

2017 AFS/TWS JOINT CONFERENCE
“COMMON GROUNDS:
WHERE LAND AND WATER MEET”

27 February – 3 March, 2017
Boise Centre
Boise, Idaho



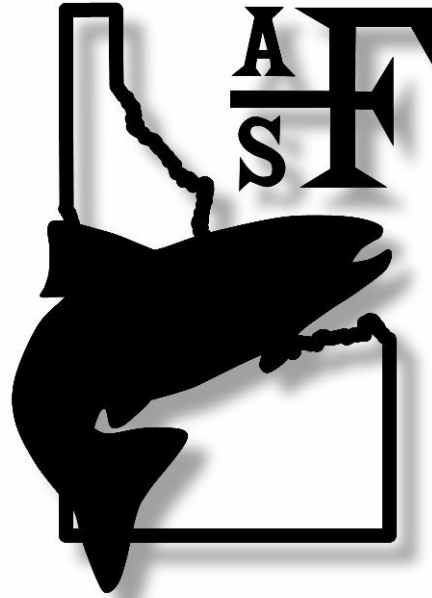
COMMON GROUNDS: *where land and water meet*

PROGRAM

2017 Joint Partners



Idaho Chapter of the Wildlife Society



Idaho Chapter of the American Fisheries Society

2017 Associated Meetings

- ◆ Idaho Bat Working Group
- ◆ Idaho Bird Conservation Partnership



Cover Art by Elise Lewerenz



Boise Centre Layout

BOISE CENTRE FACILITY MAP





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Executive Boards & Conference Organizing Committee:

Idaho Chapter The Wildlife Society

Aren Eddingsaas	President
Anna Owsiak	President-Elect
Vacant	Vice-President
Lisa Nutt	Secretary
Becky Abel	Treasurer
Quinn Shurtliff	Past-President

Idaho Chapter American Fisheries Society

Jay Hesse	President
Helen Neville	President-Elect
Dan Schill	Vice-President
Carson Watkins	Secretary
Kevin Meyer	Treasurer
Eric Pankau	Nominations Chair
Jim Chandler	Past President

Student Chapter Presidents:

Laura Jenkins, Palouse Student Unit
Darcy McCarrick, BYI-Idaho Student Unit
Tyson Hallbert, Portneuf Student Unit

2017 Joint Meeting Contributors

We extend a special thank-you to the many session chairs, conference volunteers who helped with AV and other logistics (specifically Liz Mamer, Kristi Stevenson, and Pam Bond), and the silent auction and raffle volunteers who help ensure fundraising success for all the organizations. Your efforts have helped ensure the success of this year's meeting and are greatly appreciated.

We would like to thank the following organizing committee members for making this conference possible.

- Program Committee (Helen Neville, Anna Owsiak, Justin Barrett, Sabrina Beus, Maria Pacioretty)
- Fund-Raising Committee (Steve Anglea, Ryan Banks, Deniz Aygen, Sam Mattise)
- Sponsorship Committee (Steve Anglea, Ryan Banks, Gregg Servheen, Josh White)
- Paper/poster judging coordinators (Ross Winton, Kevin Warner, Jim Chandler, Darcy McCarrick)
- Student Activities (Laura Jenkins, Tyson Hallbert, Darcy McCarrick, Drew Retherford, Zoe Tinkle, Quinn Shurtliff)
- Volunteer Coordinators (Jim Chandler, Darcy McCarrick)

Conference Contact (Co-Chairs)

Helen Neville - (ICAFS) hneville@tu.org; 775-813-0269
Anna Owsiak - (ICTWS) anna.owsiak@idfg.idaho.gov; 208-705-9118



Meeting Introduction and Host City

Meeting Introduction

The American Fisheries Society and The Wildlife Society 2017 Joint Meeting is 27 February—3 March, 2017 in Boise, Idaho. This year's conference offers a diverse scientific program with a plenary session, special sessions, workshops, contributed oral and poster presentations, welcoming social, student social, banquet, student activities and the annual business meetings of both societies.

Host City — Boise, Idaho

Welcome to Boise, the City of Trees! With about 220,000 residents, Boise is the capital city of Idaho and county seat of Ada County. The city is located in southwestern Idaho, about 41 miles (66 km) east of the Oregon border, and 110 miles (177 km) north of the Nevada border. The city sits at an elevation of 2,704 ft (824m) above sea level, on the Snake River plain within southern Idaho.

Accounts differ about the origin of the name. One account credits Capt. B.L.E. Bonneville of the U.S. Army as its source. After trekking for weeks through dry and rough terrain, his exploration party reached an overlook with a view of the Boise River Valley. The place where they stood is called Bonneville Point, located on the Oregon Trail east of the city. According to the story, a French-speaking guide, overwhelmed by the sight of the verdant river, yelled "Les bois! Les bois!" ("The wood! The wood!")—and the name stuck.

The name may instead derive from earlier mountain men, who named the river that flows through it. In the 1820s, French Canadian fur trappers set trap lines in the vicinity. Set in a high-desert area, the tree-lined valley of the Boise River became a distinct landmark, an oasis dominated by cottonwood trees. They called this "La rivière boisée", which means "the wooded river."

A few things to do while here:

Boise Culture —Downtown Boise is home to many small businesses, local restaurants, bars and boutiques, and supports a vibrant nightlife. There is an array of local culture and history, including the Idaho State Capital building, the Basque Block, and the Egyptian Theater. Boise hosts a vibrant fine arts community, with an array of galleries including Art Source, Brown's, and Ward Hooper Vintage Style Galleries.

Boise Art Museum —The Boise Art Museum (BAM) is located at 670 Julia Davis Drive, and hosts a growing collection of contemporary realism, modern and contemporary ceramics, as well as the largest public collection of works by acclaimed Idaho outsider artist and bookmaker James Charles Castle. The museum also features major traveling exhibitions and installations throughout the year. More information can be found at www.boiseartmuseum.org.

World Center for Birds of Prey—The center is the headquarters for The Peregrine Fund, an international non-profit organization founded in 1970 that conserves endangered raptors around the world. Located south of the airport and east of Kuna, the center has facilities for breeding endangered raptors, and the Velma Morrison Interpretive Center features interactive displays, multi-media shows and live demonstrations with hawks, falcons, eagles and owls.

Additional information on recreational, cultural, educational and shopping opportunities is available online for Boise and the surrounding Treasure Valley area at <https://www.facebook.com/places/Things-to-do-in-Boise-Idaho/104084489628657/>

Conference Venue

All conference activities will take place at the Boise Centre (850 W Front St, Boise, ID, Phone- 208-336-8900, boisecentre.com)



TWS Meeting Sponsorship

2017 Joint Meeting Sponsors

We wish to thank the following organizations and businesses for sponsoring the 2017 Joint Meeting.

Silver Sponsors (\$1,200-\$1,799):



**University
of Idaho**



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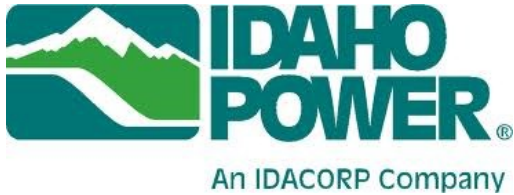
Bronze Sponsors (\$500-\$1,199):





TWS Meeting Sponsorship

Bronze Sponsors continued:



Supporting Sponsors (\$100-\$499):



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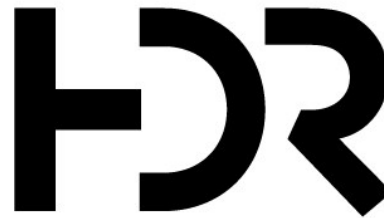
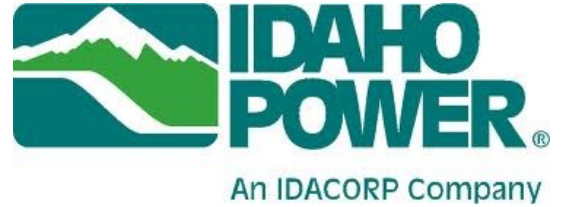


Steve Spencer
Wildlife, Landscape & Portrait Artist
Idaho Falls, Idaho

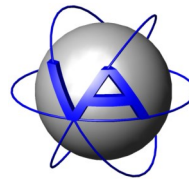
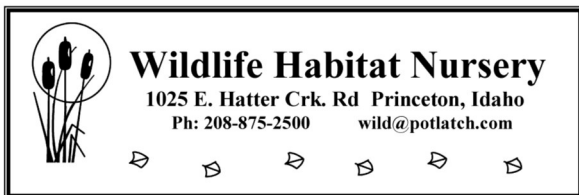


AFS Meeting Sponsorship

Sturgeon Sponsorship (\$1000):



Chinook Sponsorship (\$500):



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AFS Meeting Sponsorship

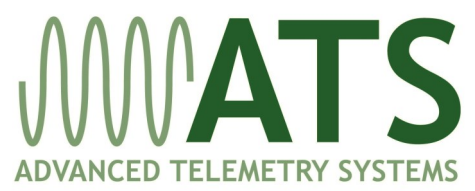
Chinook Sponsorship Continued:



Bull Trout Sponsorship (\$350):



Cutthroat Trout Sponsorship (\$200)





Auction and Raffle Item Donors

We wish to thank the following individuals, businesses and organizations that supported the 2017 Joint Meeting with auction and raffle item donations:

AD Maddox Studios	Hampton Inn-Boise	Simms Fishing
Aire	Hank Shaw	Southwest Airlines
Alana Jensen	Idaho Angler	Sportsmens Warehouse
Alaska Airlines	Island Park Cabins and Lodges	SpringHill Suites- Boise
Ann Moser	Jack Depperschmidt	The Chocolat Bar
Big 5 Sporting Goods	Jason Vogel	SpringHill Suites- Coeur d'Alene
Big City Coffee	Java	Steve Elle
Bogus Basin	Jay Hesse	The Coeur d'Alene Resort
Bradley Smokers	Jerry and Carrie Hugo	The Flicks
Buck Knives	Joe DuPont	The World Center for Birds of Prey-
Cabela's- Boise	Joe Kozfkay	Peregrine Fund
Cabela's	Joel Sauder	Three Rivers Ranch
Camp, Cabin and Home	Justin Peterson	Tidal Vision
Chip Corsi	Ken Miracle	Tightlines Studios
Christine Moffitt	Laura Sprague	Toby Boudreau
D&B Supply	Lochsa Losge	Tower
David Bennett	Mark Sussino	Vortex Optics
DeYoung Studios	McMillen Jacobs and Associates	Washington Trust Bank- Boise
Dick's Sporting Goods	Montana Fly Company	Wildwings Studios
Don Jenkins	Morning Star Lanyards	Zoo Boise
Duck's Unlimited- Idaho	No Flap Ear Wrap	
Eagle Nest Outfitters	Orion Coolers	
Eclipse Broadheads	Orvis	
Eric Pankau	Otterbox	
First Lite	Paul Jansen	
Finn Utility	Rep Your Water	
Floy Tag	Roaring Springs	
Fluff for the Particular	Robert Magill	
Flying M Coffee	ROW Adventures	
Gail Savage	Russ Thurow	
Gun Dog Supply Company	Scott Kraynak	
Halltech Aquatic Research Inc.	Sharon Kiefer	

Some donor names were not available by the time this program went to print. We extend a sincere thank you to those of you whose names are not listed above, your generous support of this conference and of our organizations is sincerely appreciated!



Special Awards—Presented at the Business Lunches on Thursday

Idaho Chapter of the Wildlife Society Awards

Charles E. Harris Professional Wildlifer Award

This award honors professionals in wildlife management. It is given to demonstrate outstanding contributions to Idaho's wildlife resources as appreciated by one's peers. The award is meant to recognize outstanding professional contribution and promote public understanding of significant wildlife management accomplishments in Idaho.

Special Recognition Award

This award honors any person or group who has made an outstanding contribution within the state of Idaho to wildlife conservation, management, science, conservation education, the wildlife profession or to an area of endeavor species, community, ecosystem or region. Any person or group who has made such a contribution in the last 3 years is eligible for this award.

Randall B. Smith Emerging Leader Award

This award is intended to honor a professional with five (5) or less years of experience in wildlife conservation, management, or research in Idaho who demonstrates exceptional initiative, leadership skills, and commitment to the field. The Award is in memory of Randy Smith, who trained and mentored many young wildlife professionals throughout his career.

Idaho Chapter of the American Fisheries Society Awards

Lifetime Achievement Award

Awarded to individuals who are either retired or within five years of retirement and have made significant and sustained contributions to improve the conservation and sustainability of fishery resources and aquatic ecosystems. This work may include but is not limited to making significant contributions in advancing fisheries and aquatic science, implementing important fish and aquatic management, or promoting the development of fisheries professionals.

Distinguished Service Award

Awarded to individuals who have made significant contributions in furthering the work of the Chapter. This award is specific to service within the Chapter.

Outstanding Fish Professional Award

Awarded to individuals who have made a significant contribution to improve the conservation and sustainability of fishery resources and aquatic ecosystems. This award is specific to service outside of the Chapter.

Outstanding Mentor Award

Recognizes those who have gone above and beyond the call in mentoring students and/or young professionals and have invested their time over the years to make a difference in the development of folks within our profession.



Special Awards—Continued

Idaho Chapter of the American Fisheries Society Awards

Richard L. Wallace Native Fish Conservationist of the Year Award

This award is sponsored by the Native Fish Committee. The award was created by the Native Fish Committee in 2004 and is presented annually to an individual, group, or organization for outstanding achievement in native fish conservation in Idaho.

Excellence in Aquaculture Award

This award is sponsored by the Aquaculture Committee. And presented to an individual or aquaculture facility for outstanding achievement in the field of aquaculture or aquaculture related research.

Habitat Improvement Award

The Habitat Improvement Award is given either to individuals or a team who have demonstrated significant contributions towards improving fish and aquatic habitat, restoring floodplains, and enhancing riverine systems for fish spawning and rearing. This work may include, but is not limited to, landowner coordination efforts, design and implementation of habitat features, restoring fish passage, and restoring conditions closer to natural and native river landscapes.





AFS Committees

Please visit <http://www.idahoafs.org/committees.php> to learn more about missions and goals of each AFS committee. Please choose a group that interests you, and join us for the in-person meetings on Wednesday!

Native Fish Committee: We work to promote the conservation of Idaho's native fishes through education, outreach activities, public recognition of outstanding work towards native fish conservation, and by serving as an outlet for the discussion and dissemination of information pertinent to native fishes of Idaho. In this year's in-person meeting we will 1.) Discuss options for this year's Committee field trip to observe, learn about, and contribute to the conservation of some of Idaho's unique native fishes, 2.) Discuss how to continue to develop additional native fish lessons for Trout-In-the-Classroom, and 3.) Develop new ideas to further the Committee's mission.

Aquaculture Committee: Our goal is to promote the continuing development and enhancement of aquaculture and recognize its significance as a legitimate food source and an integral tool used in fisheries conservation and management. In this year's in-person committee meeting we will 1.) Get input for our new ICASF Public Outreach Brochure and 2.) Design our Summer Field Trip/Meeting.

Anadromous Fish Committee: Our goal is to advance knowledge and appreciation of Idaho's anadromous fish resources and aquatic habitats upon which they depend, and to promote the use of sound science and education towards conservation and recovery of the fishery resource. In this year's committee meeting we will focus on the continuation of three projects:

1) Installation of a Stream of Dreams (<http://www.streamofdreams.net/>) project in Riggins, ID at a popular fishing access; 2) Development of our "Chinook Cam" concept that would allow viewers to watch Chinook salmon build redds in real time via a remote camera and website (similar to the falcon cam concept); 3) Design of interpretative signs at roadside locations near major Chinook and Steelhead spawning habitat explaining the life cycle and environmental requirements for spawning Chinook and Steelhead.

Public Education Committee: We work to increase public knowledge, respect, and stewardship for aquatic resources. Members of the committee come together from varied backgrounds with different strengths. Our committee has a hand in educating people of all ages about aquatic resources and helping budding fisheries professionals achieve their career goals. Come to our break-out meeting and help us continue to support public and K-12 aquatic education projects, connect classrooms with fisheries biologists, and administer student scholarships.

Mentoring Committee: We facilitate formal and informal mentoring by encouraging chapter members to become mentors to students and young professionals in the ICASF. The goal of the Committee is to assist ICASF students and young professionals in developing successful fisheries careers. During the Committee meeting we will be taking feedback on existing mentoring committee activities and discussing activities for the upcoming year.

Aquatic Habitat Committee: We strive to create and maintain multiple aspects of a healthy aquatic environment (in-stream complexity, structures, floodplain connectivity, and ecosystem health) for productive life stage persistence. Our goals are to provide education, lessons learned from implementation, and a network for professionals involved in the several million dollars spent every year on repairing fish habitat throughout Idaho. Our Committee meeting will focus on educational ideas for 2018, field opportunities to increase construction experience, networking and learning of ongoing work and challenges (permits, construction, funding, etc.), and improving project communication to the public.



TWS Committees

Awards Committee- Seeks and evaluates nominations for the Charles E. Harris Professional Wildlifer Award and the Special Recognition Award. (Chair, Ryan Long)

Conservation Affairs Committee- Reviews legislative proposals, administrative regulations, environmental assessments and impact statements, and other subjects or issues affecting wildlife or wildlife habitat within the organizational area of the Chapter and recommends action that should be taken by the Idaho Chapter. Participates in the TWS Conservation Affairs Network on regional and national conservation issues. (Chair, Robert Magill).

Education and Outreach Committee - Seeks and employs methods of informing the public basic wildlife management concepts and of Chapter and Society activities and interests. Responds to the interests of the membership in being involved in wildlife education. (Chair: Alana Jensen)

Fundraising Committee- Plans and coordinates the annual meeting fundraising activities, including reaching out to members and local businesses for donations. (Chair, Deniz Aygen)

Grant Review Committee- Solicits and reviews grant applications and recommends recipients and funding levels to the ICTWS Board. (Chair, Toni Holthuijzen)

Membership Committee- Encourages qualified persons to become members of The Wildlife Society, the Northwest Section, and the Idaho Chapter. Receives nominations and recommends approval of individuals seeking Other Member status in the Chapter. (Chair, vacant)

Nominating and Elections Committee- Prepares a slate of two candidates for each of the elective positions: Vice-President, Secretary, and Treasurer from the Chapter voting membership. (Chair, Curtis Hendricks)

Paper/Poster Judging Committee-Coordinates judging and chooses winners of professional and student talks and posters during the annual meeting. (Chair, Vacant)

Scholarship Committee- Solicits, reviews, and awards scholarship applications for undergraduate and graduate students. (Chair, Joh Dudley)

Sponsorship Committee- Seeks sponsorship donations to support the Chapter's annual meeting. (Chair, Greg Servheen)

Student Affairs Committee- Identifies opportunities to further engage wildlife students in the Chapter as well as at the annual meeting. Plans student activities to facilitate student interactions with professionals and development of professional skills. (Chair, vacant)



Program at a Glance

Monday 27 February

Time **Location-IDFG Headquarters Office, 600 S. Walnut, Boise, Idaho**

13:00-17:00 Idaho Bird Conservation Partnership (**Trophy Room**)

Tuesday 28 February

Registration Desk Open: 07:00-08:30; 17:00-18:30

AV Table Open for Talk Submissions: 14:00-1600

Time **Workshops *pre-registration required**

08:30-12:00 Idaho Bat Working Group Meeting (**Room-Cottonwood**)

08:30-11:30 Introduction to “R” (**Room-Willow**)

09:00-12:00 Aquaculture Committee Continuing Education (**Location: Eagle Health Lab, 1800 Trout Rd, Eagle, ID**)

09:00-12:00 Technical Manuscript Editing and Review - Surviving Peer Review (**Room-Pine**)

09:00-12:30 Merging of Aquatic and Terrestrial Habitats - Principles to Improve Success (**Room-Fir**)

12:30-16:30 Introduction to “R”—continued (**Room-Willow**)

13:00-16:00 Aquaculture Committee Continuing Education—continued (Location: **Eagle Health Lab, 1800 Trout Rd, Eagle, ID**)

13:30-16:00 Merging of Aquatic and Terrestrial Habitats - Principles to Improve Success—continued (**Field Trip**)

13:30-17:00 Amphibian Identification (**Room-Cottonwood**)

13:30-17:00 Endangered Species Act (ESA) Overview and Section 7 Consultation (**Room-Pine**)

13:30-17:00 Career Development Training (**Room-Fir**)

15:00-20:00 Poster and Vendor Set-Up (**Room-Falcon**)

15:00-16:00 AFS EXCOM meeting (**Room-410A, BC East**)

16:00-17:00 2017 Joint Meeting Planning Committees Meeting (**Room-410A, BC East**)

17:00-18:00 Volunteer Coordination Meeting (**Room-410A, BC East**)

18:00-20:00 Welcoming Social (**Room-400 BC East**)

Wednesday 1 March

Registration Desk Open: 07:00-08:30; 10:00-11:00, 15:00-16:00; 17:00-18:00

AV Table Open: 07:00-16:00

Time *Poster & Vendor Displays all day in **Falcon**

07:00-08:00 Continental Breakfast (**Room-Falcon**)

08:00-08:10 **Welcome** ICASF President Jay Hesse and ICTWS President Aren Eddingsas (**Room-Eagle**)

08:10-08:25 Blue Ribbon Panel Update: Virgil Moore (**Room-Eagle**)

08:25-08:30 Plenary Introduction



Program at a Glance

Wednesday Continued-

08:30-11:35	Plenary Session—“Climate Unites Us” (Room-Eagle)
11:35-12:15	Panel Discussion/ Q&A
12:30-14:00	AFS Committee Meetings (Rooms—Cottonwood, Pine, Fir, Willow, 410A, 410B)
14:00-17:00	Special Session: Connecting Fish and Wildlife: Ecological Linkages between Land and Water (Room-400A/B)
14:00-17:00	Special Session: The Northwest Power Act and Columbia Basin Fish and Wildlife Program in Idaho (Room-400C)
17:15-18:30	Creature Crawl (Location - Meet in Meadows Lobby)
18:15-21:30	Student/Professional Mixer (Room-BC 400A-D)

Thursday 2 March

Registration Desk Open: 07:00-08:30; 10:00-11:00, 15:00-16:00

AV Table Open: 07:00-16:00

* Poster & Vendors Displays all day in **Falcon**

07:00-08:00	Continental Breakfast (Room-Falcon)
10:00-16:00	Resume /Mock Interview Table (Meadows Lobby/Perch)

Time	Rooms			
	Cottonwood/Fir	Pine/Willow	410AB-BC East	420A-BC East
08:00-12:00	Fish Ecology	Landscape Ecology & Climate Change (Fish) Human Dimensions (Fish) Habitat Use & Management (Fish)	Wildlife Ecology	Wildlife Diseases Landscape Ecology & Climate change (Wildlife) Habitat Use & Management (Wildlife)
12:00-14:00	AFS Business Lunch Room-Eagle			
12:00-14:00	TWS Business Lunch Room-Hawk			
14:00-17:00	Fish Ecology	Fish Management	Wildlife Ecology	Habitat Use & Management (Wildlife)
	IGNITE! (Fish)		IGNITE! (Wildlife)	Genetics (Fish)
17:00-18:30	Poster Session Room-Falcon			
18:30-23:00	Banquet Room-Eagle/Hawk			



Program At a Glance

Friday 3 March

Registration Desk Open: 07:00-08:30; 10:00-11:00

AV Table Open 07:00-09:00

Poster and Vendor Removal: 07:00-12:00

Time

07:00-08:00 Continental Breakfast **(Room-Falcon)**

Rooms

	Cottonwood/Fir	Pine/Willow	410BC East	420BC East
08:00-11:50	Methodologies, Modeling, & Sampling (Fish)	Fish Population Dynamics & Diseases Yankee Fork Special Session	Methodologies, Modeling, & Sampling (Wildlife)	Fish & Wildlife Interactions Wildlife Population Dynamics Human Dimensions (Wildlife)

11:50-12:00 TWS and AFS Best Poster & Presentation Awards **(Falcon Room)**

12:00-14:00 AFS EXCOM meeting (Room-430A BC East)



Attendee and Presenter Information

Locations

See “Program at a Glance” for room location of specific events.

Oral Presenters

Your presentation will have been uploaded onto the session laptop by the morning of the day you present. When you arrive at the meeting, please visit with the AV Center staff to confirm your talk uploaded successfully.

The AV Center desk will be open at the following times:

Tuesday	28 Feb	14:00 – 16:00
Wednesday	1 March	07:00 – 16:00
Thursday	2 March	07:00 – 16:00
Friday	3 March	07:00 – 09:00

Please take note of your presentation date and time. Please note that all general session talks are limited to 20 minutes total (which includes 5 minutes for questions), whereas IGNITE! session talks are limited to a 5 minute presentation with several minutes afterwards for questions. Respect other speakers and your audience by staying within your scheduled time. It is extremely important that we maintain this schedule, so that attendees can move amongst sessions.

Finally, please check with your session chair well in advance of the start of your session to make sure that you know where the tools are that you need for your talk (e.g., remote control, laser pointer) and how to use them.

Posters

The poster session will be held before the conference social and banquet on Thursday, March 2, in the Falcon Room. Poster displays should be set up between 15:00-20:00 Tuesday, February 28. T-pins to secure posters to the wall will be provided, however, please bring some if you have them just in case. All authors should be at their posters and prepared to discuss their work from 17:00 to 18:30 on Thursday evening. Posters must be removed by noon on Friday, March 3.

Résumé Review and Interview Feedback

A résumé review and interview feedback station will be available to provide students an opportunity to receive feedback on their résumé, ask questions and seek advice from fish and wildlife professionals from across different fields working in the private or public sector. The station will be open **Thursday, March 2, 10:00-16:00. Location will be in the Meadows Lobby/Perch Room.**

Notice to all attendees:

As a courtesy to all presenters, we request that you turn off your cellular phones while attending sessions and meetings.

Monday Morning-IDFG Headquarters

Idaho Fish and Game Headquarters Office, 600 S. Walnut, Boise, ID

(Please park in the large MK Nature Center lot to the South of the IDFG building)

13:00-17:00 Idaho Bird Conservation Partnership (Trophy Room)

AGENDA—Idaho Bird Conservation Partnership Meeting

- 1:00 Welcome & Introductions
- 1:15 Update on USFWS Strategic Habitat Conservation planning – Dave Hopper, USFWS
- 1:35 Introduction to the Partners In Flight Landbird Conservation Plan: 2016 Revision for U.S. and Canada – Jay Carlisle, IBO
- 1:50 Brief Working Group updates, including:
Conservation Delivery
Funding Acquisition
Information Management
Outreach, Education, & Citizen Science
Pressing Issues
Research & Monitoring
State Wildlife Action Plan
- ~2:30 Coffee/snack break
- 2:45 The Idaho Grouse & Grazing Project: a collaborative, landscape-scale experiment to assess the effects of cattle grazing – Courtney Conway, University of Idaho
- 3:15 Working Group breakout discussions, including:
Outreach, Education, & Citizen Science
Mid-winter Bald Eagle count (Research and Monitoring) follow-up
Pressing Bird Conservation Issues
Statewide ranking version 2
- 4:45 Re-convene; action items, work plans, & deliverables for the spring/summer
- 5:00 Meeting adjourned

Tuesday Morning & Afternoon

Registration Desk Open: 07:00-08:30, 17:00-18:30 (**Meadows Lobby**)

AV Table Open: 14:00-16:00

08:30-12:00 Idaho Bat Working Group Annual Meeting (**Cottonwood Room**)

15:00- 20:00 Poster and Vendor Set-up (**Falcon Room**)

TENETIVE AGENDA—Idaho Bat Working Group Meeting

Welcome and introductions

Agenda review

Idaho State Wildlife Action Plan—implementation of bat objectives, strategies, and actions

White-nose syndrome response and surveillance—status of Idaho efforts

Wind energy—research needs, funding opportunities, and partnerships

North American Bat Monitoring Program

- Acoustic monitoring

- Roost identification and monitoring

Bat acoustic data processing and call ID

Abandoned Mine Lands effectiveness monitoring

Bats and bridges

Bats and forests Best Management Practices

Bats and rabies

Partner updates

Wrap up and next steps

Tuesday Morning, Afternoon, & Evening

Workshops

- 08:30-11:30 Introduction to “R” (**Willow Room**), lunch on own
- 09:00-12:00 Aquaculture Committee Continuing Education, lunch provided at lab (Eagle Health Lab, 1800 Trout Rd, **Eagle, ID**)
- 09:00-12:00 Technical Manuscript Editing and Review - Surviving Peer Review (**Pine Room**)
- 09:00-12:30 Merging of Aquatic and Terrestrial Habitats - Principles to Improve Success (**Fir Room**; lunch on own, afternoon is an outdoor field trip)

Break

- 12:30-16:30 Introduction to “R” continued (**Willow Room**)
- 13:00-16:00 Aquaculture Committee Continuing Education, continued (Eagle Health Lab, 1800 Trout Rd, **Eagle, ID**)
- 13:30-17:00 Amphibian Identification (**Cottonwood Room**)
- 13:30-16:00 Merging of Aquatic and Terrestrial Habitats - Principles to Improve Success, continued (**Field Trip**)
- 13:30-17:00 Endangered Species Act (ESA) Overview and Section 7 Consultation (**Pine Room**)
- 13:30-17:00 Career Development Training (**Fir Room**)
- 18:00-20:00 Welcoming Social (Boise Centre, 400 East)**



Wednesday Morning

Speaker Biographies

Virgil Moore- has over 40 years of experience in fish and wildlife management – 39 years with Idaho Dept. of Fish and Game. Before taking his current position, he served as Director of Oregon Fish and Wildlife and Deputy Director for Field Operations at Idaho Fish and Game. Virgil is active in the Association of Fish and Wildlife Agencies, Western Association of Fish and Wildlife Agencies, and AFS. He is currently Vice President of AFWA, Member of WAFWA EXCOM and Chair of the WAFWA Sagebrush Executive Oversight Committee. He formally has been President of the Fisheries Administrators Section of AFS and EXCOMM member of ICAFS. Virgil holds an MS Zoology from Idaho State University and BS Biology, Northwest Missouri State Univ.

Plenary: Climate Unites Us

Jen Pierce - is an Associate Professor at Boise State in the Department of Geosciences, where she has been since 2005. Her research focuses on Quaternary geomorphology, Holocene fire history and climate change, recent fire history and climate change, and feedbacks among hydrologic, biologic and geologic systems. Dr. Pierce grew up in Colorado and Wyoming, and received her undergraduate degree from The Colorado College, her master's degree from the University of Oregon, and her PhD from the University of New Mexico. Dr. Pierce serves on the Board of Directors for the Idaho Environmental Forum and Friends of the Teton River. When she is not working, she enjoys mountain biking, backcountry skiing, playing music, and exploring the outdoors with her family and dog.

Erik Beever - is a Research Ecologist at the Northern Rocky Mountain Science Center. He received his B.S. in Biological Sciences from U.C. Davis and his Ph.D. in Ecology, Evolution, and Conservation Biology from the University of Nevada, Reno. He has published over 75 articles in diverse scientific journals and in numerous sub-disciplines of biology. He has performed field research on plants, soils, amphibians, birds, reptiles, fishes, and insects, as well as small, medium, and large mammals across almost every habitat type in the western hemisphere. His current research focuses on understanding mechanisms of biotic responses to climate change, and he has also worked on disturbance ecology and monitoring in conservation reserves as well as other topics of conservation ecology, wildlife biology, and landscape ecology. He is a member of the IUCN Protected Areas Specialist Group, the IUCN Lagomorph Specialist Group, and the Wildlife Society, among other professional groups.

Dan Isaak - is a Research Scientist with the U.S. Forest Service in Boise, Idaho where he works on native fish conservation research in the western U.S. His current research focuses on understanding the effects of climate change, environmental gradients, and natural disturbance on stream habitats and fish communities; stream temperature, water quality, and species distribution monitoring and modeling; development and application of spatial statistical models for stream networks; and use of digital and social media to connect people, information, and landscapes.

Rita Dixon- is the State Wildlife Action Plan Coordinator for the Idaho Dept. of Fish and Game, where she oversees the ongoing development and implementation of Idaho's State Wildlife Action Plan. She completed her PhD in Natural Resources and her MS in Wildlife Resources at the University of Idaho, and her BS in Biology at the University of California, Riverside. Rita's primary interests include landscape-scale conservation planning, prioritizing conservation, bat ecology, and wildlife disease, in particular white-nose syndrome in bats.

Leona Svancara- is the spatial ecologist and climate change liaison for the Wildlife Diversity Program of the Idaho Dept. of Fish and Game. She holds a BS in Zoology and a BS in Marine Biology from Humboldt State University, and both a MS in Wildlife Resources and a PhD in Natural Resources from the University of Idaho. She has >20 years of experience applying GIS and remote sensing science in natural resources, with particular expertise in modeling species distributions, connectivity, impacts of landscape change, and climate change.



Speaker Biographies

Sean Finn- serves as Science Coordinator for the Great Northern Landscape Conservation Cooperative. Sean leads the research and science-delivery aspects of this regional collaborative that spans parts of 5 States and 2 Provinces. With a background in bird population response to ecological disturbance, Sean applies his knowledge to support science-informed conservation practices across jurisdictions and disciplines. He holds a Bachelor's degree from Humboldt State University and a Master's of Science from Boise State.

Gregg Servheen- is a Wildlife Program Coordinator with the Idaho Dept. of Fish and Game. He has been an employee of the Department for nearly 30 years and has experience in research, ESA, game management, habitat protection, mitigation, and the business of wildlife management. Gregg is a past President of Idaho TWS and a long-time active member.

Special Session: Connecting Fish and Wildlife: Ecological Linkages between Land and Water

Colden Baxter- is Professor of Ecology at Idaho State University. He grew up ranching, principally in northwest Montana, and received training in biology and geology (BA, Univ. Oregon), ecology (MS, Univ. Montana), fisheries science and philosophy of science (Ph.D., Oregon State Univ.), and food web studies (postdoctoral fellowship, Colorado State Univ. & Hokkaido Univ., Japan). Research conducted by Dr. Baxter and his group focuses on rivers and streams, but more generally on the ecological linkages between water and land. The group's studies are aimed at improving understanding of the basic nature of reciprocal connections between streams, floodplains, and riparian forests, the consequences of their disruption by human activities, but also contributing to better-informed conservation and stewardship.

William Deacy- has worked across the West studying wolves, pikas, Sierra Nevada red fox, desert tortoises, and stick bugs. For his doctorate, he collaborated with the Flathead Lake Biological Station and the Kodiak National Wildlife Refuge to research the foraging behavior of brown bears on Kodiak Island, Alaska. He is now a post-doc working with Jonny Armstrong at Oregon State University.

John Buffington-is a Research Geomorphologist with the U.S. Forest Service, Rocky Mountain Research Station in Boise, Idaho. He graduated from the University of California Berkeley in 1988 with a BA in geology and from the University of Washington in 1995 and 1998 with MS and PhD degrees in geomorphology. He was a National Research Council Fellow from 1998 to 2000, a professor in the Center for Ecohydraulics Research at the University of Idaho from 2000 to 2004, and currently serves on the Science Advisory Board for the Trinity River Restoration Program and edits the Journal of Geophysical Research–Earth Surface. His research focuses on fluvial geomorphology of mountain basins, biophysical interactions, and the effects of natural and anthropogenic disturbances on salmonid habitat.

Christopher Frissell- is Principal Scientist at Frissell & Raven Hydrobiological and Landscape Sciences, and Affiliate Research Professor at The University of Montana's Flathead Lake Biological Station. He holds PhD and MS degrees in Fisheries Science from Oregon State University and B.A. in Zoology from The University of Montana. His research and consulting work focuses on protection and restoration of freshwater habitat and the conservation and recovery of native aquatic species, and spans the Pacific Northwest, Pacific Coastal, Subarctic, and Intermountain regions of the West.



Speaker Biographies

Rob Van Kirk— After earning his Ph.D. at the University of Utah in 1995, Rob spent four years establishing and directing the in-house research program at the Henry’s Fork Foundation in Ashton. After 14 years as a university professor, Rob returned to the Foundation in 2013 and currently serves as its Senior Scientist. Rob has spent his career studying interactions among hydrology, water management, and aquatic ecosystems in the West, with particular emphasis on surface water-groundwater interactions in the Snake River basin. Rob has received awards from Idaho Chapter AFS, Trout Unlimited, the Henry’s Fork Foundation, and Friends of the Teton River for his watershed science and conservation work.

Special Session: Northwest Power Act and Columbia Basin Fish and Wildlife Program in Idaho

John Shurts- is the General Counsel for the Northwest Power and Conservation Council in Portland, Oregon, an interstate compact agency formed by the states of Idaho, Montana, Oregon, and Washington. The Council develops a regional electrical power plan for the Pacific Northwest and a fish and wildlife protection and mitigation program for the Columbia River Basin. He regularly briefs delegations and study tours from different parts of the world on Columbia River energy, water, fish and wildlife, and international Columbia River Treaty issues, both law and policy. Recent writings on the Columbia include an introduction to the Columbia River Treaty, “Rethinking the Columbia River Treaty,” for the book of collected essays *The Columbia River Treaty Revisited* (2012). Shurts is also an adjunct professor at the University of Portland. He has a law degree from Lewis and Clark Law School and a Ph.D. degree in American History from the University of Oregon.

Bob Austin- has experience working on a great variety of fish and wildlife, and natural resource policy issues. Bob’s career began as a researcher in the Everglades National Park, then for ten years worked with the US Fish and Wildlife Service (including Idaho). The majority of his public service was with Bonneville Power Administration, with his last role prior to retirement as Deputy Director of the Fish and Wildlife Program. Bob currently serves as Fish and Wildlife Program Director at the Upper Snake River Tribes Foundation.

Dorie Welch-Implementation Manager for BPA’s Fish and Wildlife Program in Montana and Idaho, moved to the Pacific Northwest in 2000. She grew up in Georgia, where she received a Bachelor of Science in Forest Resources with a major in Wildlife from the University of Georgia (UGA). She also received a Master of Science in Wildlife Biology from UGA. During her 15 years with BPA, she has worked on a variety of issues including avian predation, wildlife mitigation, land acquisition, and habitat restoration.

Bryan Mercier— is manager of Business Operations for BPA’s Fish and Wildlife division, was born and raised near the Confederated Tribes of the Grand Ronde Community of Oregon. His academic background includes an undergraduate degree in Business Administration from the University of Oregon, a graduate certificate in Economics from the Universitaet Freiburg (Germany), and a postgraduate degree in International Law from the Universidad Carlos III de Madrid (Spain). He has over 10 years of experience in public service, including in the US Senate with former Senator Gordon Smith of Oregon, the US Forest Service, and the US Treasury. He joined BPA in 2009.

Paul Kline- is Idaho Department of Fish and Game’s Assistant Chief of Fisheries. In his current capacity, Paul has broad responsibilities including the coordination of Fisheries Management, Research and Artificial Production programs at the policy level. Having worked for Department since 1992, Paul is IDFG’s liaison to the Northwest Power and Conservation Council and has held positions as Columbia River Policy Coordinator, Principal Fisheries Research Biologist and Senior Fisheries Research Biologist for the Department. He has



Speaker Biographies

participated in a variety of regional processes including the development of Hatchery and Genetic Management Plans, the Northwest Power and Conservation Council's Artificial Production Review and Evaluation, and the development of NOAA's recently published Snake River sockeye salmon ESA recovery plan. Paul has been a member of the Columbia River Hatchery Scientific Review Group since 2006. He received Bachelor of Science and Masters of Science degrees in Fisheries Management from Humboldt State University.

Dave Johnson- is the Department Manager for the Nez Perce Tribe Fisheries Department. With 190 employees, a \$23 million annual budget, and eight offices located in two states, the Nez Perce Tribe's Fisheries Department is one of the largest tribal fisheries programs of any of the Tribes in the United States. Dave has been the Manager for the program since 2002 and has worked for the Tribe for over 27 years. He has also been employed as Fisheries Biologist with the Forest Service and the Bureau of Indian Affairs. He has a Bachelors and Masters degree in Biology from Northern Arizona University and is an enrolled member of the Navajo Tribe.

Keith Kutchins-a native of Wyoming, received a B.S. degree in Wildlife Conservation and Management from the University of Wyoming in 1982 and a M.S. degree in Fisheries from Humboldt State University in 1986. His career includes 3 years as a marine biology and oceanography data analyst on the North Slope and Cook Inlet, Alaska and in and offshore San Francisco Bay. Since 1988 He has worked for Indian tribes on salmon harvest and production, fish passage, hydrosystem operations, Endangered Species Act, water rights adjudications, and habitat issues in the Columbia River Basin. He presently is involved with assisting in development and maintenance of regional partnerships – providing technical and policy analysis; and fostering coordination, collaboration, and communication among the 5 Upper Columbia United Tribes and with other Tribal, First Nation, federal, state and local governments and stakeholders on a variety of issues including: the Columbia River Treaty and Non-Treaty Storage Agreement; the FCRPS biological opinion and associated remand actions; river operations; water quality and quantity issues; toxics reduction; invasive species; climate change adaptation and mitigation; fish passage and reintroduction to historic habitats; and wildlife mitigation.



Wednesday Morning-Eagle Room

Registration Desk Open: 07:00-08:30; 10:00-11:00, 15:00-16:00; 17:00-18:00 (**Meadows Lobby**)
AV Table Open: 07:00-16:00

08:00-21:00 Posters available for viewing (**Falcon Room**)

Plenary Session

08:00-08:10 **Welcome** by Joint Partnership Leadership: Jay Hesse (President, ICAFS); Aren Eddingsaas (President, ICTWS)

08:10-08:25 Virgil Moore– Blue Ribbon Panel

08:25-08:30 Plenary Introduction (Helen Neville, Trout Unlimited and Anna Owsiak, IDFG)

“Climate Unites Us”

08:30-09:00 Geological perspective of climate in Idaho: **Jen Pierce (BSU)**

09:00-09:30 Investigating patterns of vulnerability and adaptive capacity to global change – insights from the climate-sensitive American pika and beyond: **Erik Beever (USGS)**

09:30-10:00 Using big interagency datasets to identify climate refugia for Idaho’s aquatic species: **Dan Isaak (USFS Rocky Mt Research Station)**

10:00-10:20 Break

10:20-10:50 How do we prepare? Climate Planning and Adaption Strategies in Idaho’s SWAP (State Wildlife Action Plan): **Rita Dixon and Leona Svancara (IDFG)**

10:50-11:20 How can we best use climate and conservation science to guide management decisions that benefit wildlife populations and habitats? **Sean Finn (GN/GBLCC)**

11:20-11:35 Idaho’s Changing Climate– A Summit. **Gregg Servheen (IDFG)**

11:35-12:15 Q&A with speaker panel

12:15-14:00 Lunch

12:30-14:00 AFS Committee Meetings: (boxed lunches will be available in Meadows Lobby for attendees)

Anadromous Fish (Cottonwood Room)
Aquatic Habitat (BC East 410B)
Aquaculture (Fir Room)
Mentoring (Pine Room)

Public Education (Willow Room)
Native Fish (BC 410A)

Wednesday Afternoon & Evening

14:00-17:00 **Special Session: Connecting Fish and Wildlife: Ecological Linkages between Land and Water**
(Chair: Colden Baxter; Room BC East 400A/B)

14:00-14:30 Tangled webs: science and stewardship of fish and wildlife in the context of linked aquatic-terrestrial food webs **(Colden Baxter)**

14:30-15:00 Kodiak brown bears use salmon life history diversity to increase salmon consumption: direct evidence from GPS collared bears **(William Deacy)**

15:00-15:30 Effects of fire and climate change on channel morphology and salmonid habitat in mountain basins. **(John Buffington)**

15:30-16:00 **Break**

16:00-16:30 New Science since FEMAT in 1993: Implications for aquatic conservation on federal forest lands of the Pacific northwest **(Christopher Frissell)**

16:30-17:00 Fish and wildlife conservation in Idaho's canal-irrigated landscapes: opportunities and challenges **(Rob Van Kirk)**

14:00-17:00 **Special Session: The Northwest Power Act and Columbia Basin Fish and Wildlife Program in Idaho**
(Chair: Aren Eddingsas, Room BC East 400C)

14:00-14:30 Northwest Power and Conservation Council **(John Shurts)**

14:30-15:00 Bonneville Power Administration **(Dorie Welch and Bryan Mercier)**

15:00-15:30 State of Idaho **(Paul Kline)**

15:30-16:00 **Break**

16:00-16:20 Upper Snake River Tribes **(Bob Austin)**

16:20-16:40 Nez Perce **(Dave Johnson)**

16:40-17:00 Upper Columbia United Tribes **(Kris Kutchins)**

17:15-18:30 **Creature Crawl (Meet in Meadows Lobby)**

18:15-21:30 **Student/Professional Mixer (Room 400A-D)**
Pizza and beverages (beer, wine, non-alcoholic) will be provided.

Wednesday Evening

Creature Crawl Details:

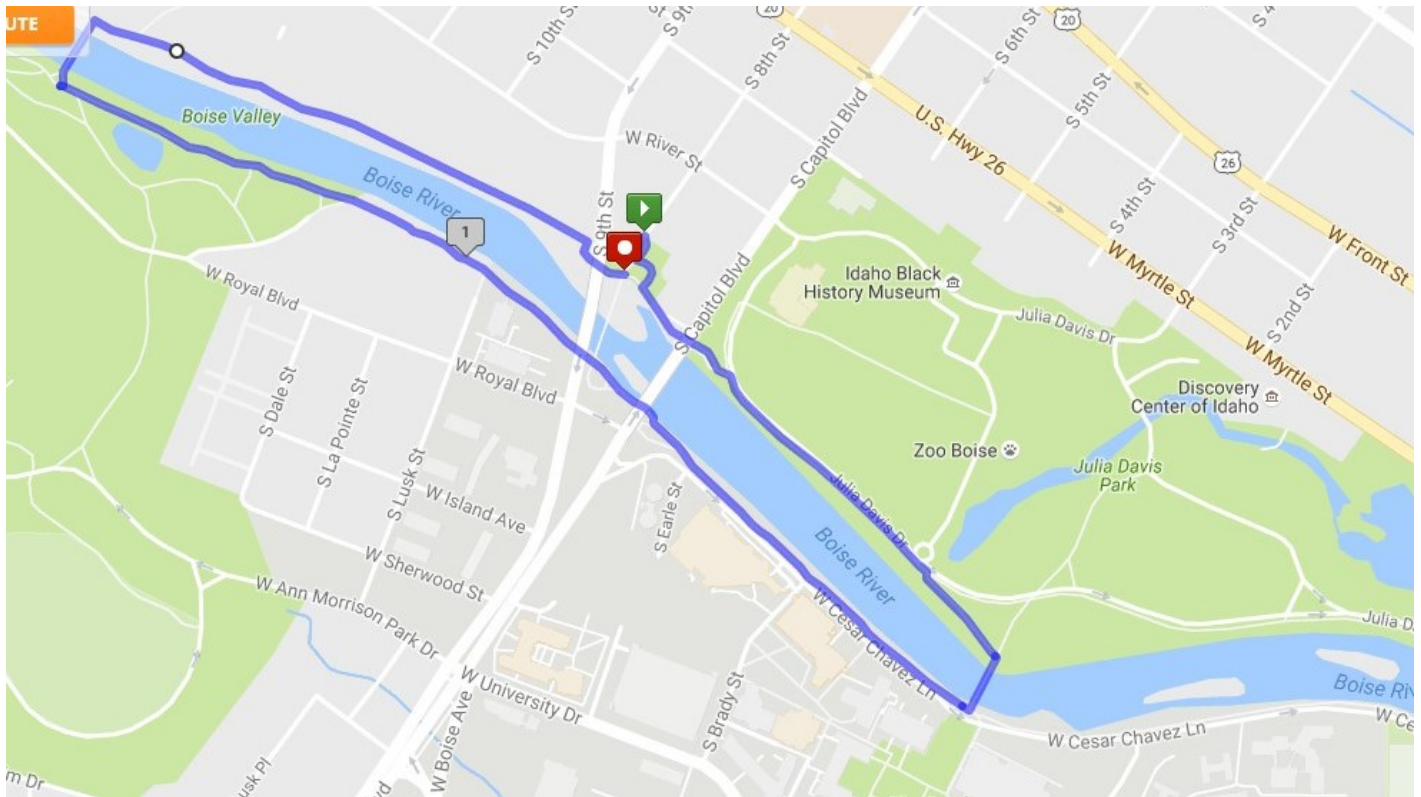
This year's joint AFS/TSW Creature Crawl will climb out of the muck at Biomark's Boise location (8th and River); a short walk from the convention center. The course consists of one (1.85 mi) or two (3.7 mi) laps along the Boise River green belt. Tee shirts will be provided to participants that registered on-line before 13 February 2017. You can register at the conference for \$12, but t-shirts will have limited availability. This is a huge fundraiser for the chapter, raised almost \$500 in 2016, and is a great way to stretch your legs and visit with friends/colleagues whether you decide to walk or run. Please join us!!



Student Mixer Details:

We strongly encourage everyone to attend and engage at the student-professional mixer; this is an important component of our overall efforts to mentor students as a community. The student-professional mixer will provide 3 different types of mixing opportunities for students and professionals. Professionals will hold raffle tickets that students can obtain by engaging in meaningful conversation with them (talking points will be provided for students new to mixing with professionals). In addition, fish and wildlife trivia and a side-game of 'corn hole' will provide more opportunities for interacting in a fun way: both will also allow students to gather more raffle tickets while engaging with fisheries and wildlife professionals and other students. For trivia, teams will be required to include student and professional membership – including both fish and wildlife folks on a team will be strategic for winning! Prizes will include both large and smaller items.

Creature Crawl Map:



Thursday Morning

*Names of presenters are capitalized; those presenters with an * are students*

Registration Desk Open: 07:00-08:30; 10:00-11:00, 15:00-16:00 (**Meadows Lobby**)

AV Table Open: 07:00-16:00

07:00-08:00 Continental Breakfast (Falcon Room) *Vendor and Poster Viewing All Day

10:00-16:00 Resume Review/ Mock Interview Tables (Meadows Lobby/ Perch)

Room-Cottonwood/Fir —Moderators: Ryan Santo and Matt Belnap

Fish Ecology

- 08:00-08:20 Pre-spawn mortality in pacific salmon: Patterns, methods, mechanisms, and potential consequences. CAUDILL, CHRIS
- 08:20-08:40 Patterns of iteroparity in Snake River Steelhead Trout. COPELAND, TIM
- 08:40-09:00 Resource selection and species interactions of select native and non-native fishes of the Kootenai River, Idaho. BRANIGAN, PHILIP
- 09:00-09:20 Habitat and species associations of juvenile Burbot and other fishes in a tributary of the Kootenai River. BEARD, ZACH*
- 09:20-09:40 Population characteristics of invasive Burbot in Fotenelle Reservoir, Wyoming. BRAUER, TUCKER*
- 09:40-10:00 Survival, movement, and distribution of juvenile Burbot in a tributary of the Kootenai River. BEARD, ZACH*
- 10:00-10:20 Break**
- 10:20-10:40 Aquaculture methods to restore Kootenai River Burbot. JENSEN, NATHAN
- 10:40-11:00 Release strategy for Kootenai River Burbot restoration. YOUNG, SHAWN
- 11:00-11:20 Burbot (*Lota lota maculosa*) restoration in the Kootenai River, Idaho: A uniquely collaborative success story ROSS, TYLER
- 11:20-11:40 Evaluation of migration behavior, survival and distribution of adult upper Columbia summer Steelhead using radio telemetry. FUCHS, NATE*
- 11:40-12:00 Evaluating reintroduction strategies for endangered Snake River Sockeye Salmon. JOHNSON, ERIC

Room-Pine/Willow— Moderators: Stephanie Hallock and Craig Rabe

Landscape Ecology & Climate Change: Fish

- 08:00-08:20 Landscape restoration strategies in the face of climate change. BILADEAU, THOMAS

Thursday Morning

*Names of presenters are capitalized; those presenters with an * are students*

- 08:20-08:40 Building a habitat connectivity network where land and water meet. FREMIER, ALEXANDER
- 08:40-09:00 Effects of climate change on water quality below Island Park Reservoir. MURADIAN, MELISSA

Human Dimensions: Fish

- 09:00-09:20 Angler perception of fishing experience in a highly technical catch-and-release fishery: How closely does perception align with biological reality? LAATSCH, JAMIE
- 09:20-09:40 Why the American Fisheries Society is the professional home for you. BOWKER, JIM
- 09:40-10:00 (No Talk Scheduled)
- 10:00-10:20 Break**

Habitat Use & Management: Fish

- 10:20-10:40 Microhabitat use by native fishes in rehabilitated reaches of the Kootenai River, Idaho. BRANIGAN, PHILIP
- 10:40-11:00 From litigation towards resolution: Lewiston Orchards Project water exchange and title transfer. HILLS, BOBBY
- 11:00-11:20 Seasonal effects of macrophyte growth on Rainbow Trout habitat availability and selection in a low-gradient, groundwater-dominated river. KUZNIAR, ZACH
- 11:20-11:40 Ecological restoration along the Kootenai River: Linking food web, wildlife habitat and aquatic habitat. PARKER, TOM
- 11:40-12:00 In-stream structures increase pool habitat for Cutthroat Trout in simplified headwater streams. HALLBERT, TYSON*

Room– 410 BC East — Moderators: Greg Burak and Kathy Cousins

Wildlife Ecology

- 08:00-08:20 Effects of microclimate on Northern Idaho Ground Squirrel hibernation. GOLDBERG, AMANDA*
- 08:20-08:40 Prey availability for Sage-grouse chicks: Effects of cattle grazing and vegetative structure. GOTSCH, DAVE*

Thursday Morning

Names of presenters are capitalized; those presenters with an * are students

- 08:40-09:00 Seasonal resource selection by introduced Mountain Goats in the southwest greater Yellowstone area. LOWREY, BLAKE*
- 09:00-09:20 Thermal constraints affect reproductive success of Burrowing Owls breeding along a latitudinal gradient. LUNDBLAD, CARL*
- 09:20-09:40 Monarch Butterfly demography and habitat suitability in Western Idaho. MCFARLAND, VANCE*
- 09:40-10:00 Investigating the status of the Monarch Butterfly (*Danaus plexippus*) in Idaho. WATERBURY, BETH
- 10:00-10:20 Break**
- 10:20-10:40 Osprey nest site selection. MEISMAN, ELIZABETH*
- 10:40-11:00 Kootenai River floodplain ecosystem operational loss assessment. MERZ, NORM
- 11:00-11:20 Avian species monitoring on the Nez Perce-Clearwater National Forest. MILLER, ROBERT
- 11:20-11:40 Environmental constraints on Pronghorn neonate survival across Idaho. PANTING, BRETT*
- 11:40-12:00 Impacts of range seedings on a keystone species: Piute Ground Squirrel diets in Southwestern Idaho. YENSEN, ERIC

Room– 420 BC East —Moderators: Mark Bellis and Megan Heller

Wildlife Diseases

- 08:00-08:20 Population genetics and pathogen transmission for Idaho Bighorn Sheep. ANDREWS, KIMBERLY R.
- 08:20-08:40 Prevalence and risk factors for infection of *Trichomonas gallinae* in western Golden Eagle nestlings. DUDEK, BEN*

Landscape Ecology & Climate Change: Wildlife

- 08:40-09:00 Large herbivores in a changing climate: How does body size influence the relative importance of thermal refugia? GOSSELIN, ELYCE*
- 09:00-09:20 Adapting to a drier future: Embracing changes in the functions of irrigation-supported managed wetlands. MURPHY, CHRIS
- 09:20-09:40 Estimating the seasonal spatial distribution of ungulates across Idaho. BERGEN, SCOTT

Thursday Afternoon

Names of presenters are capitalized; those presenters with an * are students

Habitat Use & Management: Wildlife

- 09:40-10:00 Idaho Power Company's Bayha Island Research Project. BACZKOWSKI, STACEY
- 10:00-10:20 Break**
- 10:20-10:40 Spatial distribution and habitat use patterns of long-billed curlews in California and Mexico. COATES, STEPHANIE*
- 10:40-11:00 Delivery of functional habitat for Columbian Sharp-tailed Grouse- Are we SAFE? KLAUSMANN, JEFFREY
- 11:00-11:20 The influence of wind energy development and habitat composition on Columbian Sharp-Tailed Grouse breeding season ecology in Eastern Idaho. PROETT, MATT
- 11:20-11:40 Induced defenses in *Artemisia tridentata wyomingensis* and implications for herbivores. MERRIMAN, CHELSEA*
- 11:40-12:00 Habitat use by territorial male pheasants and changes in density during 6 years of landscape change. MUSIL, DAVID
- 12:00-14:00 AFS Business Lunch (Eagle Room)**
- 12:00-14:00 TWS Business Lunch (Hawk Room)**

Room- Cottonwood/Fir — Moderators: Melissa Muradian and Jake Hughes

Fish Ecology (Continued)

- 14:00-14:20 Movement of Columbia River Redband Trout (*Oncorhynchus mykiss gairdneri*) in an intermittent Southern Idaho stream. WALSER, CHRIS
- 14:20-14:40 Missing nutrients from Pacific Lamprey: Insights from translocation into historic spawning reaches. DUNKLE, MATTHEW*
- 14:40-15:00 Yin and Yang of mixed fishery food webs: Balancing natural protection of Kokanee Salmon, stocked Rainbow Trout, and non-native Largemouth Bass in Buffalo Lake, Washington. LANOUEITE, BRIAN*
- 15:00-15:20 The Salmonid Population Viability Project: Modeling trout viability in a desert landscape. DAUWALTER, DANIEL C.
- 15:20-15:40 Break**

Thursday Afternoon

*Names of presenters are capitalized; those presenters with an * are students*

15:40-16:00 Evaluating the influence of non-native fishes and habitat conditions on the distribution of Yellowstone Cutthroat Trout in the Upper Snake River.. FELDMAN, CODY*

IGNITE! (Fish)

16:00-16:10 Shoot an elephant to save a fish and other tales from the dark continent. DAVIS, WINDY

16:10-16:20 Biology, Bayes, and "Bad" Data; Incorporating recurring life-history characteristics into models to address sparse and missing mark-recapture data. OLDEMEYER, BRUCE

16:20-16:30 Do scales protect fish from electroshock? REYNOLDS, JIM

16:30-16:40 Fishy things going on at UI's Hagerman facility. SMALL, BRIAN C.

16:40-16:50 Assessing channel morphology and post-fire channel disturbance using high-resolution structure from motion. ELLET, NICOLAS*

16:50-17:00 (No Talk Scheduled)

Room– Pine/Willow— Moderators: Rick Wilkison and Martin Koenig

Fish Management

14:00-14:20 Evaluation of diploid and triploid Westslope Cutthroat stocked in Idaho high mountain lakes. CASSINELLI, JOHN

14:20-14:40 Distribution and movement of wild Steelhead, hatchery Steelhead, and anglers in the Clearwater River, Idaho. FEEKEN, STACEY*

14:40-15:00 Therapy for the shifting baseline syndrome: Application of archival and contemporary data to estimate historical Chinook Salmon abundance in central Idaho. THUROW, RUSS

15:00-15:20 Survival of Yellowstone Cutthroat Trout exposed to air during mid-summer angling events. HIGH, BRETT

15:20-15:40 Break

15:40-16:00 Effects of air exposure on survival and fitness of Yellowstone Cutthroat Trout. ROTH, CURTIS*

16:00-16:20 Effects of YY-male stocking and manual suppression for eradication of non-native Brook Trout populations. SCHILL, DAN

16:20-16:40 Nez Perce Tribe fish marking: Implementing and coordinating fish marking programs. WICKARD, DREW

Thursday Afternoon & Evening

*Names of presenters are capitalized; those presenters with an * are students*

16:40-17:00 Snake River hatchery fall Chinook age-at-release performance: Relative returns to lower granite dam and harvest contribution. YOUNG, WILLIAM

Room– 410 BC East —Moderator: Jim White **Wildlife Ecology (Continued)**

14:00-14:20 Gray Wolf harvest in Idaho. AUSBAND, DAVID

14:20-14:40 Immigration as a compensatory mechanism to offset harvest mortality in harvested wolf populations. BASSING, SARAH*

IGNITE! (Wildlife)

14:40-14:50 The career landscape is diverse - are you? FORBEY, JENNIFER

14:50-15:00 Cultivating future natural resources professionals and an engaged community: Undergraduate research and citizen science-based collaboratives. PERKINS, DUSTY

15:00-15:10 Cybertracker app development: Lessons learned and the road forward. WALKER, RYAN

15:10-15:20 PIMP IT: a new approach to habitat improvement on private lands. MACKEY, ANDREW

15:20-15:40 Break

15:40-15:50 Coeur d'Alene Basin natural resources restoration: Past, present, and prospects. LEPTICH, DAVID

15:50-16:00 Anna's Hummingbirds in Idaho: A new phenomenon. WARE, HEIDE

16:00-16:10 Sage Grouse conservation in Southern Idaho - Lessons learned on the landscape. CONTRERAS, ED

16:10-16:20 Keeping track: A digital database to evaluate CRP and SAFE restoration practices. DUNBAR-IRWIN, MILA

16:20-17:00 (No Talk Scheduled)

Room– 420 BC East —Moderators: David Musil and Matt Campbell **Habitat Use & Management: Wildlife**

14:00-14:20 Rehabilitation, collaboration, and experimentation: Tex Creek Wildlife Management Area following the Henry's Creek Fire, August 2016. WALKER, RYAN

14:20-14:40 Greater Sage-Grouse nest success in high elevation sagebrush habitats of Southeastern Idaho. ANDERSON, ERIC

Thursday Afternoon & Evening

*Names of presenters are capitalized; those presenters with an * are students*

14:40-15:00 Effects of livestock grazing intensity on nesting success and brood movements in Greater Sage-Grouse. CONWAY, COURTNEY

15:00-15:20 Sage-Grouse forbs: Food or not? ROSENTERER, ROGER

15:20-15:40 Break

15:40-16:00 Common Raven use of power lines for nesting: Implications for Sage-Grouse conservation. SHURTLIFF, QUINN

Genetics (Fish)

16:00-16:20 Connections or containers: Using genetic data to understand how watershed evolution and human activities may influence Cutthroat Trout biogeography. EATON, KENDRA*

16:20-16:40 Combining innovative technologies for monitoring the diversity of threatened wild Steelhead and Chinook Salmon in the Snake River Basin. POWELL, JOHN

16:40-17:00 Evolutionary adaptation of Redband Trout to desert streams. CHEN, ZHONGQI

17:00-18:30 Poster Session & Social (Falcon Room)

18:30-23:00 Banquet (Eagle/Hawk Room)



Thursday Evening-Poster Session

*Names of presenters are capitalized; those presenters with an * are students*

Poster Titles and Presenting Author:

1. Stomach content analysis of Walleye incidentally caught during Lake Pend Oreille Lake Trout Netting in fall 2016. BUCHANAN, JOSEPH
2. A habitat model for Short-eared Owls in Idaho based on breeding bird survey data and landscape characteristics. COPELAND, SYLVIA
3. A map and database of Westslope Cutthroat Trout hybridization throughout Idaho and Montana streams. YOUNG, MICHAEL
4. Multi-scale assessment of wildlife response to conifer removal: sagebrush obligates, woodland species, and Sage-grouse nest predators. GARLICK, NIELS*
5. An ecological, cultural, and legal review of Pacific Lamprey in the Columbia River Basin. WICKS-ARSHACK, ADAM*
6. The use of hydrogen stable isotopes in claws to distinguish between migratory and resident birds in a partial migrant population of American Kestrels (*Falco sparverius*). HARTMANN, CHRISTINA*
7. Evaluation of sampling techniques used to sample Smallmouth Bass in lentic systems: Comparison of gear-specific estimates of population characteristics. THOMAS, MIKE*
8. Aspen stand vulnerability and understory composition along environmental gradients. JAROLIMEK, JAMIE*
9. Diet overlap of Brook Trout and Rainbow Trout in Birch Creek. SMITH, KAYLEIGH*
10. A comparison of freshwater mollusk communities in two Idaho rivers. TOWNSEND, KASSANDRA*
11. High desert drought resilient ranching, regional conservation partnership program. SULLIVAN, NICOLE
12. Ten-year (2006-2016) trend analysis of intestinal parasite loads found in deer and elk in Idaho. KEETON, KATHRYN R.
13. Impact of a culvert as a migration barrier for spawning Kokanee in Big Elk Creek, Idaho. SKIDMORE, DEVIN*
14. An evaluation of phenotype-genotype concordance in two isolated Brook Trout populations. SCHILL, BROOK*
15. Environmental factors driving patterns of dispersal of American Kestrels in North America. MCCASLIN, HANNA M*
16. Realizing the promise of parentage-based tagging for addressing conservation and management of Steelhead in the Columbia River Basin. STEELE, CRAIG A
17. Monitoringresources.org: Enterprise web tools to support monitoring. SCULLY, BECCA

Thursday Evening-Poster Session

Names of presenters are capitalized; those presenters with an * are students

18. Whole or sectioned otoliths? Choosing the best method for aging trout in Henrys Lake. SPILLETT, JASON*
19. Population ecology of mule deer in northeastern Oregon: understanding the fundamental role of nutrition. MEREMS, JENNIFER*
20. Air exposure times of caught and released trout on the South Fork Snake River. ROTH, CURTIS *
21. The phantom gas field project: How does noise from natural-gas-field operations affect ecosystem functioning in sagebrush steppe? PACIORETTY, MARIA T*
22. Investigating aquatic macroinvertebrate response to post-fire debris flows at different spatial scales. MAUDE, DONAVAN*
23. Lek activity and discovering new leks of Columbian Sharp-tailed Grouse on the Moody Bench. PATTERSON, JESSICA*
24. Water quality and Redband Trout habitat in Dry Creek, Ada County, Idaho. PERRITTE, SILVIA*
25. The breeding ecology and habitat suitability of Ferruginous Hawks (*Buteo regalis*) in Southern Idaho. SANCHEZ, ZACH*
26. Impact of lost floods on fish and food webs in a regulated river floodplain. PARIS, JAMES*
27. Zoopharmacognosy: New approaches to discover bioactive compounds in nature to control pests. PENDLETON, BRITT*
28. High throughput SNP genotyping of White Sturgeon: A polyploid species in conservation and aquaculture. CAMPBELL, NATHAN
29. The Idaho amphibian and reptile iNATURALIST Project. PETERSON, CHUCK
30. Upper Snake River climate change vulnerability assessment. HAUSER, SCOTT
31. Landscape genomics of anadromous Steelhead (*Onchorhynchus mykiss*) throughout the Columbia River Basin. MICHELETTI, STEVEN
32. An investigation of spatial complexity in a river-floodplain and its effects on insect emergence and terrestrial insectivores. ORTIZ, JADE*
33. Bat mortalities at wind-energy facilities in Southern Idaho. WHITTLE, DANIEL*
34. Growing like a weed-White Sturgeon growth in the Bliss to CJ Strike reach of the Snake River. MEYER, DAVID
35. Lek and nest fidelity of female Greater Sage Grouse. RETHERFORD, DREW*
36. Variation in infection rates and parasite load of a trematode parasite in Shorthead Sculpin (*Cottus confusus*) in Birch Creek, Idaho. MCCARRICK, DARCY*

Thursday Evening-Poster Session

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37. Invertebrate drift: A tale of two streams with differing flow regimes. FLYNN, RAYNA*
38. Impacts of wildfire on food webs and productivity of wilderness streams in central Idaho. SCHENK, MATTHEW*
39. Local status of a traditional first food: Patterns of distribution in native freshwater mussels in the Salmon and Clearwater river basins of Idaho. MATSAW, SAMMY*
40. Key factors influencing reproductive success in Chinook Salmon. KOCH, ILANA
41. The effect of summer stream drying on water quality and survival of Redband Trout (*Oncorhynchus mykiss gairdnerii*) in Dry Creek, Idaho. KIEFFER, DYLAN*
42. Kootenai Tribe of Idaho's Integrated Fish and Wildlife Program approach. IRELAND, SUSAN
43. Kootenai River Habitat Restoration Program. IRELAND, SUSAN
44. Reuniting the Kootenai River with her floodplain one acre at a time-2011 through 2016. IRELAND, SUSAN
45. Prevalence of parasitic copepods, or Gill Lice, on Rainbow Trout in Birch Creek, Idaho. CHAROS, ALEX*
46. Quantifying the response of benthic invertebrates to post-spawn Pacific Lamprey carcasses in an interior Columbia Basin stream. DUNBECK, RYAN*
47. Population characteristics and the influence of discharge on Bluehead Sucker, Flannelmouth Sucker, and Roundtail Chub. KLEIN, ZACH*
48. Status of Burbot (*Lota lota maculosa*) in the Kootenai River, Idaho: An increasing trend in the Burbot population. GOLLEN, DYLAN M.
49. Comparison of trace mineral concentrations in Idaho's Mule Deer populations. DAUWALTER, STACEY
50. Methods for the assembly of parts and deployment of hobo tidbit thermographs in high order mountain river systems. HANSEN, JON
51. Spawning time and maturity for MY Brook Trout at Mackay Hatchery. JONES, JASON
52. How in-stream carbon storage responds to aquatic habitat complexity and post-fire disturbances. DACIC, NATASHA*
53. Big biology meets microclimatology: defining thermal niches of aquatic ectotherms at landscape scales for conservation planning. ISAAK, DAN
54. Expansion of parentage-based tagging (PBT) baselines for salmonid hatchery stocks throughout the Columbia River Basin. HARMON, STEPHANIE
55. Trout in the Classroom - Closing the Loop. MONNOT, LAURI
56. Do scales protect fish from electroshock? REYNOLDS, JIM

Friday Morning

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Registration Desk Open: 07:00-08:30; 10:00-11:00 (Meadows Lobby)

AV Table Open 07:00-09:00

07:00-08:00 Continental Breakfast (Falcon Room)

07:00-12:00 Poster and Vendor Tear Down

Room-Cottonwood/Fir—Moderators: Ryann Kinzer and Jude Trapani **Methodologies, Modeling and Sampling: Fish**

08:00-08:20 Stream Habitat Inventory Protocol (SHIP): Quantifiable geospatial tool for stream habitat surveys. GRINDE, ERIN

08:20-08:40 Using otolith microchemistry to describe the isotopic landscape of the Coeur D'Alene Lake Basin. HECKEL IV, JOHN W.*

08:40-09:00 Use of isotope tracers to determine yearly variation in juvenile movement and maternal origin of Snake River Fall Chinook Salmon. HEGG, JENS*

09:00-09:20 Just count 'em!? A sonar approach to enumerating sturgeon. HUGHES, JACOB

09:20-09:40 How many fish live in that stream or river network? A scalable population estimator using Spatial-Stream-Network (SSN) models, fish density datasets, and national geospatial database frameworks. ISAAK, DAN

09:40-10:00 Evaluating the size selectivity of mid-water trawls for sampling Kokanee. KLEIN, ZACH*

10:00-10:20 Break

10:20-10:40 Methods comparison: Adult Salmon and Steelhead abundance. VOGEL, JASON

10:40-11:00 Applications of environmental DNA analysis to assess salmonid distributions and relative abundance in large landscapes. LARAMIE, MATTHEW B.

11:00-11:20 The range-wide eDNA-based inventory of Bull Trout: Early results and an ongoing invitation. YOUNG, MICHAEL

11:20-11:40 (No Talk Scheduled)

Room-Pine/Willow—Moderators: Kiira Siitari and Cassie Wood **Fish Population Dynamics & Disease**

08:00-08:20 Assessing the natural productivity of Chinook Salmon in the South Fork Clearwater River for escapement and harvest goals. DOBOS, MARIKA

Friday Morning

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08:20-08:40 Linear density of age-0 and age-1 Rainbow Trout in a renowned tail-water fishery. KOZFKAY, JOE

08:40-09:00 Population dynamics and movement of Smallmouth Bass in the Snake River. MCCLURE, CONOR *

09:00-09:20 A biological assessment of fish populations utilizing the lower Weiser River, Idaho. PETERSON, MIKE

09:20-09:40 Distribution and prevalence of *Tetracapsuloides bryosalmonae* (PKX) in salmonids in the Upper Snake River drainage. MCCARRICK, DARCY*

Yankee Fork

09:40-10:00 The Yankee Fork Salmon River: A restoration approach informed by history, fueled by collaboration. WOOD, CASELLE

10:00-10:20 **Break**

10:20-10:40 Restoring fish habitat in the Yankee Fork by returning large wood to natural levels. GAMETT, BART

10:40-11:00 Habitat improvement in the dredged portion of the Yankee Fork of the Salmon River - somebody should do something about that. GREGORY, JIM

11:00-11:20 Live fish, dead fish, fake fish, no fish: Effects of alternative marine-derived nutrient subsidies to streams in Central Idaho, USA. KOHLER, ANDRE, E.

11:20-11:40 Habitat Suitability Index (HIS) Model. BOUWES, BOYD

Room-410 BC East—Moderator: Tyler Archibald Methodologies, Modeling and Sampling: Wildlife

08:00-08:20 Where are all the wolves? An integrated population model for estimating pack sizes through time. HORNE, JON

08:20-08:40 Common pitfalls and missed opportunities in the use of information-theoretic methods (e.g., AIC) in fish and wildlife ecology. HARJU, SETH

08:40-09:00 Sample heterogeneity using bucket snares to capture American Black Bears in Southeast Oklahoma. PFANDER, MORGAN

09:00-09:20 Use of GPS data-loggers to examine behavior and resource selection of Barn Owls in relation to roads. REGAN, TEMPE*

09:20-09:40 Development and morphological aging metrics of Osprey nestlings in West Central Idaho. STYHL, TYRELL*

Friday Morning

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- 09:40-10:00 Collector for ArcGIS and Survey 123: Electronic field data navigation, collection, and analysis. WELTY, JUSTIN
- 10:00-10:20 **Break**
- 10:20-10:40 Quantifying Northern Goshawk habitat in the Lewis and Clark National Forest, Montana. WRIGHT, MARILYN*
- 10:40-11:00 The monitoringresources.org tool to design sampling locations for ecological monitoring. SCULLY, BECCA
- 11:00-11:40 (No Talk Scheduled)

Room-420 BC East—Moderators: Colden Baxter and Chelsea Merriman

Human Dimensions

- 08:00-08:20 Creating a diverse work force of wildlife biologists: How are we doing? WAITS, LISETTE

Fish and Wildlife Interactions

- 08:20-08:40 Double-Crested Cormorant and other avian predation on Rainbow Trout stocked in Southeast Idaho reservoirs. CHIARAMONTE, LUCIANO
- 08:40-09:00 Using fish to study birds: Asymmetric competition and a landscape of fear. KENNEDY, BRIAN
- 09:00-09:20 Beaver dams influence stream flow complexity and the distribution of a rare minnow species in an impaired watershed. DAUWALTER, DANIEL C.
- 09:20-09:40 Evolution of riparian designs based on site conditions and wildlife conflicts. KINKEAD, BRUCE
- 09:40-10:00 American White Pelican consumption of spawning Walleye and its effect on the Red Lakes' fishery. GRAHAM, JAKE*
- 10:00-10:20 **Break**

Wildlife Population Dynamics

- 10:20-10:40 Exploring Northern Goshawk population dynamics using individual-based models. MILLER, ROBERT

Friday Morning & Afternoon

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10:40-11:00 Effects of drought and seasonal precipitation on Columbia Spotted Frog populations.
PILLIOD, DAVID S.

11:00-11:20 Breeding population dynamics and distribution of Western American White Pelicans, 1981-2014.
ROBERTS, SHANE

11:20-11:40 Aerial population surveys using advanced infrared sensors. ROMERO, JOHN

11:50-12:00 TWS and AFS Best Poster and Presentation Awards (Falcon Room)

12:00-14:00 AFS EXCOM meeting (Room-430A BC East)

