

OCEANOGRAPHY Ph.D. PROJECT



Numerical modelling of the physiology and transport of two krill species in the Gulf of St. Lawrence (Eastern Canada)

What?

Krill plays a central role in oceanic food webs. It is an essential link between the pelagic primary production (phytoplankton) and higher trophic levels, such as fishes, marine birds and mammals. Despite its abundance, our knowledge on krill populations' dynamics in the Estuary and the Gulf of St. Lawrence (GSL) remain very limited. **This Ph.D. project aims at developing biophysical models that integrate the physiology and behaviour of individuals within their 3D environment in order to study the mechanisms underpinning the distribution and production patterns of the 2 dominant krill species in the GSL.** It is part of an NSERC-Strategic project entitled "Production and consumption of krill in the Gulf of St. Lawrence: toward an ecosystem-based stock assessment" that brings together researchers from the academia, the government and the industry in order to lay the bases for a comprehensive understanding of the ecology of krill populations in the GSL system.

Where?

The successful applicant will work in the Numerical Ecosystems and Oceanography Lab (NEOLab) at the Université Laval in Québec city (Canada), under the supervision of Prof. Frédéric Maps (ULaval) and the co-supervision of Dr. Diane Lavoie & Dr. Stéphane Plourde (Fisheries and Oceans Canada). Québec is the capital of the French-speaking province of Québec in Canada. It is a UNESCO World Heritage Centre.

When?

Start date around May 2014 (for the summer semester).

How much?

19 000\$ CAD/year during 3 years or a grant complement if the applicant has his own funding.

How?

Send an application file to Frédéric Maps (frederic.maps@bio.ulaval.ca) that will include:

1. A letter of motivation (1 page max.).
2. A CV (up to date; 2 pages max.).
3. The final transcript of the highest academic degree obtained (B.Sc or M.Sc. in Oceanography, Biology, Ecology or Bioinformatics preferred).
4. A letter of reference (1 page max.) and the coordinates of another potential contact person.

Feel free to contact Prof. Maps if you have any question!