

## Quarterly Project Report – Year 5 – Q3

### Team Information

<b>Project:</b>	BaySys
<b>Project Team:</b>	Marine Ecosystem
<b>Budget Year Ending:</b>	2020

### Scope Highlights

**Total Person Days in the Field:** 0

#### Major Accomplishments:

PierreJean

- Accepted manuscript in Elementa : “Spatial distribution of epifaunal communities in the Hudson Bay System: Patterns and drivers”.
- Defended her thesis in October.

Matthes

- Inclusion of co-author feedback in research manuscript about estimated spring primary production in Hudson Bay which will be submitted to the BaySys special issue in the journal Elementa.
- Presentation of manuscript to Team 3 Manitoba Hydro contact.
- Completion of writing of PhD thesis which includes a chapter about the BaySys project (above mentioned manuscript).

Dalman

- Analyzed all taxonomy samples for Matthes paper on spring primary production BaySys manuscript and provided feedback on manuscript drafts.
- Worked on writing a manuscript draft on the influence of freshwater on microalgae in the Nelson River estuary.

Barbedos de Freitas

- Manuscript in press in Elementa: “Climatic control of sea-ice edge phytoplankton blooms in the Hudson Bay system”.

- Presentation and approval by his PhD thesis scientific committee of his Seminary II: "Phytoplankton dynamics in the Hudson Bay System in an ocean color satellite approach".

#### Schembri

- Wrote Introduction, Methods, Results and part of Discussion sections of manuscript for freshwater winter refuge hypothesis study.
- Spent a lot of time on statistical analysis for the freshwater winter refuge hypothesis paper.

#### Lee

- River paper is being revised and will be submitted to the BaySys special issue in the Elementa after internal review (co-authors and Manitoba Hydro). This paper will be included for 1<sup>st</sup> chapter in PhD thesis.
- Completed data analysis for PhD thesis which is composed of 3 chapters based mainly on data collected from or/and provided by the BaySys project.

#### Jacquemot

- Submission of the revised version of our manuscript "Protist communities along Hudson Bay (Canada) freshwater-marine transition zones" to Elementa.
- Submission of an abstract and a video talk to the Arctic Change 2020 conference.
- Analysis of samples and redaction for chapter 2 and 3.

#### Descheppers

- Created river nutrient input files from the average nutrients measured in the Arctic Great Rivers Observation measurements database.
- Coded and debugged the reading and input of river nutrients into the BiGCIIM model
- Fully imbed and key the carbon module.
- Created boundary, initial conditions and nutrient input conditions for all carbon variables.

#### Missed Targets:

- None for this quarter.

## Task Updates

*This list displays tasks that are currently not marked as complete and are assigned to your project team.*

Select an entry from the list below you can view its current details and then click Insert Task Update below to include an update in your report.

ID	Task	% Complete	Status
41	Task 3.1 Assess the timing of Primary Production	95	Manuscript in preparation.
42	Task 3.2 Estimate the magnitude of Primary Production	95	Manuscript in preparation.
43	Task 3.3 Evaluate nutrient processing along freshwater-marine gradients	95	Manuscript in preparation.
44	Task 3.4 Phase 1 Biogeochemical modeling	100	Completed.
45	Task 3.4 Phase 2 Biogeochemical modeling	95	Working on bugs and outputs.

**Completed** **On Track** **Potential Issue** **Behind Schedule**

### Risk Updates

The list below displays risks associated with the project that have been highlighted for your project team.

Select an entry to see the details associated with it.

<b>Risk</b>	<b>Covid-19 pandemic</b>
<b>Details</b>	The covid-19 pandemic is forcing all Team 3 members to work from home, meaning that students have no access to their labs. Some delays were caused by this situation.
<b>Leading indicator</b>	NA
<b>Action plan</b>	Lab work has started again and analyses were completed this Fall.

Use the fields below to enter an update for the risk or issue.

ID	Risk	Status
	<b>Covid-19 pandemic</b>	Potential delay for finishing lab work and submitting manuscripts.

### Current Quarter Spending

*Enter your team expenses for the reporting period. The values entered should represent the cumulative amount for the budget year up to the end of the quarter. If no expenses have been incurred for a category then please enter a zero amount.*

	Amount	Description
<b>1. SALARIES AND BENEFITS</b>		
Graduate Students	28,501\$	Salaries for HQPs.
PDF's and RA	11,495\$	Salaries for RA Deslongchamps (Tremblay).
Technical Staff	0\$	No expense.
<b>2. EQUIPMENT OR FACILITY</b>		
Purchase or Rental	0\$	No expense.
Operations and Maintenance	0\$	No expense.
<b>3. MATERIALS AND SUPPLIES</b>		
Total Cost	0\$	No expense.
<b>4. TRAVEL EXPENSES</b>		
Conferences	0\$	No expense.
Field Work	0\$	No expense.
Project Related Travel	0\$	No expense.
Central Planning Meetings	0\$	No expense.
Dissemination Costs	0\$	No expense.
<b>TOTAL</b>	<b>36,996\$</b>	

## IN-KIND CONTRIBUTIONS

<b>Organization</b>	<b>Contribution</b> <i>(cumulative to end of quarter)</i>	<b>Description</b>
University Laval	\$15,000	Contribution from Laval University

## Budget Explanation

### STATEMENT OF ACCOUNT

#### Budget Statement

All expenditures have been done according to schedule. The only deviation from the plan was a few thousand dollars used to pay the partial salary of a PDF.

#### Cash Contributions

#### Expenditure Tracking

*Provide a PDF copy of the University's expense report containing cumulative expenses spent on the BaySys project for this fiscal year.*

## Research Team

<b>Team Member</b>	<b>Overview of Participation and Scientific Contributions</b>
Frédéric Maps	Supervising and training HQP Deschepper.
Jean-Éric Tremblay	Supervising nutrient database and supervising HQPs Deslongchamps, Gagnon, Blondeau and Lee.
Louis Fortier	Replaced by Frédéric Maps.
Connie Lovejoy	Supervising and training HQP Jacquemot.
Simon Bélanger	Supervising and training HQP Barbedo de Freitas.
Philippe Archambault	Supervising and training HQP Marie PierreJean.
C.J. Mundy	Supervising and training HQPs Matthes and Dalman.
Gabriele Deslongchamps	Coordinating planning, reporting, communications.

Jonathan Gagnon	No more work to be done.
Sylvain Blondeau	No more work to be done.
Inge Deschepper	Working on her project.
Sarah Schembri	Working on her project.
Loïc Jacquemot	Working on his project.
Lucas Barbedo de Freitas	Working on his project.
Janghan Lee	Working on his project.
Lisa Matthes	Working on her project.
Laura Dalman	Graduated from her master.

### Other

*Please provide any additional information/comments as required.*