



CASTING A BROADER NET



53rd Annual Meeting | February 28 – March 3, 2017 | Bend, Oregon

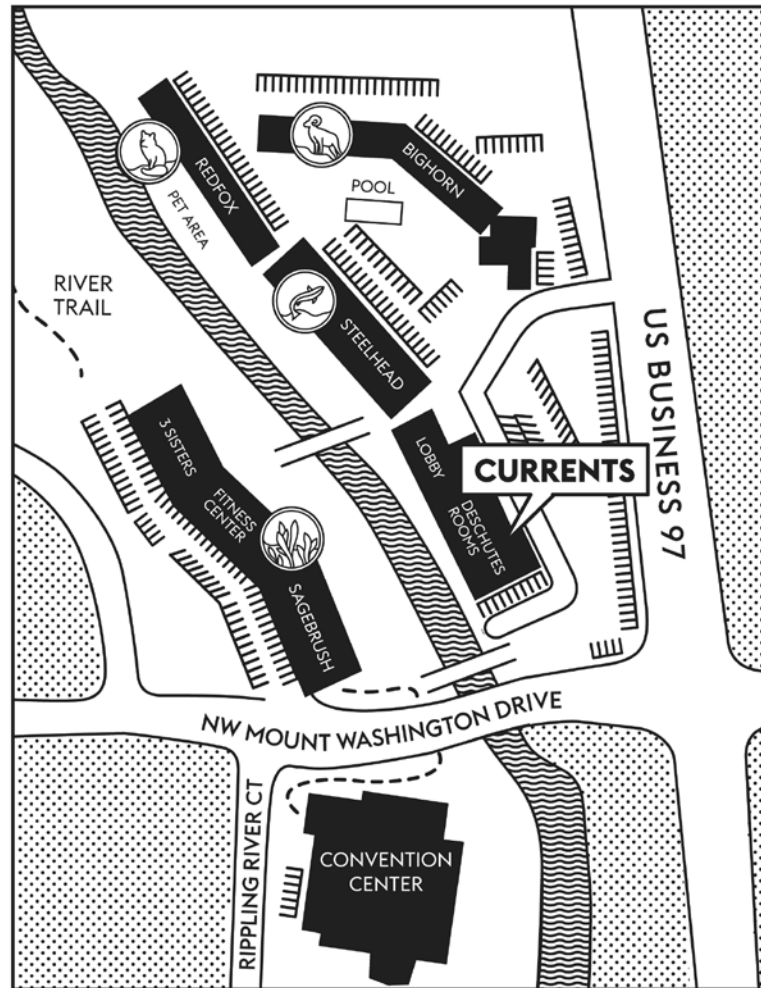
PLATINUM SPONSOR



PROGRAM PRINTING



Riverhouse on the Deschutes



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SCHEDULE AT A GLANCE

TUESDAY, FEBRUARY 28

11:00 a.m. – 5:00 p.m.	Cascade Lobby	Registration / Information
1:00 p.m. – 5:00 p.m.	Cascade D / Cascade E	Workshops (Bayesian Analysis & Genetics Theory and Application)
3:00 p.m. – 3:20 p.m.	Cascade Lobby	Coffee & Refreshment Service
5:00 p.m. – 6:00 p.m.	Cascade A	Workshop Social

WEDNESDAY, MARCH 1

7:00 a.m. – 6:30 p.m.	Cascade Lobby	Registration / Information / Sales Desk Open
7:00 a.m. – 8:00 a.m.	Cascade Lobby	Coffee & Refreshment Service
8:00 a.m. – Noon	Cascade D / Cascade E	Workshops (Bayesian Analysis & Science Talk: Sharing Research with the Public)
8:00 a.m. – 2:30 p.m.	Exhibit Hall	Trade Show Display Setup
Noon – 7:30 p.m.	Exhibit Hall	Poster Session Setup
1:00 p.m. – 1:10 p.m.	Cascade ABJ	Welcome
1:10 p.m. – 2:40 p.m.	Cascade ABJ	Plenary Session (2 speakers)
2:40 p.m. – 3:00 p.m.	Exhibit Hall	Break & Refreshment Service
2:30 p.m. – 11:30 p.m.	Exhibit Hall	Trade Show
3:00 p.m. – 5:00 p.m.	Cascade C, D, E, F, G, HI	Concurrent Sessions (6)
6:00 p.m. – 7:30 p.m.	Cascade ABJ	Student-Mentor Mixer
8:00 p.m. – 9:30 p.m.	Exhibit Hall	Book Signing by Doug Markle
8:00 p.m. – 11:30 p.m.	Exhibit Hall	Poster Session and Trade Show Social

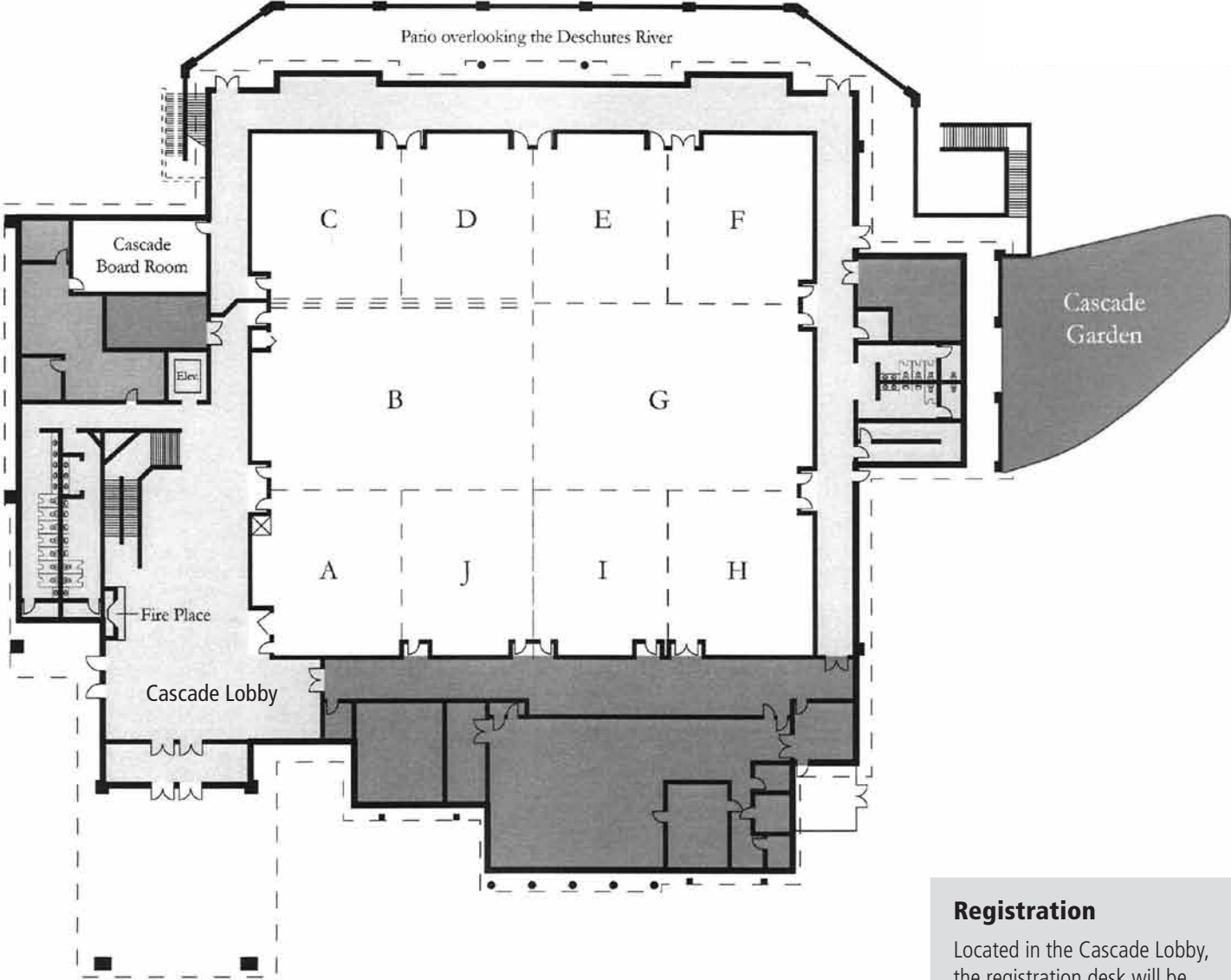
THURSDAY, MARCH 2

7:00 a.m. – 5:00 p.m.	Cascade Lobby	Registration / Information / Sales Desk Open
7:00 a.m. – 8:00 a.m.	Cascade Lobby	Spawning Run / Carcass Crawl
7:30 a.m. – 8:30 a.m.	Exhibit Hall	Coffee & Refreshment Service
8:00 a.m. – 5:00 p.m.	Exhibit Hall	Trade Show
8:00 a.m. – 10:00 a.m.	Cascade C, D, E, F, G, HI	Concurrent Sessions (6)
10:00 a.m. – 10:20 a.m.	Exhibit Hall	Break & Refreshment Service
10:20 a.m. – Noon	Cascade C, D, E, F, G, HI	Concurrent Sessions (6)
12:30 p.m. – 1:45 p.m.	Exhibit Hall	Awards Luncheon (no charge), Professional Awards, Scholarship Awards
1:45 p.m. – 2:45 p.m.	Exhibit Hall	ORAFS Business Meeting
3:00 p.m. – 5:00 p.m.	Cascade C, D, E, F, G, HI	Concurrent Sessions (6)
5:30 p.m. – 6:30 p.m.	Cascade ABCDJ	Banquet Social sponsored by PGE and CTWS
6:00 p.m. – 8:30 p.m.	Cascade ABCDJ	Silent Auction
6:30 p.m. – 9:00 p.m.	Cascade ABCDJ	Banquet, Awards, Oral Auction, Raffle
9:00 p.m. – 11:30 p.m.	Cascade ABCDJ	Entertainment: Karaoke Kings

FRIDAY, MARCH 3

7:30 a.m. – 8:30 a.m.	Exhibit Hall	Coffee & Refreshment Service
8:00 a.m. – 10:20 a.m.	Exhibit Hall	Trade Show
8:00 a.m. – Noon	Cascade Lobby	Registration / Information / Sales Desk Open
8:00 a.m. – Noon	Cascade C, D, E, F, G	Concurrent Sessions (5)
10:00 a.m. – 10:20 a.m.	Exhibit Hall	Break & Refreshment Service
1:00 p.m. – 2:30 p.m.	Field Tour Pelton Round Butte SWW – More information and signup available at the registration desk.	

Riverhouse Convention Center Floor Plan



Registration

Located in the Cascade Lobby, the registration desk will be open as follows:

Tuesday, February 28
11:00 AM – 5:00 PM

Wednesday, March 1
7:00 AM – 6:30 PM

Thursday, March 2
7:00 AM – 5:00 PM

Friday, March 3
8:00 AM – Noon



WELCOME to the 53rd Annual Meeting of the Oregon Chapter of the American Fisheries Society! On behalf of the Executive Committee, we are happy to host what is shaping up to be a very sizeable, well-attended meeting. A large cadre of volunteers have worked to organize and coordinate what we hope will be an enjoyable and edifying experience for you, and I want to acknowledge their enthusiasm, passion, and skills. It takes a small army of committed folks to pull off a meeting such as this. I also thank our sponsors and vendors, which have made our meeting financially possible.

I am constantly reminded of how fortunate I am to work with such a successful and enterprising chapter, which earned the Outstanding Chapter of the Year Award from the American Fisheries Society again in 2016. Having been affiliated with much smaller chapters in the Midwest—where Annual Meeting attendance included a few dozen individuals and the focus was exclusively on some combination of libations and a few professional talks, with no student talks, no workshops, and no organized activities or plenary speakers—my experience in Oregon is 180 degrees different. We enjoy high-quality continuing education workshops, organized activities, and notable plenary speakers. The experience at an ORAFS Annual Meeting is punctuated by the involvement of hundreds of students and professionals, many providing high-caliber presentations. Our awards recognize deserving professionals, and some of the best talks of the meeting are presented by the students themselves. We are proud to award successful student applicants with an array of scholarships to promote their goals in fisheries science. The Chapter's efforts in these and other arenas are anchored and guided by our mission: *To improve the conservation and sustainability of Oregon fishery resources and their aquatic ecosystems for long-term public benefit by advancing science, education, and public discourse concerning fisheries and aquatic science and by promoting the development of fisheries professionals.*

While we have much to be grateful for in ORAFS, I think we can and should strive to do better. ExCom's goal of achieving the ORAFS mission year after year will continue to depend upon passionate and talented individuals, *especially* ethnic and gender minorities, including people from diverse age groups, educations, disciplines, and experiences. This approach is both smart and morally right—it can increase information exchange and collaboration as well as the diversity of skills, perspectives, and tools that we bring to the challenges we face in a profession that incorporates biology, physical sciences and chemistry, sociology, culture, and economics. Including diversity in ORAFS in all ways and in all forms will increase the richness of our individual experiences and increase the resilience and efficacy of ORAFS. Our meeting theme, "Casting a Broader Net: Increasing Diversity and Inclusion in the Fisheries Profession," sets the stage nicely for ORAFS to more proactively address issues of recruiting and retaining talented and passionate fisheries professionals.

I am excited about this meeting, and I hope you are too. Please take advantage of the many opportunities for education, interactions, and entertainment. You won't be disappointed—but you could be hooked!

Best regards,

BENJAMIN CLEMENS

President, Oregon Chapter of the American Fisheries Society

2016–2017 Executive Committee

The **President** of the Chapter presides at all Chapter meetings, chairs the ExCom, is Chapter Representative to the Western Division and to the parent society, and makes appointments and performs other duties and functions as authorized and necessary for overall Chapter effectiveness. Also crafts a one-year work plan and budget, arranges sponsorships, and writes columns for the newsletter.



Benjamin Clemens
Oregon Department
of Fish & Wildlife

The **Secretary** keeps the official records of the Chapter.

The **Treasurer** collects and banks any funds allotted to the Chapter, disburses funds as authorized by the Executive Committee, is a member of the Financial Sustainability Committee, and is responsible for disseminating information regarding the performance of the ORAFS investment portfolio.



Katie Pierson
Oregon Department
of Fish & Wildlife

The **President-Elect** chairs the Program Committee and assumes the duties of the President in the event of the President's absence or inability to act. Plans the Annual Meeting theme, program, and presentations.



Shivonne Nesbit
NOAA Fisheries
West Coast Region

The **External Director** supervises and motivates all External Committees. Ensures that committees respond to ExCom (and vice versa) and participate in the Annual Meeting.



Anthony Siniscal
Oregon Department
of Fish & Wildlife

The **Past President** chairs the Nominating Committee and also chairs the ExCom if neither the President nor President-Elect is available. Imparts historical wisdom, manages the Trade Show, and prepares for retirement.



Troy Brandt
River Design Group

The **Internal Director** appoints the Historian and chairs of the Awards, Scholarships, and Arrangements committees. Manages facility, food breaks, and A/V needs and costs for the Annual Meeting.



Cory Sipher
Bureau of Land
Management

The **Vice President** chairs the Resolutions and Bylaws Committee and assumes the duties of the President-Elect in the event that office is vacated prior to completion of the term. Manages Student Activities and Raffle & Auction committees.



Jeremy Romer
Oregon Department
of Fish & Wildlife

The **Student Subunit Representative** serves as liaison between the Chapter and the approved student subunit(s) of the Chapter. Assists Vice President with student planning for the Annual Meeting.



Gary Vonderohe
Oregon Department
of Fish & Wildlife



Jacob Peterson
Oregon State
University

2016–2017 Committee Chairs

INTERNAL COMMITTEES

AFS/TWS LIAISON

Laura Tesler (ODFW)

AWARDS

Colleen Fagan (ODFW)

HISTORIAN

Jason Seals (ODFW)

INVESTMENT

Anthony Siniscal (ODFW)

NEWSLETTER EDITOR

Natalie Scheibel (ODFW)

RESOLUTIONS & BYLAWS

Jeremy Romer (ODFW)

SCHOLARSHIPS

Scott Heppell (OSU)

WEBMASTER

Lora Tennant (USGS-FRESC)

EXTERNAL COMMITTEES

EDUCATION & OUTREACH

Ryan Battleson (ODFW)

FISH CULTURE

Ryan Couture (ODFW)

FRESHWATER HABITAT

Bill Wall (USFS)

HUMAN DIVERSITY

Gabe Sheeships (FTC)

LEGISLATIVE

Haley Blake (Nestucca, Neskowin, and Sand Lake Watershed Council)

Troy Brandt (RDG)

MARINE HABITAT & ECOLOGY

Michael Harte (OSU)

NATIVE FISH

Jim Capurso (USFS)

NATURAL PRODUCTION

Ian Tattam (ODFW)

SOCIAL MEDIA

Demian Ebert (PacifiCorp)

“We are all different, which is great because we are all unique. Without diversity life would be very boring.” —Catherine Pulsifer



Hello, Friends and Colleagues!

The goals of this year’s theme, “Casting a Broader Net: Increasing Diversity and Inclusion in the Fisheries Profession,” are to encourage participation by speakers and attendees across a diverse range of cultural backgrounds, education, employment, and disciplines; structure sessions focused on topics that build bridges to different sectors of the conservation community; and offer technical and plenary sessions centered on the importance of diversity and inclusion. As I write this address, I am happy to report we have achieved these goals. I say we, because planning a meeting like this takes an army. The Planning Committee (page 7)

includes all the team members who have put a tremendous amount of time and effort into this meeting.

I challenged the Planning Team and moderators to “Cast a Broader Net” as they organized their sessions and invited speakers. I believe we achieved this vision based on the incredible volume and diversity of abstracts received. We have 225 paper abstracts and 36 poster abstracts from 90 different organizations. We also have 20 sessions covering a myriad of topics. Thank you to the Planning Committee, moderators, workshop organizers, and everyone who submitted abstracts for helping to make this meeting a success.

The theme of “Diversity and Inclusion” is important for many reasons. For one, we all recognize better decisions are made when we draw from a diverse group of minds and perspectives. Most of our agencies have diversity initiatives and policies, but the reality is that the fisheries profession does not reflect our cosmopolitan society. Under Ben Clemens’ leadership, the ORAFS created a new External Committee, Human Diversity, charged with exploring how we as a Chapter work toward expanding ideas and becoming a more inclusive group. Please consider attending the Diversity Committee meeting and discussion on Thursday afternoon to share your ideas.

Another concept behind the theme is to broaden our collective thinking. The poster and paper presenters are a diverse group portraying a variety of topics to help us increase our understanding of current science and management.

Lastly, now more than ever, we need to ensure that policy makers and the general public are connected to and understand the complexities of the ecosystems that we study and manage. Providing information in an interesting and relatable way is vital to our mission. We need to continue to expand our communications beyond the fisheries profession. Please consider attending the Legislative Policy and Science Session and Legislative Committee meeting on Friday morning to learn about the role ORAFS plays with Oregon legislators and to hear about upcoming initiatives and white papers.

Like Ben said in his address, ORAFS is one of the most active chapters within the American Fisheries Society. We have a legacy of achievements and accomplishments because of all the hard work of our members. Please attend any and all committee meetings to learn more about each one’s work plan and goals for the upcoming year. If we work toward continually diversifying our membership and committee participation, we can accomplish even more.

To quote a dear friend, “Together we are better.” Thanks to each and every one of you for taking time out of your busy schedules to attend this meeting. I look forward to casting a broader net with all of you!

A handwritten signature in cursive script that reads "Shivonne".

SHIVONNE NESBIT
President-Elect, Oregon Chapter of the American Fisheries Society

2017 Annual Meeting Planning Committee

PROGRAM COMMITTEE CHAIRS

Shivonne Nesbit (NOAA) and Natalie Scheibel (ODFW)

ANNUAL BUSINESS MEETING

Benjamin Clemens (ODFW)

BUDGET

Tony Siniscal (ODFW)

FACILITY & FOOD ARRANGEMENTS

Gary Vonderohe (ODFW)

IMBIBEMENTS

Ken Loffink (ODFW)

POSTER CHAIR

Christina Murphy (OSU)

RAFFLE & AUCTION

James Bartlett (PGE) (Chair)

Kevin Stertz (ODFW)

Sarah Sapienza (ODFW)

Erik Moberly (ODFW)

Olivia Hakanson (OSU)

Jeremy Romer (ODFW)

REGISTRATION

Tony Siniscal (ODFW)

SIGNS & BANNERS

Troy Brandt (RDG)

Gary Vonderohe (ODFW)

VENDOR EXHIBITS

Troy Brandt (RDG)

TECHNICAL PROGRAM

Shivonne Nesbit (NOAA)

Demian Ebert (PacifiCorp)

Natalie Scheibel (ODFW)

Katie Pierson (ODFW)

MUSIC

Tony Siniscal (ODFW)

STUDENT COORDINATION & ACTIVITIES

Jeremy Romer (ODFW)

Jacob Peterson (OSU)

STUDENT PAPER JUDGING

Luke Schultz (USGS)

Jonny Armstrong (OSU)

Neil Thompson (OSU)

SYMPOSIA BRAINSTORMING TEAM

Shivonne Nesbit (NOAA)

Colleen Fagan (ODFW)

Demian Ebert (PacifiCorp)

Cyndi Baker (CTWS)

Greg Sieglitz (NOAA)

Don Ratliff (Retired)

SPAWNING RUN AND CARCASS CRAWL

Shannon Richardson (ODFW)

WEBSITE AND ONLINE ABSTRACT SERVICE

Lora Tennant (USGS-FRESC)

Mike Meeuwig (ODFW)

WORKSHOPS

Jordan Massie (EPA)

Shivonne Nesbit (NOAA)

SPONSORSHIPS

Benjamin Clemens (ODFW)

Troy Brandt (RDG)

VOLUNTEER COORDINATORS

Michelle Scanlan (OSU)

Karen Cogliati (OSU)

PHOTOGRAPHY

Rich Grost (PacifiCorp)

Jeff McEnroe (BLM)

LOGO DESIGN

Blane Bellerud (NOAA)

The Amazing Deschutes

A Diversity of Aquatic Habitats, Stakeholders, and Challenges



Don Ratliff, Retired Fisheries Biologist

In welcoming ORAFS members to the Deschutes Basin, Don Ratliff will present an illustrated overview of what is known about the basin's geologic history—the foundation of the present mosaic of habitats and associated distributions and the life histories of salmon, steelhead, trout, and char populations. Don was born in Bend, where his grandfather George Conklin was an engineer for Shevlin-Hixon, the timber company that built Bend's first sawmill. He grew up in the Willamette Valley, attended OSU, and graduated with a degree in fisheries science in 1970.

From April 1971 until his retirement in July 2014, Don worked as a fisheries biologist for Portland General Electric at the Pelton Round Butte Hydroelectric Project on the Deschutes

River west of Madras. In the mid-1980s, Don conducted early studies on bull trout in the Metolius Basin, and in 1992 co-authored with Phil Howell the population status paper for bull trout in Oregon that prompted protective efforts. In more recent years, he worked on the reintroduction program for salmon and steelhead into the middle Deschutes and on anadromous fish passage at the hydro dams.

Don was active in ORAFS throughout his career, serving as President in 1983 and receiving the Fishery Worker of the Year Award in 1992 and the Chapter's Lifetime Achievement Award in 2013. Don has been a lifelong angler and fish advocate. He and his wife, Marti, continue to live near Madras.

Plenary Session | 1:10–2:40 p.m. Wednesday, March 1 | Cascade ABJ

Evolve the Scale Alternative

Strategies and Initiatives to Increase Diversity and Inclusion in the Fisheries Community

Dr. Melanie Okoro will discuss her work in support of initiatives to increase diversity and inclusion in nonprofits, academic institutions, and federal agencies. She will offer her personal perspective as a scientist and as a mentee and a mentor in near-peer mentorship programs. In addition to exploring successful programs, models, and best practices that successfully broaden participation within the wider scientific community, she will share her thoughts on how to move these initiatives forward within the fisheries community by using a targeted approach and science communication to cultivate consistent dialogue and build community trust.

Melanie’s research interest focuses on water quality impacts to federally listed threatened and endangered species. She is also interested in the intersection of science and policy. She has numerous research publications, most recently an article in *American Scientist*. She also published in the *Journal of American Water Resources Association* and has contributed to the *Encyclopedia of Estuaries 2015*, second edition.

Her scholarly work includes an elected position as early career scientist council member on the Council of the American Geophysical Union, the largest Earth and space science organization in the world. She also serves as a board member on the Earth Science Women’s Network, an organization dedicated to career development, peer mentoring, and community building for women in the geosciences.



Dr. Melanie Okoro, Water Quality Specialist/Regional AIS Coordinator, NOAA West Coast Region

“My goal is to reach those who most need to see themselves in science, and as scientists: those who have been traditionally underserved by science.”

Underrepresented Minorities” in the May 2016 issue of *American Scientist*.

Melanie earned her doctorate in environmental science from the University of Maryland, Baltimore County (2006–2011). She moved to California in 2009 to become an environmental scientist for the National Oceanic and Atmospheric Administration, where she currently serves as the Water Quality Specialist and Aquatic Invasive Species Coordinator.

Her work in science, technology, engineering, and mathematics (STEM) outreach media includes guest interviews on NPR KQED, Google Science Fair, KSHU radio discussing growing up as a fisherwoman, and KQED QUEST discussing impacts of climate change to endangered species; numerous mentoring/ judging opportunities for the Science for Society’s Broadcom MASTERS science competition; and speaking engagements to K–12, undergraduate, and post-secondary students.

Her passions include mentoring youth as a former Big Sister in the Big Brothers Big Sisters of the Bay Area Program and being an advocate for increasing diversity in STEM fields through her involvement with the Davis Branch of the American Association of University Women, SisterMentors, Minorities Striving and Pursuing Higher Degrees of Success in Earth System Science, and the Institute for Broadening Participation. Melanie is a thought leader on the topic of broadening participation and increasing diversity and inclusion and recently discussed this topic in the article “How to Recruit and Retain

Plenary Session | 1:10–2:40 p.m. Wednesday, March 1 | Cascade ABJ

Please Welcome Our 2017 Vendors!

Advanced Telemetry Systems (ATS)

Isanti, MN | 763-444-9267 | MRandall@atstrack.com

Advanced Telemetry Systems (ATS) offers innovative and reliable wildlife tracking products designed for researchers worldwide. Visit ATStrack.com to see complete product details and to request your same-day product quote.

Aquatic Contracting, LLC

Portland, OR | 503-799-0934 | justin@aquatic-con.com

Aquatic Contracting, LLC was founded in 2001 by a fisheries biologist, and we are committed to restoring aquatic habitats. As a full-service contractor, our expertise in design/build and our ability to provide planning, permitting, and construction services makes us leaders in the field of habitat restoration.

Biomark, Inc.

Boise, ID | 208-275-0011 | customerservice@biomark.com

Biomark specializes in RFID tag (PIT tag) and related PIT tagging equipment and services for the fisheries and wildlife communities and integrates these products by designing, manufacturing, installing and maintaining the systems that detect the tags at specific and strategic locations for invaluable data collection and comprehensive results. Biomark also provides additional specialized services including fish tagging, statistical analysis, software development, study execution, report writing and computational model development to support analysis and decision-making.

Columbia River Inter-Tribal Fish Commission

Portland, OR | 503-731-1283 | Tana@critfc.org

The Columbia River Inter-Tribal Fish Commission (CRITFC) coordinates management policy and provides fisheries technical services for the Yakama, Warm Springs, Umatilla, and Nez Perce tribes. CRITFC's mission is "to ensure a unified voice in the overall management of the fishery resources, and as managers, to protect reserved treaty rights through the exercise of the inherent sovereign powers of the tribes."

The Freshwater Trust

Portland, OR | 503-222-9091 | haley@thefreshwatertrust.org

The Freshwater Trust is a group of bold problem-solvers designing and implementing data-driven solutions that protect and restore America's freshwater.

Little Pond Nature Prints

Newport, OR | 541-961-7567 | Koike.bruce@gmail.com

Bruce Koike specializes in the Japanese art form known as Gyotaku, or fish printing. This method uses the actual animal in the printing process. Each print is executed by hand and is a one-of-a-kind.

LKE Corporation

Washougal, WA | 360-837-1700 | kim@lkecorporation.com

LKE Corporation is a full-service restoration contractor in heavy construction. Since 1993, LKE has completed over a thousand miles of watershed restoration, major instream restorations, and restored hundreds of acres of wetlands. Our mission: The legacy that we leave is that you will never know we were there.

Lotek Wireless, Inc.

Seattle, WA | 206-783-9356 | matt@biosonicstelemetry.com

Lotek fish and wildlife monitoring systems allow researchers in over 100 countries worldwide to track animals, birds, and fish of almost any size, in almost any environment. Our craft is technology, but our passion is the environment. We're committed to providing innovative solutions for a sustainable future.

Oregon RFID

Portland, OR | 503-788-4380 | teddi@oregonrfid.com

Oregon RFID has manufactured equipment for tracking fish and wildlife using low-frequency PIT tags and readers since 2003. Our products are used worldwide for scientific research and commercial operations. Oregon RFID also provides technical support and is an AFS member corporation.



Little Pond Nature Prints



Specializing in the Japanese Art of Fish Printing



Pacific Bridge & Construction, Inc.
Sandy, OR | 971-563-9401 | steve@pacbridgeinc.com

Pacific Bridge & Construction, Inc. is both a manufacturer and stream restoration contractor. Whether we are delivering the PacBridge to other stream restoration specialists or completing the entire AOP project, PBAC believes in challenging the status quo by emphasizing low impact, site adaptability, and longevity as being the characteristics of a project well done or a product well made.

Pacific Corrugated Pipe Co.
Eugene, OR | 541-461-0990 | mlarsen@pcpipe.com

Established in 1935, Pacific Corrugated Pipe Co. is a customer-focused and locally operated manufacturer of corrugated steel and corrugated HDPE plastic pipe that continues to be family-owned and operated.

Pacific Netting Products
Kingston, WA | 360-297-0858 | andy@pacificnettingproducts.com

Pacific Netting Products is the world leader in design, construction, installation, and service of fish and debris exclusion, guidance, and collection solutions.

PSU Environmental Professionals Program
Portland, Oregon | 503-725-5388 | epp@pdx.edu

The Portland State University Environmental Professional Program (EPP) offers respected, university-level technical short courses to Northwest, national, and international professionals. Our classes are offered in short-course format and focused on the skills and knowledge required to implement a wide range of environmental projects. Major topics include ecology, analytical methods, field techniques, regulations, and project management. Google PSU EPP.

Real Time Research
Bend, OR | 541-719-1654 | mike@realtimeresearch.com

Real Time Research (RTR) is a small business specializing in biological studies focused on fish and wildlife recovery. RTR offers a unique combination of technological know-how coupled with intimate knowledge of fisheries and wildlife research in the Pacific Northwest and elsewhere. Specifically, our team has extensive experience with

tagging studies (passive integrated transponder tags, biotelemetry, and others), fish injury and survival investigations, mark-recapture modeling studies, and predation research. RTR is also a regional leader in modern data collection and management systems.

Smith-Root Electrofishing Solutions
Vancouver, WA | 360-573-0202 | jponce@smith-root.com

Since 1964 Smith-Root's full line of electrofishing boats, backpack shockers, fish guidance, and electro-anesthesia equipment has aided restoration/recovery operations in various aquatic settings, and we are now offering field-portable DNA detection for aquatic species. We look forward to helping you conserve, enhance, and protect the world's precious aquatic resources. Check out our complete family of electrofishing solutions: smith-root.com.

TerraGraphics Environmental Engineering, Inc.
Moscow, ID | 208-882-7858 | Susan.Firor@terragraphics.com

TerraGraphics' Natural Systems Restoration Group provides comprehensive services for stream, wetland, and habitat restoration in the inland Northwest. At ORAFS, we are introducing our exciting new business line: TG Aerial Solutions provides UAV (drone) based LiDAR and Photogrammetry services to the restoration industry. This service is specifically beneficial for cost-effective collection of high-resolution data on an individual project scale. These data are ideal for topographic mapping, 2-dimensional hydraulic modeling, and dozens of other applications on restoration projects.

Terraqua, Inc.
Entiat, WA | 509-784-1555 | valerie@terraqua.biz

Terraqua, Inc. specializes in fish habitat and fish population assessment, study design, analysis, and reporting with primary emphasis on salmonids and their relationship to natural and altered habitats.

Whoosh Innovations
Seattle, WA | 206-801-3565 | todd.deligan@whooshh.com

Whooshh Innovations is revolutionizing fish passage and fish rescue through its proprietary, proven, water-sparing Whooshh™ technology—moving live fish over and around barriers gently, reliably, and cost-effectively.



Come prepared to have fun, donate, and win!



Richard Grost – Bridge of Light; North Umpqua River Framed Print

Artwork



1997 Oregon Trout Stamp & Framed Print



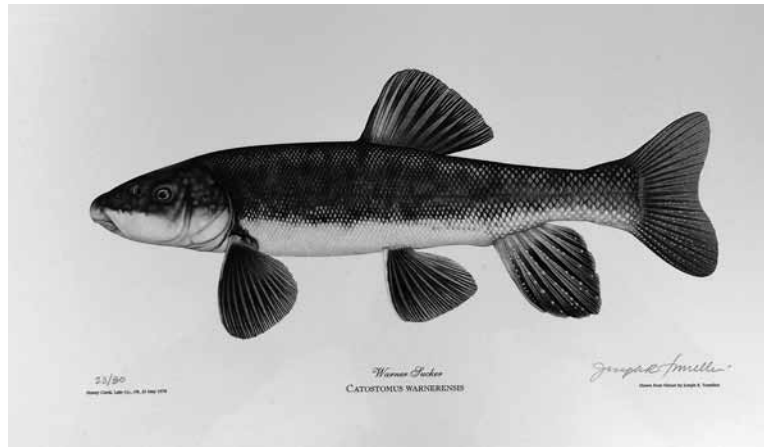
Freshwaters Illustrated – Bull Trout Framed Print

Freshwaters Illustrated – Pacific Lamprey Framed Print

Freshwaters Illustrated – Adult Bull Trout Framed Print

Something is bound to reel you in

Organizations and individuals throughout Oregon have graciously donated some fantastic auction and raffle items to show their support for the 53rd ORAFS Annual Meeting. All proceeds from the auction and raffle will be used for student scholarships, to support travel to our meeting, and to provide assistance for young professionals to attend the meeting. Silent and live auction items will be displayed for your viewing pleasure at the banquet/social prior to the auction and raffle event on Thursday evening. This is your opportunity for a sneak peek at some of the items that will be available.



Tomelleri – Warner Sucker Framed Print

Tomelleri – Peamouth Chub Framed Print

Tomelleri – Redband Trout Framed Print

Tomelleri – Lake Trout Framed Print

Heather Fortner – Gyotaku Adult Coho Salmon Framed Print

Raven Maps and Images Inc. – Laminated Wall Map of Oregon

Sharon Rackham King – Framed Landscape Painting; Wyoming Ranch

Weekend Getaways

Hallmark Inn – 1 Night Ocean-Front Room (Newport)

Inn at Spanish Head – 50% Off Nightly Visit; Sunday–Thursday; \$10 Meal Coupon with Purchase of \$50 or More; May Stay Consecutive Nights at 50% Off (Lincoln City)

Oregon Garden – Gift Certificate for Overnight Stay, Breakfast and Admission for 2 (Silverton)

Riverhouse on the Deschutes – 2-Night Stay Riverview King or Queen (Bend)

Spirit Mountain Casino – 1-Night Stay, Dinner for 2 (Grand Ronde)

Timberline Lodge – \$50 Gift Card

Wildhorse Casino and Resort – 1-Night Stay in Tower Room or RV Park and Dinner Voucher for \$60 (Pendleton)

Athletics

Oregon State Athletics – 4 Gymnastics Tickets, OSU vs. Illinois-Chicago (Corvallis)

Portland Trailblazers – Autographed Pennant of Entire 2016/2017 Team

Theater/Festivals/Museums

Oregon Ballet Theater – 2 Ticket Voucher (Portland)

Oregon Shakespeare Festival – 2 Vouchers for 2017 (Ashland)

Oregon Symphony – 2 Vouchers for 2017 (Portland)

Portland Center Stage – 2 Main Stage Ticket Vouchers (Portland)

Fishing Trips



K.O. Wholesale Seafood – Guided Halibut Trip for 2 (Garibaldi)



JW's Guide Service – Guided Power Boat Salmon Trip for 4 (Winchester Bay/Ocean)

Columbia River Maritime Museum – 4 Passes to Museum and Light Ship (Astoria)
High Desert Museum – 4 Tickets (Bend)

Brew/Wine and Swag

2Towns Cider House – 4 Cases and 1/2 Keg of "Cot in the Act" (Corvallis)
Block 15 Brewing – Bag, Growler, Pint Glass, T-shirt, \$10 Gift Card (Corvallis)
Maragras Winery – Wine Tasting and Tour for 10 (Terrebonne)
New Deal Distillery – Bottle of Vodka and 6-Person Tasting at Distillery (Portland)
Squirrels Tavern – 2 \$20 Gift Certificates, T-shirt (Corvallis)
Willamette Valley Vineyards – Private Guided Tour for 8, Wine Tasting, Cheese Tray (Turner)

Float Trip

Jason Shappart – 3-Day, 2-Night Grand Ronde Float Trip (meals included)



Northwest Connection – Fall Chinook or Winter Steelhead (Coastal Streams) – Guided Fishing Trip for 2



Scott Heppell – Albacore Tuna Fishing (Yaquina Bay)

Fishing Gear

Chota Outdoor Gear – Chota Cufflink, Savings Voucher for Gear
Pacific Northwest Jigs – Jigs (20) and Yarnies (25)
Rob Chitwood – Sage Fly Rod and Scientific Angler Reel
Andy Burke – Handmade Wood Measuring Boards
Charles Broda – 12 ORAFS Logo Fish Bonkers

Miscellaneous Items

Alder Creek Canoe and Kayak – Gift Certificate for 2 Basic Skills Kayak Class (Portland)
Coastal Farm and Ranch – \$75 Item(s)
Costco – \$20 Cash Card
Dick's Sporting Goods – Six \$50 Certificates
Fred Meyer – \$25 Gift Card
Haugen Enterprises – 3 Hunting Books; 3 Copies of Each
Jerry's Rogue Jets – 2 \$50 Off Coupon Boat Ride (Gold Beach)
Les Schwab – 2 Roadside Assistance Kits
Lisa Dubisar – Professional Photography and Print Package (Madras)



Gary Vonderohe – Coos Bay Salmon Fishing Trip (2 seats)

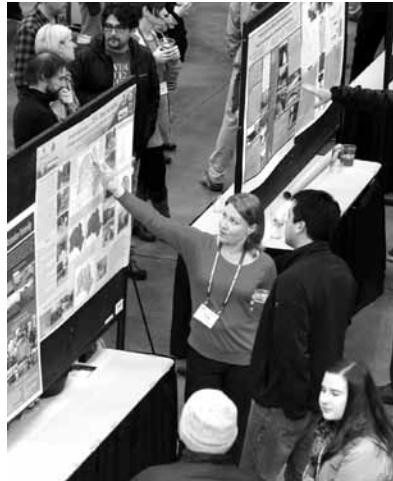


Ian and Shelley Tattam – Fishing/Crabbing Trip and 1-Night Stay, Including Meals for 2 (Manzanita, OR)

ORAFS – "FISH NAKED" Hat
Oregon Zoo – 4 Tickets (Portland)
Portland Walking Tours – 2 Tickets



Smith Root – 2-Day Electrofishing Principles and Safety Class (Vancouver, WA)
Smokehouse Products – Little Chief Smoker
UO Duck Store – \$30 Gift Card
Wildlife Safari – 2 Admission Tickets (Winston)
World Forestry Center – Family Pass (4-pack) (Portland)



Cast your social net at these networking events

Student-Mentor Mixer

Wednesday, March 1

Cascade ABJ 6:00 – 7:30 PM

After the sessions on Wednesday afternoon, we will hold our Student-Mentor Mixer. If you decide to sign up as a mentor and forgot to do so when you registered for the meeting, check at the registration desk to see if spaces are available. The mixer is an excellent opportunity for students, young biologists, and established professionals to share ideas, provide insight, bridge generation gaps, and build new relationships.

Poster Session and Trade Show Social

Wednesday, March 1

Exhibit Hall 8:00 – 11:30 PM

Interact with poster presenters, share ideas, and network with peers! The trade show will be set up so that you can connect with vendors who provide us the innovative tools of today. This is also a social, so be sure to imbibe the complimentary beer and wine.

Spawning Run and Carcass Crawl

Thursday, March 2

Cascade Lobby 7:00 – 8:00 AM

Dress warm for the popular Spawning Run 5K or the 2-mile Carcass Crawl fun walk, which will get your blood flowing and your mind open for a great day of talks. Information and course routes are available at the registration desk. Runners and walkers will gather at the Convention Center Lobby, and the run/walk will begin and end at the Convention Center. And if you ordered one, don't forget to bring your commemorative toque.

Banquet Social sponsored by PGE and Confederated Tribes of Warm Springs

Thursday, March 2

Cascade ABCDJ 5:30 – 6:30 PM

Before the banquet, join us for complimentary beverages and light finger foods, sponsored by PGE and CTWS. It's the perfect chance to relax after a full day of talks, chat with your colleagues, and get ready for the good food and the fun night ahead. Are you interested in what's happening with salmon and steelhead reintroductions in the Deschutes Basin? PGE and CTWS fish biologists will be around the room to answer your questions.

Banquet, Awards, Oral Auction, Raffle

Thursday, March 2

Cascade ABCDJ 6:30 – 9:00 PM

Don't miss out on Thursday night's events! A banquet ticket is required to receive a banquet meal, but it's not necessary to participate in the raffle and auction. Be sure to get your raffle tickets, sharpen your pencil for the silent auction items, and be ready for the competitive live auction. Our Raffle Auction Committee has done a REMARKABLE job of obtaining amazing items for this year's raffle and auction, including great gear, guided fishing trips, artwork, and much more. Enjoy the banquet and complimentary craft beer and wine.

Live music: Karaoke Kings

Thursday, March 2

Cascade ABCDJ 9:00 – 11:30 PM

Enjoy this group from Portland that performs live band karaoke—your chance to get on stage and sing with the band. The Karaoke Kings provide the lyrics and backing band, and you provide the voice (with a little help from the MC if needed). If you have stage fright, the band will perform as a "traditional" band, playing all your favorite music.

TUESDAY, FEBRUARY 28						
1:00 p.m.	Concurrent Workshops (Bayesian Analysis & Genetics Theory and Application) – Cascade D / Cascade E					
5:00 p.m.	Workshop Social – Cascade A					
WEDNESDAY, MARCH 1						
8:00 a.m.	Concurrent Workshops (Bayesian Analysis & Genetics Theory and Application) – Cascade D / Cascade E					
1:00 p.m.	Welcome and Plenary Sessions – Cascade ABJ					
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade HI
3:00 p.m.	Genetics Case Studies	Warner Basin— A Holistic Watershed Restoration Approach	Restoring Diversity to Riverine Function	Perspectives on Data Visualization, Communication, and Long-Term Study	Diversity and Inclusion in Science	Lakes and Reservoir Research and Management
6:00 p.m.	Student-Mentor Mixer – Cascade ABJ					
8:00 p.m.	Poster Session, Trade Show Social, and Book Signing by Doug Markle – Exhibit Hall					
THURSDAY, MARCH 2						
7:00 a.m.	Spawning Run / Carcass Crawl – Cascade lobby					
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade HI
8:00 a.m.	Lakes and Reservoir Research and Management	A Sub-Sample of Research and Management in the Klamath River Basin	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Perspectives on Data Visualization, Communication, and Long-Term Study	Invasive Species
10:00 a.m.	><)))> Break <(((><					
10:20 a.m.	Wild Ideas to Save Salmon	A Sub-Sample of Research and Management in the Klamath River Basin	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Genetics Tools and Applications	Invasive Species ----- Responding to Climate Change: Priorities and Synergies
Noon	ORAFS Awards Luncheon – Exhibit Hall					
1:45 p.m.	ORAFS Business Meeting – Exhibit Hall					
3:00 p.m.	Reintroduction of Species	Deschutes Basin Science and Policy	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Diversity and Inclusion in Science	Responding to Climate Change: Priorities and Synergies
5:30 p.m.	Banquet Social – Sponsored by PGE and CTWS, Cascade ABCDJ					
6:00 p.m.	Silent Auction – Cascade ABCDJ					
6:30 p.m.	Banquet, Awards, Oral Auction, Raffle – Cascade ABCDJ					
9:00 p.m.	Entertainment: The Karaoke Kings – Cascade ABCDJ					
FRIDAY, MARCH 3						
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	
8:00 a.m.	Reintroduction of Species	Deschutes Basin Science and Policy	Best Dam Session	Dirty Water: Studying, Regulating, and Remediating Contaminants in Water Bodies	Resolving Mysteries of <i>Oncorhynchus</i>	
10:00 a.m.	><)))> Break <(((><					
10:20 a.m.	Reintroduction of Species	Legislative Policy and Science	Wet and Wild	Dirty Water: Studying, Regulating, and Remediating Contaminants in Water Bodies		
Noon	ORAFS 53rd Annual Meeting Ends					

POSTER SESSION

SETUP — EXHIBIT HALL

Noon – 7:30 PM • Wednesday, March 1

Boards will be provided, and names of poster authors will be indicated on each board. Authors are responsible for their own hanging hardware.

POSTER SOCIAL

8:00 PM – 11:30 PM • Wednesday, March 1

During the social, authors are asked to be with their posters between 8:00 and 9:00 p.m.

DISPLAY HOURS

- 8:00 PM – 11:30 PM • Wednesday, March 1
- 8:00 AM – 6:00 PM • Thursday, March 2
- 8:00 AM – 10:20 AM • Friday, March 3

Posters will be on display in the Exhibit Hall.

TAKEDOWN

10:20 AM – Noon • Friday, March 3

Timothy Akimoff ODFW	1	2	Chris Bare ODFW
Brent Johnson* OSU	3	4	Robert Casey* DRA

Maureen Hess CRITFC	5	6	Maureen Hess CRITFC
Pablo Fierro* OSU	7	8	Josh Greenwald* OSU

Andrea Carpenter ODFW	9	10	Summer Burdick USGS
Clea Harrelson* CWA	11	12	Jacob Peterson* OSU

Benjamin Clemens ORAFS	13	14	Laura Tesler ODFW
Jake Roush* PSU	15	16	Brittany Schwartzkopf* OSU

Kathi Franklin ODFW	17	18	Alicia Keefe NOAA
Christine Trahan* UI	19	20	Christina Uh* PSU

Ian Tattam ODFW / ORAFS	21	22	James Capurso USFS
Scott Hauser USRTF	23	24	Demian Ebert PC

Bill Wall ORAFS	25	26	Michael Hughes OIT
Amanda Pollock OSU	27	28	Casie Smith USGS

Dylan Keel USFS	29	30	Peter Gruendike RDG
Jen Rogers ODFW	31	32	Laurie Porter CRITFC

Marcia Snyder EPA	33	34	Bob Spateholts PGE
Burke Strobel PWB	35	36	Allison Tarbox CWA

KEY TO ACRONYMS ON PAGES 22–23

*Student

TITLE	AUTHOR, ORGANIZATION
1 Live Streaming Demonstration	Timothy Akimoff , ODFW
2 Chinook Spawner Abundance and Distribution in the John Day Basin	Chris Bare , ODFW
3 A Web-Based Graphical User Interface for a Linked Foraging and Bioenergetics Model of Juvenile Chinook Salmon Growth in Reservoirs	Brent Johnson ,* OSU
4 Potential Effects of Alkaline pH on the Migration and Success of Reintroduced Juvenile Anadromous Fish	Robert Casey ,* DRA
5 Tracking Salmonid Hatchery Stocks with Parentage Based Tagging Technology in the Columbia River Basin	Maureen Hess , CRITFC
6 Parentage Based Tagging for Addressing Conservation and Management of Steelhead in the Columbia River Basin	Maureen Hess , CRITFC

7	Influence of Land Use on Biological Indicators of Stream Water Quality in Mediterranean Chile	Pablo Fierro,* OSU
8	Beaver Dam Analogs for Restoration of the South Fork of the Crooked River: A Preliminary Study	Josh Greenwald,* OSU
9	To Evaluate a Predator: Potential Compensatory Responses of Piscivores in the Columbia and Lower Snake Rivers from 1990–2016	Andrea L. Carpenter, ODFW
10	Catch Rates, Apparent Survival, Growth, and Species Composition of Juvenile Endangered Suckers in Upper Klamath Lake: 2001–2015	Summer Burdick, USGS
11	Coos Watershed Association Outreach Program Provides Reciprocal Benefits for Student Participants and Coho Life Cycle Monitoring	Clea Harrelson,* CWA
12	Inclination Angle and Intensity of Magnetic Fields in Hatchery Environments	Jacob Peterson,* OSU
13	The Oregon Chapter of the American Fisheries Society: Maintaining the Legacy	Benjamin Clemens, ORAFS
14	The Hutton Junior Fisheries Biology Program	Laura Tesler, ODFW
15	Heat Shock Proteins Associated with Anoxia Tolerance in Embryos of the Annual Killifish, <i>Austrofundulus limnaeus</i>	Jake Roush,* PSU
16	Understanding the Feeding Ecology of Juvenile Rockfishes in Oregon Estuaries	Brittany Schwartzkopf,* OSU
17	Coho Salmon Factoid Hexaflexagon: English and Spanish Version	Kathi Franklin, ODFW
18	NOAA Fisheries Education Programs That Impact Underserved Populations	Alicia Keefe, NOAA
19	A New High Throughput DNA Sequencing Method to Confirm CRISPR/Cas9 Mutations in <i>Danio rerio</i> , Estrogen Receptor 1 (<i>esr1</i>) Gene	Christine Trahan,* UI
20	Evidence the Upper Thermal Tolerance Limit of Larval Pacific Lamprey Is Between 27°C and 31°C	Christina Uh,* PSU
21	Oregon Chapter AFS Natural Production Committee	Ian Tattam, ODFW / ORAFS
22	OCAFS Native Fish Committee	James Capurso, USFS
23	Upper Snake River Climate Change Vulnerability Assessment	Scott Hauser, USRTF
24	Development of an Inexpensive Scour Chain to Monitor Gravel Movement in Large Rivers	Demian Ebert, PC
25	The Freshwater Habitat Committee Needs Your Input	Bill Wall, ORAFS
26	Historical Geospatial Reconstruction of Fluviodeltaic Environments of the Silvies River and Malheur Wildlife Refuge	Michael Hughes, OIT
27	Caudal Fin Differences Between Juvenile Wild, Hatchery, and Surrogate Chinook Salmon	Amanda Pollock, OSU
28	Beavers in an Urban Environment: First Year Results of a Three Year Study in the Tualatin River Basin, OR	Casie Smith, USGS
29	Lamprey Detection and Distribution in the Willamette National Forest	Dylan Keel, USFS
30	Application of Unmanned Aerial Vehicles in River Restoration Design and Monitoring	Peter Gruendike, RDG
31	Estimating Capture Efficiency of <i>Oncorhynchus mykiss</i> Using CHaMP Habitat Metrics	Jen Rogers, ODFW
32	Use of Parentage Based Tagging for RM&E of Tribal Conservation Efforts to Restore Pacific Lamprey in the Interior Columbia River	Laurie Porter, CRITFC
33	Individual Based Modelling Approach to Thermal Refuge Use by Migrating Adult Salmon and Steelhead: Part II	Marcia Snyder, EPA
34	Habitat, Water Conservation, and Fish Passage Projects in the Deschutes River Basin	Bob Spateholts, PGE
35	Recolonization of the Little Sandy River by Steelhead And Salmon After Dam Removal	Burke Strobel, PWB
36	Bedrock Trench Cutting: An Alternative Technique for Adult Fish Passage	Allison Tarbox, CWA

KEY TO ACRONYMS ON PAGES 22–23

*Student

Technical Sessions, Wednesday, 3/1/2017, 3:00–5:00 pm

	Genetics Case Studies	Warner Basin: A Holistic Watershed Restoration Approach	Restoring Diversity to Riverine Function	Perspectives on Data Visualization, Communication, and Long-Term Study	Diversity and Inclusion in Science	Lakes and Reservoir Research and Management
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade H/I
Moderator	Mike Meeuwig, ODFW Kathleen O'Malley, OSU Marc Johnson, ODFW	Greg Ciannella, OWEB	Stan Gregory, OSU	Ashley Knight, OSU	Gabe Sheoships, FTC/PSU	Jeff Yanke, ODFW
3:00 PM	Applying Genomics to Bull Trout: Biological Insights and Management Applications Justin Bohling, USFWS	An Introduction to the Warner Basin Landscape and Its Priority Species Greg Ciannella, OWEB	Native Fish Communities of the Willamette River and Its Floodplain Stan Gregory, OSU	Incorporating New Technologies into ODFW's Research and Monitoring Shaun Clements, ODFW	We Aren't Saying You Didn't Work Hard to Get Here: Common Misconceptions of Diversity, Equity, and Inclusion Education Gabe Sheoships FTC/PSU	Increasing Awareness of the Battle Between Parasitic Copepods and Juvenile Chinook Salmon Crystal Herron, OSU
3:15 PM	Genetic Monitoring and Evaluation of Chinook Salmon Reintroductions to a Mine-Influenced Watershed: Panther Creek, Idaho Melissa Evans, SBTribes	Holistic Watershed Restoration, Collaboration on a Landscape Scale Affecting Aquatic Habitat to Forest Health Marci Schreder, Lake County UWC	Improving Biodiversity to Build Resilient Urban Ecosystems Melissa Brown, City of Portland BES	Improving the Next Generation of IMW Experimental Designs Mark Rogers, OSU*	Current Status of Gender and Race/Ethnicity Diversity of Faculty and Scientists in Our Fisheries Workforce Ivan Arismendi, OSU	Modelling Juvenile Chinook Salmon Foraging and Bioenergetics to Understand Reservoir Rearing Christina Murphy, OSU*
3:30 PM	Population Recovery: Guidelines Translated into Quantitative Metrics Scott Blakenship, CFS	Success Through Collaboration: An Overview of the Warner Basin Passage and Screening Program Jimmy Leal, BLM	Salmon Recovery: Growing Threats and Growing Collaborative Efforts in the Willamette River Anne Mullan, NOAA	Intensively Monitored Watersheds: What Have We Learned, What Does the Future Hold? Chris Jordan, NOAA	Harnessing the Power of Diversity and Inclusion: Strategies and Initiatives across NOAA Fisheries, W. Coast Region Melanie Okoro, NOAA	Angler Preference Surveys: Findings and Perspectives from Northeast Oregon Tim Bailey, ODFW
3:45 PM	Forensic Science and Fisheries: Genetics As a Fishery Law Enforcement Tool Mary Curtis, USFWS	Successes and Opportunities for Warner Sucker Passage Troy Brandt, RDG	Synthesizing the State of the Science for Cold Water Refuges and Thermal Diversity in the Willamette River Basin Krista Jones, USGS	Developing a Statewide eDNA Monitoring Program for Aquatic Species Jamie Anthony, ODFW	The Effect of Social Capital on the Underrepresented Minorities in Graduate Level Marine Science at the University of Washington Brian Tracey, UW*	Crane Prairie Reservoir Fish Management: Balancing Conservation and Recreational Fisheries Goals Brett Hodgson, ODFW
4:00 PM	Monitoring Anadromous Fish Populations Using Environmental DNA Taal Levi, OSU	Waterfowl Conservation in the Flood-Irrigated Working Lands of the Warner Valley Chris Colson, DU	How Much Do We Really Know About Coldwater Refugia and Behavioral Thermoregulation? Jonathon Armstrong, OSU	Introduction to NOAA's Recovery Action Mapping Tool Shanna Dunn, NOAA	Looking Back and Moving Forward: Professional Inclusion and Tribes Andrew Wildbill, CTUIR	Cascade Lakes Trout Stocking: Survival Using 2 Different Release Methods & Survival of 2 Stocks of Triploid Rainbow Trout Jeff Ziller, ODFW
4:15 PM	Environmental Metagenomics: Casting a Larger Net to Capture Information from More Species Laura Hauck, USFS	Sage Grouse Habitat Restoration in Honey Creek, a Landscape Approach Justin Ferrell, Lake County SWCD	Assessing the Importance of Thermal Refuge Use to Migrating Adult Salmon and Steelhead Joe Ebersole, EPA	Monitoring Oregon's Marine Reserves: Initiating a Long-Term Ecological Data Set Despite the Inevitable Advancements in Technology Ashley Knight, OSU	Protecting Waters and Honoring Fish Through Collective Impact and Systems Thinking Models Ciera Greene, PSU*	Size Matters: Evaluating Catch Rate of Hatchery Rainbow Trout Across Multiple Waterbodies Mike Gauvin, ODFW
4:30 PM	Using Environmental Metabarcoding to Detect Multi-Taxa Aquatic Biodiversity in Streams Brooke Penaluna, USFS	North Warner Multi-Ownership Forest Health Restoration Project Amy Markus, USFS	Full Reconnection of a Large-Scale Historic Oxbow Channel Allison Tarbox, CWA	Columbia River Basin Salmon and Steelhead Population/Unit Crosswalk Geodatabase and Online Interactive Mapping App. Denise Kelsey, CRITFC	CRITFC's Tribal Workforce Development Program Tana Atchley, CTUIR	Henry Hagg Lake: A Tag Team Pilot Project Ben Walczak, ODFW
4:45 PM	Riverscape Genetics: A Practical Guide for Methodology and Analysis of Spatial Genetic Structure in Freshwater Systems Chante Davis, OSU*		Thermal Benefits: An Overlooked Component of In-Stream Habitat Restoration Lucius Caldwell, CFS		Demand for Watershed Groups Jehan Jabaeen, OSU*	Strikes and Gutters, Ups and Downs: Monitoring Kokanee and Mysids Shrimp Populations in Wallowa Lake Jeff Yanke, ODFW

* Student

Technical Sessions, Thursday, 3/2/2017, 8:00–10:00 am

Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade H	Cascade HI
	Lakes and Reservoir Research and Management	A Sub-Sample of Research and Management in the Klamath River Basin	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Perspectives on Data Visualization, Communication, and Long-Term Study	Invasive Species	
Moderator	Jeff Yanke, ODFW	Demian Ebert, PC	Colleen Fagan, ODFW Ted Sedell, ODFW	Jim Capurso, USFS	Ashley Knight, OSU	Toni Pennington, TT Rick Boatner, ODFW	
8:00 AM	Round Butte Dam Forebay Flow Evaluation, Lake Billy Chinook, Oregon Dylan Caldwell, SS	Using Mesocosms to Assess Movement, Survival, and Health of Hatchery-Raised Juvenile Lost River Suckers in Upper Klamath L. Danielle Hereford, USGS	The Stream Evolution Model: Working with Nature to Restore Channel-Floodplain Connectivity Colin Thorne, UN	Freshwater Mussels As Ecosystem Engineers: Small Creatures, Big Impacts Celeste Searles Mazzacano, CASM	Columbia Habitat Monitoring Program (CHAMP) Lessons Learned Boyd Bouwes, WSI	Aquatic Invasive Species Prevention: Watercraft Inspection and Permits Rick Boatner, ODFW	
8:15 AM	Assessing Effectiveness of Predator Control Using Tiger Muskellunge on Northern Pike/minnow in Lakes & Reservoirs Stacie Kelsey, WDFW	Dynamics of Endangered Sucker Populations in Clear Lake Reservoir, California David Hewitt, USGS	Population Trends of the Western Pearlfshell Mussel across Western Montana Watersheds and Future Conservation Measures David Stagliano, MBS	Applying MMIs at High Resolution: An Investigation of Spatial Patterns and Temporal Variation Within an Oregon Watershed Jordan Massie, EPA	Forest Service Aquatic Invasive Species Monitoring in the Pacific Northwest Bruce Hansen, USFS		
8:30 AM	<i>Neomysis mercedis</i> in a Lower Snake River Reservoir: Welcomed Guest or Unwanted Party Crasher? Ken Tiffan, USGS	Seasonal Movements of Redband Trout in Klamath Lake Nicholas Hahlbeck, OSU*	Using Historical Ecology to Guide Stream Habitat Restoration Seth White, CTUIR	Preliminary Report on the I-74 Bridge Replacement Mussel Relocation Emily Grossman, ESI	Adding Unmanned Aircraft Systems to the Monitoring Toolbox Erik Suring, ODFW	Tracking Oregon's Invasive Species with iMapInvasives Lindsey Wise, ORBIC	
8:45 AM	Using Pre And Post Brook Trout Removal Biomass Estimates for Determining Recovery Rate of Bull Trout in Grater Lake Nat'l Park Joseph Lemanski, CTWS	Thermal Effects on Spawn Timing of Redband Trout in the Upper Klamath Basin Matthew Wyatt, ODFW	The Minam River: Characterizing a Reference Watershed and Implications for Restoration Ted Sedell, ODFW	Ontogeny and Systematics: Methodological Advancements and New Approaches Peter Konstantinidis, ODFW/OSU	Collaborating to Develop a Watershed Action Plan Terry Luecker, PUR	Outcomes of Aquatic Invasive Species Management Efforts Help Determine the Cause of Compensatory Population Growth Brian Turner, PSU*	
9:00 AM	Modeling the Effects of Control Efforts on a Population of Common Carp (<i>Cyprinus carpio</i>) in a Shallow Eutrophic Desert Lake James Pearson, OSU*	Instant Gratification: Upper Klamath Basin Afluvial Redband Trout Spawning Gravel Augmentation Bill Tinniswood, ODFW	Grande Ronde Chinook Life Cycle Models: Analyzing Short- and Long-Term Effects of Habitat Restoration Strategies Tom Cooney, NOAA	The Fish Biodiversity of Gabonas Central Ogoou River: Discovery and Assessment Brian Sidlauskas, OSU	Creating New Paradigms for Collaborative Research, Education and Outreach in Coastal Systems Selina Heppell, OSU	Invasive Aquatic Plants: Who, Where, and What to Do, an Overview Toni Pennington, TT	
9:15 AM	Lake Abert: The Lost Fishery Without Fish Joe Eilers, MAI	Influences of Changes in Light on Stream Productivity in Forested Headwaters Emily Heaston, OSU*	Atlas: Strategic Prioritization of Habitat Restoration Actions Based on Research Evidence and Local Consensus David Kaplowe, BPA	Oregon's Marine Species: Diversity and Spatio-Temporal Variability Scott Heppell, OSU	The Top Ten Reasons Groups Can't Solve Problems! Tony Faast, COI	Ribbongrass and Yellowflag Iris Control on the Metolius River Mike Crumrine, ODA	
9:30 AM	Downstream Rearing Juvenile Chinook Salmon in the Upper John Day River Michael Scheu, OSU*	The Persistence and Characteristics of Chinook Salmon Migrations to the Upper Klamath River Prior to Exclusion by Dams John Hamilton, USFWS	Grande Ronde Fish Habitat Program: The Evolution of Fish Habitat Restoration in the Grande Ronde Basin from 1984–2016 Winston Morton, ODFW	Using Genetic Pedigree Reconstruction to Estimate Effective Spawner Abundance and Infer Spawning Behaviors of Pacific Lamprey Steve Whitlock, OSU*	How to Tell and Share Your Story Digitally Timothy Akimoff, ODFW	A Programmatic Approach: Evaluating the Effects of Aquatic Invasive Macrophyte Control on ESA-Listed Salmonids and Their Habitat Melanie Okoro, NOAA	
9:45 AM		Evaluating effectiveness of the Klamath River Coho Enhancement Fund in Benefitting Coho Salmon in the Klamath R. Demian Ebert, PC	Increasing Diversity Through Citizen Science: A Case Study in Stream Restoration Patrick Edwards, PSU	Do Spatial and Temporal Trends Exist for the Relative Abundance of Pacific Lamprey in Spawning Ground Surveys & Dam Counts? Matt Weeber, ODFW	Show Me the Data: Explaining Science with Pictures Kelsey Adkisson, ODFW	Identification, Prevention, and Management of New Zealand Mudsnails (<i>Potamopyrgus antipodarum</i>) Kayla Martin, OR SG	

*Student

Technical Sessions, Thursday, 3/2/2017, 10:20–12:05 pm

	Wild Ideas to Save Salmon	A Sub-Sample of Research and Management in the Klamath River Basin	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Genetics Tools and Applications	Invasive Species
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade HI
Moderator	Steve Kucas, PWB	Demian Ebert, PC	Colleen Fagan, ODFW Ted Sedell, ODFW	Jim Capurso, USFS	Kathleen O'Malley, OSU	Toni Pennington, TT Rick Boatner, ODFW
10:20 AM	Wild Ideas to Save Salmon: Why This Type of Session; Session Ground Rules; and Expectations for Success Steve Kucas, PWB	Using Beavers and Beaver Dam Analogues for Restoration Charna Gilmore, SRWC	Catherine Creek Restoration Corridor: A Large-Scale Multi-Phase Project on Private Land Katie Frenyea, Union SWCD	Lamprey Phylogeny and Distribution in the Willamette National Forest Joseph Helstab, USFS	Exploring the Use of Environmental DNA to Reduce Error in Salmon Redd Counts Burke Strobel, PWB	Diamond Lake and Tui Chub: Using the Past to Inform the Future Evan Leonetti, ODFW
10:35 AM	My Wild Idea: Remove Dams Throughout the Pacific Northwest That Block Fish Passage Amy Stuart, Retired ODFW	Monitoring a Fish Pathogen to Inform Management and Models: A Three-Pronged Program for <i>Ceratonova shasta</i> in the Klamath River Sascha Hallett, OSU	The Disneyland Theory: A Look at 4 Years of Design and Construction on Catherine Creek Jeff Fealko, Rio ASE	Movements, Habitat Use, and Mortality of Bull Trout in the S. Fk. McKenzie River Nik Zymonas, ODFW	Early Phenotypic Differences As a Predictor for Juvenile Chinook Salmon Downstream Migration? Karen Cogliati, OSU	Nutria Impacts and Future Range Expansion Due to Climate Change Mark Sytsma, PSU
10:50 AM	Make Beaver Great Again vs. Sanctuary Streams for Beaver: Moving Beyond Politics to Utilize Beaver in Salmon Conservation Kelly Moore, Retired ODFW	How Genomics Has Changed Our Understanding of <i>Ceratonova shasta</i> in the Klamath River Jerri Bartholomew, OSU	Recovering Stream Flows, Passage, and Fish in the Lostine River Aaron Maxwell, TFT	Isolation, Migration, and Local Recruitment Drive Persistence of Cutthroat Trout Despite Rainbow Trout Invasion Daniel Bingham, RBC	Total Body Lipid in Juvenile Wild, Hatchery, and Wild Surrogate Chinook Salmon Olivia Hakanson, OSU	Responding to Climate Change: Priorities and Synergies Elizabeth Gaar, NOAA
11:05 AM	My Wild Idea: Use Native Broodstock with More Aggressive Biting Behavior for Anglers to Catch More Hatchery Fish Jack Glass, THUGS	Estimating <i>C. shasta</i> Infection Prevalence in Populations of Chinook Salmon Juveniles of the Klamath River Nicholas Som, USFS	Integrating Chinook Salmon Spawning Migration Research and Fish Passage Restoration in the Lostine River Shane Vatland, NPT	The Resurgence and Ecology of Sand Rollers in the Snake River and Their Possible Implications to Chinook Salmon Rulon Hemingway, USGS	The Influence of Hatchery-Origin Strays on the Genetic Composition of Chinook Salmon in the Grays River, Washington Marc Johnson, ODFW	NOAA Fisheries Climate Science Strategy: Western Regional Action Plan Michelle McClure, NOAA
11:20 AM	My Wild Idea: Close All Hatchery Augmentation Programs Ian Courter, MHE	Using Models to Address Data Gaps Related to the Invertebrate Host of the Salmonid Parasite <i>Ceratonova shasta</i> Julie Alexander, OSU	A Contemporary Approach to Headcut Restoration Paul Powers, USFS	Exploring the Mechanics of a Flared Preopercle in Sculpins Thaddaeus Buser, OSU*	Disentangling Indigenous Summer and Winter Steelhead Populations in the Hood River Phil Simpson, ODFW	Incorporating Climate Change into State Fish and Fishery Management Shaun Clements, ODFW
11:35 AM	My Wild Idea: Get Your Target Right Steve Cramer, CFS	Development of a Water Sampling Protocol for Monitoring and Management of <i>Ichthyophthirius multifiliis</i> in the Klamath River Claire Howell, OSU*	Crooked River Floodplain Restoration: Merging Infrastructure with River Restoration Garry Sanders, CRWC	Should I Stay or Should I Go? Movement Patterns of White Sturgeon in the Columbia River Peter Stevens, ODFW	Using Genetics to Compare Olfactory Imprinting Ability Between Hatchery and Wild Salmon from the Pacific Northwest of the USA Katharine Self, OSU*	The Interactive Effect of Salinity and Temperature in the Nile Tilapia Rachel Palmer, PSU*
11:50 AM	Wild Discussion Steve Kucas, PWB	ORAFS Fish Culture Committee Meeting Ryan Couture, ODFW	Lessons Learned from Implementation of River and Stream Restoration Projects in Eastern Washington and Idaho Deb Stewart, MSD	Assessing Passage Success of Warmer Suckers at a Newly Constructed, Sucker-Friendly Fishway in Southeastern Oregon Paul Scheerer, ODFW	Student	

Technical Sessions, Thursday, 3/2/2017, 3:00–5:00 pm

Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G	Cascade H
	Reintroduction of Species	Deschutes Basin Science and Policy	Eastern Oregon and Washington Habitat Restoration	Diversity of Native Fishes and Freshwater Mussels	Diversity and Inclusion in Science	Responding to Climate Change: Priorities and Synergies
Moderator	Toby Kock, USGS Chris Allen, USFWS	Ryan Houston, UDWC	Colleen Fagan, ODFW Ted Sedell, ODFW	Jim Capurso, USFS	Gabe Sheeships, FTC/PSU	Elizabeth Gaar, NOAA
3:00 PM	Evaluating Feasibility of Winter-Run Chinook Reintroduction Upstream of Shasta Dam, California John Hannon, USBR	Introducing Deschutes Basin Science and Policy Ryan Houston, UDWC	Use of Fish-Habitat Relationships in the Selection and Design of Applied Restoration in the Entiat River, Washington Sean Welch, BPA	Exploring the Fishes, Character, and Deep History of the North Fork Pit River, California Stewart Reid, WF	Influencing Success of Women and Minorities in Fisheries and Wildlife Professions Dan Edge, OSU	West Coast Salmon Climate Vulnerability Assessment: Part 1 Lisa Tracey, OAI
3:15 PM	A Bull Trout Sanctuary in Crater Lake National Park: Preliminary Planning for Reintroduction in the Upper Klamath River Basin David Hering, NPS	The Deschutes Partnership: Combining Land Conservation, Streamflow Enhancement, and Stream Restoration for Landscape-Scale Change Brad Nye, DLT	Oxbow Conservation Area Dredge Mining Restoration: Restoring a Landscape for Tribes Brian Cochran, CTWS	Selection of Candidate Odorants As Migratory Cues for Olfactory Imprinting and Homing in Salmonids Mary Kamran, OSU	Diversity in the Water Resources Profession: A Transboundary Adventure Mousa Diabat, QSI	West Coast Salmon Climate Vulnerability Assessment: Part 2 Michelle McClure, NOAA
3:30 PM	The Pelton Round Butte Project: Balancing Water Quality, Fish Passage, Recreation, and Hydropower Production on the Deschutes River Bob Spatehoffs, PGE	Focused Investment Partnerships (FIP): Investing in Collaborative-Based Conservation Andrew Dutterer, OWEB	Oxbow Conservation Area Dredge Mining Restoration: Phases 3–5, Planning and Construction Matt Cox, Interfluve	Jellyfish Blooms off Oregon and Washington: Modeling Impacts upon Salmon Production and Evaluating the Evidence Jim Ruzicka, OSU	Lessons from Teaching Multicultural Perspectives in Natural Resource Management Kelly Biedenweg, OSU	Incorporating Climate Science and Uncertainty: Oregon's Strategy for Non-Game Fishes Kara Anlauf-Dunn, ODFW
3:45 PM	A Clackamas Bull Trout Reintroduction Update at the End of Phase One Chris Allen, USFWS	Streamflow Restoration: Techniques and Tools in Whychus Creek, McKay Creek, and the Upper Deschutes Natasha Bellis, DRC	Lessons in Beaver Based Restoration from the Bridge Creek IMW Nick Weber, ER	ORAFS Native Fish Committee Meeting and Native Fish Award Jim Capurso, USFS	Diversity of Personal Thinking Styles: What Does it Mean and Why Should We Care? Briana Sounhein, ODFW	Puget Sound Basin Thermalscape: An Updated Spatial Stream Network Model of Stream Temperature Andrew Gendaszek, USGS
4:00 PM	Reintroduction of Chum Salmon to Oregon Tributaries to the Columbia River Kris Homel, ODFW	Whychus Creek Habitat Restoration at a Watershed Scale: Opportunities and Challenges Mathias Perle, UDWC	Programmatic Approach to Evaluating Salmon Habitat Improvement Efforts in the Columbia Basin at the Project Scale Jennifer O'Neal, NSD		Connecting Efforts to Achieve Cultural Diversity in AFS Programs at Multiple Scales Christine Moffitt, USGS	Density-Dependence Versus Density Independence Mechanisms Driving Stream-Living Cutthroat Trout Populations Ivan Arismendi, OSU
4:15 PM	Fish Field of Dreams: If You Blow It Up, Will They Come? Juvenile Salmonids in the White Salmon River Following Dam Removal Ian Jezorek, USGS	Stepping Out of the Mold: Restoration Design That Reestablishes the Dynamic Nature of Streams Carl Press, USFS	The Goldilocks Fallacy: Searching for the Perfect River Janine Castro, USFWS		Hutton Junior Fisheries Biology Program: Diversifying Natural Resources on the Oregon Coast Jeff Jackson, BLM	Sea-Level Rise and Salmon Habitats in Selected Oregon Estuaries Rebecca Flitcroft, USFS
4:30 PM	The Reintroduction of Coho Salmon to the Yakima Basin Todd Newsome, YNF	Place-Based Education in the Deschutes Watersheds Kolleen Miller, UDWC				Linking North Pacific Chinook Salmon Habitat Quality with Fish Production in a Changing Climate Cassandra Glaspie, OSU
4:45 PM	Yakama Nation Lake Cle Elum Sockeye Project Brian Saluskin, YNF	Upper Deschutes Basin Study: Rebalancing Water Use in a Changing Climate Kate Fitzpatrick, DRC				Vulnerability Models for Salmon Julie Firman, ODFW

*Student

Technical Sessions, Friday, 3/3/2017, 8:00–10:00 am

	Reintroduction of Species	Deschutes Basin Science and Policy	Best Dam Session	Dirty Water: Studying, Regulating, and Remediating Contaminants in Water Bodies	Resolving Mysteries of <i>Oncorhynchus</i>
Room	Cascade C	Cascade D	Cascade E	Cascade F	Cascade G
Moderator	Toby Kock, USGS Chris Allen, USFWS	Ryan Houston, UDWC	Christina Uh, PSU	Casie Smith, USGS Lorri Epstein, CRK	Elizabeth Osier-Moats, ODFW
8:00 AM	Genetic Monitoring of Sockeye Salmon Reintroductions: Informed Opportunities and Adaptive Management Andrew Matala, CRITFC	Irrigation Modernization to Meet Environmental and Agricultural Needs at Scale in Oregon's Deschutes Basin Brett Golden, FCA	Implications of Expanded Sport Harvest following Dam Removal on the Hood River: Results and Management Strategies Robert Reagan, ODFW	Coho Salmon Spawner Mortality in Western U.S. Urban Watersheds: Bioinfiltration Prevents Lethal Storm Water Impacts Ken King, NOAA	Geomagnetic Orientation Aids in Vertical Migration of Emergent Juvenile Chinook Salmon (<i>Oncorhynchus tshawytscha</i>) Michelle Scanlan, OSU
8:15 AM	Anadromous Fish Reintroduction Planning Effort for Upstream of Chief Joseph and Grand Coulee Dams Steve Smith, CCT	Three Sisters Irrigation District Whychus Creek Collaborative Restoration Project Marc Thalacker, TSID	Trask River Dam Removal Greg Apke, ODFW	ESA Recovery Plans and the Need for Action Measures Concerning Contaminants Carl Schreck, OSU	Emergence Timing, Threshold Traits and Life History Variation in Chinook Salmon Brian Beckman, NOAA
8:30 AM	Geospatial Tools to Assess Risks of Reintroducing Anadromous Salmonids above Grand Coulee Dam Jim Hatten, USGS	Oregon Spotted Frog Biology, Threats, and Conservation Strategies Jay Bowerman, SNCO	Strategic Culvert Replacement: A Catalyst for Habitat Enhancement, Community Development and Improving Socio-Ecological Resiliency Scott Bailey, TEP	A Few Cadmium-Treated Fish Affect Group Dynamics and Social Behavior in Zebrafish Delia Shelton, OSU	Shifting Age Class of Summer Steelhead Smolts in the South Fork John Day River Logan Breshears, ODFW
8:45 AM	Whoosh!: A Functional Tool for Upstream Reintroduction Todd Deligan, WI	Timing and Composition of Lower Deschutes Hatchery-Stray Steelhead Derrek Faber, ODFW	Juvenile Coho Movements and Habitat Connectivity in Lowland Tide Gated Streams of Coos Bay, Oregon Ed Hughes, CWA	Bioaccumulation and Ecological Effects of Contaminant Stressors in Columbia River Aquatic Food Webs Elena Nilsen, USGS	Winter Steelhead Redd Density and Island Association Frank Drake, ODFW
9:00 AM	Reintroducing Salmon Above Dams: Benefits and Challenges to Fish Rearing in Reservoirs Fred Monzyk, ODFW		Aiding Adult Pacific Lamprey Passage at Low-Elevation Dams in the Umatilla River, Oregon Mary Moser, NOAA	Building on What We Have Learned About Toxics in the Columbia River: Pathways, Pseudo-Persistence, and Unknowns Jennifer Morace, USGS	Juvenile Migration Behavior of Hatchery Reared Steelhead from an Integrated Broodstock Fed A Standard Lipid vs Low Lipid Diet Ben Kennedy, USFWS
9:15 AM	An Evaluation of Three Spring Chinook Salmon Genetic Pedigrees in the Upper Willamette River, Oregon Andrew Black, OSU		Prospective Analyses of Experimental Hydrosystem Management Options on Snake River Spring/Summer Chinook Salmon and Steelhead Steve Haeseke, USFWS	The Complexities of Managing Water Quality with Hydropower Operations at the Pelton Round Butte Project Lori Campbell, PGE	Growth of Individual Chinook and Steelhead Juveniles and the Efficacy of In-Stream Habitat Restoration Karl Polivka, USFS
9:30 AM	Salmon After a Century: Success of the 2016 Inaugural Fishery in the Malheur River, Oregon Erica Maltz, BPT	ORAFS Education & Outreach Committee Meeting Ryan Battelison, E/O Committee Chair		Occurrence and Implications of Toxic Contaminants in Oregon's Aquatic Environments Daniel Brown, ODEQ	Validation of Spring Chinook and Steelhead Habitat Suitability Index Models in the Entiat River, WA Sara Smith, TI
9:45 AM	From Surplus to Bonus: How Unplanned Reintroductions Informed Salmon Recovery Efforts in the Willamette River, Oregon Cameron Sharpe, ODFW		Oregon's Pesticide Water Quality Monitoring and Stewardship Programs Kevin Masterson, ODEQ	Are Recent Increases in Columbia Basin Natural-Origin Steelhead Adult Return Abundance a Response to Restoration Actions? Bill Bosch, YNF	

< Coffee Break >

AFFILIATION ACRONYMS

ASE = Applied Science and Engineering
BES = Bureau of Environmental Services
BLM = Bureau of Land Management
BPA = Bonneville Power Administration

BPT = Burns Paiute Tribes
CASM = CASM Environmental, LLC
CCT = Colville Confederated Tribes
CFS = Cramer Fish Sciences
COI = Cascade Outreach Institute

CRITFC = Columbia River Inter-Tribal Fish Commission
CRK = Columbia River Keepers
CRWC = Crooked River Watershed Council
CTGR = Confederated Tribes of the Grand Ronde

CTUIR = Confederated Tribes of the Umatilla Indian Reservation
CTWS = Confederated Tribes of the Warm Springs
CWA = Coos Watershed Association

DRA = Deschutes River Alliance
DRC = Deschutes River Conservancy
DLT = Deschutes Land Trust
DU = Ducks Unlimited
EPA = Environmental Protection Agency

'Student

Technical Sessions, Friday, 3/3/2017, 10:20–12:05 pm

	Reintroduction of Species	Legislative Policy and Science	Wet and Wild	Dirty Water: Studying, Regulating, and Remediating Contaminants in Water Bodies
Room	Cascade C	Cascade D	Cascade E	Cascade F
Moderator	Toby Kock, USGS Chris Allen, USFWS	Erik Kancler, KC, Haley Lutz, NNWC & Troy Brandt, RDG	Laura Tesler, ODFW	Casie Smith, USGS Lorri Epstein, CRK
10:20 AM	Pacific Lamprey: Keeping the 450 Million Year Tradition Alive and Strong in the Upper Columbia Tyler Beals, YNF	Impacting Fisheries Policymaking with Science Erik Kancler, KC	Return to the River: Behavior and Spawning of Chum, Fall Chinook, and Coho Salmon on the Northern Oregon Coast Derek Wiley, ODFW	How the Endangered Species Act and Ecotoxicology Are Changing Water Quality Management in Oregon Marc Liverman, NOAA
10:35 AM	Pacific Lamprey Translocation at Fall Creek Torey Wakeland, CTGR	ORAFS Role with Legislators Haley Lutz, NNWC	River Diving Laura Tesler, ODFW	Distribution and Fate of the Antidiabetic Drug, Metformin, in the Columbia River Tawyna Peterson, OHSU
10:50 AM	Parentage Based Tagging As a Tool for Research, Monitoring and Evaluation of Conservation Efforts to Restore Pacific Lamprey in the Interior Columbia River John Hess, CRITFC	Angler Advocacy in Fisheries Policy Dwayne Meadows, TU	Bringing Nature Scott Heppell, OSU	Portland Harbor Superfund Site: After 16 Years of Study, What Is Next? Dave Livesay, GSI Water Solutions
11:05 AM	Can We Have Our Cows and Our Chinook Too? Reintroducing Grazing After 14 Years of Riparian Recovery on a Tribal Conservation Area Emily Davis, CTWS	At the Intersection of Science & Policy: International Shark Conservation & Management Andrew Futterman, L&C*	Using Underwater Video and Time-Lapse Photography to Illustrate and Document Salmonid Reintroduction Following Barrier Removal Thomas Dunklin, TBDP	Hexavalent Chromium in the Columbia River from Hanford Activities Sara Lovtang, ODE
11:20 AM			Honoring the Culture and Science of Native Freshwater Mussels, Salmon, and Indigenous Peoples [film] Sammy Matsaw, UI*	Meta-Analysis of Studies of Herbicide and Pesticide Effect on Aquatic Life Ian Tattam, ODFW
11:35 AM		Legislative Discussion Led by ORAFS Legislative Committee Erik Kancler, Haley Lutz, Troy Brandt		Pesticide/Herbicide Discussion Led by ORAFS Freshwater Habitat & Natural Production Committees Ian Tattam & Bill Wall
11:50 AM				

*Student

- ER** = Eco-logical Research
ESI = Ecological Specialists, Inc
FCA = Farmers Conservation Alliance
FRESC = Forest and Rangeland Ecosystem Science Center
FTC = Friends of Tryon Creek
KC = Kancler Consulting
L&C = Lewis & Clark Law School
MAI = MaxDepth Aquatics, Inc
MHE = Mount Hood Environmental
MBS = Montana Biological Survey
NNWC = Nestucca, Neskowin Watersheds Council
NSD = Natural Systems Design
- NOAA** = National Oceanic and Atmospheric Administration
NPS = National Park Service
NPT = Nez Perce Tribe
OAI = Ocean Associates Inc
ODA = Oregon Department of Agriculture
ODE = Oregon Department of Energy
ODEQ = Oregon Department of Environmental Quality
ODFW = Oregon Department of Fish and Wildlife
OHSU = Oregon Health & Science University
OIT = Oregon Institute of Technology
ORBIC = Oregon Biodiversity Info. Center
- OR SG** = Oregon Sea Grant
OSU = Oregon State University
OWEB = Oregon Watershed Enhancement Board
PC = PacificCorp
PGE = Portland General Electric
PSU = Portland State University
PUR = Partnership for the Umpqua River
PWB = Portland Water Bureau
QSI = Quantum Spatial Inc
RBC = Rogue Biological Consultants
RDG = River Design Group
RTGP = RTG Photography
SBTribes = Shoshone-Bannock Tribes
- SNCO** = Sunriver Nature Center & Observatory
SRWC = Scott River Watershed Council
SS = Stillwater Sciences
SWCD = Soil and Water Conservation District
TBDP = Thomas B. Dunklin Productions
TEP = Tillamook Estuary Partnership
TFT = The Freshwater Trust
THUGS = Team Hook Up Guide Service
TI = Terraqua Inc
TSID = Three Sisters Irrigation District
TT = TetraTech
TU = Trout Unlimited
UDWC = Upper Deschutes Watershed Council
UI = University of Idaho
- UN** = University of Nottingham, UK
USBR = U.S. Bureau of Reclamation
USFS = U.S. Forest Service
USFWS = U.S. Fish & Wildlife Service
USRTF = Upper Snake River Tribes Foundation
UW = University of Washington
UWC = Umbrella Watershed Council
WDFW = Washington Dept. of Fish & Wildlife
WI = Whoosh Innovations
WF = Western Fishes
YNF = Yakama Nation Fisheries

Agenda
Oregon Chapter of the American Fisheries Society
Annual Business Meeting

March 2, 2017 | Bend, Oregon

- 1:45 PM** **Call to Order (Ben Clemens)**
- Identify Parliamentarian
 - Determination of Quorum (50 voting members)
 - Recognitions:
 - 2016 Division & National Outstanding Chapter of the Year Awards
 - Executive Committee
 - Committee Chairs, Newsletter, Web Master
 - Sponsors, Vendors and Special Guests
- 1:50 PM** **Approve Minutes from 2016 Annual Business Meeting (Ben Clemens)**
- Summarize Financial Statement, FY 2016-2017 (Tony Siniscal)
- 1:55 PM** **President's Report (Ben Clemens)**
- Strategic Plan Goals and Accomplishments
 - Products, Sponsorships, and Communications
 - New Business
- 2:05 PM** **WDAFS Update (Brian Missildine)**
- WDAFS Activities
 - 2017 WDAFS Meeting – Missoula, Montana
- 2:10 PM** **Student Subunit Report (Jacob Peterson)**
- 2:15 PM** **External Director's Report (Cory Sipher)**
- Legislative Committee
 - Other Committee Actions
- 2:20 PM** **Election of New Officers (Ben Clemens)**
- Candidates*
- President-Elect: Kris Homel (ODFW)
 - Vice President: Shannon Richardson (ODFW)
 - Secretary: Josie Thompson (ODFW)
 - Treasurer: Katie Pierson (ODFW) and Terry Luecker (PUR)
 - Internal Director: Kevin Stertz (ODFW)
 - External Director: Dan Bingham (RBC)
- 2:35 PM** **Presentation of Past President Award (Ben Clemens)**
- 2:45 PM** **Adjourn**

Annual Business Meeting Minutes

Oregon Chapter of the American Fisheries Society

March 3, 2016 | Seaside, Oregon

DATE: January 3, 2017

TO: Oregon Chapter American Fisheries Society Membership

FROM: Tony Siniscal, Treasurer

SUBJECT: Minutes from ORAFS Business Meeting at the 52nd Annual Meeting of the Oregon Chapter of the American Fisheries Society, Thursday, March 3, 2016, from 1:29 to 2:15 PM.

LOCATION: Necanicum Room, Seaside Civic and Convention Center, Seaside, Oregon.

President Troy Brandt called the 2016 Business Meeting to order at 1:29 PM and selected Jim Hall as parliamentarian; Jim declared that a quorum was present. Troy thanked everyone for attending the 2016 Business Meeting. Troy introduced the 2015–2016 ORAFS Executive Committee and recognized Plenary Speakers Emma Coddington and Jeremy Monroe. Troy expressed his gratitude to the planning committee chairs, vendors, sponsors, speakers and the Seaside Convention Center staff for making this a successful meeting. Troy also recognized all of the External Committee Chairs, the Piscatorial Press editor, webmaster, and the Portland AFS Meeting Planning Team.

Troy introduced Secretary/Treasurer, Tony Siniscal, who summarized the Chapter's finances and expenditures as they relate to the primary goals of the Chapter for fiscal year (FY) 2015. FY 2016 is shaping up to be very successful financially and has been bolstered by the revenues made from the very successful Portland AFS meeting in August of 2015. Tony noted that the Chapter did not have a stand-alone chapter meeting or an official business meeting during FY 2015 because of the AFS Portland meeting. The minutes, financial statements, and the Executive Committee elections were approved and conducted through e-ballot for the first time in 2015 and the process was successful. Tony closed by indicating that the current Executive Committee has been working hard to develop strategies to maintain and improve the excellent programs that the Chapter has while also working to secure the Chapter's financial sustainability into the future.

Troy reconvened by summarizing the Chapter's Strategic Plan Goals, activities, products, and major accomplishments in FY 2016. The list included hosting the Portland AFS meeting and

this 52nd annual Chapter Meeting, providing several sponsorships for professional meetings and the publishing of the Fishes of Oregon Book, providing several scholarships for students and awards for fisheries professionals, and establishing a lifetime Chapter membership. Troy also highlighted several of the ongoing accomplishments to be completed before the end of this term, including winning the WDAFS Chapter of the Year Award and applying for the AFS Chapter of the Year Award, creating a fee waiver policy for Chapter events, updating the annual meeting planning handbook, updating the Chapter Investment Policy, and balancing Chapter revenue to be more in line with Chapter expenses.

Troy introduced Western Division AFS (WDAFS) President Jim Bowker. Jim acknowledged former and current ORAFS presidents Todd Buchholz, Mike Gauvin, and Troy Brandt, and is looking forward to working with President-Elect Ben Clemens. Jim recognized the Oregon Chapter as the current WDAFS Chapter of the Year and noted the many times that the Oregon Chapter has received the award. Jim also congratulated the Chapter on the successful meeting in Portland. Jim highlighted some recent AFS and the WDAFS programs and opportunities that he encourages people to take advantage of, including a leadership program at the AFS Kansas City meeting, a travel grant available to attend the upcoming WDAFS meeting in Reno, the professional fisheries certification grant, and the new WDAFS Resource Policy and Environmental Concerns Committee. Jim thanked everyone for the opportunity to address the Chapter and looks forward to more collaboration in the future.

Troy introduced Student Subunit Liaison, Justin McKinney. Justin described the mission of the Oregon State University Fisheries and Wildlife Club and gave an overview of the active and successful year. The Club made a large effort to connect students with professionals, participated in a tour and research at the Oregon Hatchery Research Center, held a workshop to teach children about salmon biology and ecology, invited an Oregon Department of Fish and Wildlife biologist to give a talk at one of the Club's meetings and offered an internship program to students. Justin summarized the year's upcoming field trips and asked any

interested professionals to reach out and get involved in the student subunit and mentorship programs.

Troy introduced External Director, Cory Sipher. Cory acknowledged the External Committee chairs and thanked them for their hard work. Cory highlighted a few of the specific achievements of the committees, including the 2015 Nongame Native Fish Workshop, the Freshwater Habitat Workshop, and the Native Fish Conservationist Award given at the AFS Portland Meeting. Cory introduced Legislative Committee Chair Haley Blake, who gave an overview of the committee's work in FY 2016. The Legislative Committee tracked three bills, including Senate Bill 830 on suction dredge mining. The Chapter White Paper on suction dredge mining was updated in 2015 and is ready for consideration by the legislature.

Troy introduced Past President Mike Gauvin. Mike discussed the recruitment process for Executive Committee candidates and announced the winners of this year's elections. The elections were conducted by e-ballot for the second year in a row, and the voting participation in the election has been encouraging. Mike also announced that the proposed 2015 bylaw splitting the Secretary/Treasurer position passed, and there will now be two positions. Mike announced the winners of the election for Executive Committee 2015–2016: The officers are Shivonne Nesbit for President-Elect, Jeremy Romer for Vice President, Gary Vonderohe for Internal Director, Cory Sipher for External Director, Tony Siniscal for Treasurer, and Katie Pierson for Secretary. Mike congratulated the winners. Troy presented the Past President Award to Mike and thanked Mike for his valuable guidance and experience, always making the Chapter a priority and upholding tradition, putting in large amounts of time, and always stressing "What do you want your legacy to be?" Mike will be deeply missed on ExCom. Troy gave the award to Mike, and Mike gave a brief speech, highlighting the years during his tenure on the Executive Committee.

Troy thanked the membership for attending the business meeting and asked for a motion to adjourn. There was a motion and a second to adjourn the business meeting. All voted in favor, and the 2016 ORAFS Business Meeting adjourned at 2:15 PM.

FINANCIAL STATEMENT FOR FISCAL YEAR 2016

May 01, 2015 to April 30, 2016

EXPENSES**Core Costs**

Accountant Fees	\$(938.00)
ExCom Mileage	\$-
Office Expenses	\$(96.29)
ExCom Spring Retreat	\$(2,962.54)
Excom Fall Retreat	\$(2,779.35)
Supplies	\$(159.99)
Postbox Rental	\$(82.00)
Website Domain	\$(249.98)
Insurance for Inside Events (\$(150.00)
Business registry	\$(50.00)
Total	\$(7,468.15)

Goal 1 – Develop programs that advance understanding of fishery science and responsible stewardship of fishery resources

Expense for President or designee to attend WDAFS AM	\$(615.72)
Expense for Portland 2015 marketing materials	\$(2,860.26)
Expense for President or designee to WDAFS Mid-Year	\$(630.18)
Expense for ExCom officers to attend AFS Portland AM	\$(1,889.39)
Expense for President or designee to attend WDAFS Annual Retreat	\$-
Sponsorship of non-ORAFS conferences and projects	\$(2,249.00)
Support production of the Fishes of Oregon book	\$(1,500.00)
Total	\$(9,744.55)

Goal 2 – Advocate policies and laws that benefit the conservation and sustainability of Oregon fishery resources

Legislative Liaison	\$-
External Director Mileage for legislative duties	\$-
External Director Expenses (committee support, testimony)	\$-
Total	\$-

Goal 3 – Increase public awareness, understanding, and appreciation of fishery resources

Participation grants for K–12 schools	\$-
Education material project grants	\$(1,996.00)
Sponsor up to two K–12 teachers to attend Seaside 2016	\$-
Total	\$(1,996.00)

Save the Date!

ORAFS Annual Meeting 2018



Tuesday, March 13 - Friday, March 16
Hilton | Eugene, OR



Gary Vonderohe

2017 OREGON CHAPTER AMERICAN FISHERIES SOCIETY Annual Meeting

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