture of the Flatfish Complex in Small Mesh Bottom Trawls Using the 30.5 Cm Drop Chain Trawl Net Design Barbara Somers	Comparative productivity of colonizing and low abundance coho salmon (<i>Oncorhynchus kisutch</i>) populations Joe Anderson			
	Operational Feasibility of Turtle Excluder Device Use in the Southeastern U.S. Commercial Skimmer Trawl Shrimp Fishery Blake Price				
	Conservation Engineering Challenges: From Field to Federal Register Ryan D. Silva				
	Underwater Observation of Behavior of Roundfish and Flatfish near Trawl Bridles: Measures to Reduce Flatfish Catch in Haddock Trawls Pingguo He				
	Sea Turtle Bycatch Reduction Research and its Link to Fisheries Management Yonat Swimmer				
	Development and Implementation of Trawl Sweep Modifications to Reduce Effect on Benthos and Commercially Valuable Crabs C. Rose				