

## 2022 Oral presentation schedule

### Wednesday April 13: (Student talks\*)

#### Session I: 9:45 – 12:00 Habitat Relationships

Moderator: Andrea Orabona

- 9:45 INSECT ATTRACTION TO WIND TURBINES: CURRENT KNOWLEDGE AND FUTURE AVENUES OF RESEARCH; **Michelle Weschler\*** and Lusha Tronstad.
- 10:00 HABITAT SELECTION OF AN ISOLATED POPULATION OF THE WOOD FROG (LITHOBATES SYLVATICUS) IN WYOMING; **Katrina Cook\***, Lusha Tronstad, and Anna Chalfoun.
- 10:15 LINKING LANDSCAPE FEATURES AND SEASONAL HABITATS TO SHARP-TAILED GROUSE LEK OCCURRENCE AND ATTENDANCE; **Jonathan Lautenbach\***, Aaron Pratt, and Jeffrey Beck.
- 10:30 EVALUATING RECOMMENDED SURFACE DISTURBANCE GUIDELINES WITHIN GREATER SAGE-GROUSE WINTER CONCENTRATION AREA; **Caitlyn Wanner\***, Kurt Smith, Aaron Pratt, Jeffrey Beck.
- 10:45 VARIATION IN HABITAT SELECTION ACROSS MULTIPLE SPATIOTEMPORAL SCALES BY GREAT GRAY OWLS (STRIX NEBULOSA); **Katherine Gura\***, Bryan Bedrosian, and Anna Chalfoun.
- 11:00 FERRUGINOUS HAWK HOME RANGE AND HABITAT USE DURING THE BREEDING SEASON IN WESTERN WYOMING; **Sarah Ramirez\***, Bryan Bedrosian, Liba Pejchar, and Dale Woolwine.
- 11:15 EVIDENCE OF CONTEXT-DEPENDENT HABITAT SELECTION BY NORTHERN LONG-EARED BATS; **Ellen Whittle\***, Ian Abernethy, and Anna Chalfoun.
- 11:30 HETEROGENEITY IN RISK-SENSITIVE ALLOCATION OF SOMATIC RESERVES IN A LONG-LIVED MAMMAL; **Rachel Smiley\***, Brittany Wagler, Tayler LaSharr, Kristin Denryter, Thomas Stephenson, Alyson Courtemanch, Tony Mong, Daryl Lutz, Doug McWhirter, Doug Brimeyer, Patrick Hnilicka, Blake Lowrey, and Kevin Monteith.
- 11:45 BEARS, BAITS, AND BERRIES: HOW DOES RESOURCE AVAILABILITY INFLUENCE SPATIOTEMPORAL BEHAVIOR OF BLACK BEARS; **Emily Davis\***, Dan Bjornlie, Ryan Kindermann, Daniel Thompson, and Joseph Holbrook.

#### Session II: 1:15 – 2:45 Migration and Movement

Moderator: Tayler LaSharr

- 1:15 WHAT DOES THE FOX SAY? AN ASSESMENT OF SPACE USE AND MOVEMENT FOR ROCKY MOUNTAIN RED FOX WITHIN GRAND TETON NATIONAL PARK; **Emily Burkholder\***, John Stephenson, David Gustine, Sarah Hegg, and Joseph Holbrook.
- 1:30 HOW DO UNGULATES LEARN TO MIGRATE? A CENTURY-LONG CASE STUDY WITH YELLOWSTONE BISON; **Janey Fugate\***, Chris Geremia, and Matthew Kauffman.

- 1:45 INCORPORATING SPATIAL LEARNING INTO MOVEMENT MODELS FOR NAÏVE ANIMALS IN A NOVEL ENVIRONMENT; **Tana Verzuh\***, Karsten Heuer, and Jerod Merkle.
- 2:00 HOW SAMPLING DESIGN INFLUENCES CONSISTENCY OF MULE DEER MIGRATION CORRIDORS OVER TIME; **Emily Gelzer\***, Justine Becker, Samantha Dwinnel, Gary Fralick, Embere Hall, Rusty C. Kaiser, Matthew Kauffman, Tayler Lasharr, Kevin Monteith, Anna Ortega, Jill Randall, Hall Sawyer, Mark Thonhoff, and Jerod Merkle.
- 2:15 ONE HERD, MANY MIGRATORY STRATEGIES: A TEST OF THE FITNESS-BALANCING HYPOTHESIS WITH MULE DEER; **Anna Ortega\***, Kevin Monteith, and Matthew Kauffman.
- 2:30 BARRIER REMOVAL AT CORRIDOR BOTTLENECK IMPROVES PERFORMANCE OF A MIGRATORY MULE DEER HERD; **Luke Wilde\***, Anna Ortega, Hall Sawyer, and Matthew Kauffman.

Session III: 3:00 – 4:15 Community Ecology and Capture Tests

Moderator: Dr. Jeffrey Beck

- 3:00 MOVING POLLEN IN THE SAGEBRUSH STEPPE: POLLINATION NETWORKS IN PLANT COMMUNITIES SUPPORTING 3 RARE PLANTS; **Madison Crawford\***, Joy Handley, and Lusha Tronstad.
- 3:15 GENERALIZED SHIFTS IN HABITAT SELECTION BY A PREDATOR FOLLOWING A DRAMATIC DECREASE IN PREY ABUNDANCE; **Mitchell Brunet\***, Kevin Monteith, Katey Huggler, Daniel Thompson, Patrick Burke, Mark Zornes, Patrick Lionberger, Miguel Valdez, and Joseph Holbrook.
- 3:30 USING KILL SITE DATA TO REVEAL HOW HUMANS CHANGE PREDATION RISK FOR NATIVE UNGULATES; **Kristin Barker\***, Arthur Middleton, Mike Boyce, Eric Cole, Doug McWhirter, Ken Mills, John Stephenson, Ben Wise.
- 3:45 EFFECTS OF HELICOPTER NET-GUNNING ON SURVIVAL OF BIGHORN SHEEP; **Brittany Wagler\***, Rachel Smiley, Alyson Courtemanch, Gregory Anderson, Daryl Lutz, Doug McWhirter, Doug Brimeyer, Patrick Hnilicka, Cody Massing, David German, Thomas Stephenson, and Kevin Monteith.
- 4:00 HELICOPTER-BASED IMMOBILIZATION OF MOOSE USING BUTORPHANOL-AZAPERONE-MEDETOMIDINE; **Rebecca Levine\***, Samantha Dwinnel, Bart Kroger, Corey Class, and Kevin Monteith.

**Thursday April 14 (Professional talks)**

Session IV: 8:05 – 9:50 Habitat Relationships II

Moderator: Dr. Lusha Tronstad

- 8:05 NEEDLE IN A HAYSTACK: STUDYING A TINY AQUATIC BEETLE IN WYOMING'S SALTY, INTERMITTENT STREAMS; **Audrey Lindsteadt** and Lusha Tronstad.

- 8:20 THE AVAILABILITY OF SAGE-GROUSE PREY DURING BROOD-REARING VARIED AMONG YEARS AND WITH VEGETATION STRUCTURE; **Lusha Tronstad**, George Jones, Joy Handley and Paige Copenhaver-Parry.
- 8:35 DEVELOPMENT OF MANAGEMENT RECOMMENDATIONS FOR GREATER SAGE-GROUSE WINTER CONCENTRATION AREAS; **Jeffrey Beck**, Aaron Pratt, Caitlyn Wanner, and Kurt Smith.
- 8:50 INTEGRATED MODELING AND HABITAT PRIORITIZATION FOR GOLDEN EAGLES IN WYOMING: INCORPORATING ALL LIFE-HISTORY GROUPS; **Bryan Bedrosian**, Zach Wallace, Brian Woodbridge, Jeffery Dunk, and Dave LaPlante.
- 9:05 WINTER HOME RANGES OF ROUGH-LEGGED HAWKS TAGGED IN WYOMING; **Julie Polasik**, Bryan Bedrosian, Steve Cain, John Stephenson, and Jeff Kidd.
- 9:20 ALPINE SONGBIRD HABITAT ASSOCIATIONS AMIDST A CHANGING CLIMATE; **Carl Brown**, Nick Rosenberger, Ken Gerow, Gabriel Barrile, and Anna Chalfoun.
- 9:35 MULE DEER SELECTION OF HABITAT TREATMENTS IN SAGEBRUSH AND ASPEN ECOSYSTEMS; **Kyle Ebenhoch**, Aaron Johnston, J. Terrill Paterson, Kevin Monteith, Hall Sawyer, Troy Fieseler, Jill Randall, Geneva Chong, and Matthew Kauffman.

Session V: 10:05 – 12:05 Migration and Movement II

Moderator: Dr. Mike LaForge

- 10:05 TRANSCONTINENTAL TRAVEL: MIGRATION OF WYOMING'S BURROWING OWLS ACROSS NORTH AMERICA; **Andrea Orabona**, and Courtney Conway.
- 10:20 SPATIOTEMPORAL VARIATION IN HABITAT EXPLAINS MOVEMENT STRATEGIES OF PRONGHORN; **Justine Becker**, Jeffrey Beck, L. Embere Hall, Matthew Kauffman, Hall Sawyer, and Jerod Merkle.
- 10:35 WIND-ENERGY DEVELOPMENT ALTERS PRONGHORN MIGRATION AT MULTIPLE SCALES; Megan Milligan, **Aaron Johnston**, Jeffrey Beck, Kaitlyn Taylor, L. Embere Hall, Lee Knox, Teal Cufaude, Cody Wallace, Geneva Chong, and Matthew Kauffman.
- 10:50 TESTING THE POTENTIAL OF STREAMFLOW DATA TO PREDICT SPRING MIGRATION OF AN UNGULATE HERD; **Cheryl Eddy-Miller**, Jason Alexander, and Marissa Murr.
- 11:05 FUTURE ALTERED PLANT PHENOLOGY PROJECTED TO REDUCE BENEFIT OF MIGRATION FOR MULE DEER; **Tabitha Graves**, Ethan Berman, Ellen Aikens, Geneva Chong, Sarah Dewey, Troy Fieseler, Gary Fralick, Aaron Johnston, Matthew Kaufman, Jerod Merkle, Kevin Monteith, Jill Randall, Imtiaz Rangwala, and David Wood.
- 11:20 HIDDEN MARKOV MOVEMENT MODELS REVEAL DIVERSE SEASONAL MOVEMENT PATTERNS IN TWO NORTH AMERICAN UNGULATES; **J. Terrill Paterson**, Aaron Johnston, Anna Ortega, Cody Wallace, and Matthew Kauffman.
- 11:35 PLASTICITY AND INDIVIDUAL DIFFERENCES IN SPRING MIGRATION TIMING AND FORAGE SELECTION IN WYOMING UNGULATES; **Michel Laforge**, Eric Vander Wal, Quinn Webber, Chris Geremia, Matthew Kauffman, Arthur Middleton, Kevin Monteith, Anna Ortega, Hall Sawyer, and Jerod Merkle.

11:50 RESPONSE OF WOLVES TO RECREATIONAL HUNTING AND ANTHROPOGENIC SUBSIDIES IN GRAND TETON NATIONAL PARK; **Elizabeth Templin**, Kristin Barker, David Gustine, John Stephenson, Sarah Dewey, and Arthur Middleton.

Session VI: 1:15 – 2:45 Population and Community Dynamics

Moderator: TWS Vice-President Bob Lanka

- 1:15 2021 WYOMING STATEWIDE FLAMMULATED OWL SURVEYS; **Don Jones**, Zach Wallace, Bryan Bedrosian, Julie Polasik, and Alison Swan.
- 1:30 POWER ANALYSIS FOR RARE SPECIES MONITORING: AN EXAMPLE USING RAPTORS; **Zach Wallace**, John Squires, Lucretia Olson, Jamie Sanderlin, and Zack Walker.
- 1:45 EVALUATING NON-TRADITIONAL APPROACHES TO MONITOR A SMALL AND REMOTE BIGHORN SHEEP POPULATION; **Carson Butler**, Sarah Dewey, Rachel Crowhurst, Clinton Epps, Alyson Courtemanch, Mary Conner, and Michael Whitfield.
- 2:00 UNDERSTANDING SOURCE AND SEASONALITY OF MYCOPLASMA BOVIS IN WYOMING FREE-RANGING PRONGHORN (ANTILOCAPRA AMERICANA); **Marguerite Johnson**, Madison Blaeser, Erin Schwalbe, Halcyon Killion, Amy Wray, Christopher MacGlover, Hank Edwards, Samantha Allen, Kerry Sondgeroth, and Jennifer Malmberg.
- 2:15 FAT CHANCE FOR DEER? EXAMINING MULE DEER BEHAVIOR AND BODY FAT AS A FUNCTION OF ELK IN SOUTHWESTERN WYOMING; **Heather Abernathy**, Katie Huggler, Patrick Burke, Mark Zornes, Patrick Lionberger, Miguel Valdez, and Kevin Monteith.
- 2:30 FLOWERING TIME ADVANCES SINCE THE 1970S IN A SAGEBRUSH STEPPE COMMUNITY: IMPLICATIONS FOR MANAGEMENT AND RESTORATION; **Trevor Bloom**, Donal O’Leary, and Corinna Riginos.

Session VII: 3:15 – 4:15 Management Challenges and Approaches

Moderator: Dr. Embere Hall

- 3:15 CAN SEED ENHANCEMENT TECHNOLOGIES IMPROVE WILDLIFE HABITAT RESTORATION? **Maggie Eshleman**, Corinna Riginos, Owen Baughman, Chris Donovan, Olga Kildisheva, and Andrew Olsen.
- 3:30 SPACEBORNE LIDAR AND ANIMAL-ENVIRONMENT RELATIONSHIPS: AN ASSESSMENT FOR FOREST CARNIVORES AND THEIR PREY IN THE GREATER YELLOWSTONE ECOSYSTEM; **Austin Smith**, Jody Vogeler, Nichole Bjornlie, John Squires, Neal Swayze, and Joseph Holbrook.
- 3:45 WILDLIFE-VEHICLE COLLISIONS CONTINUE TO RISE IN WYOMING; **Corinna Riginos** and Jill Randall.
- 4:00 TRADEOFFS WITH UTILITY-SCALE SOLAR DEVELOPMENT AND UNGULATES ON WESTERN RANGELANDS; **Hall Sawyer**, Nicole Korfanta, Matthew Kauffman, Benjamin Robb, Andrew Telander, and Todd Mattson.