

2016 JOINT PARTNER WILDLIFE CONFERENCE
“COMMON RESOURCES, CHALLENGES, AND
SOLUTIONS”

*22-26 February 2016
Coeur d’Alene Resort
Coeur d’Alene, Idaho*

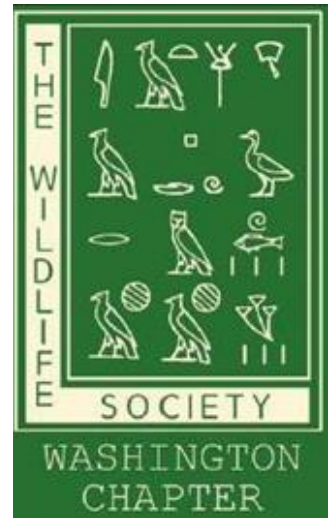


PROGRAM

2016 Joint Partners



Idaho Chapter TWS



2016 ASSOCIATED MEETINGS

- ◆ Idaho Bat Working Group
- ◆ Idaho Bird Conservation Partnership
- ◆ Idaho Partners in Amphibian and Reptile Conservation



Cover Art Contest Winner

The winning entry is titled "Little Package, Big Attitude" by Karyn deKramer, Wildlife Watercolor Artist. Congratulations Karyn!

Karyn deKramer
www.dekramerart.com
karyn@dekramerart.com
www.facebook.com/dekramerart/



In Memoriam

Randall “Randy” Smith 1952-2016



Randy Smith, long time ICTWS member and recipient of the Charles E. Harris Award (2010), died February 4, 2016. Randy retired from the Idaho Department of Fish and Game in 2014 after a 30 year career, most of which as the wildlife population manager in the Magic Valley Region of Idaho. Randy was instrumental in starting new populations of bighorn sheep, wild turkey, Columbian sharp-tailed grouse, and ruffed grouse. He was recognized by FNAWS (2001 & 2004) for his work in bighorn sheep restoration at Jim Sage Mountain and Cache Peak. His influence spanned across state borders so much so he was awarded the Robert L. Patterson Award from the Western Association of Fish and Wildlife Agencies Technical Committee (2010) and the Northwest Section TWS Outstanding Administrator Award (2014). He was recognized multiple times by the IDFG for his excellent wildlife work including Outstanding Achievement Award – Wildlife Population Management (1993-1994), Employee of the Year – Senior Resource Management (2001 & 2007), and the Wildlife Mentor Award (2013). Randy received numerous letters and comments of commendation from the public for his helpfulness and professionalism in serving them. He was a champion for the wildlife cause, a well-respected colleague, caring mentor, loyal friend, dedicated public servant, and a loving husband and father.

[illegible]

Coeur d'Alene Resort Floor Plan



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Meeting Introduction and Host City

Meeting Introduction

The Joint Partners Conference of the Idaho and Washington Chapters of The Wildlife Society, The Society for Northwestern Vertebrate Biology and Northwest Partners for Amphibian and Reptile Conservation is 22-26 February 2016 in Coeur d'Alene, Idaho. This year's conference offers a diverse scientific program with a plenary session, special workshops, symposium, contributed oral and poster presentations, social, banquet, student activities and the annual business meetings of the joint partners.

Host City — Coeur d'Alene, Idaho

Welcome to Coeur d'Alene! With about 44,000 residents, Coeur d'Alene (pronounced KORR də-LAYN), is the largest city and county seat of Kootenai County, Idaho. The city is located about 30 mile (48 km) east of the larger Spokane, Washington, with a resulting metropolitan area population of just under 600,000. The city is located at an elevation of 2,180 ft (660 m) above sea level, and on the shore of 25 mile (40 km) long Lake Coeur d'Alene.

The city is named after the Coeur d'Alene People, a tribe of Native Americans who lived along the rivers and lakes of the region and were first encountered by French fur traders in the late 18th and early 19th century. Translated from French, Cœur d'Alène literally means "heart of the awl" which might mean "sharp-hearted" or "shrewd", perhaps reflecting the trappers admiration for how this tribe conducted business.

A few things to do while here:

Hike Tubbs Hill—Tubbs Hill consists of over 120 acres and is bordered by Lake Coeur d'Alene on the west, south and east sides. There are several miles of hiking trails on the hill that provide spectacular scenery for everyone to enjoy. The trail head on the west side of Tubbs Hill is located at the southern end of 3rd Street in the parking lot. The east side trail head is located at the south end of 10th Street. A 2.2 mile interpretive trail follows the perimeter of Tubbs Hill.

Silver Mountain Ski Resort—for avid skiers and snowboarders, Silver Mountain is an opportunity to enjoy north Idaho winter recreation. Located 35 miles from Coeur d'Alene, take I90 east from the city to Kellogg. Take the Bunker Rd exit and go south 1/4 mile.

Public Art and Art Galleries—Public art is found throughout the city. Specific information on art and locations is available at <http://www.cdaid.org/190/committees/arts-commission/public-art-collection>. Indulge your passion for western and wildlife fine art at any of several galleries located within a short distance of the meeting site. Galleries include the Coeur d'Alene Galleries and Painters Chair Fine Art Gallery, both on Sherman Avenue.

Take a drive along CDA Lake—This is a nice evening drive. Go east on Sherman, but turn right on the old highway just before you get to I90. The old I90 ran along the shoreline, but was redesigned by Dick Schwartz (former IDFG Commissioner) as a bike/running path with an adjacent 2-lane road for wanderers. During December, many folks park at the dead end to watch up to 200 eagles feeding on spawning kokanee.

Additional information on recreational, cultural, educational and shopping opportunities is available online for Coeur d'Alene and the surrounding area at <http://www.cdaid.org>, and at <http://www.coeurdalene.org>, and <http://www.cdadowntown.com>.

Conference Venue

All conference activities will take place at the Coeur d'Alene Resort (115 S. Second St, Coeur d'Alene, ID; Phone— toll free (855) 999-7998; www.cdaresort.com).



Registration and Logistics

Registration fees includes admission to all oral sessions, poster session, coffee breaks, social activities, a copy of the program and a complimentary meeting gift. Registration and fees for the NW PARC symposium on Thursday are separate.

Registration Fees:

| | |
|-------------|---|
| \$150/\$175 | Full registration (includes social and meeting gift)/after February 1 |
| \$75/\$100 | Retiree & new professional registration (includes social and meeting gift (while supplies last))/after February 1 |
| Free/\$25 | Idaho Chapter student member registration (includes social, and meeting gift (while supplies last))/after February 1 |
| \$25/\$50 | Student registration (non-Idaho Chapter member) (includes social and meeting gift (while supplies last))/after February 1 |
| \$60/\$85 | One day registration/after February 1 |
| \$50 | Regular banquet ticket |
| \$20 | Student banquet ticket |
| \$75/\$45 | NW PARC symposium regular/student registration (includes snacks and lunch) |

Separate Registration Required:

| | |
|-------|--|
| Free | Introduction to R Workshop (Workshop is full) |
| Free | Yellow Billed Cuckoo Workshop |
| \$ 30 | Terrestrial Mollusks Workshop ** book required |

The registration desk will be open at the following times:

| | | |
|-----------|--------|-------------------------------------|
| Monday | 22 Feb | 4-6 pm |
| Tuesday | 23 Feb | 7-8:30 am, 10-11 am, 3-4 pm, 5-6 pm |
| Wednesday | 24 Feb | 7-8:30 am, 10-11 am, 3-4 pm |
| Thursday | 25 Feb | 7-8:30 am, 10-11 am |

Messages and volunteer opportunities

A message board will be available near the registration desk.

Conference Contact (Co-Chairs)

Aren Eddingsaas - (ICTWS) aeddingsaas.sbtribes@gmail.com; 208-521-3868

Betsy Howell - (NW PARC) blhowell@fs.fed.us; 360-821-8135

Danielle Munzing - (WCTWS) danielle.munzing@dnr.wa.gov; 509-637-6737

Teal Waterstrat - (SNVB) teal_waterstrat@gmail.com; 360-789-8504



Executive Boards & Conference Organizing Committee:

Idaho Chapter

| | |
|------------------------|-----------------|
| Quinn Shurtliff | President |
| Aren Eddingsaas | President-Elect |
| Anna Owsiak | Vice-President |
| Lisa Nutt | Secretary |
| Laura Wolf | Treasurer |
| Shane Roberts | Past-President |

Washington Chapter

| | |
|-------------------------|-----------------|
| Tony Fuchs | President |
| Danielle Munzing | President-Elect |
| Mike Hall | Secretary |
| Kathy Brodhead | Treasurer |
| Bruce Thompson | Past President |
| Jeff Kozma | Board Member |

Board Members

Sarah Hansen
Blake Murden
Ron Tressler

Society for Northwestern Vertebrate Biology

| | | | |
|----------------------------|------------------------------------|------------------------|--------------------------------|
| F. Teal Waterstrat | President | Dave Clayton | Trustee |
| Paul Hendricks | Vice-President for Inland Region | Kim Walters | Trustee |
| Darcy Pickard | Vice-President for Northern Region | Blake Hossack | Trustee |
| Hartwell Welsh, Jr. | Vice-President for Southern Region | Marc P. Hayes | Historian |
| Becky Hill | Vice-President for Oregon | Tara Chestnut | Scholarship Committee |
| Erim Gomez | Vice-President for Washington | Eric Lund | Webmaster |
| Lindsey Thurman | Secretary | Robert Hoffman | Northwestern Naturalist Editor |
| Tiffany Garcia | Treasurer | Chelsea Waddell | Murreletter Editor |
| | | Robert Weaver | Northwest Fauna Editor |

Northwest Partners for Amphibian and Reptile Conservation

| | |
|---------------------------|--------------------------|
| Kris Kendell | Co-chair |
| Betsy Howell | Co-chair and Treasurer |
| Valorie Titus | Social Media Coordinator |
| Julia Janicki | Webmaster |
| Kathryn Ronnenberg | Newsletter Editor |
| Elke Wind | Membership |

Steering Committee Members:

Dave Clayton
Purnima Govindarajulu
Lisa Hallock
Janene Lichtenberg
Bryce Maxell
Chuck Peterson
David Pilliod
Lori Salzer



Meeting Sponsorship

2016 Joint Partner Conference Sponsors

We wish to thank the following organizations and businesses for sponsoring the 2016 Joint Partner Conference.

Platinum Sponsors (\$2,400+):



Gold Sponsors (\$1,800-\$2,399):



Washington
Department of
**FISH and
WILDLIFE**

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



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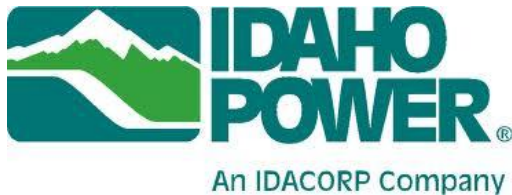
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Bronze Sponsors (\$500-\$1,199):



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



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Auction and Raffle Item Donors

We wish to thank the following individuals, businesses and organizations that supported the 2016 Joint Conference with auction and raffle item donations:

**Angie Schmidt
Anna Owsiak
Anser Charter School
Backyard Bird Shop, Vancouver, Wa
Bass Pro Shop
Beth Waterbury
Betsy Howell
Birds & Beans LLC.
Bogus Basin
Brian Martin
Bruce Thompson
Bushnell
Cabela's
Carrie and Jerry Hugo
Cary Rubiera
Caxton Printers
Coeur d'Alene Cellars
D&B Supply
Dave Stiefvater
Dede Olson
Dick's Sporting Goods
Elements Massage- Coeur d'Alene
Flying M Coffee
Hampton Inn- Boise
Harrod Outdoors
Hillary Heist
Idaho Chapter of the Safari Club
Janet Rachlow
Jason Beck
Jen Forbey**

**Jim Witham
Kate's Real Food Bars
Kathy Cousins
Ken Bevis
Kris Kendell
Lori Salzer
Matt Eberlein
McClendon's Hardware
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Pheasants Forever
Raleigh Sorensen
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Roaring Springs Water Park
Rodeo City BBQ
ROW Adventures
Sam Mattise
Sandy Vistine-Amdor
Scott Robinson
Sportsman's Warehouse
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The Chocolat Bar
The Mountain
Tidal Vision USA
Tom Dyer
Washington Trust Bank
Wayne Melquist
Wearboise.com
Wildbirds Unlimited
Worley-Bugger Fly Co**

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!



2016 Joint Conference Contributors

We extend a special thank-you to the many session chairs, the conference volunteers who helped with AV and other logistics, 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.

- Steering Committee (Aren Eddingsaas, Tony Fuchs, Erim Gomez, Paul Hendricks, Blake Hossack, Betsy Howell, Kris Kendell, Danielle Munzing, Anna Owsiak, Bruce Thompson, Teal Waterstrat, Laura Wolf)
- Program Committee (Jeff Kozma, Anna Owsiak, Bill Vogel)
- Fund-Raising Committee (Deniz Aygen, Leif Hansen, Danielle Munzing)
- Sponsorship Committee (Tony Fuchs, Gregg Servheen, Bruce Thompson)
- Paper/poster judging coordinator (Duston Cureton) and all of the paper/poster judges
- Student Activities (Wendy Arjo, Cathy Flick, Sara Hansen, Katey Huggler, Blake Murden, Quinn Shurtliff, Bruce Thompson, Chelsea Waddell)



Program At a Glance

Monday 22 February

| Time | Workshops |
|-------------------------------------|---|
| 08:00-12:00 | Idaho Bat Working Group Meeting (Room-Kid Island Bay) |
| 09:00-12:00 | Introduction to “R” (Room—North Cape Bay) |
| 13:30-17:30 | Idaho Partners in Amphibian and Reptile Conservation Meeting (Room-Kid Island Bay) |
| 13:30-17:30 | Introduction to “R” (Room-North Cape Bay) |
| 13:30-17:30 | Yellow-billed Cuckoo (Room-Bay 6) |
| 13:30-17:30 | Terrestrial Mollusks (Room-1A/1B) |
| Registration Desk Open: 16:00-18:00 | |

Tuesday 23 February

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

| Time | Room—Bay 4-5 | *Vendor Displays all day in Lobby | |
|-------------|---|-----------------------------------|----------------------------|
| 08:00-08:30 | Welcome - ICTWS President: Quinn Shurtliff; WCTWS President: Tony Fuchs; SNVB President Teal Waterstrat; NW PARC Kris Kendell | | |
| 08:30-11:20 | Plenary Session— <i>”Common Resources, Challenges and Solutions”</i> (Room—Bay 4-5) | | |
| 11:20-12:00 | Panel Discussion | | |
| 12:00-13:30 | Idaho Chapter of The Wildlife Society Business Lunch (Room—Casco Bay/Kid Island Bay) | | |
| | Room—Bay 3 | Room—Bay 1A/1B | Room—Bay 6 |
| 13:30-17:30 | Carnivores | Ignite! | Sage & Sharp-Tailed Grouse |
| 17:30-18:30 | Student Mentoring (Room—Bay 4-5) | | |
| 18:30-21:00 | Social, Poster Session, Silent Auction, and Raffle (Room—Bay 4-5) | | |
| 21:00-22:00 | Student Quiz Bowl (Room—Bay 4-5) | | |

Wednesday 24 February

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

| Time | *Vendor Displays all day in Lobby | | |
|-------------|---|-------------------|-------------------|
| 07:00-08:00 | Business Breakfast Washington Chapter of The Wildlife Society (Room Casco Bay/Kid Island Bay) | | |
| | Room-Bay 4 | Room-Bay 5 | Room-Bay 6 |
| 08:00-12:00 | Big Game | Field Techniques | Dry Forests |
| 10:00-13:00 | Resume Review Booth | | |
| 12:00-13:30 | The Society for Northwestern Vertebrate Biology Business Lunch (Room—Casco Bay/Kid Island Bay) | | |

(Wednesday afternoon continues on next page)



Program At a Glance

Wednesday 24 February (Continued)

Time

| | Room—Bay 4 | Room—Bay 5 | Room-Bay 6 |
|-------------|---|--|-----------------|
| 13:30-17:30 | Amphibians | Manuscript Preparation Workshop (<i>Pre-registration Required-workshop is full</i>) | Arid Ecosystems |
| 17:30-18:00 | Break | | |
| 18:00-20:00 | Social Hour, Banquet, Awards, Silent Auction and Raffle (Room—Bay 1-2) | | |

Thursday 25 February

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

Time

Room-Note Locations

| | | |
|-------------|---|--------------------|
| 07:00-08:00 | Breakfast with a Wildlifer (Location—Dockside Restaurant in the Resort) | |
| 08:00-17:30 | Northwest PARC Symposium: “Conservation Across Borders” (Room—Bay 5) | |
| 08:00-17:30 | Chemical Immobilization and Handling (Room—Bay 1A/1B) (<i>Pre-registration & fee required</i>) | |
| | Room—Bay 3 | Room—Bay 6 |
| 8:00-12:00 | Wildlife Diseases | Freshwater Mussels |
| 12:00-13:30 | Lunch | |
| 14:00-17:30 | Idaho Bird Conservation Partnership (Room—Bay 3) | |

Friday 26 February

Time

Location-IDFG Regional Office, 2885 Kathleen Avenue, Coeur d’Alene

| | |
|-------------|--|
| 08:00-17:30 | Chemical Immobilization and Handling (Roosevelt Room in the Hunter Education Wing) (<i>Pre-registration & fee required</i>) |
| 08:00-12:00 | Idaho Bird Conservation Partnership (Leopold Room in the Hunter Education Wing) |



Attendee and Presenter Information

Locations

All conference activities will be held in the following Rooms: Bays 1A, 1B, 3, 4, 5, 6, of the Coeur d'Alene Resort. Associated workshops and meetings will be held in Kid Island Bay and Casco Bay and North Cape Bay. See pages 12-13, "Program at a Glance" for room location of specific events.

Oral Presenters

Please take note of your presentation date and time. Please note that all **general session** talks should be limited to 20 minutes total (including 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. Take the time to practice so your delivery fits into the scheduled interval. 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. This is also the time to check and see if your PowerPoint presentation (ideally saved in Microsoft Office PowerPoint Show [.pps] format) runs properly on the projector and projection computer. Presentations should be uploaded no later than the break preceding your talk.

Posters

The poster session will be held during the conference Social on Tuesday, 23 February, in the Bay 4-5. Poster displays should be set up after the afternoon session of contributed papers. Tacks 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 18:30 to 20:00 on Tuesday evening. Posters must be removed after the social.

Résumé Review

A résumé review station will be available to provide students an opportunity to receive feedback on their résumé, ask questions and seek advice from wildlife professionals from across different fields working in the private or public sector. The station will be open **Wednesday, February 24, from 10 am—1 pm**. Location will be near the vendor tables.

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



Special Awards—Presented at the Banquet Wednesday Evening

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.

Washington Chapter of The Wildlife Society Awards

Conservation Award

This award recognizes an outstanding accomplishment (program or project) by a person or organization for significant contributions to wildlife conservation, including efforts involving outstanding initiative, innovation, and personal risk of failure.

Partnership Award

This award recognizes an outstanding accomplishment by a person or organization for working with and establishing partnerships that otherwise would not have existed or functioned as well without their initiative, and which has resulted in significant advancement of wildlife conservation.

Foresight Award

This award recognizes an outstanding contribution by a person or organization for outstanding foresight and efforts to address conservation of species and/or habitat in a timely manner. For instance, endangered or threatened species listing decisions and conservation can be aided by information collected and efforts initiated prior to the when the urgency is well understood or publicized. This includes initiating monitoring, research, or enhancement projects prior to a species reaching levels or legal status where such actions are necessary.

Chapter Award

This award honors individuals or organizations that have made significant contributions to the support and growth of the Washington Chapter of The Wildlife Society.



The Society for Northwestern Vertebrate Biology Awards

Mentorship Award

This award recognizes a current member whom has served as a mentor to students, SNVB members and/or developing professionals. This SNVB member has distinguished him/herself as a mentor by going above and beyond the expectations of the individual(s) that nominate them. Mentors can be a faculty member or professionals. Previous awardees have included both professional and faculty mentors.

Lifetime Achievement Award

This award recognizes a member that has contributed to the development of SNVB and/or the field of Vertebrate Biology in the Northwest. This member has had an overall positive impact as a professional and/or they have contributed to SNVB's mission.

President's Award

This award recognizes an individual(s) the current President of SNVB has determined to go above and beyond the requirement of their roles to further the mission or exemplify the mission and values of SNVB. The award's recipients may be nominated by others for the Presidents consideration.



Photography Contest

The 2016 Joint Partners Conference photo contest (open to all meeting registrants) takes place during the banquet and is in digital format this year. Volunteer judges will select up to three finalists in each category prior to the banquet and these images will be projected on the big screen leading up to dinner. Paper ballots will be available on all tables and all attendees are encouraged to vote for the winner of each category. The votes will be tallied during dinner and the winners will be announced before the conclusion of the banquet during our awards ceremony.

Monday Morning & Afternoon

Workshops

| | |
|-------------|--|
| 08:00-12:00 | Idaho Bat Working Group Meeting (Room-Kid Island Bay) |
| 09:00-12:00 | Introduction to “R” (Room—North Cape Bay) (Pre-registration Required/Workshop is full) |
| 12:00-14:00 | Lunch |
| 13:30-17:30 | Introduction to “R” (Room-North Cape Bay) (Pre-registration Required/Workshop is full) |
| 13:30-17:30 | Idaho Partners in Amphibian and Reptile Conservation Meeting (Room-Kid Island Bay) |
| 13:30-17:30 | Yellow-billed Cuckoo (Room-Bay 6) (Pre-registration Required) |
| 13:30-17:30 | Terrestrial Mollusks (Room-1A/1B) (Pre-registration Required) |



Idaho Bat Working Group Annual Meeting—Agenda

Meeting objective: Share information and collaborate to conserve Idaho’s bats.

Attendees: Idaho Bat Working Group members and interested parties

| | |
|-----------|--|
| 8:00 AM | Welcome and introductions (Rita Dixon and Bill Doering, Cochairs) (5 min) |
| 8:05 AM | Partner updates (45 min) |
| 8:50 AM | North American Bat Conservation Alliance (NABCA) update (10 min) |
| 9:00 AM | WNS surveillance efforts including this winter’s hibernacula surveys /NWHC bat swabbing projects (30 min) |
| 9:30 AM | NABat planning for 2016 summer field season (30 min) |
| 10:00 AM | Break (10 min) |
| 10:10 AM | Wind energy—fatality estimation, actions to minimize mortality, research questions, policy (30 min) |
| 10: 40 AM | AML monitoring of existing bat gates (10 min) |
| 10:50 AM | SWAP implementation of bat conservation actions in 2016 and discussion of collaboration among IBWG partners (55 min) |
| 11:45 AM | Wrap-up (15 min) |
| 12:00 PM | Adjourn |

Tuesday Morning Plenary

Plenary Session Invited Speaker Biographies

Virgil Moore - has served as Director of the Idaho Department of Fish and Game since 2011. He has 39 years of professional experience in fish and wildlife management and has served in many positions for Idaho Fish and Game including, Deputy Director for field operations, Fisheries Bureau Chief, Information and Education Bureau Chief, Fisheries Research Manager and various other field management positions as a fisheries scientist. He has served on numerous fish and wildlife teams including: Co-Chair, Idaho Wolf Depredation Control Board; Co-Chair, Gov. Otter's Sage Grouse Task Force; Chair, Executive Committee, Association of Fish and Wildlife Agencies; Past Chair, Fisheries Water Policy Committee, Association of Fish and Wildlife Agencies; Chair, Western Bird Conservation Committee, Member of Lesser Prairie Chicken Initiative Council, and Chair, Sage Grouse Executive Oversight Committee, Western Association of Fish & Wildlife Agencies (WAFWA); and both the Stanley Basin Sockeye Salmon and Kootenai River Sturgeon Recovery Teams. In his free time, he and his wife Becky enjoys outdoor activities with their two daughters and five grandchildren.

Jim Unsworth, Ph.D. - became director of the Washington Department of Fish and Wildlife (WDFW) in February of 2015. Prior to becoming the head of WDFW, he spent more than 30 years in wildlife management with the Idaho Department of Fish and Game (IDFG). He held several management positions for IDFG, including Deputy Director, State Big Game Manager and Wildlife Bureau Chief. He holds a Bachelor's degree in wildlife management from the University of Idaho, a Master's degree in fish and wildlife management from Montana State University, and a Doctorate in forestry, wildlife and range sciences from the University of Idaho. Jim and his wife Michelle have four adult children. He is an avid hunter and fisherman.

Bill Gaines, Ph.D. - is a Wildlife Ecologist and Director of the Washington Conservation Science Institute. He has been involved in wildlife research and forest management for the past three decades, including 27-years as a wildlife biologist with the US Forest Service. He has conducted a number of research projects on bears and other large carnivores in the North Cascades Ecosystem, and has been involved in the grizzly bear recovery efforts in the North Cascades for the past 25 years. He has published over 50 peer-reviewed articles on a wide-range of wildlife species and conservation topics.

Richy J. Harrod, Ph.D. - is the Deputy Fire Management Officer for Fuels and Fire Ecology on the Okanogan-Wenatchee National Forest. He has a B.S. in biology and terrestrial ecology and a M.S. in biology with an emphasis in botany, both degrees received from Western Washington University. He received his Ph.D. in ecosystem sciences from the University of Washington. Richy started his career on the Okanogan National Forest in 1990 as a seasonal botanist and served as the District Plant Ecologist on the Leavenworth Ranger District, Wenatchee National Forest until summer 2000. In 2000, he moved to the fire program in Okanogan-Wenatchee National Forest Headquarters where he presently resides. Richy has been involved in forest and fire restoration planning and research for 25 years. He has been the primary author or co-author of over 40 published research papers and technical reports on various fire and forestry topics including forest restoration, fire effects on rare plants, biodiversity, and noxious weed management. Richy has been a guest lecturer at several colleges and universities, has taught college level courses at Wenatchee Valley College and continuing education courses through the North Cascade Institute. He has given over 50 presentations at scientific and management conferences.

Frances Cassirer, Ph.D. - has served as project coordinator for the Hells Canyon bighorn sheep restoration project since its formal inception in 1997. She received a B.S. in Wildlife Biology from University of Montana, an M.S. in Wildlife Resources from the University of Idaho, and a Ph.D. in Zoology from the University of British Columbia. Frances has worked on a broad range of topics as a wildlife research biologist for the Idaho Department of Fish and Game.



Plenary Session Invited Speaker Biographies

Mark Penninger - a certified wildlife biologist and the Forest Wildlife Biologist for the Wallowa-Whitman NF in Oregon, and the National Bighorn Sheep Biologist for the US Forest Service. His 27 year career has been with the US Forest Service in Region 6. He has been a TWS member since getting involved in the student chapter at NC State University in 1988. He has served on the board, and as VP and President for the Oregon Chapter of TWS. Mark's professional interests include: 1) integrating principles of conservation biology into forest restoration; 2) effects of motorized access and travel management on wildlife and habitat; and 3) bighorn sheep and mountain goat restoration and conservation.

Paul Wik - is the District Wildlife Biologist for the Blue Mountains District for the Washington Department of Fish and Wildlife. He received a B.S. in Biology from Central Washington University and a M.S. in Wildlife Resources from the University of Idaho. Paul works on management and research issues for game and diversity species in southeast Washington.

Wayne Wakkinen - was born in Idaho and raised in the west. He spent several of his early years in the navy and traveling before finding his life's calling. He has a Bachelor's degree in biology from Boise State University and a Master's in Wildlife Resources from the University of Idaho, where he studied sage grouse under the watchful eyes of Kerry Reese and Jack Connelly. After a short stint in Idaho Falls as a HIP technician, he moved to Bonners Ferry as a research biologist, and spent the next 24 years studying grizzly bears, woodland caribou and handling regional management duties. After 24 years in Bonners Ferry, he moved south to Coeur d'Alene and became the Regional Wildlife Manager in the IDFG Panhandle Region.

Scott Becker - has been the statewide wolf specialist for the Washington Department of Fish and Wildlife for the past 3.5 years where he coordinates and directs field activities related to wolf recovery and management in Washington. He received his MS degree from the University of Wyoming where he evaluated factors limiting population growth of the north Jackson moose herd in Wyoming. Scott has been involved with large carnivore (grizzly bear, black bear, mountain lion, and wolves) management and monitoring activities since 2000 when he began working as a Large Carnivore Biologist for the Wyoming Game and Fish Department (WGFD). He switched to strictly wolf management in 2008 working for both WGFD and the U.S. Fish and Wildlife Service where he coordinated and directed activities related to wolf recovery in Wyoming.

Tuesday Morning—Bay 4-5

Plenary Session (Chaired jointly by partner organization presidents)

08:00-08:30 **Welcome** by Joint Partnership Leadership: Quinn Shurtliff (President, ICTWS); Tony Fuchs (President, WA-TWS); Kris Kendall & Betsy Howell, Co-Chairs, NW PARC); Teal Waterstrat (President, SNVB).

“Common Resources, Challenges, and Solutions”

08:30-09:00 **Virgil Moore**, Director, Idaho Department of Fish and Game.

09:00-09:30 **Jim Unsworth**, Director, Washington Department of Fish and Wildlife.

09:30-09:50 **“Regional habitat networking: from plans to actions”**. Bill Gaines, Director, Washington Conservation Science Institute

09:50-10:20 **“Fire in the Pacific Northwest”**. Richy Harrod, USDA Forest Service, Okanogan-Wenatchee National Forest

10:20-10:40 BREAK

10:40-11:00 **“Crossing canyons, crossing borders: Hells Canyon Bighorn Sheep Initiative”**. Frances Cassirer, Idaho Department of Fish and Game; Mark Penninger, USDA Forest Service, Wallowa-Whitman National Forest; Paul Wik, Washington Department of Fish and Wildlife

11:00-11:20 **“A dirt-level view of trans-boundary cooperation”**. Wayne Wakkinen, Idaho Department of Fish and Game.

11:20-11:40 **“Cooperation and coordination in wolf management across jurisdictional boundaries.”** Scott Becker, Washington Department of Fish and Wildlife.

11:40-12:00 Questions and Discussion

12:00-1:30 LUNCH

12:00-13:30 Idaho Chapter Business Meeting and Luncheon (Casco Bay/Kid Island Bay), lunch provided.

Tuesday Afternoon—Bay3 & 4-5

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

Carnivores (Chair: Blake Murden) (Room—Bay 3)

- | | |
|--------------------|---|
| 13:30-13:50 | Small mammal communities response to environment via Barn Owl (<i>Tyto alba</i>) pellets in Namibia. JENNIFER MEREMS* |
| 13:50-14:10 | Characteristics of mortality zones and mitigation strategies for Barn Owls along interstate 84 in southern Idaho. ERIN ARNOLD* |
| 14:10-14:30 | Barn Owls crossing the road: Examining interplay between occupancy, behavior and roadway mortality in southern Idaho. TEMPE REGAN* |
| 14:30-14:50 | Occupancy and interspecific interactions of Raccoon and Virginia Opossum in Seattle, Washington. MARK JORDAN |
| 14:50-15:10 | Genetic characteristics of Red Foxes in northeastern Oregon. GREGORY GREEN |
| 15:10-15:30 | Population fragmentation and connectivity mapping of American Black Bears in the Canada-USA trans-border region. MICHAEL PROCTOR |
| 15:30-15:50 | BREAK |
| 15:50-16:10 | Wolverine distribution and ecology in the north Cascades ecosystem: Preliminary results of a 10-year study. CATHY RALEY |
| 16:10-16:30 | Climate mediated invasion: Canada Lynx's response to northbound Bobcat range expansion. ARTHUR SCULLY* |
| 16:30-16:50 | Effects of harvest on recruitment and wolf pack structure. DAVID AUSBAND |
| 16:50-17:10 | Monitoring wolf reproduction through the use of expandable radio-collars and abdominal VHF implants in pups, 2012-2015. LACY ROBINSON |
| 17:10-17:30 | Methodologies and results of the multi-species baseline initiative winter bait station effort in the Idaho panhandle, 2010-2014. LACY ROBINSON |
| 17:30-18:30 | Student Mentoring (Room-Bay 4-5) |
| 17:30-18:30 | Poster Set Up (Room-Bay 4-5) |
| 18:30-22:00 | Social and Poster Session (Bay 4-5), no host-bar/mixer & hors d'oeuvres |

Tuesday Afternoon—Bays 1A-1B

Ignite! (Chair: Julie Maenhout) (Room—Bay 1A/1B)

- 13:30-13:40 **Non-invasive spatially explicit capture-recapture of Canada Lynx to estimate density and abundance in northern Washington State.** ARTHUR E. SCULLY
- 13:40-13:50 **Field data collection – There’s an app for that.** PAM BOND & BRETT GULLETT
- 13:50-14:00 **Why I play with poo and so should you...** ROSS C. WINTON
- 14:00-14:10 **Habitat and reproductive fitness of Sage-grouse in the high elevations of eastern Idaho.** ERIC ANDERSON
- 14:10-14:20 **Translocated and resident Greater Sage-grouse movements on the Yakima Training Center, Washington.** KYLE EBENHOCH
- 14:20-14:30 **Some things never change: Humpback whales do more than sing.** MICHELLE FOURNET
- 14:30-14:40 **Temporally, a really reduced discourse in a species of frog; or, TARDIS.** DANIELLE V. NELSON
- 14:40-14:50 **Invasive American Bullfrogs in Grand Teton National Park.** TESS KREOFISKY
- 14:50-15:00 **Innovations in forestry to sustain people and biodiversity: Lessons from moist coniferous Forests of the Pacific Northwest.** DEANNA (DEDE) H. OLSON
- 15:00-15:10 **Addressing the riparian buffer system: Bureaucracy, beliefs, and ways to break through so less becomes more.** JESSICA SHAW
- 15:10-15:20 **Switching to copper ammunition for hunting mammals.** BILL VOGEL
- 15:20-15:30 **Remote cameras: More than just pretty pictures?** JOEL SAUDER & JON HORNE
- 15:30-15:50 BREAK**
- 15:50-16:00 **Managing our Idaho Natural Heritage Program’s Species Diversity Database.** ANGIE SCHMIDT
- 16:00-16:10 **Detection and assessment of ulcerative shell disease – A practical guide for field staff.** TAMMY A. SCHMIDT
- 16:10-16:20 **Idaho Power Company’s avian protection program.** ANTHONIE HOLTHUIJZEN
- 16:20-16:30 **Common Raven nest monitoring: Part of an overarching strategy to conserve Greater Sage-grouse on the Idaho National Laboratory Site.** QUINN SHIRTLIFF & JEREMY SHIVE
- 16:30-16:40 **Condors in Hells Canyon.** ANGELA C. SONDENAA

Tuesday Afternoon—Bays 1A-1B, 6, & 4-5

- 16:40-16:50 **Idaho Elk survival.** BARB MOORE
- 16:50-17:00 **Social media in science.** BRITTANY PENDELTON
- 17:00-17:30 (Open)

Sage and Sharp-Tailed Grouse (Chair: David Musil) (Room—Bay 6)

- 13:30-13:50 **Arthropod characteristics at Columbian Sharp-tailed Grouse brood locations in Conservation Reserve Program and shrub-steppe rangeland habitat.** KATEY HUGGLER*
- 13:50-14:10 **The influence of wind energy development and habitat composition on Columbian Sharp-tailed Grouse habitat selection and fitness in eastern Idaho.** MATT PROETT*
- 14:10-14:30 **Factors influencing the survival of translocated Greater Sage-grouse and Columbian Sharp-tailed Grouse in Lincoln County, Washington.** ADRIAN RUS *
- 14:30-14:50 **Characterizing movement patterns of resident and translocated Greater Sage-grouse in Washington through high-resolution GPS telemetry.** PETER J. OLSOY*
- 14:50-15:10 **Factors influencing nest survival of Greater Sage-grouse in southern Idaho.** ANTHONY J. LOCATELLI
- 15:10-15:30 **Large-scale field experiments to assess the effects of cattle grazing on Greater Sage-grouse.** COURTNEY J. CONWAY
- 15:30-15:50 BREAK**
- 15:50-16:10 **NRCS' commitment to Sage-grouse in Idaho.** KEVIN TRAYLOR.
- 16:10-16:30 **Implementing Greater Sage-grouse conservation: An overview of the 2015 Idaho and southwestern Montana BLM resource management plan amendment.** PAUL MAKELA.
- 16:30-16:50 **Implementation of Greater Sage-grouse Forest Plan Amendments in Idaho.** ROBERT MICKELSON.
- 16:50-17:10 **Sage-grouse habitat: The BLM's monitoring and management nexus.** E. ELLSWORTH
- 17:10-17:30 (Open)
- 17:30-18:30 Student Mentoring (Room-Bay 4-5)**
- 17:30-18:30 Poster Set Up (Room-Bay 4-5)**
- 18:30-22:00 Social and Poster Session (Bay 4-5), no host-bar/mixer & hors d'oeuvres**
- 20:00-21:00 Quiz Bowl**

Tuesday Evening Poster Session-Bays 4-5

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

Posters: Title and Author

1. **Bullfrogs at the border: Eradication efforts of an invasive amphibian (*Lithobates catesbeianus*) in the Kootenays, British Columbia.** LINDSAY ANDERSON
2. **Analysis of the biotic and abiotic factors influencing the distribution of two amphibian species in eastern Washington, *Spea intermontana* and *Ambystoma tigrinum*.** COREY BRUMBAUGH*
3. **Effects of temperature on jumping performance of Oregon Spotted Frogs and American Bullfrogs.** RAVEN DOW-HYGELUND*
4. **Occupancy and movement of amphibians in the Snoqualmie Pass Interstate 90 corridor.** ANNE GUSTAFSON*
5. **Herpetofauna of Alberta BioBank Project.** KRIS KENDELL
6. **Environmental DNA: Using molecular analysis to detect three species of amphibian in an industrial setting in Alberta.** KRIS KENDELL
7. **Alberta Volunteer Amphibian Monitoring Program.** KRIS KENDELL
8. **Environmental DNA as a technique for monitoring the movements of cryptic species in the Snoqualmie pass Interstate 90 Corridor.** KAYLEIGH MULLEN*
9. (Open space)
10. **Evaluating tradeoffs in risks perceived by foraging herbivores.** MEGAN J. CAMP*
11. **Influence of weather and habitat on Little Brown Bat activity along the North Coast of British Columbia.** PATRICK BURKE*
12. **Long-eared bat taxonomy: Genetic evidence eliminates the species status of Keen's *Myotis* (*Myotis keenii*).** CORI L. LAUSEN
13. **The challenges of monitoring bird and bat impacts at offshore windfarms.** ALICIA HIGGS
14. **Seasonal habitat analysis of bull Elk (*Cervus elaphus*) in the Colockum Herd, Washington.** LEWIS MEYERS
15. **The influence of fuel reduction treatments on the nutritional ecology of Mule and White-tailed Deer in northeastern Washington.** STEPHANIE BERRY*
16. **Niche separation among four mustelids in the Idaho Panhandle is potentially mediated through behavior and elevation.** LACY ROBINSON
17. **Clark Fork River Delta restoration project.** KATHY COUSINS

Tuesday Evening Poster Session– Bays 4-5

Posters: Location, Title and Author

18. **Digging into the annual life-history of Long-billed Curlews: Are sink habitats to blame for local population declines?** STEPHANIE COATES*
19. **Avian community response to salmon recolonization in the Cedar River, Washington.** HANNAH L. CLIPP*
20. **Juvenile survival and dispersal in White-headed Woodpeckers.** PHILIP C. FISCHER
21. **An occupancy study of the Flammulated Owl.** SARA McFALL
22. **Osprey habitat suitability in west-central Idaho: Impacts of prey abundance on Osprey breeding success.** ZACH SANCHEZ*
23. **Power poles, platforms, and snags: The habitat suitability and breeding success of Ospreys (*Pandion haliaetus*) in west-central Idaho.** J. TYRELL STYHL*
24. **Conditional antipredator behavior: Do both habitat and predator type influence responses to threats?** MIRIAM A. HERNANDEZ*
25. **Quantifying animal personality along the shy-bold spectrum: Choice of test matters.** MEGAN WHETZEL*
26. **Antiparasitic properties of sagebrush (*Artemisia* spp.) plant secondary metabolites.** BRIEANA GOODS
27. **Is diet selection by Greater Sage-grouse influenced by biomass availability or toxins?** JACQUELINE PEÑA*
28. **Use of camera trap monitoring to detect abundance and distribution of Jaguar and other forest carnivores/prey species in Costa Rican Neotropical rain forests.** LESLIE A. HAY
29. **Idaho Natural Heritage Program's Species Diversity Database.** ANGIE SCHMIDT
30. **Idaho Adopt a Scientist Program (IASP): Engaging classrooms in local research and conservation.** ZOE TINKLE*

Wednesday Morning—Bay 4 & 5

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

07:00-08:00 Washington Chapter of The Wildlife Society Business Breakfast (Room –Casco Bay & Kid Island Bay)

Big Game (Chair: Gregg Serhveen) (Room—Bay 4)

- 08:00-08:20 Nutritional limitations in the Clearwater Elk herds: Exploring the severity, seasonality, and underlying habitat influences. RACHEL COOK
- 08:20-08:40 Can a low carrying capacity and a high stochastic environment induce a predator pit in Elk populations? JON HORNE
- 08:40-09:00 Habitat selection and spatial responses of Bighorn Sheep to forest canopy in north-central Washington. TIFFANY BAKER
- 09:00-09:20 Migration and seasonal range fidelity across a suite of Idaho ungulates: Do techniques match life history characteristics? SCOTT BERGEN
- 09:20-09:40 Plant chemical defenses contribute to winter nutritional deficit in free-ranging herbivores. DANIEL MELODY*
- 09:40-10:00 Forest succession and nutritional carrying capacity of Elk since the 1980 eruption of Mount St. Helens. SHANTEL SPARKES*
- 10:00-10:20 BREAK**
- 10:20-10:40 Functional explanation of plant species preferences by a generalist herbivore; the Columbian Black-tailed Deer. AMY ULAPPA
- 10:40-12:00 **OPEN DISCUSSION**

Dry Forest (Chair: Jeff Kozma) (Room—Bay 5)

- 08:00-08:20 The dry forest of eastern Washington: Issues and opportunities. WILLIAM GAINES
- 08:20-08:40 Dry forest wildlife habitat: Objectives and tradeoffs. KIM MELLEN-McLEAN
- 08:40-09:00 Fire, prey, and competition: Northern Spotted Owl ecology and conservation in eastern Cascades forests. PETER SINGLETON
- 09:00-09:20 Home range size and foraging patterns of White-headed Woodpeckers in western Idaho. ADAM KEHOE*
- 09:20-09:40 Stem decay in dry forest: A natural recycling process and its implications in wildlife use. ANGEL SAAVEDRA

Wednesday Morning—Bay 5, & 6

- 09:40-10:00 **Why are most snags never used by woodpeckers for nesting? Wood hardness can limit snag use by cavity-dependent wildlife.** TERESA LORENZ
- 10:00-10:20 BREAK**
- 10:20-10:40 **Fire as a management tool in eastside forests.** RICHY HARROD
- 10:40-11:00 **Maintaining structure during timber harvest on private lands - challenges and constraints.** BILL VOGEL & MARTY MAUNEY
- 11:00-11:20 **SLOPPS: Snags, Logs, Openings, Patches, Piles and Shrubs.** KEN BEVIS
- 11:20-12:00 **OPEN DISCUSSION**

Field Techniques (Chair: Lindsey Thurman) (Room—Bay 6)

- 08:00-08:20 **Ethics of wildlife capture and handling.** MARK R. JOHNSON
- 08:20-08:40 **Using clay models to test for avian recognition of aposematic warning coloration of Ring-neck Snakes (*Diadophis punctatus*).** HANNA CROW*
- 08:40-09:00 **Hibernation ecology of Silver-haired Bats overwintering in British Columbia, Canada.** CORRI L. LAUSEN
- 09:00-09:20 **Using Beavers as tools for wetland restoration and climate adaptation in the Skykomish Watershed of Washington.** JASON SCHILLING
- 09:20-09:40 **Effects of intensive forest management on early-seral associated birds, Oregon Coast Range, 2011-2015.** A.J. KROLL
- 09:40-10:00 **Effects of three timber harvest prescriptions on breeding density of Pileated Woodpeckers.** ZACH SWEARINGEN
- 10:00-10:20 BREAK**
- 10:20-10:40 **Evaluating stream-associated amphibian response in a landscape-level forestry experiment in western Washington State.** MARC P. HAYES
- 10:40-11:00 **A demonstration of field experience detecting and counting wildlife with high resolution cooled infrared and high definition video camera from aerial platforms.** JOHN ROMERO
- 11:00-11:20 **Testing the forage selection of the American Pika (*Ochotona princeps*) for use in connectivity corridors in the Washington Cascades.** CARLY WICKHEM*
- 11:20-11:40 **Efficacy of five methods for converting stands of exotic, sod-forming grass to beneficial bunchgrass/forb mixes.** SHANE ROBERTS
- 11:40-12:00 **(OPEN)**

Wednesday Afternoon—Bays 4, & 5

12:00-13:30 SNVB Business Meeting and Luncheon (Casco Bay/Kid Island Bay), lunch provided.

Amphibians (Chair: Clara Wheeler) (Room—Bay 4)

- 13:30-13:50 **An overview of recent Foothill Yellow-legged Frog research in northern California.** CLARA WHEELER
- 13:50-14:10 **Ecology of amphibian populations in the Williston Reservoir drawdown zone, British Columbia.** MARK THOMPSON
- 14:10-14:30 **The Oregon Spotted Frog (*Rana pretiosa*) in lowland western Washington: A population, parentage, and non-breeding habitat analysis.** CHELSEA WADELL
- 14:30-14:50 **Examination of egg piling behavior in Spotted Frogs (*Rana luteiventris* and *R. pretiosa*).** JAY BOWERMAN
- 14:50-15:10 **I know what you did last summer: Embryonic learning across amphibian life stage transitions.** TIFFANY GARCIA
- 15:10-15:30 **Condition-dependent terrestrial movement of juvenile Red-legged Frogs.** EVAN BREDEWEG*
- 15:30-15:50 BREAK**
- 15:50-16:10 **Response of amphibian communities to wetland mitigation in the Greater Yellowstone ecosystem.** LEAH SWARTZ*
- 16:10-16:30 **Effects of habitat restoration on Northern Red-legged Frogs (*Rana aurora*).** LAURA TRUNK
- 16:30-16:50 **"In too deep": Hypoxia in free-living embryos of the frog *Rana aurora*.** CHRIS ROMBOUGH
- 16:50-17:10 **Bullfrog impact on Oregon Spotted Frogs: Are bullfrogs as bad as we feared?** JAY BOWERMAN
- 17:10-17:30 (Open)

Arid Ecosystems (Chair: Bill Vogel) (Room—Bay 5)

- 13:30-13:50 **Range expansion of an introduced population of Checkered Whiptail Lizard (*Aspidoscelis neotesselata*) in Grant County, Washington.** TROY PETERSON*

Wednesday Afternoon - Bay 5, 6, & 1-2

- 13:50-14:10 **Potential effects of waste waters from oil and gas extraction on amphibians: Preliminary results from a multi-partner investigation.** BLAKE HOSSACK
- 14:10-14:30 **Genetic monitoring of the endangered Columbia Basin Pygmy Rabbit (*Brachylagus idahoensis*) reintroduction.** STEPHANIE M. DEMAY*
- 14:30-14:50 **Understanding factors influencing fine-scale habitat use by Pygmy Rabbits (*Brachylagus idahoensis*).** LAURA A. McMAHON*
- 14:50-15:10 **Underlying mechanisms of seasonal variation in activity patterns of the Pygmy Rabbit (*Brachylagus idahoensis*).** CHARLOTTE MILLING*
- 15:10-15:30 **The plight of prey: Population demographics, foraging behavior, and personality of Piute Ground Squirrels (*Urocitellus mollis*) in structurally variable habitats.** ZOE TINKLE*
- 15:30-15:50 BREAK**
- 15:50-16:10 **Short-eared Owl (*Asio flammeus*) surveys in the intermountain west: An innovative approach using citizen science to conduct long-term monitoring.** ROBERT A. MILLER
- 16:10-16:30 **Bridge and Seton Watersheds: Grassland bat inventory and monitoring.** JARED HOBBS
- 16:30-16:50 **A case study in planning and siting an electric transmission line in arid ecosystems.** MARK TESKE
- 16:50-17:10 **Key threats and conservation efforts in Idaho -- TBD**
- 17:10-17:30 **Key threats and conservation efforts in Washington.** MARK TESKE
- 17:30-17:50 **Open Discussion**

Manuscript Preparation Workshop (Chair: Aaron Switalski) (Room—Bay 6) * (Pre-registration is required/Workshop is full)***

- 13:30-17:30 **Publish or Perish: Avoiding common manuscript pitfalls before you hit “Submit”.** VAUGHN PARAGAMIAN
- 15:30-15:50 BREAK**
- 17:30-18:00 BREAK**
- 18:00-20:00 Social Hour, Banquet, Awards, Silent Auction and Raffle (Room– Bay 1-2)**

Thursday Morning—Bays 1A/B & 3

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

07:00-08:00 Breakfast with a Wildlifer. (Location—The Dockside Restaurant, inside the Coeur d'Alene Resort)

08:00-17:30 Chemical Immobilization and Handling Workshop (lunch provided). **(Room—Bay 1A-/B)**
(Pre-registration & fee required; register at the conference registration desk)

Wildlife Diseases (Chair: Blake Hossack) **(Room—Bay 3)**

08:00-08:20 (Open)

08:20-08:40 **Effects of the fungal pathogen *Batrachochytrium dendrobatidis* on Cascades Frogs (*Rana cascadae*) in the mountains of Northern California.** JONAH PIOVIA-SCOTT

08:40-09:00 **Influence of exposure time and chytrid fungus strain in tadpole survival of Pacific Chorus Frog and Western Toad.** JENNY URBINA*

09:00-09:20 **Shell disease in Western Pond Turtles in Washington - What we know and what we don't.** KATHERINE HAMAN

09:20-09:40 **Treponeme-associated Bacterial Hoof Disease in Elk from southwest Washington.** KRISTIN MANSFIELD

09:40-10:00 **Effects of sylvatic plague on northern Idaho Ground Squirrels.** AMANDA GOLDBERG*

10:00-10:20 BREAK

10:20-10:40 **A critical role for disease persistence in population viability assessments of Bighorn Sheep.** KEZIA MANLOVE*

10:40-11:00 **The epidemiology of Ranavirus in Wood Frogs in the Northeast: Lessons for the Northwest?** JESSE BRUNNER

11:00-11:20 **Biosecurity in aquatic environments.** LAURA SPRAGUE

11:20-11:40 **Projecting the global distribution of the emerging amphibian fungal pathogen *Batrachochytrium dendrobatidis*, based on IPCC Climate Futures.** DEANNA OLSON

11:40-12:00 ***Batrachochytrium salamandrivorans* (Bsal): Coordinating a proactive response to an emerging amphibian disease.** BLAKE HOSSACK

12:00-13:30 Lunch

Thursday Morning —Bay 6

Freshwater Mussels (Chair: Teal Waterstrat) (Room—Bay 6)

- 08:00-08:20 **Xerces' citizen science mussel work in the Portland area.** MICHELLE BLACKBURN
- 08:20-08:40 **Collaborative data collection of fresh water mussels in Idaho: Utilizing existing snorkel protocols to obtain information.** BRE ANDERSON
- 08:40-09:00 **Micro-climatic envelopes of terrestrial gastropods.** MICHAEL LUCID
- 09:00-09:20 **Reproductive biology of *Anodonta nuttalliana*, *A. oregonensis*, *Margaritifera falcata*, and *Gonidea angulata* in the Columbia Basin.** ALEXA MAINE
- 09:20-09:40 **It's not just Quagga Mussels - When freshwater Unionids go invasive.** CYNTHIA TAIT
- 09:40-10:00 **Extinction risk assessment of western North American freshwater mussels: *Anodonta oregonensis*, *A. nuttalliana*, *Margaritifera falcata*, and *Gonidea angulata*.** EMILIE BLEVINS
- 10:00-10:20 BREAK**
- 10:20-10:40 **The distribution and diversity of freshwater mussels in Idaho.** STEVE LYNSE
- 10:40-11:00 **Wyoming's native freshwater mussels.** PHILIP MATHIAS
- 11:00-11:20 **Freshwater mussel survey of the Kettle River at Lake Roosevelt National Recreation Area.** ERIC STARKEY
- 11:20-11:40 **Moving forward with management of *Gonidea angulata* in the Okanogan Valley of BC, Canada.** JOHN MAGEROY
- 11:40-12:00 **The status of *Margaritifera falcata* in British Columbia: Taking small steps forward.** JOHN MAGEROY
- 12:00-12:20 **Conservation status of freshwater mussels in California.** JEANETTE HOWARD
- 12:20-13:30 Lunch**
- 18:30-21:30 NW PARC Informal Social, Coeur d'Alene Tap House Unchained, 210 E. Sherman Ave., Coeur d'Alene, ID. Everyone is welcome to attend, however, seating may be limited.**

Thursday Morning & Afternoon—Bay 5

2016 Annual Meeting Symposium

Conservation Across Borders

**** (Pre-registration & fee required)**



Room Bay 5 (Chairs: Betsy Howell & Kris Kendell)

- 8:30-9:00 Registration
- 9:00-9:15 **Welcome! And Introductions**
- 9:15-9:45 **A Snake Peek at What is Happening at National PARC.** Priya Nanjappa, Association of Fish & Wildlife Agencies, and Jen Williams, National Park Service
- 9:45-10:45 **Keynote Address: Protecting What Matters.** Jamie Reaser, National Invasive Species Council
- 10:45-11:15 **Break**
- 11:15-11:45 **FrogWatch USA: Bringing Together Amphibian Enthusiasts Through Citizen Science.** Valorie Titus, Green Mountain College
- 11:45-12:15 **Snakes on a Plane, Truck or Box!** Charlie Justus, Idaho Department of Fish & Game
- 12:15-13:15 **Lunch (included in registration fee)**
- 13:15-13:45 **Repercussions of Herpetofauna Regulations on Herpetoculturists.** Mary Abbott, Idaho Treasure Valley Herpetology Society
- 13:45-14:15 **Illegal Wildlife Trade in the Pacific Northwest.** John Goldman, U.S. Fish & Wildlife Service
- 14:15-14:45 **The Journey to Restore San Francisco's Mountain Lake for the Western Pond Turtle.** Jessie Bushell, San Francisco Zoo
- 14:45-15:00 **Break**
- 15:00-15:30 **Amphibian and Reptile Conservation Within and Across State and International Boundaries: How to PARC Over the Lines.** Eric Gardner, Washington Department of Fish & Wildlife
- 15:30-16:00 **Amphibian and Reptile Disease Update.** Dede Olson, U.S. Forest Service
- 16:00-16:30 **Discussion and concluding remarks.**
- 18:30-21:30 NW PARC Informal Social,** Coeur d'Alene Tap House Unchained, 210 E. Sherman Ave., Coeur d'Alene, ID. Everyone is welcome to attend, however, however, seating may be limited.

Thursday Afternoon—Bay 3

Idaho Bird Conservation Partnership—Agenda

(Chair: Jay Carlisle)



13:30 **Welcome and Introductions** – Jay Carlisle

13:45 **Partner updates:**

- **Pacific Flyway Nongame Technical Committee update on IBCP relevant topics (Short Eared Owls, rodenticides, wetlands connectivity, etc.)** – Colleen Moulton, IDFG
- **Additional speakers to be announced.**

14:15 **Working Group updates** (3-10 min update per group) – Working Group leaders.
Brief updates from each working group on recent accomplishments and the focus of breakout discussions today and tomorrow, including:

- **SWAP continual improvement and implementation** – Colleen Moulton & Rita Dixon
- **MBTA Centennial and window strike updates** – Deniz Aygen, Heidi Ware, & Carrie Hugo
- **Short-eared Owl surveys** – Rob Miller
- **Bird conservation workshops for partner agencies** – Don Kemner
- **Other topics as time allows (Harlequin Ducks, high elevation birds, etc.)**

~15:15 **Break**

15:30-17:00 **Breakout discussions:**

- **Outreach, Education, & Citizen Science:**
 - Uncapped pipes, window strikes, MBTA Centennial
- **Research and Monitoring**
 - Short-eared Owl citizen science project
 - Harlequin Ducks follow-up discussion
 - High elevation birds
- **Conservation Delivery**
 - Bird workshops for federal agencies and tribes (*in prep*)

~18 or 18:30pm Optional group dinner (location to be announced)

FRIDAY Morning—IDFG Regional Office

Location—IDFG Regional Office, 2885 Kathleen Avenue, Coeur d'Alene

- 08:00-17:30 **Chemical Immobilization and Handling** (Located in the Roosevelt Room of the Hunter Education Wing, north of main IDFG office) **** (Pre-registration and fee required)**
- 08:45-12:00 **Idaho Bird Conservation Partnership** (Location is the Leopold Room of the Hunter Education Wing, north of main IDFG office)



Idaho Bird Conservation Partnership—Agenda

(Chair: Jay Carlisle)

Friday morning, 26 February

- 8:45 Convene ... coffee/tea
- 9:00 **Brief updates from Thursday afternoon breakouts**
- 9:15 **Breakout sessions continued ...**
- 10:45 **Break**
- 11:00 **Next steps: work plans & deliverables for the spring/summer**
- ~12:00 Meeting adjourned (*continued lunch discussions for those interested*)

