

## Alaska Cooperative Fish and Wildlife Research Unit

### • Annual Research Review • Wednesday, April 6, 2022 Virtual Meeting

#### 9:00 Oral Presentations

- 9:00 Opening Remarks by **Jeff Falke**, Unit Leader
- 9:10 **Luke Metherell** – Female Dall’s Sheep Summer Nutrition in the Chugach Mountains
- 9:30 **Gwendolyn Quigley** – Human-Polar Bear Interactions on the Northern Coast of Alaska
- 9:50 **Sebastian Zavoico** – Climate Change Facilitates Moose Population Growth in Southwest Alaska
- 10:10 **William Dokai** – Spatial and Temporal Variability of Fish and Mussel Distributions Revealed through eDNA Metabarcoding

#### 10:10–10:30 Break

- 10:30 **Chris Sergeant** – Modeling Salmon Response to Shifting Climate and Freshwater Habitat in Southern Coastal Alaska
- 10:50 **Taylor Cubbage** – Physiological Performance of Northern Pike (*Esox lucius*): Implications for Management in Invaded Systems
- 11:10 **Justin Hill** – Predation Impacts of Common Merganser on Chinook Salmon Revealed Using Genetic Analysis of Scat
- 11:30 **Jessica Black** and **Courtney Carothers** – Tamamta (All of Us): Transforming Western and Indigenous Fisheries and Marine Sciences Together

#### 11:50–12:30 Break

#### 12:30 Unit-Sponsored Project Updates

- 12:30 **Hélène Genet** – Modeling Landscape Vulnerability to Thermokarst Disturbance and its Implications for Ecosystem Services in the Yukon Flats National Wildlife Refuge, Alaska (RWO 220)
- 12:35 **Amy Breen** – Application of an Integrated Ecosystem Model: A Multi-Institutional and Multi-Disciplinary Effort to Understand Potential Landscape, Habitat and Ecosystem Change in Alaska and Northwest Canada. (RWO 224)
- 12:40 **Deanna Strohm** – Aquatic Ecosystem Vulnerability to Fire and Climate Change in Alaskan Boreal Forests I (RWO 227)
- 12:45 **Elizabeth Hinkle** – The Immediate and Lasting Effect of Wildfire in sub-Arctic Streams (RWO 227)
- 12:50 **Will Samuel** – When Beavers Get Burned, Do Fish Get Fried? (RWO 227)

- 12:55 **Josh Paul** – Freshwater Habitat Potential for Chinook Salmon in the Yukon and Kuskokwim River Basins, Alaska (RWO 230)
- 1:00 **Helene Genet** – Wetland Carbon Assessment for Alaska (RWO 231)
- 1:05 **Yue Shi** – Combining Genetics, Otolith Microchemistry, and Vital Rate Estimation to Inform Restoration and Management of Fish Populations in the UMRS (RWO 240)
- 1:10 **Shawn Crimmins** – Habitat and Population Modeling for Game Species in the Great Lakes (RWO 241)
- 1:15 **Derek Arnold** – Movement Patterns, Dispersal Behavior, and Survival of Lynx in Relation to Snowshoe Hare Abundance in the Boreal Forest (RWO 242)
- 1:20 **Ben Rich** – Quantifying Impacts of a Novel Predator in a Warming Subarctic Watershed (RWO 243)
- 1:25 **Claire Delbecq** – Hydrologic Variability Drives Riverine Materials Export from a Coastal Southeast Alaskan Catchment (RWO 244)
- 1:30 **Kevin Fitzgerald** – The Influence of Stream Flow Patterns on Juvenile Salmon Foraging and Growth in Southeast Alaska (RWO 244)
- 1:35 **Lindsay Turner** – Alaska Forage Fish Data Compilation and Modeling for Risk Assessment and Resource Management in Oil and Gas Development Regions (RWO 245)
- 1:40 **Rebecca Shaftel** – Climate Vulnerability of Aquatic Species to Changing Stream Temperatures and Wildfire Across the Yukon and Kuskokwim River Basins, Alaska (RWO 245)
- 1:45 **Luke Porter** – Sea Otter Spatial Ecology in Kachemak Bay, Alaska: Implications for Monitoring Population Abundance and Distribution in Alaska (RWO 247)
- 1:50 **Cody Deane** – Improving Lincoln Estimates of Arctic Goose Abundance: Development of a Bayesian Brownie Model Incorporating Reporting Probability. (RWO 248)
- 1:55 **Margaret Harings** – Climate Adaptation in Yukon River Fisheries: A Robust Alternative Approach to Assess Salmon Run Size Using Environmental DNA (RWO 249)

## 2:00–2:15 Break

- 2:15 **Joe Spencer** – Migrations of Dolly Varden (*Salvelinus malma*) in Northwestern Alaska Evaluated Using Otolith Microchemistry (ADFG Sport Fish Base Funding)
- 2:20 **Olivia Edwards** – Juvenile Chinook Salmon Movement, Overwinter Survival, and Outmigration Timing in the Chena River, Alaska (ADFG Sport Fish Base Funding)
- 2:25 **Jeff Wells** – Factors Influencing Wolf and Caribou Resource Selection and Spatial Dynamics in Eastern Interior Alaska (ADFG Wildlife Base Funding)
- 2:30 **Sara Germain** – Investigating the Role of Juvenile Weight in Predicting Future Fitness in a Sub-Arctic Moose Population (ADFG Wildlife Base Funding)
- 2:35 **Mike Wheeler** – Developing a Multi-Species Monitoring Framework in Southeast Alaska (RWO 253)
- 2:40 Q&A for Project Update Presenters

## **3:00 Cooperators' Business Meeting**

### **Meeting Zoom Link:**

**Topic: 2022 AKCFWRU Annual Research Review and Cooperators Meeting**

**Time: 0900 Wednesday April 6th 2022**

**Join Zoom Meeting**

**<https://alaska.zoom.us/j/85310964303?pwd=VjFHMjFXRDRtU3RIM3d3RWMxeWpWdz09>**

**Meeting ID: 853 1096 4303**

**Passcode: 730505**

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