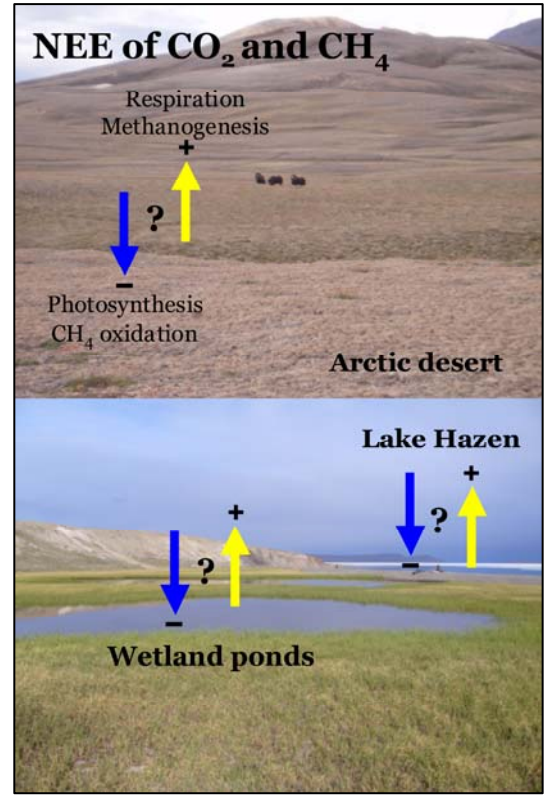


Ph.D. OPPORTUNITIES

Net ecosystem exchange of greenhouse gases in the Canadian High Arctic

I am looking for enthusiastic and motivated Ph.D. students for a once-in-a-lifetime opportunity to study the impacts of climate change in the Canadian High Arctic. Human activities have elevated global atmospheric concentrations of the greenhouse gases carbon dioxide (CO_2) and methane (CH_4) to levels that have resulted in an unequivocal and unprecedented warming of the Earth's climate system, especially in the high Arctic where in the past century average annual temperatures have increased at almost twice the global rate. We are using state-of-the-art eddy covariance flux towers and other techniques to quantify the impacts of climate change on the net ecosystem exchange (NEE) of CO_2 and CH_4 from both terrestrial and aquatic landscapes near Lake Hazen in beautiful *Quttinirpaaq National Park* located in the northernmost region of Ellesmere Island, Nunavut. Such new and comprehensive measurements, in one of the most northerly landscapes ever studied, are essential to determine if this region is currently in a phase of net primary productivity or net decomposition, and whether future warming due to climate change will result in Arctic ecosystems being net sources or sinks of atmospheric greenhouse gases.



The Ph.D. programs will be based out of the University of Alberta, which has a rich diversity of polar research in the Departments of Biological Sciences and Earth and Atmospheric Sciences, as well as with its association with the Canadian Circumpolar Institute on campus.

The University of Alberta offers NSERC scholarship recipients a \$10,000 signing bonus and free tuition, and numerous other scholarship opportunities are available to all applicants. Suitable applicants will be flown to the University of Alberta to tour our laboratory and the University of Alberta campus, and meet with the Associate Chair of Graduate Studies. Starting date would be September 2009 or sooner.

If interested, please contact Dr. Vincent St.Louis at: vince.stlouis@ualberta.ca

