



New PhD project starting in January 2020

Environmental Contaminants, Body Condition and Photogrammetry of St. Lawrence Estuary Belugas

Project synopsis: The St. Lawrence Estuary (SLE) beluga population has been listed at risk of extinction in 2017 under the Species at Risk Act. This small population of about 900 individuals lives in a marine ecosystem that is strongly impacted by anthropogenic activities upstream. As a result, chronic exposure to environmental contaminants has been suggested as a factor that may affect the health of belugas in the SLE, and hence the recovery of this population. Exposure to a cocktail of contaminants via consumption of contaminated preys may interfere with lipid metabolism, and ultimately alter their body condition and survival. However, the effects of contaminants on lipid metabolism in SLE belugas are still unknown. The objective of this four-year PhD project is to investigate the linkages between exposure of SLE belugas to several organic contaminants and proxies of body condition including blubber tissue histology, metabolomic profile, expression of genes involved in lipid metabolism and activity of associated enzymes, and photogrammetry (body size measurements obtained from drone's photographs). This project is a collaboration between UQAM (principal supervisor: Jonathan Verreault), UQAR (Zhe Lu), Environment and Climate Change Canada (Magali Houde), GREMM (Robert Michaud), and Fisheries and Oceans Canada (Véronique Lesage).

Additional information:

- ✓ PhD-level funding provided for 4 years.
- ✓ Field and laboratory work.
- ✓ Requirements:
 - Meet the basic admission requirements of the UQAM's PhD program in biology;
 - B.Sc and/or M.Sc. in biochemistry, biology or a related discipline. Knowledge in ecotoxicology, marine mammal biology, and statistics is an asset;
 - Very good command of spoken and written English and French.

To apply, send your CV and transcripts (B.Sc. and M.Sc.) before September 15th, 2019 to:

Jonathan Verreault
 Département des sciences biologiques
 Université du Québec à Montréal
 Phone: 514-987-3000, ex. 1070
 E-mail: verreault.jonathan@uqam.ca

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 Université du Québec à Montréal

