

Alaska Mariculture Alliance: Tracking the fate of farmed kelp dissolved organic carbon

Over the course of the last few months, we have started to prepare for the *A. marginata* laboratory experiments intended to quantify the release of dissolved organic carbon by farmed kelp. We've had several meetings with the staff at the Alutiiq Pride Marine Institute-APMI, for logistical planning purposes. In addition to logistical planning, we have also been in contact with our farmer partners, Cale Herschleb of Royal Ocean Kelp Co in Cordova, AK, and Nick Mangini of Kodiak Island Sustainable Seaweed in Kodiak, AK, who will be supplying the kelp used in the experiment.

Our research team met with Dr. Sarah Ellen Johnson, an organic and environmental chemist in the College of Natural Science and Mathematics at UAF to review the protocol for dissolved organic carbon sampling and the eventual laboratory analysis. The DOC released during the experiments will be collected following the protocol referenced in Halewood et al. 2022, and samples will be analyzed in Dr. Johnson's lab using Shimadzu TOC-L CPH total organic carbon analyzer.

We plan on traveling to APMI in Seward, AK, Feb 22, 2026, to initiate the experiment. Kelp collected from the two regions will be shipped to APMI and held in a cold, temperature-controlled room until the initiation of the experiment.