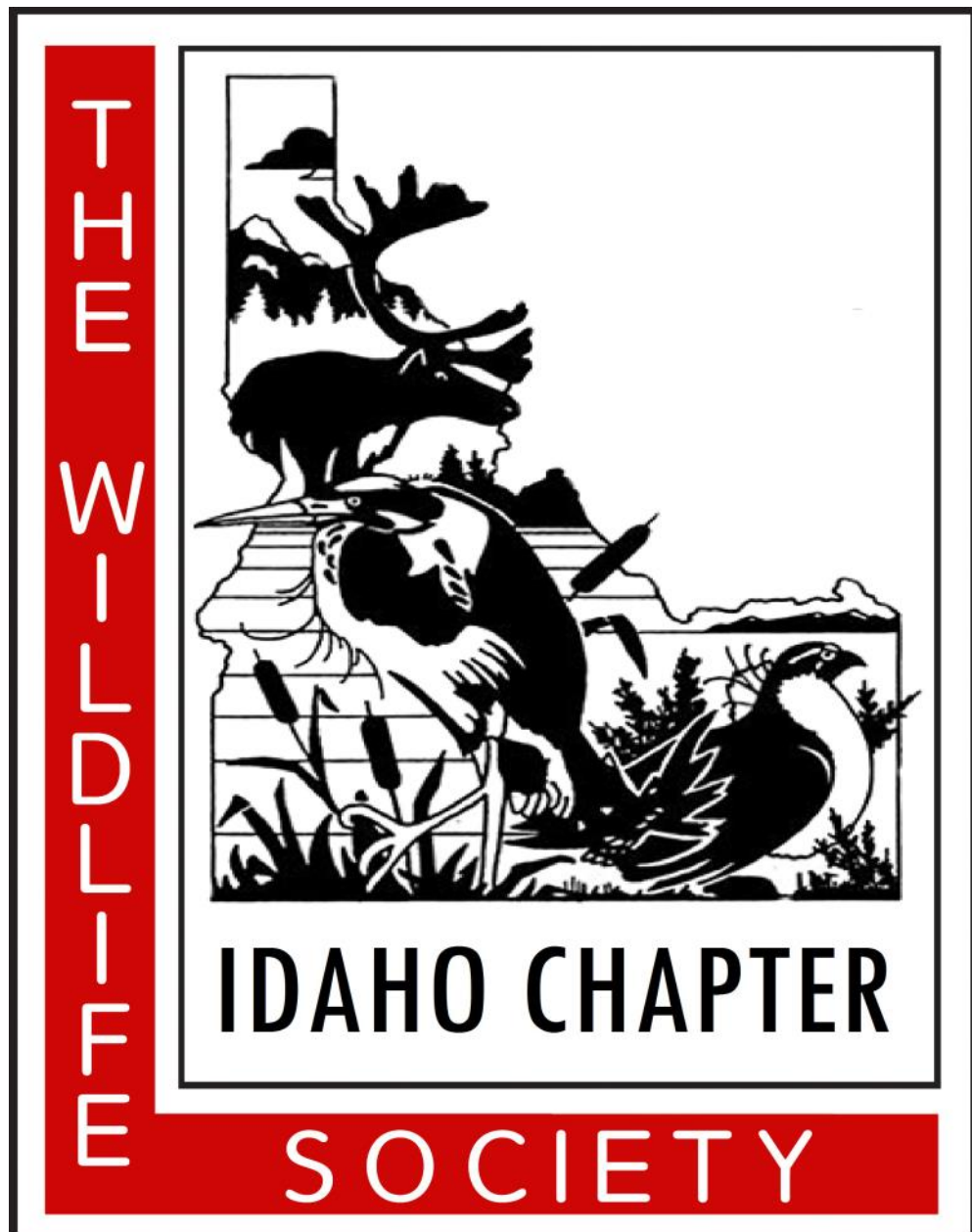


2019 IDAHO CHAPTER OF THE WILDLIFE SOCIETY
“LEAPING INTO LEADERSHIP: CREATING
CONSERVATION’S FUTURE”

18-21 March 2019

Boise Centre

Boise, Idaho



PROGRAM

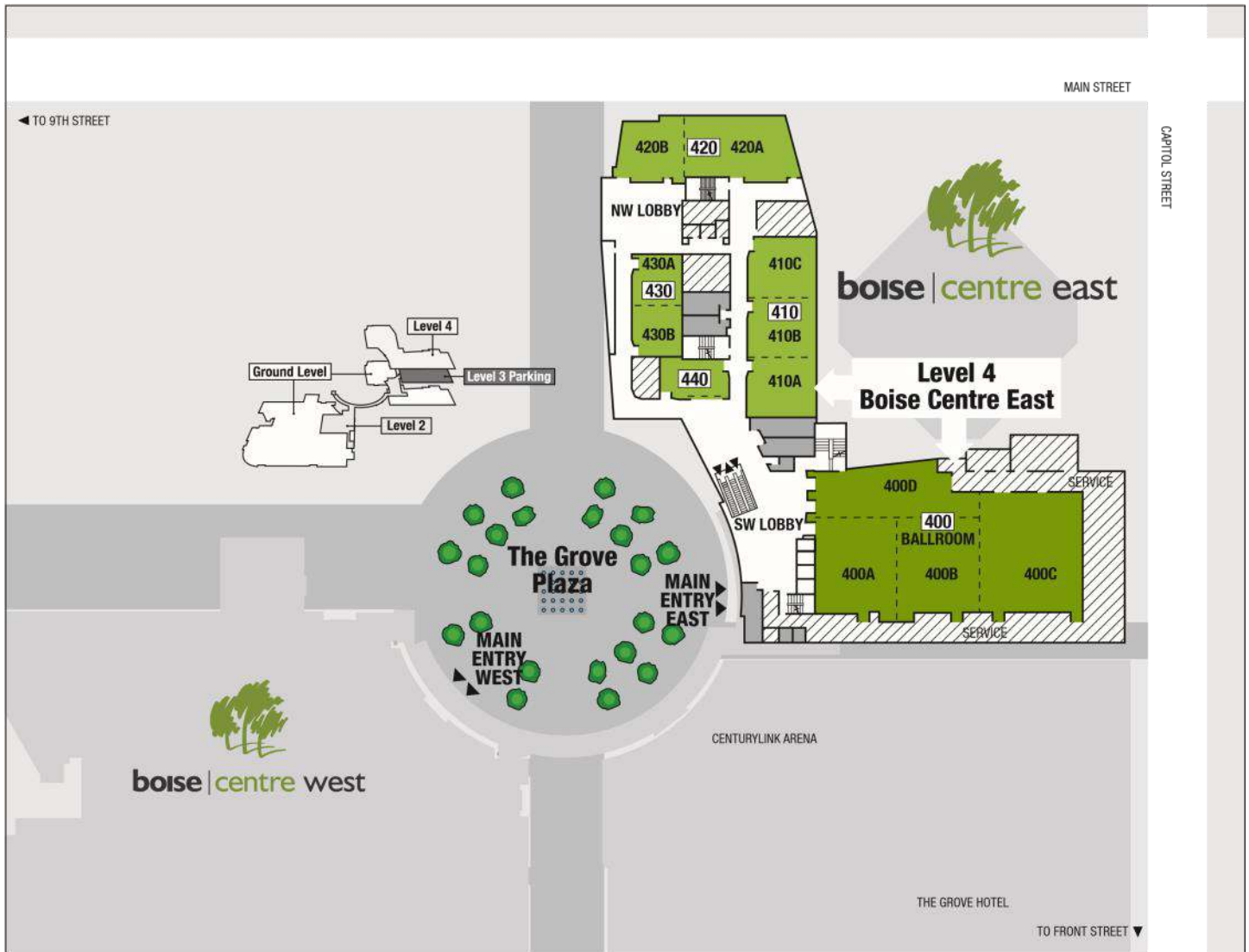


2019 Associated Meetings

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



Boise Centre Floor Plan



Suggested Parking Options

850 West Front Street Garage	190 S 9th St.	1 hr free	Each Additional Hour \$3.00	\$15.00 Daily Maximum
9th & Front (City Center)	312 S 9th St.	1 hr free	Each Additional Hour \$3.00	\$15.00 Daily Maximum
Capitol & Front	246 S Capitol Blvd.	1 hr free	Each Additional Hour \$2.50	\$12.00 Daily Maximum
10th & Front	230 S 10th St.	1 hr free	Each Additional Hour \$3.00	\$15.00 Daily Maximum
783 W Main St Garage	783 W Main St.	1 hr free	Each Additional Hour \$3.00	\$15.00 Daily Maximum
Hotel 43	981 W Grove St.	Free w/validation	Each hour \$2.00	\$12.00 Daily Maximum





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Meeting Introduction and Host City

Meeting Introduction

The Idaho Chapter of The Wildlife Society annual meeting is 18-21 March 2019 in Boise, Idaho. This year's conference offers a diverse scientific program with a plenary session, special session, symposium, contributed oral and poster presentations, social, banquet, student activities and the annual business meetings.

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)





Registration and Logistics

Registration fees include admission to all oral sessions, poster session, coffee breaks, social activities, a copy of the program and a complimentary meeting gift.

Registration Fees:

\$250	Full registration (includes social and meeting gift)
\$275	Full Registration for Professional Non-Members (includes social and meeting gift (while supplies last)
\$150	Retiree (includes social and meeting gift (while supplies last))
Subsidized	Idaho Chapter student member registration (includes social, banquet and meeting gift (while supplies last))
\$40	Student registration ((non-Idaho Chapter member) (includes social, banquet and meeting gift (while supplies last))
\$125	One day registration
\$40	Regular banquet ticket
\$300	Late Full Registration
\$50	Late Full Student Registration
\$150	Late Retiree
\$150	Late 1-Day Registration

The registration desk will be open at the following times:

Monday	18 March	4:00-6:15pm
Tuesday	19 March	7:00-9:00am, 11:00am - 2:00pm, 5:00-7:00pm
Wednesday	20 March	7:00-9:00am, 11:00am - 2:00pm, 5:00-7:00pm

Messages and volunteer opportunities

A message board will be available near the registration desk.

Conference Contact

Andrew Mackey - (ICTWS) andrew.mackey@idfg.idaho.gov; 208-750-6123

Executive Boards & Conference Organizing Committee

Ross Winton	President
Andrew Mackey	President-Elect
Duston Cureton	Vice-President
Bruce Schoeberl	Secretary
Kara Campbell	Treasurer
Anna Owsiak	Past-President
Bryan Stevens	Volunteer Coordinator



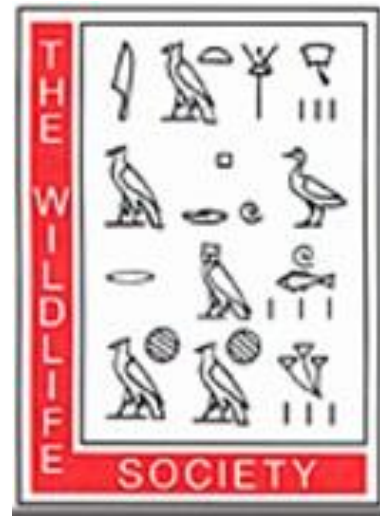


Meeting Sponsorship

2019 Conference Sponsors

We wish to thank all of the organizations and businesses for sponsoring the 2019 Conference. Some of our sponsors did not make it into this program in time for print and we would like to extend our gratitude for helping to make this conference possible!

Gold Sponsors (\$1,200-\$1,999):



NORTHWEST SECTION





Meeting Sponsorship

2019 Conference Sponsors

We wish to thank all of the organizations and businesses for sponsoring the 2019 Conference. Some of our sponsors did not make it into this program in time for print and we would like to extend our gratitude for helping to make this conference possible!

Silver Sponsors (\$500-\$1,199)



University of Idaho





Meeting Sponsorship

2019 Conference Sponsors

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



Resources



Commission



Auction and Raffle Item Donors

We wish to thank the following individuals, businesses and organizations that supported the 2019 Conference with auction and raffle item donations:

Robin Garwood
University of Idaho
Snake River Adventures
Anna Owsiak
First Lite
Charles Peterson
Harriet Allen
JJ Teare
Brandon Flack
Vortex Optics
Becky Abel
Clearwater Canyon Cellars
Lost Grove Brewing
Maria Pacioretty
Kirsti Beck

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!



2019 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 ensured fundraising success. 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. If you are interested in being part of the any of these committees or would like to help in any capacity please visit with any ICTWS Executive Committee Member.

Audit Committee

(Chuck Blair)

Awards Committee

(Paul Makela, Jim White, Ryan Long, Jen Forbey, Diane Evans-Mack)

Conservation Affairs Committee

(Robert Magill, Bill Dell'Isola, Chuck Peterson, Michael Young)

Education and Outreach Committee

(Alana Jensen, Morgan Pfander, Maria Pacioretty)

Elections/Nominations Committee

(Curtis Hendricks, J.J. Teare, Shane Roberts, Brian Bybee)

Fundraising Committee

(Jason Beck, Tara Ball, Josh Rydalch, Deniz Aygen)

Grant Review Committee

(Toni Holthuijzen, Sandy Vistine-Amdor, Jericho Whiting, Laura Wolf)

Membership Committee

(Katie Powell, Bruce Schoeberl, Lisa Nutt, Toni Holthuijzen)

Paper/poster judging coordinators

(Janet Rachlow, Kevin Warner) and all of the paper/poster judges

Scholarships Committee

(Jon Dudley, Sylvia Copeland, Tricia Hebdon)

Sponsorship Committee

(Josh White, Aren Eddingsaas)

Student Affairs Committee

(Janet Rachlow, Jericho Whiting, Ryan Walker, Quinn Shurtliff)





Program At a Glance

Monday 18 March

Time	Workshop
13:00-17:00	Idaho Bird Conservation Partnership (Room-440)
Registration Desk Open: 16:00-18:15	

Tuesday 19 March ***Charles Peterson Photo Exhibit- All day in Hallway**

Time	Workshops
08:00-12:00	Idaho Bat Working Group (Room-440)
08:00-12:00	How to Give an Effective Presentation (Room-410)
12:00-13:00	Lunch on your own
13:00-17:00	Idaho Partners in Amphibian and Reptile Conservation Meeting (Room-440)
13:00-17:00	Principles of Productivity (Room-410)
13:00-17:00	Eye in the Sky- Utilizing UAS technology for Effective Natural Resource Management (Room-400C)
18:15-23:00	Welcome Social (Room-400AB&D)
Registration Desk Open: 07:00-09:00; 11:00-14:00; 17:00-19:00	

Wednesday 20 March ***Charles Peterson Photo Exhibit- All day in Hallway**

Registration Desk Open: 07:00-09:00; 11:00-14:00; 17:00-19:00		
Time	Room—400C	*Vendor Displays all day in Hallway
08:00-08:15	Welcome - ICTWS President: Ross Winton (Room—400C)	
08:15-10:15	Plenary Session - “Leaping into leadership: Creating Conservation’s Future” (Room—400C)	
10:15-10:45	BREAK	
10:45-12:00	Panel Discussion (Room—400C)	
12:00-14:00	Lunch on your own. (Poster Set Up) (Executive and Committee Lunches— Room 400AB&D)	
	Room—420	Room—410
14:00-15:20	Climate/Disease/Contaminants	Wildlife Management
15:20-15:40	BREAK (Poster Set Up)	
15:40-16:40	Citizen Science/Wildlife Education Outreach	Ignite
12:00-17:00	Photo Contest (Room—440)	
16:40-18:30	Poster Session (Room—400D)	
18:30-23:00	Social Hour, Banquet, Awards, Silent Auction and Raffle (Room—400AB&D)	





Program At a Glance cont.

Thursday 21 March

Time

07:00-08:00	Student Mentorship—Breakfast with a Biologist (Room—400A) At reserved tables	
08:00-13:00	Photo Contest (Room—440)	
	Room—420	Room—410
08:00-10:00	Habitat Use and Ecology	Wildlife Ecology
10:00-10:20	BREAK	
10:20-12:00	Landscape Ecology	Human Dimensions
12:00-13:40	Lunch on your own	
13:40-15:20	Methodologies/Wildlife Ecology	Non-Lead Workshop
15:20-15:40	BREAK	
15:40-17:00	Genetics/ Wildlife Management	Non-Lead Workshop

ICTWS Special Awards—Presented at the Banquet Wednesday Evening

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.





Attendee and Presenter Information

Locations

All conference activities and associated meetings will be held in the following Rooms: 400, 410, 420, 440, and the hallway. See pages 10-11 “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 prior to the Chapter Banquet on Wednesday March 20th in Room 400D. Poster displays should be set up during lunch or other meeting breaks but prior to the beginning of the poster session. All authors should be at their posters and prepared to discuss their work from 16:40 to 18:30 on Wednesday evening. Posters must be removed after the banquet.

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 Afternoon

Idaho Bird Conservation Partnership Meeting 13:00-17:00—Agenda (Room –440)

13:00 Welcome, Introductions, and Context

13:15 Fall 2018 meeting recap and continuing IBCP action items

13:30 brief Working Group updates, including:

- Conservation Delivery

- Funding Acquisition

- Information Management

- Outreach, Education, & Citizen Science

 - Hunter's Education contributions

 - Boise library & bird-safe glass

- Pressing Issues

- Research & Monitoring

 - Yellow-billed Cuckoos, Short-eared Owls, etc.

- State Wildlife Action Plan (SWAP) implementation

14:15 eBird Northwest – *John Alexander and Ellie Armstrong, Klamath Bird Observatory*

~14:45 coffee/snack break

15:00 Pinyon Jays – do we know enough? – *Jay Carlisle, Intermountain Bird Observatory*

~15:15 Working Group breakout discussion(s) – up to 3 at once, some shorter & some longer

- Yellow-billed Cuckoos – 2019 & beyond

- Outreach, Education, & Citizen Science –continued outreach re: illegal shooting, IWJV webpage, other topics

- Research & Monitoring

- Conservation Delivery

16:45 Re-convene; action items for the spring/summer



Tuesday Morning & Afternoon

Idaho Bat Working Group Meeting—Agenda Items (Room –440) 8:00-12:00

Meeting facilitators: Rita Dixon and Bill Doering, Co-Chairs

- 8:00 Welcome and Introductions (5 min.)
National Updates (15-20 min.):
- Strategic *Pd* Surveillance
 - Structured Decision Making Workshop, LaCrosse, WI
 - Bats and Rabies Video Short
 - Association of Fish and Wildlife Agencies Bat Working Group/Forum
- Regional Reports: 10 min. by region (60 min.)
Wind Energy Subgroup report
- 10:00 Break (15 min.)
2019 Summer Field Training Event, Craters of the Moon National Monument
WNS: revisit criteria cutoffs for national WNS surveillance prioritization
Annual Idaho Bat Status Survey Reports
Breakout Groups:
- Wind Energy Subgroup
 - Hibernacula Survey Protocol Subgroup
 - Bat data sharing and data management
 - Communications and outreach opportunities
 - Bats and bridges
 - WNS
- Breakout group reports
- 11:45 Wrap-up and next steps:
- Upcoming summer work/needs (e.g., training and equipment)
 - 2020 TWS Bat Session
- 12:00 Adjourn

Idaho Partners in Amphibian and Reptile Conservation Meeting—Agenda Items (Room-440) 13:00-17:00

- Introductions
- National PARC Update
- Regional PARC Update
- Idaho Amphibian and Reptile iNaturalist Project
- Idaho Master Naturalists
- Morley Nelson Snake River Birds of Prey NCA Reptile Surveys
- Herp News from around Idaho
- Idaho Snakes Workshop (Identification, Natural History, and Conservation)



Tuesday Morning & Afternoon

Workshops

08:00-12:00 **Explorers for Bats Video (Looping Video) (Room 420)**

08:00-12:00 **How to Give an Effective Presentation (Room-410) (Presenter: JON HORNE)**

This workshop will cover the dos and don'ts of giving a presentation suitable for any professional venue. Such material will cover slide set up, color schemes, graphs, body language and all the ins and outs to go with it. Plan on interactive participation and perhaps even some one-on-one with Dr. Horne to help work on a current presentation, so come prepared to learn!

12:00-13:00 **Lunch on your own**

13:00-17:00 **Principles of Productivity: How to Identify and Stay Focused on Accomplishing the Most Important Things at Work and at Home. (Room-410) (Presenter: QUINN SHURTLIFF)**

Participants will learn and apply some of the fundamental principles undergirding strategic planning paradigms in conservation, business, and a host of other fields. These principles include the establishment of a vision, using the Pareto Principle (i.e. the law of the vital few) to informing your actions, identifying barriers, developing an accurate conceptual map of the situation, prioritizing actions, defining what success looks like, and monitoring for effectiveness and outcomes.

13:00-17:00 **Eye in the Sky- Utilizing UAS technology for Effective Natural Resource Management (Room-400C) (Presenters: JASON KARL & SCOTT BERGEN)**

This workshop seeks to inform and detail some of the uses of current UAS technology for the purposes of resource management. Procedures for processing and analyzing UAS acquired data using Structure From Motion methodologies will be covered and participants will use open source platforms on image data previously acquired using "Open Drone" resources of the University of Idaho. Invited speakers will share their work using UAS technology to count Salmon nesting locations (reds), vegetation and habitat analysis (veg classification and 3-d estimation), hyper-spectral analysis (plant species identification), LIDAR (vegetation ht.), and census/estimation of Prairie Dog colonies.



Wednesday Morning—Room 400C

Plenary Session (Room— 400C)

- 08:00-08:15 **Welcome** by Ross Winton (President, ICTWS)
- 08:15-08:45 **Harriet Allen**
Northwest Section of The Wildlife Society
Section Representative to Council
- 08:45-09:15 **Joshua Uriarte**
Idaho Governor's Office of Species Conservation
Terrestrial Species Manager and Policy Advisor
- 09:15-09:45 **Jay Carlisle**
Boise State University
Associate Research Professor
- 09:45-10:15 **Toby Boudreau**
Idaho Department of Fish and Game
Bureau Chief of Wildlife
- 10:15-10:45 BREAK**
- 10:45-12:00 Questions and Panel Discussion
- 12:00-14:00 **Idaho Chapter of The Wildlife Society Business Lunch (Room—400AB&D)**
(Lunch on your own if you are not attending the business lunch.)
- 12:00-17:00 **Photo Contest (Room 440)**



Wednesday Morning Plenary

Plenary Session Invited Speaker Biographies

Jay Carlisle, Ph.D. - is the Research Director of the Intermountain Bird Observatory (IBO) and an Associate Research Faculty in the Department of Biological Sciences at Boise State University. Jay earned a B.S. in Ecology from The Evergreen State College and a Ph.D. in Biology from the University of South Dakota. He has worked with the IBO since 1996 and, after completing his doctoral research on the stopover ecology of songbirds, Jay returned to Idaho in 2005 to continue working with IBO as the Research Director. He has led the growth of IBO's research and monitoring efforts to include studies of many "at risk" species such as Burrowing and Flammulated Owls, Golden Eagle, Long-billed Curlew, Northern Goshawk, White-faced Ibis, and Yellow-billed Cuckoo and many other research projects across the Intermountain West. Though a field biologist at heart, he's become increasingly interested in the Human Dimensions side of conservation and management. Last but not least, he's proud to have served as the Coordinator for the Idaho Bird Conservation Partnership since 2011.

Harriet Allen – worked in endangered species research and conservation for 35 years before retiring from the Washington Department of Fish and Wildlife (WDFW) in 2013 as the former Endangered Species Manager. She is finishing her second 3-year term as Northwest Section Representative to Council for The Wildlife Society and is on the Board of Directors of Wolf Haven International. She also participates in grass roots efforts for state wildlife agency transformation to improve wildlife conservation in Washington. Harriet conducted the first northern spotted owl research in Washington in the 1980's and then managed the WDFW Endangered Species Program for 25 years. She co-lead development of Washington's Listing Procedures and oversaw identification, listing, and recovery of imperiled species in the state. She led restoration/recovery actions for species ranging from peregrine falcon to western pond turtle, pygmy rabbit, Oregon spotted frog, sage and sharp-tailed grouse, and fisher. She led the 5-year development of the Wolf Conservation and Management Plan for Washington and managed the initial years of wolf recovery, beginning with the first documented breeding pair in 2008. She received bachelor's and master's degrees from Texas A&M University, where she was the first female undergraduate in the Wildlife Program. She lives in Olympia, Washington and is attacking her bucket list with vigor during retirement.

Joshua Uriarte - serves as Program Manager and Policy Advisor for the Governor's Office of Species Conservation. He has been with OSC since January 2015. Josh received his bachelor's degree in Fisheries and Wildlife Science, accompanied by a minor in Forest Management, at Oregon State University in Corvallis. His primary responsibilities include providing technical support and coordinating with federal, state and private partners as they relate to the threatened and endangered species recovery in Idaho. Josh previously worked with the Sage Grouse Initiative (SGI) for four years, coordinating conservation efforts.

Toby Boudreau – as of recent, is the new Idaho Department of Fish and Game's Wildlife Bureau Chief. Toby has been with the Department since 2005 and has held multiple management roles including; Statewide Mule Deer Initiative Coordinator, Regional Wildlife Manager, Statewide Deer Elk Coordinator, Regional Supervisor and Assistant Chief of Wildlife. Prior to coming to IDFG he worked for Alaska Department of Fish and Game from 1991 through 2005 as an Area Management Biologist in several locations primarily working on brown and black bears, moose, caribou and wolves. He attended the University of Alaska where he received a Bachelor's degree in Wildlife Management and a Master's Degree in Wildlife working on Grizzly bears in the Alaska Range. He is a fellow of the National Conservation Leadership Institute and a Certified Wildlife Biologist.



Wednesday Afternoon— Room 420

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

Climate/ Disease/ Contaminants (Chair: BRETT PANTING) (Room— 420)

- 14:00-14:20 **Modeling Current and Future Potential Distributions of Milkweeds and the Monarch Butterfly in Idaho.** LEONA SVANCARA
- 14:20-14:40 **Factors influencing Nest Microclimate for Grassland Birds in Shrub-Encroached Wet Prairie Systems.** LAURA EHLEN*
- 14:40-15:00 **Are Egg Membranes Equivalent or Better Than Eggshells for Biomonitoring Wetland Pollution.** MORGAN BYRNE*
- 15:00-15:20 **Non Target Exposure of Raptors to Toxins: Live Sampling for Anticoagulant Rodenticides in Ferruginous Hawks.** ARIANA DICKSON*
- 15:20-15:40 **BREAK**

Citizen Science/Wildlife Education Outreach (Chair: DUSTON CURETON) (Room— 420)

- 15:40-16:00 **Citizen Science and Road Ecology Intersect: Inspiring Local Passion for Roadkill Data Collection.** HILARY TURNER
- 16:00-16:20 **Public Participation in the Habitat Restoration Process.** KRISTINA BOYD
- 16:20-16:40 **Idaho Adopt a Scientist Program (IASP): Environmental Education/Outreach from the Perspectives of the Researcher and the Educator.**
ZOE TINKLE & MICAH LAUER
- 16:40-18:30 **Poster Session (Room - 400D)**
- 18:30-23:00 **Social Hour, Banquet, Awards, Silent Auction and Raffle (Room—400AB&D)**
- 12:00-17:00 **Photo Contest (Room 440)**

Wednesday Afternoon—Room 410

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

Wildlife Management (Chair: LOGAN PETERSON) (Room—410)

- 14:00-14:20 **Effectiveness of Idaho Fish and Game Depredation Hunt Program on Eagle Valley Ranch in Salmon, Idaho.** BRITTANI JOHNSON
- 14:20-14:40 **Optimal use of Wildlife Monitoring Resources.** CHARLES HENDERSON*
- 14:40-15:00 **Management of Wildlife Migration and Movement in Idaho: Keeping the Path Clear.** GREGG SERVHEEN and RENEE SIEDLER
- 15:00-15:20 **Movement of Breeding and Non-Breeding Ravens, Raven Nest Removal, and Greater Sage-Grouse Nest Success.** SETH HARJU
- 15:20-15:40 **BREAK**

Ignite! Presentations (Chair: TOM SCHREMPP) (Room—410)

- 15:40-15:47 **The Dangerous Life of a Short-Eared Owl.** ROBERT MILLER
- 15:47-15:54 **Evaluating Fear-Enhancing Treatments for Reducing White-Tailed Deer Depredation of Agricultural Crops.** KATIE GROTH*
- 15:54-16:01 **Annual Variation of Northern Goshawk Breeding and Productivity in and around the Northern Great Basin.** ROBERT MILLER
- 16:01-16:08 **Modifying Elk Behavior to Reduce Agricultural Crop Damage.** JOHN GUTHRIE*
- 16:08-16:15 **MOOSE!! A Project Update on Translocation of Moose in Eastern Idaho.** JOSH RYDALCH
- 16:15-16:22 **Disparate Sampling Methods for Monitoring Mountain Goat Populations.** MOLLY McDEVITT*
- 16:22-16:36 **Idaho's Backyard: Holding the Door Open to Hunting and Fishing Access to Private and Public Lands.** JESSIE SHALLOW
- 16:36-16:43 **Redesigning Access Yes in the Clearwater Region.** NICOLE ALONSO

12:00-17:00 **Photo Contest (Room 440)**

16:40-18:30 **Poster Session (Room - 400D)**

18:30-23:00 **Social Hour, Banquet, Awards, Silent Auction and Raffle (Room—400AB&D)**

Wednesday Evening Poster Session

Room 400D

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

Posters: Title and Author

1. **Restoring Resiliency to High Desert Wetlands in the Face of Decreasing Water Availability: Making the Most of Groundwater in a Recharge System.** ANDREA KRISTOF
2. **Shelter Belt Restoration at Camas National Wildlife Refuge.** ANDREA KRISTOF
3. **Roadway Mortality in northern Utah and eastern Idaho: Incidental Data and Future Research Directions.** JOSIE BRAUN*
4. **Restoration of Riparian Habitat in the Owyhee Mountains through Beaver Translocation and Beaver Dam Analogs.** JAMIE UTZ
5. **Ecotoxicology of Bats in Urban, Pasture, and Forested Sites of the Southern Ecuadorian Andes.** TAYLOR AZIZEH*
6. **Fidelity and Movements of Female Greater Sage-Grouse (*Centrocercus urophasianus*) During Breeding Season.** DREW RETHERFORD*
7. **The Present and Future Distribution of Cottonwood Floodplain Forests in Idaho: Conservation and Restoration in a Changing Climate.** CHRIS MURPHY
8. **Resource Responses in Greater Sage-Grouse (*Centrocercus urophasianus*) Brood-Rearing Habitat to Livestock Grazing.** KENNY RANDALL*
9. **Changes in Reptile Diversity Over the Last 40 Years in Southwest Idaho.** KRISTINA PARKER*
10. **Concentration of Lead Shot in Surface Soils at Market Lake Wildlife Management Area.** BRENDA PACE
11. **Determining Species Richness and Abundance of Bats in Urban, Forested, and Pasture-Mosaic Habitats in the Southern Ecuadorian Andes.** MEGEAN MYERS*
12. **Effects of Dam Body Condition on Lamb Survival of Bighorn Sheep in Idaho.** NICOLE BILODEAU*
13. **Remotely-Sensing Functional Chemical Traits of Native Plants Across Sagebrush-Steppe Landscapes.** BRECKEN ROBB*
14. **Distribution and Habitat Use of the St. Anthony Dunes Tiger Beetle.** NOELLE ZENGER*
15. **Assemblage-Level Trends of Autumn Raptor Migration at Hawk Mountain Sanctuary, Pennsylvania, 1934-2018.** PATRICIA DUMANDAN*
16. **Quantifying Visibility as a Functional Property of Wildlife Habitat: A New Method and R Package.** JANET RACHLOW
17. **Using Crowdsourced Observations to Document Road Mortality in Idaho's Amphibians Reptiles.** JULIE MEREDITH*
18. **Summer Entry by Humans into Bat Roosts in the Sand Creek Desert.** BETHANIE TWEDE*
19. **Cougar and Bobcat Population Estimation and Occupancy Modeling in the Lower Elwha Klallam Tribe's Historic Use Area.** CAMERON MACIAS*

Thursday Morning—Room 420

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

08:00-13:00 **Photo Contest (Room 440)**

Habitat Use & Ecology (Chair: DON JENKINS) (Room— 420)

- 08:00-08:20 **Restoring Resiliency to High Desert Wetlands in the Face of Decreasing Water Availability: The Camas Restoration.** ANDREA KRISTOF
- 08:20-08:40 **An Analysis of Snakes and Lizards Under the Conservation Umbrella of the Greater Sage Grouse.** MICHELLE JEFFRIES
- 08:40-09:00 **Habitat Overlap in Sagebrush Dominated Basin and Range: An Assessment of Umbrella Species Efficacy.** IAN SMITH*
- 09:00-09:20 **Submerged Aquatic Vegetation on the Mud Lake Unit of Bear Lake National Wildlife Refuge: Historical Condition, Current Status, Future Trajectories.** BEN WISHNEK
- 09:20-09:40 **Factors Affecting Nest Survival of Western Grebes.** DEO LACHMAN*
- 09:40-10:00 **Utilization of UAV's for Fine Scale Vegetation Mapping of CSTG Habitats.** TOM CALTON*
- 10:00-10:20 BREAK**

Landscape Ecology (Chair: ANN MOSER) (Room— 420)

- 10:20-10:40 **The Beaver Restoration Assessment Tool (BRAT), A Guide for Beaver-Mediated Habitat Restoration in Idaho.** CORY MOSBY
- 10:40-11:00 **Using Nutritional - Landscape Models to Predict Pregnancy Rates of Elk at Broad Spatial Scales.** SIERRA ROBATCEK*
- 11:00-11:20 **Mapping Marsh Bird Breeding Habitat: Rangewide Models to Guide Strategic Conservation.** BRYAN STEVENS
- 11:20-11:40 **Long Term Monitoring of the Short-Eared Owl (*Asio Flammeus*) in the Intermountain West: How Citizen Science Continues to Expand the Boundaries of Conservation Research.** HEATHER HAYES
- 11:40-12:00 **Landscape Genomics of Adaptive Differentiation in Two Sister Species of Idaho Ground Squirrels.** SORAIA BARBOSA
- 12:00-13:40 (Lunch on your own)**

Thursday Morning—Room 410

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

08:00-13:00 **Photo Contest (Room 440)**

Wildlife Ecology (Chair: CURTIS HENDRICKS) (Room—410)

- 08:00-08:20 **An Update on Yellow-Billed Cuckoos in Idaho: Monitoring Efforts, Results, and Future Actions.** TEMPE REGAN
- 08:20-08:40 **Effects on Habitat Disturbances on Reptile Species Richness at the Morley Nelson Snake River Birds of Prey National Conservation Area, Idaho.**
KRISTINA PARKER*
- 08:40-09:00 **Influence of Reproductive Status of Greater Sage Grouse on Habitat Selection in a Juniper Dominated Landscape.** JORDAN RABON*
- 09:00-09:20 **Sagebrush Restoration for Greater Sage Grouse Habitat: Is Ecological Resistance and Resilience Theory a Useful Tool?** ROBERT ARKLE
- 09:20-09:40 **Effects of Juniper Woodland Expansion on the Functional Composition and Habitat Use of Sagebrush Small Mammal Communities.** AARON YOUNG*
- 09:40-10:00 **Mapping Diet Quality for Pygmy Rabbits with Unmanned Aerial Systems.**
PETER OLSOY*
- 10:00-10:20 **BREAK**

Human Dimensions (Chair: DIANE EVANS MACK) (Room—410)

- 10:20-10:40 **Eight Years Later: An Update on the State Highway 21 Wildlife Underpass Project.** KRISTA BIORN
- 10:40-11:00 **Leaping Into Leadership on Diversity, Equity, and Inclusion ... Don't Forget the Map!** DANA SANCHEZ
- 11:00-11:20 **Modeling the Number of Crowdsourced Animal Observations to Detect Species Conservation Problems.** PATRICK D. GILTZ*
- 11:20-11:40 **Attitudes Towards Wolves, Coyotes, and the Federal Endangered Species Act in the West and Beyond.** JEREMY BRUSKOTTER
- 11:40-12:00 **Linking Crowdsourced and Citizen Science Data to State Species Diversity Data bases.** CHARLES PETERSON
- 12:00-13:40 **(Lunch on your own)**

Thursday Afternoon—Room 420

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

Methodologies / Wildlife Ecology (Chair: GREG BURAK) (Room—420)

- 13:40-14:00 **Time-To-Event Density Estimation of Low-Density Species with Remote Cameras.** KENNETH LOONAM*
- 14:00-14:20 **An Academic's "CURE" for Sustainable Wildlife Research: How Course-Based Undergraduate Research Experiences (CUREs) Can Help Monitor Wildlife and Recruit Future Wildlife Biologists.** JENNIFER FORBEY
- 14:20-14:40 **Rabbits Producing Pronghorn? A Look at Environmental Constraints on Prong horn Neonates Across Idaho.** BRETT PANTING
- 14:40-15:00 **Estimating Detection and Survival Probabilities of Sage-Grouse Broods: A Comparison of Field Methods.** IAN RILEY*
- 15:00-15:20 **Influence of Spatial Alignment and Density on the Effectiveness of Remote Camera Stations.** TIM SWEARINGEN
- 15:20-15:40 **BREAK**

Genetics/Wildlife Management (Chair: JESSIE SHALLOW) (Room—420)

- 15:40-16:00 **Genetic Pedigree Reconstruction for the Endangered Mexican Wolf.** JENNIFER ADAMS
- 16:00-16:20 **Finding Litters Among the Harvest: Genetic Reconstruction of Gray Wolf Sibling Groups Using Microsatellites and SNPS.** HEATHER CLENDENIN*
- 16:20-16:40 **Do Genetic Profiles of Restored Bighorn Sheep Populations Reflect Translocation History?** FRANCES CASSIRER

Thursday Afternoon— Room 410

Workshop 13:30-17:00 (Chair: DAVID MOEN)

Non-Lead Workshop: Working to Preserve our Wildlife Conservation and Hunting Heritage

- 13:30 – 14:15 **Impacts of Lead in the Food Web: The Global Context and the Latest Scientific Research.** TODD KATZNER, USGS
- 14:15 – 15:00 **The Nez Perce Tribe Hunter Stewardship Program: Cross-Cultural Collaboration and Increasing the Use of Non-Lead Ammo in Indian Country.** DAVID MOEN, Nez Perce Tribe
- 15:00 – 15:20 **The Non-Lead Hunter (DVD).** ANTHONY PRIETO, Project Gut Pile
- 15:20 – 15:35 **BREAK**
- 15:35 – 16:05 **Three Years of Sharing Non-Lead Awareness with Hunters in Oregon.** LELAND BROWN, Oregon Zoo Non-Lead Hunting Education Program
- 16:05 – 16:25 **Introduction to Monolithic Ammo Performance (DVD).** RON SPOMER, RS Outdoors
- 16:25 – 16:55 **What We Learned From Condors in the Southwest: The Evolution of Partnerships Working to Increase the Use of Non-Lead Ammo.** CHRIS PARISH, The Peregrine Fund
- 16:55 - Open **Panel Discussion** TODD KATZNER, DAVID MOEN, LELAND BROWN, CHRIS PARISH





Tips for Success

This simple table below helps show the differences between a “Boss” and a “Leader”. It has been adapted from various online sources (listed below). There are times when our actions and responses fall within the Boss column, but that doesn’t necessarily make you a Boss. Self-awareness of these actions however, will help to improve on those areas where we are lacking and help us become better leaders!

This list was compiled from several online leadership companies and universities that strive to improve leadership within teams and employers.

www.volarisgroup.com; www.intelivate.com; www.alvernia.edu

Boss	Leader
A know it all.	Always willing to learn.
Talks more than they listen.	Listens more than they talk.
Gives answers.	Seeks solutions.
Criticizes.	Encourages.
Point out weaknesses.	Recognizes natural gifts.
Directs.	Coaches.
Defends their ego.	Reveals vulnerability.
Focuses on themselves.	Focuses on the team.
Puts blame on others.	Takes responsibility.
Demands results.	Inspires performance.
Impersonal.	Compassionate.
Says “I”.	Says “we”.
Uses people.	Develops people.
Inspires fear.	Earns respect.
Takes credit.	Gives credit.
Micromanages.	Delegates.
Thinks short term.	Thinks long term.
Is your boss.	Is your colleague.
Focused on process.	Focused on people.





Leadership Resources and Opportunities

The Wildlife Society Leadership Institute

The Leadership Institute is an annual course established in 2006 to provide a select group of 10-15 promising TWS members with leadership training. The Leadership Institute consists of intensive activities and mentoring relationships that prepare participants for leadership positions, both in their workplace and in TWS. <http://wildlife.org/next-generation/leadership-institute/>

The National Conservation Leadership Institute

The NCLI successfully defies the ordinary, acting to preserve the legacy of our natural resources by developing extraordinary conservation leadership. The unique curriculum challenges assumptions, piques critical thinking, fosters high-trust relationships, and strengthens confidence. <https://www.conservationleadership.org/>

Idaho Certified Public Manager Program

Gain skills to meet the challenges and unique demands of public management. CPM is a nationally recognized training and development program administered through Idaho's Division of Human Resources with sponsorship from Boise State University, Department of Public Policy & Administration. <https://cpm.idaho.gov/index.html>

Leadership Idaho Agriculture

Leadership Idaho Agriculture is recognized as a premier leadership development program in the state of Idaho. LIA is the only leadership organization in Idaho that works to directly cultivate leaders in agriculture - the state's biggest and most influential industry. Since 1985, LIA has been offering a concentrated, hands-on learning experience to enhance and build leadership qualities, while developing advocates for agriculture and rural communities who will serve as a voice for the industry for generations to come. <https://www.leadershipidahoag.org/>

Other Resources for Training and Leadership Growth

U.S. Fish and Wildlife Training Center
<https://training.fws.gov/>

The Wildlife Society Certified Wildlife Biologist Application
<http://wildlife.org/learn/professional-development-certification/certification-programs/>

Idaho Division of Human Resources: Crucial Conversations
<https://dhr.idaho.gov/Training/CrucialConversations.html>

Idaho Division of Human Resources: Crucial Accountability
<https://dhr.idaho.gov/Training/CrucialAccountability.html>

