EESC33/ EEB410 Limnology Field Course

Physical-Biological coupling in the coastal waters of the Toronto region
(August 19 – 30, 2013)

Schedule:
WEEK 1
Aug. 19: Don Watershed bus trip
Aug. 20 Toronto Harbour/Lake Ontario boat trip
Aug. 21: Leslie Spit (2 small boats with oars)
Aug. 22: Lab on St. George campus (RW122)
Aug. 23: Lab on St. George campus & presentations (RW107)

WEEK 2
Aug. 26: Dunkers Flow Balancing System (AM)
Aug. 27: Frenchman's Bay (2 small boats with oars – can we leave them overnight?)
Aug. 28: Frenchman's Bay (2 small boats with oars)
Aug. 29: Lab at UTSC
Aug. 30: Lab at UTSC

Evaluation
Participation & Performance (individual): 15%
Written review of assigned topic (2 pages; due before start field course): 20%
Presentation of assigned topic (in the field): 15%
Group presentation of class data -- Week 1: 25%
Group presentation of class data -- Week 2: 25%

The 2 page reviews will be due before the field course started. They will printed and
compiled into a handout for the other students to read and so will serve as a background
to the field sites that will be visited. You will also give a brief talk about your handout
while at these sites. You should aim to include a map and relevant diagrams in these
reports. Please contact me if you have any questions about these topics. Below I have a
list of students who have registered for ESC33 and the topics assigned. There are also 7
students at St George in EEB410 who will give presentations.

Talk schedule

WEEK 1
Aug. 19: Don Watershed bus trip

1.   Nahid Ruhi   -Describe the geology of the Oak Ridges Moraine and its
     importance as an aquifer.

2.   Hoi Lai - Describe the influence of the addition of road salt upon
     groundwater and stream salinity, and fish/frog habitat.

3.   Nadine Galle: Origins of the rusty crayfish and impact of its invasion in Ontario (with a special focus on Toronto's watersheds).

Aug. 20 Toronto Harbour/Lake Ontario boat trip

4.   Alexandra Komza - How does the deep lake water cooling in Toronto work (see http://www.toronto.ca/environment/initiatives/cooling.htm)

5.   Gabriel Weijie Low: Harmful Algal Blooms in the Great Lakes (with a focus on Lake Ontario).

Aug. 21: Leslie Spit

6.   Arooran Sritharan – Summarize the various fish species that live in the Toronto harbour in terms of their thermal habitat preferences, i.e. which are cold water, cool water and warm water fish.

7.   Ramin Gharavir: Wetlands in the Great Lakes: historical and current status (with a special focus on Lake Ontario).

8.   Abdur Baig – Give an overview of the Remedial Action Plan for the Toronto Area of Concern (http://www.ec.gc.ca/raps-pas/default.asp?lang=En&n=5098A4FF-1)

Aug. 22: Lab on St. George campus (RW122)
Aug. 23: Lab on St. George campus & presentations (RW107)

WEEK 2
Aug. 26: Dunkers Flow Balancing System (am) /Rouge River (pm)

9.   Aleksandra Dragozet: How does the Dunkers Balancing Flow System set up at Bluffer's Park to deal with combined sewer outflow work? Review performance of this system and others in the world.

10.   XiaoTian Wang: Wetlands and greenhouse gases.

11.   Ahmed Ansar - Describe the location of water treatment plants (aka sewerage stations) and their influence on the water quality of Lake Ontario.

Aug. 27: Frenchman's Bay

12.   Jing (Kevin) Li. Summarize on the effects of urbanization upon water quality in Frenchman's Bay.

13.   Hoi Lai - Describe the influence of the addition of road salt upon groundwater and stream salinity, and fish/frog habitat.

14.   Tan Qiao Hao: Historical and current status of invasive species in the Great Lakes (with a special focus on Lake Ontario).

Aug. 28: Frenchman's Bay

15.   Shiyuan Liu: Historical and current status of phosphorus in the Great Lakes (with a focus on Lake Ontario) and its role in eutrophication.

16.   Kim Minjung: Biology of Cladophora and causes of its resurgence in the Great Lakes (with a special focus on Lake Ontario).

17.   Nooruddin Mohammed - Describe the typical cycle of thermal stratification in Lake Ontario.

Aug. 29: Lab at UTSC
Aug. 30: Lab at UTSC