

ASL's 4-frequency AZFP lease instrument was used to conduct zooplankton research in Pangnirtung Fiord

Sarah Fortune, PhD candidate at the University of British Columbia and guest student at Woods Hole Oceanographic Institution in collaboration with Dr. Steve Ferguson from Fisheries and Oceans Canada and University of Manitoba as well as LGL Limited and VDOS Global LLC, conducted several days of zooplankton backscatter observations in Pangnirtung Fiord with co-located Optical Plankton Counter data.

The four-frequency (125, 200, 455 and 769 kHz) AZFP with cage and floatation from ASL's lease pool was shipped to rendezvous with the Arctic equipment. The instrument was deployed in Pangnirtung Fiord in the Canadian territory of Nunavut and floated at the surface off a small locally contracted vessel (Peter's Expediting & Outfitting). Unfortunately, extreme and unusual ice conditions (the presence of thick, multi-year ice) prevented deployment in Cumberland Sound where she conducts most of her PhD research near bowhead whales.

Fortune was encouraged by the collected data because it demonstrates the potential to record rapid and fine-scale zooplankton data in a way that she couldn't before. She expects that it will be particularly interesting to compare the OPC and AZFP data. Fortune anticipates conducting field research during the summer of 2016 in Cumberland Sound and she hopes to redeploy the AZFP close to bowhead whales to study their feeding behavior.



Figure 1: Vessel in Pangnirtung Fiord –image taken by UAV operated by Thomas Seitz from VDOS Global LLC (project collaborator).



Figure 2: Sarah Fortune with 4-frequency AZFP—image taken by Dr. Bill Koski (LGL Limited).