Kristen Reece, J. Andrés López, Maggie Harings College of Fisheries and Ocean Sciences, University of Alaska Fairbanks

Tested assay specificity with tissue samples from Arctic Grayling and closely related/unrelated species (Table 1).

High DNA concentrations of most salmonids indicate amplification

during PCR (Image 5) and qPCR (Figure 1 & Table 2). qPCR indicates DNA concentrations of Chena River samples too low to amplify (Figure 2).

Latest qPCR analysis indicates eDNA sample concentrations are too low to amplify.

Next Steps:

Further testing assay (Rodgers, et al) with known DNA concentrations to develop level of detection for Arctic Grayling. Data configured in relation to Chum and Chinook salmon eDNA spawning periods

qPCR method may become a complementary technique in the field of assessing relative quantities of species over time and space.

Rodgers, T.W., Olson, J.R., Klobucar, S.L. et al. Conservation Genet Resour (2018) 10: 859. https://doi.org/ 10.1007/s12686-017-0883-1

Schoen, E. R., Sellmer, K. W., Wipfli, M. S., López, J. A., Ivanoff, R., & Meyer, B. E. (2022). Piscine predation on juvenile salmon in sub-arctic Alaskan rivers: Associations with season, habitat, predator size and streamflow. O [* * O * * * O *