

Beaufort Gyre Exploration Project: Dispatch 30: Cruise Summary

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The 2007 Beaufort Gyre cruise on the CCGS *Louis S. St-Laurent* is now completed. This year has been amazing: we had a fantastic team (science party, captain, officers, and crew) and we were able to accomplish so much - the program was a complete success. A few numbers:

- 4 BGEP moorings were recovered and deployed . For the next year, 5 MMPs, 6 sediment traps, 17 temperature sensors, 4 bottom pressure recorders, and 3 current meters will record the changes in the Beaufort Gyre. (Kris, Jim, Rick, Steve, Luc)
- 2 Ice-Tethered Profilers were recovered and 3 new ones were deployed. 2 ice mass balance buoys and 2 ocean heat flux buoys were also deployed.
- 107 CTD casts were completed, giving us 2195 bottle samples.
- 4 ice cores longer than 2 meters we recovered and sampled for salinity, nutrients, Chlorophyll A, DOC, and CDOM. (Céline, Jenny, etc.)
- 4 large volume pumps were used on 6 casts to filter 10,311.9 liters of seawater through 20 filters in order to collect suspended particles at 500, 1000, 2000, and 3000 m. (Steve)
- 152 atmospheric aerosol scans were taken. (Luc)
- 567.39 liters of seawater were filtered for POC, and 653.68 liters for TSS at 12 different stations. (Jen)
- About 1334 liters of seawater were filtered at 46 stations for DNA, RNA, Chlorophyll A, and HPLC analyses, using 903 filters. (Karen and Émilie)
- 1541 dissolved oxygen samples were measured. (Mary)
- 1212 liters of seawater were filtered at 16 stations for Chlorophyll, particulate N and C, silica, and phytoplankton nutrients uptake. 720 filters were used in the process. (Ian)
- 48 bongo nets have been deployed. (Helen, etc.)
- 70 upper ocean casts were done with the SBE19+ from the zodiac, the ship, and from the ice. (Jen, Luc, etc.)
- 179 liters of seawater have been collected for Iodine at 13 stations, 1920 liters of seawater were filtered for Cesium samples (8 stations), and 1120 liters for Plutonium and Americium (2 stations). (Rick)
- 73 liters of seawater were filtered through 61 fiberglass filters for DOC and CDOM analysis. (Céline).
- 2009 salinity samples were measured. (Mike, Hugh, Tim, and Alice)
- 99 X-CTDs have been launched. (Motoyo)
- 700-ish ammonium samples were measured. (Kristina)
- 10 XCP were launched. (Tim)
- 1523 nutrients samples were measured. (Linda)
- AND 3 golf balls were hit from the ice.



The science party of the 2007 Beaufort Gyre cruise.



Most of the crew, officers, and science party in the bow of the *Louis S. St-Laurent*.
Photos by Luc Rainville.

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