Scientific Committee on Oceanic Research

CANADIAN OCEAN SCIENCE NEWSLETTER LE BULLETIN CANADIEN DES SCIENCES DE L'OCÉAN

Special Bulletin, October 2016 Bulletin spécial, octobre 2016

CNC-SCOR Tour Speakers

Each year CNC-SCOR selects someone from the West coast to give a lecture tour heading East, and someone from the East to give a lecture tour heading West. The speakers give talks over one week at oceanographic institutes and schools in eastern and western regions of Canada. Here is a status report on this year's speakers.

CNC-SCOR Eastern Tour Speaker

The 2015 Eastern annual CNC-SCOR tour speaker is **Dr. Roberta Hamme** from the University of Victoria. She will presenting a talk titled: **Using dissolved gases to diagnose the ocean's carbon pumps**.



Roberta Hamme, Canada Research Chair in Ocean Carbon Dynamics, University of Victoria

Abstract: The ocean's biological, solubility and carbonate carbon pumps control the surface-todeep gradient in carbon dioxide and hence strongly impact atmospheric levels. Quantifying these pumps individually is challenging because their impacts overlap with each other. This talk will focus on efforts using high precision measurements of inert gases to disentangle these transport mechanisms with particular emphasis on the solubility pump and to provide metrics to assess their efficiency in large climate models.

City	Date, Time	Location	Contact
St. Johns	Nov 7, 10:00	TBD	Fraser.Davidson@dfo-mpo.gc.ca
Halifax	Nov 8, 10:00	Dalhousie, Room TBD	Chris.Algar@Dal.Ca
Dartmouth	Nov 8, 2:00	BIO, Needler Boardroom	David.Greenberg@dfo-mpo.gc.ca
Rimouski	Nov 9, 3:20	Hôtel Rimouski, 225, boul. René- Lepage Est	Brigitte.Robineau@qo.ulaval.ca
Ottawa	Nov 10, 12:00	Rideau Canal Junior Ranks Mess, 4 Queen Elizabeth Dr.	Martin.Gauthier@rwdi.com

Dr. Hamme is a chemical oceanographer who studies the marine carbon cycle. She works on understanding and quantifying the natural mechanisms that transport carbon from the surface ocean to the deep, reducing atmospheric carbon dioxide levels. Her main tools are high precision measurements of dissolved gases, both bioactive gases like oxygen and inert gases like neon, argon, and krypton. Ongoing projects include developing methods to quantify the effect of water mass formation on gases, measuring biological carbon export through oxygen mass balance, and determining amounts of denitrification (the transformation of bioavailable nitrate to unavailable nitrogen gas). She holds a Canada Research Chair in Ocean Carbon Dynamics at University of Victoria's School of Earth and Ocean Sciences.

Roberta Hamme Web Page

CNC-SCOR Western Tour Speaker

The 2015 Western annual CNC-SCOR tour speaker is **Dr. C.J. Mundy** from the University of Manitoba. He will presenting a talk titled: *Arctic spring: key processes influencing timing of primary production in ice-covered waters.*



Dr. Mundy's schedule and the venues to be visited are still being developed, but are tentatively planned for mid February.

Dr. Mundy seeks to understand variability and change in the Arctic marine ecosystem due to climate change and the resulting loss of sea ice. In particular, he studies physical and biological processes controlling the timing, location, magnitude, and fate of primary producers in the ice-covered environment.

Climate warming and the rapidly disappearing Arctic sea ice cover have imposed new variability and likely directional change on the Arctic marine ecosystem. Improving our understanding of variability and change in the polar marine ecosystem in the face of a rapidly changing environment underpins my current research goals. My research has a particular focus on primary producers in the Arctic marine ice-covered ecosystem, which include sea ice algae, ice melt water (brackish) flora and phytoplankton. My most recent endeavours include: biological oceanographic studies of the central Canadian Arctic, Canadian Beaufort Sea (investigating phytoplankton bloom dynamics, sea ice bio-optics and ice algal productivity, photophysiology and taxonomy) and Hudson Bay (investigating freshwater and dissolved organic carbon input and export), and biophysical modeling of the ice algae ecosystem. (C.]. Mundy Web Page)

Previous newsletters may be found on the CNC-SCOR web site.	Les bulletins antérieurs se retrouvent sur le site web du CNC-SCOR.
Newsletter #91 will be distributed in November 2016.	Le Bulletin #91 sera distribué en novembre 2016.
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