

Alaska Cooperative Fish and Wildlife Research Unit

• Annual Research Review •

Wednesday, April 5, 2023

Elvey Building, 2156 Koyukuk Dr, University of Alaska Fairbanks

9:00 Oral Presentations (Elvey Auditorium)

- 9:00 Opening Remarks by **Jeff Falke**, Unit Leader
- 9:10 **Cody Deane** – Improving Lincoln Estimates of Arctic Goose Abundance with Indirect Recoveries and a Bayesian Brownie Model that Accounts for Reporting Probability (RWO 248)
- 9:30 **Luke Porter** – Sea Otter Habitat Use and Response to Algal Blooms in Kachemak Bay, Alaska (RWO 247)
- 9:50 **Claire Delbecq** – Riverine Export of Organic and Inorganic Carbon, Invertebrate Drift, and Nutrients from a Temperate Forested Watershed in Southeast Alaska (RWO 244)
- 10:10 **Olivia Edwards** – Juvenile Chinook salmon Summer Growth Patterns and Movement in the Chena River (Sportfish Base)

10:10–10:30 Break

- 10:30 **Kevin Fitzgerald** – Stream Hydrology and a Pulse Subsidy Shape Juvenile Salmonid Foraging Patterns (RWO 244)
- 10:50 **Elizabeth Hinkle** – The Long and Short of It: Immediate and Lasting Effects of Wildfire Disturbance on Aquatic Communities and Habitats in Subarctic Alaska Stream Ecosystems (RWO 227)
- 11:10 **Derek Arnold** – Evidence for a Survival Mediated Traveling Wave in Canada lynx (*Lynx canadensis*) Across Alaska (RWO 242)

11:30–12:30 Lunch Break (provided. Elvey Globe Room)

12:30 Unit-Sponsored Project Updates (Elvey Auditorium)

- 12:30 **Margaret Harings** – Evaluating Environmental DNA as a Complementary Tool for Estimating Salmon Abundance in the Yukon River Basin (RWO 249)
- 12:35 **Joe Spencer** – Migrations of Dolly Varden (*Salvelinus malma*) in Northwestern Alaska Evaluated Using Otolith Microchemistry (Sport Fish Base)
- 12:40 **Erik Schoen** – Modeling Aquatic Ecosystem Vulnerability to Fire and Climate Change in Alaskan Boreal Forests (RWO 227)
- 12:45 **Eugenie Euskirchen** – Arctic Biogeochemical Response to Permafrost Thaw (RWO 251)
- 12:50 **Greg Breed** – Brooks Range Ram Ecology and Health Assessment (RSA)

- 12:55 **Helene Genet** – Modeling Landscape Vulnerability to Thermokarst Disturbance and Its Implications for Ecosystem Services in the Yukon Flats National Wildlife Refuge, Alaska (RWO 220)
- 1:00 **Deanna Strohm** – Characterization of Hydrologic Regimes for Wildfire-Impacted Streams in Changing Boreal Ecosystems (RWO 227)
- 1:05 **Will Samuel** – The Role of Beavers to Mediate Wildfire Effects on Freshwater Fish Habitat in Boreal Alaska (RWO 227)
- 1:10 **Rebecca Shaftel** – Climate Vulnerability of Aquatic Species to Changing Stream Temperatures and Wildfire Across the Yukon and Kuskokwim River Basins, Alaska (RWO 246)
- 1:15 **Jeff Muehlbauer** – Synthesis of Freshwater Species Distributions and Habitats to Guide Conservation in Central Alaskan Public Lands (RWO 254)
- 1:20 **Matt Kynoch** – Spatial Ecology of Lynx in Interior Alaska (RWO 229)
- 1:25 **Yue Shi** – Combining Genetics, Otolith Microchemistry, and Vital Rate Estimation to Inform Restoration and Management of Fish Populations in the Upper Mississippi River System (RWO 240)
- 1:30 **Yue Shi** – Developing a DNA-Based Tool to Estimate the Number of Salmon Consumed by Piscivores in the Sacramento Delta (RWO 239)
- 1:35 **Ben Rich** – Impacts of a Novel Freshwater Predator Across Time and Space in an Era of Rapid Warming (RWO 243)
- 1:40 **Madeline Lee** – Pink Arctic: Are Salmon Successfully Spawning in a North Slope River? (RWO 252)
- 1:45 **Sara Germain** – Investigating the Role of Juvenile Weight in Predicting Future Fitness in a Sub-Arctic Moose Populations (Wildlife Base)
- 1:50 **Jeff Wells** – Factors Influencing Caribou and Wolf Resource Selection and Spatial Dynamics in Eastern Interior Alaska (Wildlife Base)
- 1:55 **Shawn Crimmins** – Developing a Multi-Species Monitoring Framework in Southeast Alaska (RWO 253/RSA)

2:00–2:15 Break

- 2:15 **Sebastian Zavoico** – Improving Ungulate Population Modeling and Monitoring in Alaska (RWO 232/250)
- 2:20 **Shawn Crimmins** – Alaska Wildlife Resource Management (CESU)
- 2:25 **Luke Metherell** – Female Dall's Sheep Summer Nutrition in the Chugach Mountains (ADFG Wildlife Base Funding)
- 2:30 **Binta Wold** – Juneau Human-Bear Interactions (RSA)
- 2:35 **Elyssa Watford** – Ecology and Limiting Factors of Birds Breeding along the Beaufort Sea Coast: Energetic Impacts of Storm Surges to Pacific Common Eiders along the Arctic Coastal Plain (RWO 228)
- 2:40 Q&A for Project Update Presenters

3:00 Cooperators' Business Meeting (Elvey Auditorium)

Meeting Zoom Link: Forthcoming