

LEA BERRANG FORD, PhD

CURRICULUM VITAE

Environmental epidemiologist – medical geographer
Centre for Infectious Disease Prevention and Control (CIDPC-FWZID)
& the Laboratory for Foodborne Zoonoses (LFZ)
Public Health Agency of Canada
CP 5000, Saint-Hyacinthe, QC
J2S 7C6, Canada
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LeaBerrang@hotmail.com

- Skills summary:**
- Eco health and environmental systems analysis
 - Spatial statistics, GIS, Remote Sensing, and Epidemiologic analysis
 - Quantitative/ statistical analysis
 - Climate change and health expertise
 - Proven track record securing research grant funding
 - Experience in project management, study design, field work, supervision
 - Experience working in cross-cultural/ international contexts
 - Bilingual: English, French

Current position Environmental epidemiologist – Medical geographer
Centre for Infectious Disease Prevention and Control (CIDPC-FWZID) &
the Laboratory for Foodborne Zoonose (LFZ)
Public Health Agency of Canada
Saint Hyacinthe, QC

Academic Qualifications

PhD Epidemiology (2006)

Department of Population Medicine, University of Guelph, Canada and the International Livestock Research Institute (ILRI), Nairobi, Kenya (Graduate Fellow)
Thesis, “Spatial and temporal analyses of sleeping sickness reemergence in SE Uganda, 1970-2003”

MSc Environmental Change and Management (2001)

Environmental Change Institute, University of Oxford, UK, with distinction
Thesis, “Public perceptions of climate change in the UK”

BSc (Env) (Geography) (2000)

Department of Geography, University of Guelph, Canada, with distinction
Theses, “Land cover change and loggerhead shrike habitat in Ontario” & “Turbulence in meander bends in Cherry Brook, UK”

Current research

Climate change and health program, Public Health Agency of Canada

Strategic facilitator on a small team of climate and health research and policy experts tasked with developing and implementing a strategic program for climate change and health research within the Public Health Agency of Canada.

Caribbean Eco-Health Programme: Public and Environmental Health Interactions in Food and Water-borne Illnesses

Research team coordinator (ecohealth and community liaison) on a Teasdale-Corti Global Health Research Initiative proposal, in collaboration with the Pan-American Health Organization (PAHO), the Caribbean Community (CARICOM), the Caribbean Epidemiology Centre (CEC), and the Caribbean Environmental Health Institute (CEHI). The proposal is currently in review.

Surveillance and management of climate change impacts in the north: implications for northern public health policy and infrastructure

Project collaborator for a study within ArcticNet Project 4.5, focused on development of a gastrointestinal surveillance pilot to assess the burden of disease in Inuit communities in Nunavik, Quebec.

GeoConnections public health mapping application development

Project Manager of a CGDI (Canadian Geospatial Data Infrastructure)-funded project to develop a web-based secure server application for spatial and sequential mapping of public health surveillance data.

Research history

Spatial and temporal epidemiology of sleeping sickness in SE Uganda 2002 – 2006

Secured full grant funding, designed & implemented study, collected and analyzed data for doctoral work on the spatial and temporal determinants of sleeping sickness in south-eastern Uganda, in association with the International Livestock Research Institute (Nairobi, Kenya) and University of Guelph (Canada).

Understanding Norovirus transmission on Canada's West Coast. 2004 – 2006

Project scoping, study design, workshop facilitation, spatial mapping, and development of a strategic action plan for Norovirus transmission on the west coast - contractual work with the Public Health Agency of Canada, FWZI Division.

Livelihoods and Ecosystems International Workshop Series - CIDA 2005

Workshop facilitation & development, with the Canadian International Development Agency (CIDA) and the University of Guelph.

Public perceptions of climate change impacts on human health in the UK. 2000 – 2001

Designed and implemented project, collected and analyzed data, and prepared report for survey-based project for completion of an MSc in Environmental Change and Management, University of Oxford, UK.

Water on Mars? Aerial photo interpretation of Martian fluvial features 2001

Aerial photography interpretation assistance, in association with the University of Oxford Department of Geography and NASA.

Watershed health and community management in the Hagan Creek-Kennes Watershed, Sidney, BC. 1998 – 1999

Designed, supervised, and implemented watershed analyses, and participated in extensive community liaison for a community watershed project, in association with the Institute of Ocean Sciences (Sidney, BC), and the Eco-research Chair of Environmental Law and Policy, University of Victoria.

Funding Grants and Academic Awards

Funded	Visiting scientist, Norwegian School of Veterinary Sciences, 2 weeks (2006)
Honour	1 st place doctoral presentation, Ontario Veterinary College, U. of Guelph (2006)
\$20,000	International Development Research Centre, Doctoral Research Award (2004)
\$21,000	Nat. Science and Eng. Research Council of Canada PGS-B Graduate Award (2004)
\$5,000	Arthur D. Latornell Graduate Scholarship, U. of Guelph (2003)
\$1,000	Arthur D. Latornell Graduate Travel Grant, U. of Guelph (2003)
\$19,000	Nat. Science and Eng. Research Council of Canada PGS-A graduate award (2002)
Honour	University of Oxford, Degree with distinction (2001)
Honour	University of Guelph, Degree with distinction (2000)
\$1,000	Arthur D. Latornell Travel Grant, U. of Guelph (1999)
Honour	Geography Alumni Scholarship, U. of Guelph (top Geographer in cohort) (1998)

Teaching

- *GIS training & analytical consultation*, on-going project support/ training, St- Hyacinthe Unit of the Public Health Agency of Canada's Lab. for Foodborne Zoonoses (2006-ongoing)
- *Workshop participant*, Teaching and Learning Innovation: Pedagogies that Challenge, University of Guelph (2006)
- *Cartographic design*, freelance cartographic and conceptual design consultations for academic research (2004-ongoing)
- *Workshop facilitation & development*, Livelihoods and Ecosystems CIDA Workshop Series, for the Canadian International Development Agency (CIDA) (2005)
- *Teaching assistant*, Analysis in Geography, Dept. Geog., U. of Guelph (2005)
- *Teaching assistant*, Human Impact on the Environment, Dept. Geog., U. of Guelph (2005)
- *Teaching assistant*, Aerial-photo interpretation, Dept. Geog., U. of Guelph (2003)
- *Project supervisor* for watershed and habitat survey team, Hagan Creek Watershed Project, Sidney, B.C. (1999)

Service

- *Article peer review*, Emerging Infectious Diseases (2006 a, b) Transactions of the Royal Society of Tropical Medicine and Hygiene (2006)
- *Committee member*, Comité Bilan Annual, Laboratory for Foodborne Zoonoses, Public Health Agency of Canada (2006-ongoing)
- *Co-facilitator*, University of Oxford Environmental Change Institute (ECI) 2000-01 alumni committee
- *Graduate social committee member*, Department of Population Medicine, University of Guelph (2003-2005)
- *Graduate student representative*, U. of Guelph Graduate Students' Association, (2002-03)
- *Member*, Graduate Lounge Working Group (2002-03)
- *Graduate representative*, University Transportation Planning Committee (2002-03)
- *University Senator* B.Sc(Env), U. of Guelph Senate (1999-2000)
- *Member*, University Senate Academic Student Petitions committee, University of Guelph (1999-2000)

Publications

Peer-reviewed

- Berrang-Ford, L., O. Berke, L. Abdelrahman, D. Waltner-Toews, and J. McDermott (2006) Spatial analysis of sleeping sickness, South-eastern Uganda, 1970-2003. *Emerging Infectious Diseases* **12**(5):813-20.
- Berrang-Ford, L., D. Waltner-Toews, D. Charron, M. Odiit, J. McDermott, and B. Smit (2005) Sleeping sickness in southeastern Uganda: a systems approach. *EcoHealth* **2**(3):1-12.
- Berrang-Ford, L., M. Odiit, F. Maiso, D. Waltner-Toews, and J. McDermott (In press) Sleeping sickness in Uganda: revisiting historical distributions, 1905-1920. *African Health Sciences*.
- Berrang-Ford (In press) Civil conflict and sleeping sickness in Africa in general and Uganda in particular. *Conflict and Health*.
- Berrang-Ford, L., J. Ford, B. Smit, D. Waltner-Toews, and J. McDermott (In review) Conceptualizing disease risk in space and time: sleeping sickness in Uganda. *The Canadian Geographer*.
- Berrang-Ford, L., and D. Noble (In review) Climate change and health in Canadian municipalities. *Environmental Health Review*.
- Berrang-Ford, L., O. Berke, S. Sweeney, J. McDermott, D. Waltner-Toews, and R. Reid (In final preparation) Sleeping sickness in south-eastern Uganda: an historical analysis of disease risk, 1970-2003.

Book contributions and reports:

- Berrang, L. (2005) Atlas of sleeping sickness in Uganda, 1905-20 and 1970-2003. *For Decision-support for trypanosomiasis and tsetse control in Uganda Workshop, Kampala, Uganda, 7-8 December 2005.*
- Massawe, S., T. Robinson, T. Randolph, L. Berrang Ford, and J. Mugenyi (In press) Tsetse and Trypanosomiasis Decision Support Atlas for Uganda. Nairobi, Kenya: ILRI/ FAO.
- Berrang Ford, L. (2005) Strategic action framework: Norovirus transmission on the west coast. Public Health Agency of Canada, Foodborne, Waterborne and Zoonotic Infections Division.
- Berrang, L. (2005) Land to Sea Norovirus Transmission on Canada's West Coast: A context Review. Public Health Agency of Canada, Foodborne, Waterborne and Zoonotic Infections Division.
- Berrang, L. (2005) Land to Sea Norovirus Transmission on Canada's West Coast: Mapping of Cruise Ports and Passenger. Public Health Agency of Canada, Foodborne, Waterborne and Zoonotic Infections Division.

Berrang, L. (2005) *HIV/AIDS*, In 'Our Earth's Changing Land: An Encyclopedia of Land-Use and Land-Cover Change. Westport, CT, USA: Greenwood Press.

Berrang, L. (2005) *Malaria*, In 'Our Earth's Changing Land: An Encyclopedia of Land-Use and Land-Cover Change. Westport, CT, USA: Greenwood Press.

Berrang, L. (2005) *African trypanosomiasis*, In 'Our Earth's Changing Land: An Encyclopedia of Land-Use and Land-Cover Change. Westport, CT, USA: Greenwood Press.

Berrang, L. (2005) *Watershed*, In 'Our Earth's Changing Land: An Encyclopedia of Land-Use and Land-Cover Change. Westport, CT, USA: Greenwood Press.

Presentation, posters, and workshops:

Visiting researcher presentation, "Spatial analysis and GIS for zoonotic disease research: sleeping sickness in Uganda," For the Epidemiology Centre, Norwegian School of Veterinary Science, Oslo, Norway, 21 November 2006.

Visiting researcher presentation, "GIS and spatial analysis research and capacity at the Saint Hyacinthe Unit of the Public Health Agency of Canada," For the Epidemiology Centre, Norwegian School of Veterinary Science, Oslo, Norway, 21 November 2006.

Visiting researcher presentation, "Spatial analysis and GIS for zoonotic disease research: sleeping sickness in Uganda," For the Norwegian Veterinary Institute, Oslo, Norway, 28 November 2006.

Visiting researcher presentation, "GIS and spatial analysis research and capacity at the Saint Hyacinthe Unit of the Public Health Agency of Canada," For the Epidemiology Centre, Norwegian School of Veterinary Science, Oslo, Norway, 28 November 2006.

Panel presentation, "Climate change, health, and water-borne disease in Canadian communities", for the Panel Session 'Climate Change: the Elephant in the Room,' Water in the City Conference, Victoria, BC, 19 September (2006)

Panel presentation, "Ecosystem health and emerging infectious diseases", for the Sustainable Livelihoods and Ecosystem Health Conference, Guelph, Ontario, 6 June (2006)

Presentation, "Spatial and temporal analysis of sleeping sickness in south-eastern Uganda", Canadian Society for Epidemiology and Biostatistics Student Conference, 9 June, Ontario Veterinary College, Guelph, Canada (2006)

Presentation, "Re-emergence of sleeping sickness in Uganda," Graduate Student Appreciation Day, 12 April 2006, Ontario Veterinary College, Guelph, Canada (2006)

Presentation, "Sleeping sickness in south-eastern Uganda, 1970-2003," Decision-support for trypanosomiasis and tsetse control in Uganda: research, policy implications, and the way forward - Workshop in Kampala, Uganda, 7-8 December (2005)

LEA BERRANG FORD

Workshop moderator, Bi-national Meeting: Norovirus Transmission Involving Cruiseships and Land-based Tourism, Victoria, Canada, 2-3 November. Public Health Agency of Canada (2005)

Seminar, “Spatial tools and wee beasts: using GIS, remote sensing, and spatial statistics to understand sleeping sickness in Uganda,” University of Guelph (2005)

Workshop facilitator, Livelihoods and Ecosystems Workshop, Hull, Quebec Canada, 3 March. The Canadian International Development Agency (CIDA) and the University of Guelph (2005)

Workshop facilitator, Livelihoods and Ecosystems Workshop, Guelph, Canada, 4 February. The Canadian International Development Agency (CIDA) and the University of Guelph (2005)

Seminar, “Spatial and temporal analysis of sleeping sickness in SE Uganda,” Department of Population Medicine, University of Guelph (2005)

Presentation, “Land-sea Norovirus transmission on Canada’s west coast,” National Norovirus Meeting, Toronto, Canada, 19-20 January, 2005, Public Health Agency of Canada (2005)

Poster presentation, “The Unwelcome Passenger: Land to Sea Norovirus Transmission on Canada’s West Coast” Public Health Agency of Canada, Guelph: Isaacs, S., L. Berrang, J. McCormick, and W. Kolodziejczak. In association with McMaster University (2004)

Poster presentation, Berrang, L. and S. Calvin “Pesticide Use for West Nile Virus in Guelph,” Department of Population Medicine, University of Guelph (2003)

Seminar, “Environmental change and infectious disease,” Ontario Veterinary College, University of Guelph (2003)

Poster presentation, Berrang, L. “Sleeping sickness in Uganda: Mapping Risk,” Department of Population Medicine, University of Guelph (2003)

Seminar, “Environmental change and infectious disease: sleeping sickness in Uganda,” Department of Population Medicine, University of Guelph: (2002)

Additional skills and outside activities

- Fluent in English and French
- Photography (semi-professional)
- Sports (triathlon, soccer, canoeing, hiking)