David L Nieland

Subject: PhD Studentship - Lakes face the future of a high CO2 world

Would you like to study in the UK but do research in pristine Canadian wilderness? Curious about how lakes respond to global change and influence the world around us?

http://etiennelowdecarie.org/2014/10/21/phd-studentship-effect-of-rising-atmospheric-co2-on-freshwater-phytoplankton/

Background
Never have the conditions for life changed so quickly on our planet. Humans are increasing the amount of CO2 in the atmosphere to levels not seen for millions of years. We are unsure how oceans, lakes and rivers will respond to this incredibly high concentration of CO2.

Research goal
Determine the effect of rising atmospheric CO2 on organisms in lakes

Research methodology
Fieldwork will be conducted in two separate field seasons at lakes in the UK and at a newly constructed facility for the simulation of global change in lakes located in the Gault Nature Reserve of McGill University, Canada. The facility consists of a basin that is covered by a geodesic dome in which the concentration of CO2 in the air can be controlled to simulate global change.
The selected candidate would use state of the art probes, instruments and microscopy to measure biophysical properties, gaining skills valued in academic research and environmental industry. In addition to data collected by the student, she/he will have access to data from the facility extending beyond the student's field season.

Training
The successful candidate will receive training in limnology, gas analysis and microscopy. The student will have the opportunity interact with faculty and students at the University of Essex, the NERC Centre for Ecology & Hydrology, the Gault reserve, McGill University and related research groups.

Person specification
We seek a self-reliant individual who is enthusiastic about problem solving. The student will have a degree in biology or a branch of environmental science or engineering. The student will be enrolled in the PhD program of the School of Biological Sciences of the University of Essex (http://www2.essex.ac.uk/academic/offices/graduate/) and will benefit from professional development through Proficio (http://www.essex.ac.uk/study/pgr/proficio/default.aspx)

Additional search keywords: acidification, global change, carbon, phytoplankton, algae, productivity, mesocosm, travel, aquatic, boat, water

Co-Supervisors
Prof Richard Geider, School of Biolgical Sciences, University of Essex Prof Stephen C Maberly, Centre for Ecology and Hydrology Dr Gregor Fussman, Department of Biology, McGill University, Canada

- Start date September 2015
- Programme PhD
- Mode of Study Full-time
- Studentship Length 3.5 years

This project has won funding from the EnvEast NERC Doctoral Training Partnership, led by the University of East Anglia with participation from over 20 partners, including the Universities of Essex and Kent.
Shortlisted applicants will be invited to an interview day on DATE.
Funding
Successful candidates who meet RCUK's eligibility criteria (see www.rcuk.ac.uk) will be awarded a NERC studentship. In most cases, UK and EU nationals who have been resident in the UK for 3 years are eligible for a full award.

The stipend for 2014/15 was £13,863 p.a.
For further information, please visit www.enveast.ac.uk.