Toxicology Centre Guest Seminar

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"Linking Land Use and Nearshore Aquatic Integrity in the Southern Gulf of St. Lawrence - Impacts of Nutrients, Sediments and Contaminants"

The Southern Gulf of St. Lawrence receives substantial non-point pollution from various land use practices. Foremost among these land-use practices is agriculture and there are significant concerns regarding the impacts of sediments, nutrients and contaminants (largely agrichemicals) on riverine, estuarine and marine environments. For example, elevated sediments have contributed to the loss of substantial spawning habitat for Atlantic salmon, nutrients cause annual anoxic events in many estuaries in the region, and fish kills due to pesticides are still an annual summer event. Further offshore, there have been documented population collapses in the Northumberland Strait in particular of the lobster, and this is suspected of being related to activities occurring on land. Despite concerns, there is virtually no monitoring of biological integrity in the numerous estuaries that connect freshwater to the marine environment. These estuaries are critical both ecologically due to the unique habitat and economically in the region because of the importance of aquaculture and tourism. While monitoring is an essential first step in managing these systems, is critical that it be done in a framework of cumulative impacts assessment wherein the status of valued ecosystem components can be quantitatively linked to activities on land, or to the stressors that this generates to facilitate management decisions. Given the geopolitical complexity of the region, such a regional monitoring framework is essential for both present and future development. This presentation will describe the issues in the region and ongoing efforts to establish a cumulative impacts monitoring framework.

Friday, December 12, 2014
2:00 p.m.
Rm. 5C61, Agriculture Building
University of Saskatchewan