

RURAL Centre News

Message from the Director:

Happy 2009 to all! Let us hope that it brings continued good news regarding the viability and the success of our Centre. Thanks to everyone who has contributed so significantly to date!

We ended 2008 on a positive note. We hosted a team from Health Canada's Safe Environments Program with whom we are partnering on an investigation of Indoor Air Quality in greater HRM. The data generated will help update the indoor air quality standards for Canada. This project will greatly advance our capacity to launch such studies. In October, we were a co-sponsoring Centre for the 6th International Symposium on Public Health and the Agricultural Rural Ecosystem hosted by the Canadian Centre for Agricultural Safety and Health. We had a significant presence with numerous presentations by investigators, students and staff and we also coordinated a session on rural population health.

The Atlantic RURAL Centre Survey Committee has begun development of the framework for our proposed survey of 5,000 Atlantic families that will examine issues of isolation, social context, community cohesion, access to assets and how these factors influence the health of rural Canadians. Further to this theme, we are partnering with the Atlantic Metropolis Centre to fund two joint pilot studies that will examine issues of immigration and population change in rural Canada and how these factors impact health.

On November 24, we celebrated the launch of our new Environmental Health Laboratory located in the Industry Partnership Facility at the National Research Council Institute for Marine Biosciences in Halifax. We would like to acknowledge the outstanding welcome and assistance we have received from everyone at the NRC.

In our rural employment theme, SafetyNet has been successful in obtaining a SSHRC CURA grant that looks at issues of seasonal work, unemployment and other factors on the west coast of Newfoundland. Our Centre is also working with the Atlantic Provinces Agricultural Safety and Health Council and the Canadian Agricultural Safety Association to create a certified First Responder training program for volunteer firefighters. Modeled on the US Farmedic Response course, this program will provide enhanced skills for first responders on the scene of agricultural and other rural-related emergency events. Finally, we are moving forward with establishing our Advisory Council for the Centre. With so many activities coming on stream, it will be crucial to be strategic in our prioritization!

Once again, I wish to acknowledge all of the investigators, affiliate members, students and staff that have made this past year so pleasurable.



IN THIS ISSUE:

Message from the Director.....	1
Environmental Health Laboratory.....	2
Update on RURAL Survey.....	2
PHARE Conference.....	2
CFI Proposal.....	3
Air Quality in Halifax.....	3
Fellowship Recipients.....	3
Pilot Project Recipients.....	3
New Faces.....	3
Farmedic Training.....	3
What's New?.....	4



Grand Opening of the Atlantic RURAL Centre Environmental Health Laboratory. Left to Right: Dr. Mark Gibson, Dr. Jim Abraham, Dr. Kevin Vessey, Richard Denis, Dr. Judy Guernsey
Photo Credit: Angeline Quek



Canadian Fund for Innovation (CFI) Grant Proposal

The RURAL Centre, in collaboration with investigators at the University of Toronto and the University of British Columbia has submitted a grant proposal to the Canadian Fund for Innovation in support of the Canadian Aerosol Research Network. The grant will support the purchase of a number of analytical chemistry instruments for the Environmental Lab. This is a very strong proposal in a key area and we are very hopeful that the grant will be funded.

Launch of the Atlantic RURAL Centre Environmental Health Laboratory

On November 24, 2008, we celebrated the Grand Opening of our new Environmental Health Laboratory located in the Industry Partnership Facility at the National Research Council Institute for Marine Biosciences in Halifax. About forty people from all over Atlantic Canada joined us in this celebration. Corresponding to our air and water quality theme, the laboratory marks the first of its kind in Atlantic Canada and will allow us to greatly expand our capacity to investigate questions about the physical environment in relation to human health.

With its strong focus on monitoring and analyzing the full range of compounds found in the human environment, the Environmental Health Laboratory “will give our researchers access to exceptional analytical capabilities to apply to our study of the environment and its specific impacts on human health,” says Dr. Mark Gibson, senior research scientist at the Centre and the driving force behind the lab. “As one example, our new lab houses a highly-specialized gas chromatograph that allows us to collect and analyze volatile organic compounds (VOCs). This capability is unique in the region and allows us to investigate the effects of VOCs in residential and commercial properties, as well as in our outdoor environment.”

We would like to acknowledge the outstanding welcome we have received from everyone at the National Research Council - Institute for Marine Biosciences who have been so facilitative and accommodating. In particular, Dr. Joan Kean-Howie, Director-General, has been exceptional in the level of support that she has made available to us.



Dr. Mark Gibson explains to our partners how the Perkin-Elmer TurboMatrix Thermal Desorption system and Perkin Elmer Clarus 500 Gas Chromatograph
Photo Credit: David Waugh, Environment Canada

Update on RURAL Survey Initiative

At the last RURAL Summit a decision was made to focus our energy on developing a survey of rural Atlantic Canadians. On November 28, the first meeting of the survey group took place in Halifax. There were ten individuals in attendance including investigators, affiliates and staff. Three investigators who could not attend also expressed interest in working on the survey group. During the day-long meeting, participants reviewed a survey protocol discussion document, and also discussed methodology, a literature review and survey content. Mark Gibson gave a presentation on potential environmental measures and gave participants a tour of the new Environmental Lab. The meeting concluded with a discussion of next steps, including the development of a more detailed protocol, and a literature review. All agreed that it was a productive meeting and a very positive start to this important RURAL Centre initiative.

6th International PHARE Conference

From October 19-23, 2008 the 6th International Symposium on Public Health & the Agricultural Rural Ecosystem was held in Saskatoon, SK.

RURAL Centre investigators, students and staff participated in presentations, chairing sessions and poster displays:

- Geoff Strople presented: Implementing a Prospective Longitudinal Study of Rural Atlantic Canadians
- Dr. Judy Gurnsey chaired: Population Based Rural Health Studies
- Dr. Barb Neis chaired: Health & Safety in Rural & remote Marine & Coastal Contexts and presented: Health & Safety Challenges in Rural & Remote Non-Farm Contexts
- Stacey Wareham presented: Employment Precarity, Risk Tolerance and Safety Behaviours in the NFLD Fibreglass Boat-Building Industry
- Sumaiya Baqee presented: Individualization Discourses & Practices in OHS Curriculum: Reflections on OHS Training Delivered to Fish Harvesters & High School Students in NFLD
- Jillian Ashley-Martin presented a poster: A Systematic Review of the Association between Fungicide Exposure & Reproductive Outcomes
- Dr. Mark Gibson presented: Comparative Studies of Air Quality in Rural and Urban Nova Scotia and Potential Health and Environmental Impacts

Health Canada awards Air Quality Contract to Centre

The RURAL Centre has been awarded a contract from Health Canada to conduct a study of indoor air quality in Halifax Regional Municipality. The study, valued at \$465,000, involves detailed monitoring of fifty homes for a variety of indoor air pollutants. The air in each home will be sampled for a week in winter and a week in summer and dust samples will also be collected. Staff worked closely with Health Canada officials to train laboratory and field technicians and set up the Environmental Health Lab for this project.

The Centre has been able to hire eight students, and one project coordinator. Field testing started on January 8, 2009. Health Canada will use the results, as well as those from other Canadian cities, to update their *Residential Indoor Air Quality Guidelines*.

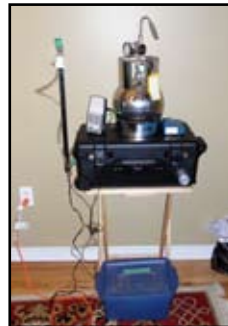
More information: http://www.theruralcentre.com/?page_id=776



To the left: Health Canada Safe Environments Program team members train students to read and use the equipment.

To the right: A sample of the indoor air quality setup in a household.

Photo Credit: Angeline Quek



KEEP THE DATE

The Annual RURAL Summit is now being planned for June 10-12 in PEI. Watch your e-mail for continuous updates.

New Faces *Who's Who*

The RURAL Centre would like to welcome the following new staff:

Executive Assistant: Angeline Quek
Angeline was the successful candidate in a job competition for an Executive Assistant to help with a variety of organizational and strategic tasks. She started on July 2 and already has become an invaluable asset to our organization.

Although Angeline comes to us fresh from university, she has experience in marketing and communications, including a summer internship with the Nova Scotia Department of Health, and also running her own photography business.

A double graduate of Atlantic Baptist University, Angeline has a Bachelor of Business Administration as well as a Bachelor of Arts in Communications. Feel free to contact Angeline at the main Rural Centre number: (902) 494-8051, or by e-mail: angeline.quek@dal.ca.

Environment Canada's Science Horizon Intern: Gavin King

Gavin King will be working with the Atlantic RURAL Centre on projects relating to Air and Water Quality Issues.

He has completed a BSc. in Earth Sciences and Environmental Sciences. He has experience working on a variety of research projects related to environment and health. He wishes to pursue a Masters in Community Health and Epidemiology after his internship.

RURAL Centre Fellowships

The 2008/2009 RURAL Centre Fellowships were awarded to Vanessa Perry and Mikiko Terashima.

Under the guidance of RURAL Centre investigator, Dr. Swarna Weerasinghe, Vanessa Perry's research investigates the relationship between social support and

health in Aboriginal populations.

Mikiko Terashima will be continuing her Ph.D work in understanding social determinants of health. Working with RURAL Centre investigator Dr. Judy Guernsey, Mikiko will also look spatially at relevant social determinants of health.

RURAL Centre Pilot Project Funding

Congratulations to Stacey Wareham, recipient of a pilot project funding award for 2008-2009. Her study is entitled "Exploring the Health Impacts of Workers Participating in the Community Enhancement Employee Support Program: A Community-Based, Participatory Action Approach".

Stacey will be collaborating with Dr. Barbara Neis (Memorial University), Dr. Arla Day (Saint Mary's University), and Dr. Katherine Lippel, (University of Ottawa).

Visit http://www.theruralcentre.com/?page_id=641 for more information

Farmedic Training

From October 24-27, two Fredericton firefighters, Kim Murdock and Kendell Dunham, attended the Farmedic Training Program in North Carolina. Related to our rural employment theme, the Farmedic Program informs and trains firefighters about the hazards that exist in agricultural settings.

They presented their experience to the Atlantic Provinces Agricultural Safety and Health (APASH) Council in early December. Next steps involve developing a firefighter training program tailored to Atlantic Canadian's needs and offering this course in the summer of 2009.

We would like to thank CASA for funding this project.



CIHR IRSC
Canadian Institutes of Health Research / Instituts de recherche en santé du Canada

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A Collaborative Initiative Of:
Dalhousie University
Memorial University
Mount Allison University
Nova Scotia Agricultural College
NSCC Centre of Geographic Sciences
Saint Mary's University
University of New Brunswick
University of Prince Edward Island
Researchers at other academic institutions across Atlantic Canada

Bookmark our website for more news & photos:

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What's New

Updates from our investigators

Some Research Grants/Contracts:

Judy Guernsey. First Responders, Safe farms and ergonomic evaluation of Atlantic Work Practices (Research). April 2008 – March 2009. Value \$30,000

David Fleming: New horizons for x-ray fluorescence in trace element detection. 2008-2013. Natural Sciences and Engineering Research Council - Discovery Grant. Value \$23,400 per year

Michael Ungar. Pathways to Resilience: A Mixed-method Investigation of the Negotiations for Health Resources among At-Risk Children and their Families who Experience Concurrent Child Welfare, Mental Health, Correctional and Educational Services. Public Safety Canada's National Crime Prevention Centre. May 2007-September 2010. Value \$401,000

Some Recent Publications:

Social Transition and Vulnerability:
Ungar, M., Brown, M., Liebenberg, L., Cheung, M. & Levine, K. (2008). Distinguishing differences in pathways to resilience among Canadian youth. *Canadian Journal of Community Mental Health*, 27(1), 1-13.

Ungar, M., Liebenberg, L., Boothroyd, R., Kwong, W.M., Lee, T.Y., Leblanc, J., Duque, L. & Makhnach, A. (2008). The study of youth resilience across cultures: Lessons from a pilot study of measurement development. *Research in Human Development*, 5(3), 166-180.

Ungar, M. (2008). Resilience across cultures. *British Journal of Social Work*, 38(2), 218-235.

Rural Employment:

Binkley, M., Bigney, K., Neis, B., & Bornstein, S. (2008). Lessons from offshore: Challenges and opportunities in linking data to promote understanding of accidents and injuries among Newfoundland and Labrador fishers 1989-2001. *Marine Policy*, 32(6), 905-912

M.J.S. Windle, B. Neis, S. Bornstein, and P. Navarro (2008). Fishing occupational health and safety: a comparison of regulatory regimes and safety outcomes in six countries. *Marine Policy* 32(4):701-710.

Air and Water Quality Issues

Burger, M. S., Krentz, C. A., Mercer, S. S., & Gagnon, G. (2008). Manganese removal and occurrence of manganese oxidizing bacteria in full-scale biofilters. *Journal of Water Supply: Research and Technology - AQUA*, 57(5), 351-359

Burger, M. S., Mercer, S. S., Shupe, G. D., & Gagnon, G. (2008). Manganese removal during bench-scale biofiltration. *Water Research*, In Press, Corrected Proof.

Fleming, D., Eddy, I. S., Gherase, M. R., Gibbons, M. K., & Gagnon, G. Real-time Monitoring of Arsenic Filtration by Granular Ferric Hydroxide. *Applied Radiation and Isotopes*.

Gherase, M. R., & Fleming, D. (2008). Fundamental parameter approach to XRF spectroscopy measurements of arsenic in polyester resin skin phantoms. *X-Ray Spectrometry*, 37(5), 482-489.

Gherase, M. R., & Fleming, D. (2008). K-shell X-ray fluorescence measurements of arsenic depth-dependent concentration in polyester resin discs using the fundamental parameter method.

Gherase, M. R., Vallee, M. E., & Fleming, D. Simultaneous Detection of Arsenic and Selenium in Polyester Resin Skin Phantoms. *Applied Radiation and Isotopes*.

Gibson, M., Guernsey, J., Brook, J., Beauchamp, S., Waugh, D., Maher, R., et al. Quantifying the spatial and temporal variation of ground-level ozone in the Annapolis Valley, Nova Scotia, Canada using nitrite-impregnated passive samplers. *Journal of Air & Waste Management Association*.

Like to share your good news with fellow investigators? Send in your news to: angeline.quek@dal.ca