



5019 – 52nd Street
Yellowknife, NT – X1A 1T5

VIA EMAIL

Chuck Hubert
Senior Environmental Assessment Officer
Mackenzie Valley Environmental Impact Review Board
PO Box 2130
Yellowknife, NT X1A 2P6

RE: Federal Comments on the draft Canadian Zinc All Seasons Road Technical Sessions Agenda

Dear Mr. Hubert,

Further to our letter dated May 25, 2016, the Canadian Northern Economic Development Agency's Northern Projects Management Office is pleased to provide the attached CV's for technical experts on behalf of Parks Canada Agency. These technical experts will attend the technical sessions (June 13 – 16) for the above noted project. The Government of Canada looks forward to continued participation in this environmental assessment.

Sincerely,

Adrian Paradis
Senior Project Manager
Northern Projects Management Office

Attachments: (1) Expert CV's

cc. Sachi De Souza, Environmental Assessment Officer



Parks
Canada

Parcs
Canada

Curriculum Vitae

Douglas P. Tate, MSc.
Nahanni National Park Reserve
PO Box 348, Fort Simpson, NT
X0E 0N0

Education

MSc. Biology. 1998. University of Guelph, ON
BSc. Wildlife Biology. 1990. University of Guelph, ON

Employment History

1999-2016. Nahanni National Park Reserve. Job Titles: Conservation Biologist,
Ecosystem Scientist and Ecologist Team Leader.
1995-1998. University of Guelph. Teaching Assistant and Graduate Student.
1997. Canadian Wildlife Service: Contract Biologist

Relevant Experience

Member of Technical Team; Management Plan for the Northern Mountain Population of
Woodland Caribou (*Rangifer tarandus caribou*) in Canada. (2012)

Member of the Working Group on General Status of NWT Species; NWT Species 2011-
2015 – General Status Ranks of Wild Species in the Northwest Territories

Member of NWT Biodiversity Team; Northwest Territories Biodiversity Action Plan:
Major Initiatives in Biodiversity. (2004)

Selected Publications & Presentations

Babaluk, J.A., C.D. Sawatzky, D.A. Watkinson, D.P. Tate, N.J. Mochnacz and J.D. Reist.
2015. Distributions of fish species within the South Nahanni River watershed,
Northwest Territories. Can. Manuscr. Rep. Fish. Aquat. Sci. 3064: vii + 91 p.

- Babaluk, J.A., D.P. Tate and J.D. Reist. 2009. Selected chemical analyses of waters from the South Nahanni River watershed, Northwest Territories. Can. Data Rep. Fish. Aquat. Sci. 1215: v + 19 p.
- Catling, P., B. Kostiuk and D. Tate. 2011. River Jewelwing, *Calopteryx aequabilis* Say, new to Northwest Territories. Argia 23(1): 13-14.
- COSEWIC. 2014. COSEWIC assessment and status report on the Nahanni Aster *Symphyotrichum nahanniense* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 39 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm). Authors: A. Harris, R. Foster, and D.P. Tate.
- Haggarty, D.R. and D.P. Tate. 2009. Nahanni National Park Reserve Nah'a Dehe State of the Park Report. Parks Canada Report.
- Hegel, T.M., W.J. Rettie, K. Russell, T. Pretzlaw and D. Tate. 2010. A mark-and-multiple-resight population estimate of the South Nahanni caribou herd. Poster presentation at North American Caribou Workshop. Winnipeg, MB. October 2010.
- Lausen, C.L., J. Waithaka and D.P. Tate. 2014. Bats of Nahanni National Park Reserve and Surrounding Areas, Northwest Territories. Northwestern Naturalist. 95(3): 186-196.
- Nudds, T.D., H. Hager, D. Britton, D. Potter, D. Tate, K. Welstead, C. Buddle, E. Whelpdale. 1998. Guelph Biological Inventory of the Georgian Bay Islands (GBI)² Project. Report to Parks Canada.
- Quinn, N. W. S. and D. P. Tate. 1991. Seasonal movements and habitat of Wood Turtles (*Clemmys insculpta*) in Algonquin Park, Canada. Journal of Herpetology 25: 217-220.
- Sadinski, W., A. Gallant, B. Pauli, D. Thompson, J. Houlahan, M. Roth, D. Mushet, B. Brisco, S. Kaya, S. Gage, P. Jones, D.P. Tate, E. Muths, D. Peterson, J.M. Morton, D. Tessler, R. Broadman, E. Nelson and D. Rosenberry. 2010. Measuring phenological responses to climate and global change across methods, scales and gradients: The Terrestrial Wetland Global Change Research Network. Ecological Society of America 2010 Annual Meeting, Pittsburg, PA.
- Schock, D.M., G.R. Ruthig, J.P. Collins, S.J. Kutz, S. Carrière, R.J. Gau, A.M. Veitch, N.C. Larter, D.P. Tate, G. Guthrie, D.G. Allaire, R.A. Popko. 2009. Amphibian chytrid fungus and ranaviruses in the Northwest Territories, Canada. Diseases of Aquatic Organisms 92(2-3):231-40.

- Scrimgeour, G., Bailey, J., Reynoldson, T., Bowman, M., Thomas, K., Hall, R., Tate, D., and Sutor, M. 2011. Assessing environmental effects of mining on the ecological integrity of streams in the South Nahanni Watershed: challenges and potential solutions. Cumulative Impacts Monitoring Program (CIMP) Workshop, Geosciences Forum. Yellowknife, NT. 17 Nov 2011.
- Steedman, A., D. Tate, and J. Tsetso. 2016. Movement and status of Northern Mountain Caribou in the Prairie Creek area, NWT. North American Caribou Workshop, Thunder Bay, ON. May 19, 2016.
- Tate, D. P. 1994. Observations on Nesting Behaviour of the Common Potoo in Venezuela. *J. Field Ornithol.*, 65(4):447-452.
- Tate, D. P. 1997. Occurrence and Brood Parasitism by the Brown-headed Cowbird in Island vs Mainland Habitats. Poster presentation at: Ecology and Management of the Brown-headed Cowbird. Sacramento, CA.
- Tate, D. P. 1998. Occurrence Patterns and Brood Parasitism Rates of the Brown-headed Cowbird in Island vs Mainland Habitats. MSc Thesis, University of Guelph, Guelph, ON.
- Tate, D. P. 1998. Assessment of the biological integrity of forest bird communities - a draft methodology and field test in Severn Sound Area of Concern. Canadian Wildlife Service Report, Guelph, ON
- Tate, D. P. 2001. Birds of Fathom Five National Marine Park. *In*: Parker, S. and Munawar, M. (Eds.). (2001). Ecology, culture and conservation of a protected area: Fathom Five National Marine Park, Canada. Leiden: Backhuys.
- Tate, D. P. 2004. Expanding Nahanni National Park Reserve – the Contributions of Research, Consultation and Negotiation. *In*: Munro, N.W.P., P. Dearden, T.B. Herman, K. Beazley, and S. Bondrup-Nielsen (eds). 2004. Making Ecosystem Based Management Work: Connecting Managers and Researchers. Proceedings of the Fifth International Conference on Science and Management of Protected Areas, 11-16 May 2003, Victoria, BC, Canada: SAMPAA. ISBN: 0-9699338-6-X
- Veitch, A., Simmons, E. Promislow, M. Tate, D., Swallow, M. and Popko, R. 2002. Status of Mountain Goats in Canada's Northwest Territories. Northern Wild Sheep and Goat Council 13: 49-62.



Audrey Steedman

Ecologist Team Leader, Nahanni National Park Reserve
Parks Canada, Government of Canada
PO Box 348, Fort Simpson, NT X0E 0N0
Audrey.Steedman@pc.gc.ca / Tel: (867) 695-7765

Education

- M.Sc. Environmental Studies, University of Victoria.** 2011-2014
Thesis: Ice wedge dynamics and ecology in the Mackenzie Delta uplands, NWT
Supervisor: Dr. T. Lantz
- B.Sc. Honours in Biological Sciences, University of Calgary.** 2004-2008
Thesis: Functional genomics of the cytochrome P450 708A subfamily in *Arabidopsis thaliana*
Supervisor: Dr. D-K. Ro

Employment History

- Ecologist Team Leader** 2014 – present
Parks Canada, Nahanni National Park Reserve, NWT.
- Design and implement ecological monitoring programs in a remote wilderness setting
 - Supervise resource management technicians
 - Contribute technical expertise to environmental assessment processes
 - Inspections and compliance monitoring
- M.Sc. Research and NWT Cumulative Impacts Monitoring Program field program** 2011-2014
Mackenzie Delta region, NWT
- Study of degrading permafrost features between Inuvik and Tuktoyaktuk
 - Completed detailed vegetation assessments and analysed differences in plant community composition using statistical methods
 - Establishment of vegetation and permafrost monitoring plots for Cumulative Impacts Monitoring Program (CIMP)
- Environmental Scientist** 2008-2011
AMEC Earth and Environmental, Calgary AB.
- Conducted rare plant and vegetation survey components of environmental impact assessments for development projects
 - Assessments for oilsands facilities, trans-boundary pipelines, powerlines, and gravel pits
 - Experience assessing reclamation progress (vegetation and soil parameters) against industry and regulatory standards
 - Fieldwork experience in Alberta and British Columbia as team member and team leader
 - Data compilation and analysis, technical and scientific report writing, researching rare and at-risk species



Research Contributions

ARTICLES PUBLISHED IN A REFEREED JOURNAL

STEEDMAN, A., Lantz, T. and Kokelj. 2015. Spatio-Temporal Variation in High-Centre Polygons and Ice-Wedge Melt Ponds, Tuktoyaktuk Coastlands, Northwest Territories. *Permafrost and Periglacial Processes*. Online preview Jan. 2016. DOI: 10.1002/ppp.1880

Tambalo, D., Del Bel, K., Bustard, D., Greenwood, P., STEEDMAN, A., and Hynes, M. 2010. Regulation of flagellar, motility and chemotaxis genes in *Rhizobium leguminosarum* by the VisNR/Rem cascade. *Microbiology*. 156: 1673-1685.

ARTICLES IN PREPARATION

STEEDMAN, A., Lantz, T. and S. Kokelj. Impacts of ice wedge degradation on vegetation composition, microtopography, active layer, and ground temperatures in high-centre polygons.

PRESENTATIONS

Steedman, A., Tate, D. and Tsetso J. (2016) Movements and status of Northern Mountain Caribou in the Prairie Creek area, NWT. 16th North American Caribou Workshop, Thunder Bay.

Steedman, A. (2014) Spatiotemporal Variation In High Centre Polygons And Ice Wedge Melt Ponds In The Tuktoyaktuk Coastlands. Arctic Change 2014, Meeting of ArcticNet, Ottawa.

Steedman, A. (2012, 2013, 2014) Ice wedge dynamics and ecology in the Mackenzie Delta uplands, Northwest Territories. School of Environmental Studies, University of Victoria.

Steedman, A. and Bessie, W. (2009 and 2010) Ecological Land Classification in the Boreal Mixedwood Natural Subregion of Alberta. AMEC in-house training, Calgary.

Steedman, A. (2006) Regulation of motility genes in *Rhizobium leguminosarum*. Undergraduate Research Symposium, University of Calgary.

Steedman, A. (2008) Investigating the functional genomics of the cytochrome P450 708A subfamily in *Arabidopsis thaliana*. Biology Honours Thesis Symposium, University of Calgary.



Parks
Canada

Parcs
Canada

Curriculum Vitae

Douglas P. Tate, MSc.
Nahanni National Park Reserve
PO Box 348, Fort Simpson, NT
X0E 0N0

Education

MSc. Biology. 1998. University of Guelph, ON
BSc. Wildlife Biology. 1990. University of Guelph, ON

Employment History

1999-2016. Nahanni National Park Reserve. Job Titles: Conservation Biologist,
Ecosystem Scientist and Ecologist Team Leader.
1995-1998. University of Guelph. Teaching Assistant and Graduate Student.
1997. Canadian Wildlife Service: Contract Biologist

Relevant Experience

Member of Technical Team; Management Plan for the Northern Mountain Population of
Woodland Caribou (*Rangifer tarandus caribou*) in Canada. (2012)

Member of the Working Group on General Status of NWT Species; NWT Species 2011-
2015 – General Status Ranks of Wild Species in the Northwest Territories

Member of NWT Biodiversity Team; Northwest Territories Biodiversity Action Plan:
Major Initiatives in Biodiversity. (2004)

Selected Publications & Presentations

Babaluk, J.A., C.D. Sawatzky, D.A. Watkinson, D.P. Tate, N.J. Mochnacz and J.D. Reist.
2015. Distributions of fish species within the South Nahanni River watershed,
Northwest Territories. Can. Manuscr. Rep. Fish. Aquat. Sci. 3064: vii + 91 p.

- Babaluk, J.A., D.P. Tate and J.D. Reist. 2009. Selected chemical analyses of waters from the South Nahanni River watershed, Northwest Territories. Can. Data Rep. Fish. Aquat. Sci. 1215: v + 19 p.
- Catling, P., B. Kostiuk and D. Tate. 2011. River Jewelwing, *Calopteryx aequabilis* Say, new to Northwest Territories. Arctica 23(1): 13-14.
- COSEWIC. 2014. COSEWIC assessment and status report on the Nahanni Aster *Symphytotrichum nahanniense* in Canada. Committee on the Status of Endangered Wildlife in Canada. Ottawa. ix + 39 pp. (www.registrelep-sararegistry.gc.ca/default_e.cfm). Authors: A. Harris, R. Foster, and D.P. Tate.
- Haggarty, D.R. and D.P. Tate. 2009. Nahanni National Park Reserve Nah'a Dehe State of the Park Report. Parks Canada Report.
- Hegel, T.M., W.J. Rettie, K. Russell, T. Pretzlaw and D. Tate. 2010. A mark-and-multiple-resight population estimate of the South Nahanni caribou herd. Poster presentation at North American Caribou Workshop. Winnipeg, MB. October 2010.
- Lausen, C.L., J. Waithaka and D.P. Tate. 2014. Bats of Nahanni National Park Reserve and Surrounding Areas, Northwest Territories. Northwestern Naturalist. 95(3): 186-196.
- Nudds, T.D., H. Hager, D. Britton, D. Potter, D. Tate, K. Welstead, C. Buddle, E. Whelpdale. 1998. Guelph Biological Inventory of the Georgian Bay Islands (GBI)² Project. Report to Parks Canada.
- Quinn, N. W. S. and D. P. Tate. 1991. Seasonal movements and habitat of Wood Turtles (*Clemmys insculpta*) in Algonquin Park, Canada. Journal of Herpetology 25: 217-220.
- Sadinski, W., A. Gallant, B. Pauli, D. Thompson, J. Houlahan, M. Roth, D. Mushet, B. Brisco, S. Kaya, S. Gage, P. Jones, D.P. Tate, E. Muths, D. Peterson, J.M. Morton, D. Tessler, R. Broadman, E. Nelson and D. Rosenberry. 2010. Measuring phenological responses to climate and global change across methods, scales and gradients: The Terrestrial Wetland Global Change Research Network. Ecological Society of America 2010 Annual Meeting, Pittsburg, PA.
- Schock, D.M., G.R. Ruthig, J.P. Collins, S.J. Kutz, S. Carrière, R.J. Gau, A.M. Veitch, N.C. Larter, D.P. Tate, G. Guthrie, D.G. Allaire, R.A. Popko. 2009. Amphibian chytrid fungus and ranaviruses in the Northwest Territories, Canada. Diseases of Aquatic Organisms 92(2-3):231-40.



Parks
Canada

Parcs
Canada

- Scrimgeour, G., Bailey, J., Reynoldson, T., Bowman, M., Thomas, K., Hall, R., Tate, D., and Sutor, M. 2011. Assessing environmental effects of mining on the ecological integrity of streams in the South Nahanni Watershed: challenges and potential solutions. Cumulative Impacts Monitoring Program (CIMP) Workshop, Geosciences Forum. Yellowknife, NT. 17 Nov 2011.
- Steedman, A., D. Tate, and J. Tsetso. 2016. Movement and status of Northern Mountain Caribou in the Prairie Creek area, NWT. North American Caribou Workshop, Thunder Bay, ON. May 19, 2016.
- Tate, D. P. 1994. Observations on Nesting Behaviour of the Common Potoo in Venezuela. *J. Field Ornithol.*, 65(4):447-452.
- Tate, D. P. 1997. Occurrence and Brood Parasitism by the Brown-headed Cowbird in Island vs Mainland Habitats. Poster presentation at: Ecology and Management of the Brown-headed Cowbird. Sacramento, CA.
- Tate, D. P. 1998. Occurrence Patterns and Brood Parasitism Rates of the Brown-headed Cowbird in Island vs Mainland Habitats. MSc Thesis, University of Guelph, Guelph, ON.
- Tate, D. P. 1998. Assessment of the biological integrity of forest bird communities - a draft methodology and field test in Severn Sound Area of Concern. Canadian Wildlife Service Report, Guelph, ON
- Tate, D. P. 2001. Birds of Fathom Five National Marine Park. *In*: Parker, S. and Munawar, M. (Eds.). (2001). Ecology, culture and conservation of a protected area: Fathom Five National Marine Park, Canada. Leiden: Backhuys.
- Tate, D. P. 2004. Expanding Nahanni National Park Reserve – the Contributions of Research, Consultation and Negotiation. *In*: Munro, N.W.P., P. Dearden, T.B. Herman, K. Beazley, and S. Bondrup-Nielsen (eds). 2004. Making Ecosystem Based Management Work: Connecting Managers and Researchers. Proceedings of the Fifth International Conference on Science and Management of Protected Areas, 11-16 May 2003, Victoria, BC, Canada: SAMPAA. ISBN: 0-9699338-6-X
- Veitch, A., Simmons, E. Promislow, M. Tate, D., Swallow, M. and Popko, R. 2002. Status of Mountain Goats in Canada's Northwest Territories. Northern Wild Sheep and Goat Council 13: 49-62.

CURRICULUM VITAE

Garry Joseph Scrimgeour Ph.D

1.0 POSITION

Ecosystem Scientist
Office of the Chief Ecosystem Scientist, Protected Areas Establishment and Conservation,
Parks Canada Agency, 1550, 635-8th Avenue, SW., Calgary, Alberta T2P 3M3

Phone (office): 403 221 7913
Phone (cell): 403 988 5331
Email: garry.scrimgeour@pc.gc.ca

2.0 CAREER SYNOPSIS

- Twenty five years of experience in environmental assessment, restoration and monitoring of surface waters
- Fifteen years of service as a project manager
- Ten years of service as a manager
- Experience in government, private sector, and Not-for-profit sector

3.0 EDUCATION

- Ph.D., Aquatic Ecology, University of Calgary, Alberta, Canada (1988-1992)
- Master (with Honours) and Bachelor of Science degrees from the University of Canterbury, New Zealand (1981-1987)

4.0 CAREER PATH AND FOCUS

Aquatic Ecologist, Parks Canada Agency (2006-2013; 2014 to present)

- Member of the Environmental Effects Monitoring, Technical Advisor Panel for the North American Tungsten Cantung Mine, NWT
- Development and implementation of environmental monitoring and assessment protocols for surface waters
- Environmental assessments for two surface mining operations
- Ecological restoration of surface waters
- Science Advisory Committee member for fRI Research, Alberta
- Team member - Government of Canada Lower Athabasca River Biodiversity and Effects Monitoring Task Group 2011
- Members of Alberta's Environmental Monitoring, Evaluation and Reporting Agency Water Component Advisory Committee
- Team member - Government of Canada – Lower Athabasca River Geographic Expansion Monitoring Task Group 2011
- Team member – Peace Athabasca Delta Environmental Monitoring Program (2008-2014)

Director of Land, Canada's Oil Sands innovation Alliance (2013-2014)

- Development and deployment of strategies to foster information sharing among 13 oil sands companies to accelerate improvements in environmental performance
- Facilitating strategic partnerships with external research agencies to build scientific credibility and enhance environmental performance gains
- Development of quantitative environmental performance goals related to land restoration and reclamation
- Members of COSIA's Executive Management Team

Manager of Science and Research, Alberta Conservation Association (2002-2006)

- Environmental programming focussing on: i) impacts of commercial forestry of surface waters (primarily fish communities), ii) evaluating cumulative effects of watershed disturbances on fish communities in Northern Alberta
- Senior manager involved with the development of five-year strategic plans, annual operating plans, organizational training, annual work plans, evaluation and performance review processes, and program reviews
- Lead the development of technical report series and served as the Editor-in-Chief (2003-2005)

Research Scientist and Project Manager, Alberta Research Council (1998-2002)

- Research consultant focussing on project design and implementation to support:
 - Sustainable forest harvesting and livestock grazing codes of best practice
 - Development of cost-effective monitoring approaches for lakes, rivers and streams
 - Development and implementation of the Alberta Biodiversity Monitoring Program

Senior Environmental Manager, Conor Pacific Environmental Technologies (1997-1998)

- Regional manager for Northern Alberta and manager of the Edmonton Office
- Supervised 17 professional staff with annual operating budgets of \$3.7 million dollars.
- Contributed to the surface water sections of the environmental assessment of the Muskeg River oil sands mine in northern Alberta
- Coordinated and submitted environmental plans to Alberta Environment for a proposed second pulp mill at Grande Prairie, Alberta

Research Manager, Sustainable Forest Management Network Centre of Excellence, University of Alberta (1995-1997)

- Western Aquatic Research Group: focussing on: i) natural disturbance based models of aquatic resource management
- Lead of the Caribou Mountains Research Partnership between the University of Alberta and the Little Red River Cree and Tall Cree First Nations

Research Associate and Visiting Fellow, Northern River Basins Study, Environment Canada (1993-1995)

- Member of the nutrients and dissolved oxygen research group
- Environmental assessments of pulp mills on the Peace and Athabasca rivers

Environmental Biologist, Environment Waikato, Hamilton, New Zealand (1987-1988)

- Aquatic resource inventories
- Environmental assessments

5.0 CORE SKILLS AND STRENGTHS

- Environmental assessments of surface waters
- Evaluation of restored and created aquatic habitats
- Research design, implementation and reporting
- Facilitation and strategic planning
- Portfolio, program and project management
- Partnership and team building and mentoring

6.0 MANAGEMENT TRAINING

- Leadership and self awareness
- Team and individual performance
- Team leadership and team building
- High performing organizations
- Informal conflict resolution
- Canada Labour Code (Employee and Employer training)
- Occupational health and safety training for employees, and managers and supervisors
- Management of human and financial resources, and project budgeting

7.0 OUTREACH, EXTERNAL RELATIONS AND VOLUNTEERING

- Participant in the Banff Aquatic Ecosystem Advisory Committee including presentations to the committee, and a public presentation as part of the Banff Researchers Science Forum (2008-2010)
- I routinely deliver guest lectures at the University of Alberta (2005-2013), and have delivered seminars at the University of Calgary and the University of Lethbridge.
- I served on the conference organizing committee for the 1993 Annual conference of the North American Benthological Society (Calgary, Alberta)
- I was member of the conference organizing committee for the 2004 Forest Land –Fish Conference (Edmonton). I also served as the Editor of the full conference proceedings
- I served on the editorial and technical committees for the Alberta Forest Biodiversity Monitoring Program (2001 to 2005)
- Between 1998-2001 I served as the Chair of the Elk Island National Park's Science Advisory Committee
- I completed a two-year position on the Board of Directors of the Friends of Elk Island Society Board and also served as the Chair and Secretary for this period
- On behalf of the Journal of the North American Benthological Society I served on a committee to develop policy on plagiarism (2010-2011)
- Project reviewer for National Geographic

8.0 SCIENTIFIC AFFILIATIONS, AWARDS & PROGRAM INVOLVEMENT

Scientific Advisory Committees and Panels

- fRI Research (formerly Foothills Research Institute) Science Advisory Committee (2014-present)
- Canadian Tungsten Environmental Effects Monitoring Advisory Committee
- Canadian Aquatic Biodiversity Monitoring Network (2010-present)
- Alberta Biodiversity Monitoring Program (2001 to 2005)
- Gegussa-Huls-Agrum-Trans Canada midstream Community Advisory Committee (1988)
- Elk Island National Park Ecosystem integrity Panel (Member and Chair, 1998-2001)

Appointments and Affiliations

- Science Advisory Committee member, fRI Research (formerly Foothills Research Institute)
 - Assisted with development of a publication policy
 - Support Stage 1 of Program Review Process
- Adjunct professor at the Universities of Alberta (2006 to present), Lethbridge (2010 to 2014), and Waterloo (2009 to 2014, renewed for 2016 to 2019)
- Associate fellow of the Canadian Rivers Institute (University of New Brunswick) (2008 to 2012).
- Associate Editor for Freshwater Science (formerly the Journal of the North American Benthological Society [2003 to present])
- Senior editor of the Proceedings of the 2004 North American conference on Forest-Fish interactions

Awards

- Alberta Emerald Award in Environmental Excellence for the Northern Watershed Project
- Nominated for an Alberta Science and Technology Award in the category of Integrated Landscape Management for delivery of the Northern Watershed Project
- Nominated for an Emerald Award in the category of Community Groups for delivery of the Cypress Hills Research Study
- Natural Sciences and Engineering Research Council of Canada - Post doctoral fellowship
- Honorary Sir Izaak Walton Killam - Post doctoral fellowship
- University of Calgary - Post doctoral fellowship in the Department of Biological Sciences

Select Program Involvement

- Member of the Instream Flow Technical Task Group for the Lower Athabasca River (2007-2009)
- Member of the Lower Athabasca River Monitoring Technical Task Group (2010-present)
- Team member - Government of Canada Lower Athabasca River Biodiversity and Effects Monitoring Task Group (2011)
- Team member - Government of Canada – Lower Athabasca River Geographic Expansion Monitoring Task Group (2011)
- Team member of the Editorial and Technical Committees. Alberta Forest Biodiversity Monitoring (2001 to 2005)
- Federal Environmental Effects Monitoring Technical Advisory Panel for the North American Tungsten Mine (2007-present)
- Member of Environment Canada's Canadian Aquatic Biomonitoring Network Science Team

(2009-present)

9.0 COLLABORATION AND ENGAGEMENT WITH ABORIGINAL STAKEHOLDERS

- Nahanni National Park Consensus Management Team
 - Routinely met with Deh Cho elders and Metis leaders who are members of the management team for Nahanni National Park Reserve on environmental issues related to mining activities and the development of stream monitoring program for the reserve
 - Meetings with Deh Cho First Nations and Metis in Fort Simpson and Nahanni Butte (Alberta) to plan and deploy the Nahanni Stream Health Study (2007-2009) and the Nahanni River Fish Health Study (2011-2012)
- Peace Athabasca Delta Ecological Monitoring Program (2008 to present)
 - Participated in the majority of annual meetings and have developed and reviewed materials presented by Parks Canada
 - Served a break-out session facilitator on “Water and biological diversity” (2012)
 - Reviewed the environmental gap analysis for the Peace Athabasca Delta (2012)
 - Co-designed the format of the 2014 Annual meeting
- Peace Athabasca Delta wetland monitoring program
 - Designed a sampling program to assess the utility of using wood frogs to monitor mercury in the Peace Athabasca Delta Ecological Monitoring Program newsletter
 - Presented the study design to local community members (July 2015)
 - Co-deployed sampling with local First Nations and Metis
 - Completed popular article on the work to be published in 2015 Peace Athabasca Delta newsletter
- Caribou Mountains Research Partnership
 - Designed and deployed a fish study to assess fish stocks in lakes in the Caribou Mountains of Alberta as a partnership between Little Red River Cree Nation and the Tall Cree First Nations and the University of Alberta.
 - Co-deployed a three month study of lake fish in the Caribou Mountains with elders from the Little Red River Cree Nation and the Tall Cree First Nations.
- Sustainable Forest Management Network Center of Excellence
 - Met with elders from eight First Nations to structure a field program
 - On the effects of fire and forest harvesting on lake health
 - Reported to elders on the results of our study including the development of community-focussed newsletters and reports

10. UNIVERSITY AFFILIATIONS AND CONTRIBUTIONS

Current and Previous Adjunct Professorships

- University of Alberta (2006 to present)
- University of Waterloo (2009-2014, 2016 to present)
- University of Lethbridge (2010-2014)

Development and delivery of international graduate courses

- Stream ecology, University of Coimbra, Portugal
 - Developed and delivered a two-week course in stream ecology consisting of a series of six three-hour lectures, and a two-day field course
- Environmental assessments and behavioural ecology, University of Jyväskylä, Finland
 - Contributed to a one-week course for graduate students at the Universities Jyväskylä and Oulu on behavioural ecology, and environmental assessment and monitoring

Recent guest lectures

University of Alberta (2006-2013, 2015)

- Annual lecturer in Freshwater Ecology, and Advanced Ecology

Grant MacEwan University (2010-2011)

- Lecturer in Biology – Freshwater aquatic ecology

Contributions to graduate student training and excellence

- Supervised two graduate student theses
- Served as the External thesis examiner for three M.Sc and two Ph.D students
- Participated on 16 graduate student research committees
- Overseen three undergraduate research projects

Reviewing scientific articles and proposals

- Associate Editor, Freshwater Sciences (formerly Journal of the North American Benthological Society) 2003 to present
- Typically review 12 to 16 manuscripts each year
- Over the last 10 years I have completed peer reviews for 18 journals
- I have also served as a project reviewer for National Geographic

11. SCIENTIFIC PUBLICATIONS

Synopsis

- 75 peer-reviewed publications in scientific journals
- 60 technical reports
- 7 book chapters
- 2 full conference proceedings
- 8 popular articles

Select peer reviewed scientific publications

Thomas, K. E., Hall, R.I., **Scrimgeour**, G.J. 2015. Relations between limnological conditions and composition of benthic algal communities in the South Nahanni River Watershed, NWT (Canada): defining the reference condition. Environmental Monitoring and Assessment. DOI: 10.1007/s10661-015-4778-x

- Holmes, T., Tonn, W.M., Paszkowski, C., **Scrimgeour**, G. 2014. Effects of winter surface aeration on pelagic zooplankton communities in a small boreal foothills lake of Alberta, Canada. *Freshwater Ecology* 30 (1). Online: <http://dx.doi.org/10.1080/02705060.2014.956234>
- Scrimgeour**, G.J., Tonn, W.M., Jones, N.E. 2014. Quantifying effective restoration: reassessing the productive capacity of a constructed stream 14 years after construction. *Canadian Journal of Fisheries and Aquatic Sciences* 71(4): 589-601.
- Thomas, K., Hall, R.I., **Scrimgeour**, G.J. 2013. Evaluating the use of algal pigments to assess the biological condition of streams. *Environmental Monitoring and Assessment* 185(9):7895-7913. doi: 10.1007/s10661-013-3143-1.
- Bailey, R., **Scrimgeour**, Cote, D., Kehler, D., Linke, S., Cao, Y. 2012. Bioassessment of a stream ecosystem enduring decade of simulated degradation: lessons for the real world. *Canadian Journal of Fisheries and Aquatic Sciences* 69: 784-796.
- Pagnucco, K., Paszkowski, C., **Scrimgeour**, G.J. 2012. Characterizing movement patterns and spatio-temporal use of under-road tunnels by Long-toed Salamanders in Waterton Lakes National Park, Canada. *Copeia* 2012 (2): 331–340.
- Scrimgeour**, G.J., Jones, N.E., Tonn, W.M. 2012. Benthic macroinvertebrate response to habitat restoration in a constructed Arctic stream. *River Research and Applications* 28 (1). DOI: 10.1002/rra.1602.
- Corrigan, R., **Scrimgeour**, G.J., Paszkowski, C. 2011. Nest boxes facilitate local-scale conservation of Common Goldeneye (*Bucephala clangula*) and Bufflehead (*Bucephala albeola*) in Alberta, Canada. *Avian Conservation and Ecology* 6(1): <http://www.ace-eco.org/vol6/iss1/art1/>.
- Jones, N.E., **Scrimgeour**, G.J., Tonn, W.M. 2009. Evaluating the success of an artificial stream in the Canadian Arctic using a natural stream template. *Environmental Management* 42: 1064-1076.
- Scrimgeour**, G.J., Hvenegaard, P.H., Tchir, J. 2008. Cumulative effects of industrial activity on the occurrence and composition of stream fish communities in two boreal forest watersheds. *Environmental Management* 42: 957-970.
- Goater, C.P., Baldwin, R.E., **Scrimgeour**, G.J. 2005. Physico-chemical determinants of helminth component community structure in whitefish (*Coregonus clupeaformis*) from adjacent lakes in Northern Alberta, Canada. *Parasitology* 131: 713-722.
- Jones, N.E. Tonn, W.M., **Scrimgeour**, G.J., Katopodis, C. 2003. Productive capacity of an artificial stream in the Canadian Arctic: assessing the effectiveness of fish habitat compensation. *Canadian Journal of Fisheries and Aquatic Sciences* 60: 849-863.
- Jones, N., Tonn, W.M., **Scrimgeour**, G.J., Katopodis, C. 2003. Ecological Characteristics of Streams in the Barrenlands near Lac de Gras, N.W.T., Canada. *Arctic* 56 (3): 249-261.
- Scrimgeour**, G.J., Kendall, S. 2002. Consequences of livestock grazing on water quality and benthic algal biomass in a Canadian natural grasslands plateau. *Environmental Management* 29 (6): 824-844.
- Scrimgeour**, G.J., Tonn, W.M., Paszkowski, C.A., Goater, C. 2001. Benthic macroinvertebrate biomass and wildfires: evidence for enrichment of boreal subarctic lakes. *Freshwater Biology* 46: 367-378.
- Yee, K.A., Prepas, E.E., Chambers, P.A., Culp, J.M., **Scrimgeour**, G.J. 2000. Effects of Ca(OH)₂ additions on macroinvertebrate survival. *Canadian Journal of Fisheries and Aquatic Sciences* 57: 125-136.
- Scrimgeour**, G.J., Tonn, W. M., Paszkowski, C.A., Aku, P.M.K. 2000. Evaluating the effects of forest harvesting on littoral benthic communities within a natural disturbance-based management model. *Forest Ecology and Management* 126: 77-86.
- Dinsmore, W.P., **Scrimgeour**, G.J., Prepas, E.E. 1999. Empirical relationships between profundal macroinvertebrate biomass and environmental variables in boreal lakes of Alberta, Canada. *Freshwater Biology* 41: 1-10.
- Scrimgeour**, G.J. Wicklum, D., Pruss, S.D. 1998. Selection of an aquatic indicator species to monitor organic contaminants in trophically simple food webs. *Archives of Environmental Contamination and Toxicology* 35: 565-572.
- Dube, M.G., Culp, J.M., **Scrimgeour**, G.J. 1997. Nutrient limitation and herbivory: processes influenced by bleached kraft pulp mill effluent. *Canadian Journal of Fisheries and Aquatic Sciences* 54: 2584-2595.
- Scrimgeour**, G.J. Wicklum, D. 1996. Aquatic ecosystem health: problems and potential solutions. *Journal of the North American Benthological Society* 15: 254-261.
- Culp, J.M., **Scrimgeour**, G.J., Beers, C.E. 1994. The effect of sample duration on quantification of stream drift. *Freshwater Biology* 31: 165-173.
- Scrimgeour**, G.J., Culp, J.M., Glozier, N.E. 1993. An improved technique for sampling lotic invertebrates. *Hydrobiologia* 254: 65-71.

Scrimgeour, G.J. 1989. Effects of bleached kraft mill effluent on macroinvertebrate and fish populations in weedbeds in a New Zealand hydroelectric lake. *New Zealand Journal of Marine and Freshwater Research* 23: 373-379.

Select technical reports and briefs

- Scrimgeour, G.J.**, 2015. Investigation of wood frogs as a biological indicator to monitor levels of mercury in wetlands in Wood Buffalo National Park. Internal technical report, Office of the Chief Ecosystem Scientists, Protected Areas Establishment and Conservation, Parks Canada Agency, Calgary, Alberta. 6 pp.
- Anderson, J., **Scrimgeour, G.J.**, Sutor, M., Wilcockson, J., Palace, V. 2015. Development and application of non-lethal and minimally invasive methods to quantify elements in adult Arctic Grayling and Bull Trout in the South Nahanni Watershed, Northwest Territories. Parks Canada Internal Technical Report, Office of the Chief Ecosystem Scientist, Protected Areas Establishment and Conservation, Parks Canada Agency, Calgary, Alberta.
- Scrimgeour, G.J.** 2015. 2018 State of the Park Reporting: advice on reporting on the Water Quality indicator using the CABIN measure. Internal technical note produced for the Mountain Parks Aquatic Group. Office of the Chief Ecosystem Scientist, Protected Areas Establishment and Conservation, Parks Canada Agency, Calgary, Alberta. 4 pp.
- Scrimgeour, G.J.** 2015. A biological assessment of stream health in Mount Revelstoke and Glacier National Parks using the reference condition approach. Internal technical report produced for Mount Revelstoke and Glacier National parks. Office of the Chief Ecosystem Scientist, Protected Areas Establishment and Conservation, Parks Canada Agency, Calgary, Alberta. 43 pp.
- Scrimgeour, G.J.** 2015. A synopsis on the use and communication of the “reject without review” as a decision by Associate Editors. Submitted to the Editor, *Freshwater Science*. 4 p.
- Scrimgeour, G.J.** 2014. A synopsis on the environmental effects of shale gas fracking in Canada: with implications to Parks Canada Agency. Internal technical note produced for the Mountain Parks Aquatic Group. Office of the Chief Ecosystem Scientist, Protected Areas Establishment and Conservation, Parks Canada Agency, Calgary, Alberta. 4p.
- Tonn, W.M., **Scrimgeour, G.J.**, Jones, N., Landry, F. 2012. A preliminary assessment of short-term vs. 14-year changes in the ecological attributes and productive capacity of a constructed Arctic stream, the Panda Diversion Channel. Report submitted to Department of Fisheries and Ocean, Yellowknife. Northwest Territories. 31 pp.
- Cumming, K., Sutor, M., **Scrimgeour, G.** 2011. Final submission - Canadian Zinc Corporation Prairie Creek Mine proposal. Environmental assessment (EA 0809-002 Prairie Creek) submitted by Nahanni National Park Reserve to the Mackenzie Valley Water Environmental Impact Review Board, Yellowknife, Northwest Territories. 18 pp.
- Scrimgeour, G.J.**, Bowman, M.F. 2011. Comparisons of chemical signatures of metals in multiple endpoints in two northern rivers: an evaluation of surrogates to monitor metals in sentinel fish. Internal report produced by Parks Canada Agency, Western and Northern Service Centre, Calgary, Alberta. 64 pp.
- Scrimgeour, G.J.**, Snell, L. 2008. An assessment of the effects of a contaminated site on the ecological integrity of Astotin Lake, Elk Island National Park. Report produced by the Western and Northern Service Centre, Parks Canada Agency, Calgary, Alberta. 41 pp.
- Boss, S., **Scrimgeour, G.J.**, Paszkowski, C., Tonn, W., Kendall, S. 2002. Developing monitoring protocols for aquatic ecosystems in forested regions of Alberta. Report Prepared for Alberta Sustainable Resource Development by the Alberta Research Council and the University of Alberta. Alberta Research Council, Vegreville, Alberta. 94 pp.
- Casey, R., **Scrimgeour, G.J.**, Kendall, S. 2002. Effects of water temperature and treated pulp mill effluent on survival and growth of *Daphnia magna* (Clacocera: Daphnidae) and *Taenionema* (Plecoptera: Taeniopterygidae). Draft report to Alberta Environment, Edmonton, Alberta. Alberta Research Council, Vegreville, Alberta. 52 pp.
- Nolan, J., Starstev, A., **Scrimgeour, G.J.** 2001. Cypress Hills Study Area. Chapter 2. In: Nolan, J., Korpela, E.J., Pahl, M., Scrimgeour, G.J., Warren, R., Kendall, S. Soppet, D. 2001. Biological research in support of ecosystem management of the Cypress Hills Provincial Park. Final report to the Cypress Hills Research Steering Committee. Forest Resources Business Group, Alberta Research Council, Vegreville, Alberta. 25 pp.
- Scrimgeour, G.J.**, Kendall, S. 2001. Effects of livestock grazing on water quality and benthic algal biomass in the

- Cypress Hills Provincial Park. Chapter 3. *In*: Nolan, J., Korpela, E.J, Pahl, M., Scrimgeour, G.J., Warren, R., Kendall, S. Soppet, D. 2001. *In*: Nolan, J., Korpela, E.J, Pahl, M., Scrimgeour, G.J., Warren, R., Kendall, S. Soppet, D. 2001. Biological research in support of ecosystem management of the Cypress Hills Provincial Park. Final report to the Cypress Hills Research Steering Committee. Forest Resources Business Group, Alberta Research Council, Vegreville, Alberta. 46 pp
- Scrimgeour, G.J., Kendall, S.** 2001. Effects of livestock grazing on benthic invertebrates in the Cypress Hills Provincial Park. Chapter 4. *In*: Nolan, J., Korpela, E.J, Pahl, M., Scrimgeour, G.J., Warren, R., Kendall, S. Soppet, D. 2001. Biological research in support of ecosystem management of the Cypress Hills Provincial Park. Final report to the Cypress Hills Research Steering Committee. Forest Resources Business Group, Alberta Research Council, Vegreville, Alberta. 35 pp.
- Scrimgeour, G.J. Kendall, S.** 1999. Forest ecosystem monitoring in Saskatchewan and Alberta: Identification of aquatic elements and sampling protocols. Part I. Annotated bibliography. Alberta Research Council, Vegreville, Alberta. 66 pp.
- Scrimgeour, G.J. Kendall, S.** 1999. Forest ecosystem monitoring in Saskatchewan and Alberta: Identification of aquatic elements and sampling protocols. Part II. List and evaluation of potential elements and protocols to be used in Alberta and Saskatchewan. Alberta Research Council, Vegreville, Alberta. 56 pp.
- Scrimgeour, G.J.** 1997. Aquatic biological diversity and organic contaminants research. Report to Elk Island National Park National Park, Fort Saskatchewan, Alberta. 56 pp.
- Wicklum, D., **Scrimgeour, G.J.** 1996. Aquatic Component: McLean Creek Harvest Plan - Ecosystem Management Project. Contract report for Spray Lake Sawmills (1980) Limited to Forest Director, Alberta Lands and Forest Service, Edmonton, Alberta. 78 pp.
- Scrimgeour, G.J., Chambers, P. A., Culp, J.M., Cash, K.J., Ouelette, M.** 1995. Long-term trends in ecosystem health: quantitative analysis of river benthic invertebrate communities. Contract report No. 2616-C1 to the Northern River Basins Study, Edmonton, Alberta. 75 pp.
- Chambers, P., Pietroniro, A., **Scrimgeour, G.J** Loughran, I. 1995. Assessment and validation of dissolved oxygen modelling for the Northern River Basins Study (NRBS). Contract project report 2231-C1 to the Northern River Basins Study, Edmonton, Alberta, Canada. 89 pp.
- Meredith, A. S.; Davenport, M. W.; **Scrimgeour, G. J.** 1988: NZ Forest Products, Kinleith mill investigations. Effects of pulp and paper mill effluent on macroinvertebrate and fish communities in Lake Maraetai. Waikato Catchment Board technical report 1988/5. 36 p.
- Scrimgeour, G.J. Meredith, A.S., Davenport, M.W.** 1988. Aquatic resources of streams draining Mount Pirongia State Forest Park. Technical report, Investigations Unit, Waikato Catchment Board, New Zealand. Technical report 75. 180 p.

Popular articles

- Mills, B., **Scrimgeour, G.J.** 2005. A rapid and cost effective method to characterize lakeshore condition using aerial videography. *Lakeline* (Summer) 28-33.
- Scrimgeour, G.J.** 2001. Managing for the ecological integrity of Elk Island National Park. *Research Links* 9(2): 3 & 24.
- Scrimgeour, G.J., Wicklum, D., Pruss, S.D.** 2000. An aquatic biological indicator to monitor organic contaminants in Elk Island National Park. *Trumpeter* (Summer) 2000. 4-5.
- Scrimgeour, G.J., Wicklum, D. Pruss, S.D.** 1999. An aquatic biological indicator species to monitor organic contaminants in Elk Island National Park. *Research Links* 7(2): 4&7.
- Scrimgeour, G.J. Wicklum, D, Pruss, S.D.** 1997. What are ecosystem health and integrity? *Research Links* 5(1): 14-15.
- Pruss, S.D., **Scrimgeour, G.J.** 1996. Forging industrial partnerships. *Trumpeter* (Winter) 1996: 2-4.
- Haggarty, M., **Scrimgeour, G.J.** 1996. SFM- What's that? *Trumpeter* (Spring) 1996: 2-3.

DONALEE DECK

145 McDermot Ave., Parks Canada
Winnipeg, Manitoba R3B 0R9

Telephone: (204) 984-5823
Email: Donalee.deck@pc.gc.ca

CURRENT POSITION:

2006-2016 Archaeologist (HR-03), Terrestrial Archaeology, Archaeology and History Branch, Indigenous Affairs and Cultural Heritage, Parks Canada.

EDUCATION:

- 2003** Self-Employment Program Certificate, sponsored by Manitoba Training, Education and Youth. Service Provider: Meyer, Norris and Penny.
- 1995** Basic Level Certificate Program, Association of Manitoba Museums.
- 1989** MA, Anthropology, University of Manitoba. Thesis: *Wood Charcoal Remains from the Lockport Site, Manitoba*. Advisor: Dr. C.T. Shay.
- 1985** B.A. Honours, with honours in Anthropology, University of Regina.

ARCHAEOLOGICAL FIELD WORK AND TEACHING POSITIONS:

- 2006-2016** Archaeologist, Parks Canada. Position involves archaeological overview assessments, impact assessments and mitigations; environmental assessment and cultural resource management reviews, developing and directing archaeological field projects; artifact analysis; soil sample analysis; botanical identification; report production including layout; exhibit and edukit development and production; supervising students, staff and volunteers. Field work conducted in Manitoba, Saskatchewan, Alberta, Northwest Territories and Nunavut.
- 2002-2006** Partner, Wind River Research Services. Archaeological contracting, flotation analysis, seed and charcoal identification, scientific illustration, public archaeology.
- 2005-2006** Analytical component of the Public Archaeology Project at The Healing Site (EbLf-29), Selkirk, Manitoba. This includes special analysis including flotation, charcoal, sediment, absorbed residue, faunal as well as consultation with First Nations associated with the St. Norbert Foundation for development of an exhibit and edukit to be used by students at the centre.
- 2005** Mitigations at Childs Lake and Maple Creek Subdivisions for the Manitoba Department of Conservation and the Historic Resources Branch.
- 2003-2004** Project Director for the 2003 and 2004 Manitoba Archaeological Society Public Archaeology Project at The Healing Site (EbLf-29), Selkirk, Manitoba.
- 2002-2004** Field Assistant for Quaternary Consultants at Bloodvien, MB, The Forks, Kuypers Site, Human Rights Museum and the Red River Floodway Impact Assessments.
- 1998, 2001, 2002** Director of archaeological projects on the Winnipeg River system through the Deep River Science Academy, Whiteshell Campus.
- 2001** Instructor for Mini-Enrichment Program: *Archaeology in Manitoba*.
- 1997, 1999** Director of the Manitoba Archaeological Society Public Archaeology Program at the Little Britain Site (EaLf-28), Manitoba.
- 1996** Director/Instructor of the 1996 Manitoba Universities Archaeological Field School at the Little Britain (EaLf-28) and Darichuk-Corrigal (EaLf-39) Sites, Manitoba.
- 1990-1997** Salvage excavation of burials under the direction of Dr. C. Meiklejohn, University of Winnipeg.
- 1992** Excavation of the Herschel Site, Saskatchewan (EjOc-3), University of Winnipeg.
- 1992** Director/Instructor of the 1992 Manitoba Universities Archaeological Field School at the Birston Site, Manitoba (DILg-53).
- 1990, 1991** Volunteer, Canadian Parks Service: survey in Grasslands National Park, Saskatchewan and salvage excavation of an Umiak, North Yukon.
- 1989** Field Assistant, Public Archaeology Program at the Forks, Quaternary Consultants.

- 1986** Survey of the Martins site near Rapid City, Manitoba.
- 1985** Summer Archaeological Assistant, Saskatchewan Research Council, Nipawin Dam Heritage Study.
- 1984** Excavation at the Wallace site, near Terra Cotta, Ontario, University of Toronto Archaeological Field School, advanced course.
- 1984** Volunteer: salvage excavation of the Bidmeed site in Huronia, Ontario.
- 1983** Excavation at Monticello, Virginia, James Madison University Field School.
- 1982** Excavation at the Gilmore site, Saskatchewan, University of Regina field class.

LABORATORY AND RESEARCH POSITIONS:

- 2004-2005** Anthropology Technician, Department of Anthropology, University of Manitoba.
- 1989-2002** Anthropology Administrative Technician, University of Winnipeg.
- 1984-2006** Contracts for archaeological research, flotation, botanical analysis, collections management or exhibit development received from Canadian Heritage; Manitoba Historic Resources Branch, Manitoba Museum, The Forks Renewal Corporation, University of Saskatchewan; and numerous consultants from Ontario, Alberta, Saskatchewan and Manitoba.
- 1983-1988** Anthropology Lab Assistant positions at the University of Regina, University of Toronto and University of Manitoba.

REPORTS AND PUBLICATIONS:

- 2016** *Lake One Dune Trail Survey, Monitoring and Site Revisits along Flint Creek and Select areas of the Peace River and Lake One Prairie with an Overview of Archaeological Investigations at the Lake One Dune Site.* Permit Number: WB-2014-17296. Wood Buffalo National Park. Parks Canada.
- 2015** *Archaeological Investigations at Fort Farwell, pp. 89-202. In: The Cypress Hills Massacre.* Edited by Robert Clipperton. Saskatchewan Archaeological Society. Parks Canada.
- 2015** *Interim Report: Sweetgrass Interpretive Signage Survey, 2015.* Permit Number: WB-2015-20098. Wood Buffalo National Park. Parks Canada.
- 2015** *Interim Report: Prince of Wales Archaeology Project, 2015.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2015** *Archaeological Impact Assessment at Boat Cove, 2014.* Riding Mountain National Park. Parks Canada.
- 2015** *Archaeological Impact Assessment Waterline and Toilet Installation, Fort Walsh NHSC.* Saskatchewan South Field Unit. Parks Canada.
- 2015** *Interim Report: Unlocking the Secrets of Prince of Wales Fort, 2014 Archaeology Project.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2014** *Archaeological Assessment Cloud Bay Teaching and Healing Cabin, 2013.* Saoyú-Ehdacho National Historic Site of Canada. Parks Canada.
- 2014** *Archaeological Impact Assessment Interim Report for Waterline and Toilet Installation. Fort Walsh NHSC.* Saskatchewan South Field Unit. Parks Canada.
- 2013** *Archaeological Investigations at Fort Farwell, Cypress Hills Massacre NHSC.* Saskatchewan South Field Unit. Parks Canada.
- 2013** *Archaeological Impact Assessment Fort Walsh Métis Trail Project.* Fort Walsh NHSC. Saskatchewan South Field Unit. Parks Canada.
- 2013** *Glacier Lake Archaeological Impact Assessment, 2012.* Nahanni Park Reserve. Parks Canada.
- 2013** *Muskrat Creek Post-burn Archaeological Survey, 2012.* Riding Mountain National Park. Parks Canada.
- 2012** *Archaeological Impact Assessment Site 32R36, Slave River, 2011.* Wood Buffalo National Park. Parks Canada.
- 2012** *Archaeological Inventory House Lake Project, 2011.* Wood Buffalo National Park. Parks Canada.
- 2011** Illustrations in: *Uncovering Early Aboriginal History in Southern Manitoba*, by Leo Pettipas. Enbridge Pipelines, Inc.

- 2011** *Interim Report on the Archaeological Component of the Prince of Wales Fort Wall Stabilization Project, 2011.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2011** *Interim Report on the Archaeological Component of the Prince of Wales Fort (PWF) Wall Stabilization Project, 2010.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2011** *Archaeological Impact Assessment for the Manitoba Onanole Feeder Line Rebuild.* Riding Mountain National Park. Parks Canada.
- 2011** *Archaeological Investigations for the Monkman's Creek Stabilization Project, 2006.* Lower Fort Gary National Historic Site. Parks Canada.
- 2011** *Archaeological Investigations, 2010: Jackfish and Wilson Creek Post-burn Surveys; Whirlpool Lake Canoe Campsite Impact Assessment; East Gate Registration Complex NHSC Impact Assessment.* Riding Mountain National Park. Parks Canada.
- 2010** *Interim Report: Prince of Wales Fort Wall Stabilization Project, 2009.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2010** *Monitoring and Ground Penetrating Radar Survey, 2009.* Saskatchewan South Field Unit (with Ward). Parks Canada.
- 2010** *Archaeological Evidence of Cannon Platforms, Prince of Wales Fort.* Prince of Wales Fort National Historic Site. Manitoba Field Unit. Parks Canada.
- 2010** *Farwell's Trading Post Archaeological Investigation and Public Archaeology Project, Interim Report.* Cypress Hills Massacre NHSC. Saskatchewan South Field Unit. Parks Canada.
- 2010** *Interim Report for the 2009 Archaeological Investigation at Farwell's Trading Post.* Cypress Hills Massacre NHSC. Saskatchewan South Field Unit. Parks Canada.
- 2010** *Interim Report for the Archaeological Investigations at the Proposed Whirlpool Lake Cane Campsite.* Riding Mountain National Park. Parks Canada.
- 2009** *Heritage Recording of Sweetgrass Station, 2008.* Wood Buffalo National Park (with Kirsten Falzarano). Parks Canada.
- 2009** *Archaeological Impact Assessment Francois Paulette Cabin Site (2315R), Slave River.* Wood Buffalo National Park. Parks Canada.
- 2009** *Archaeological Investigations of the Menzies Prescribed Burn Unit, 2008.* Riding Mountain National Park. Parks Canada.
- 2009** *Monitoring Protocols for National Historic Sites in the South Saskatchewan Field Unit: Fort Walsh and Cypress Hills Massacre NHSC, Frog Lake NHSC, Frenchman Butte NHSC, Battle of Tourond's Coulee/Fish Creek NHSC, with initial protocols for Batoche NHSC.* Saskatchewan South Field Unit. Parks Canada.
- 2009** *Interim Report: Krause Heritage Recording, Phase II.* Nahanni National Park Reserve. Parks Canada.
- 2009** *Interim Report: Archaeological Investigation at the Francois Paulette Cabin Site (2315R).* Wood Buffalo National Park. Permit No. WB-2009-5636. Parks Canada.
- 2008** *Archaeological Testing at Farwell's Post, Cypress Hills Massacre National Historic Site of Canada.* Saskatchewan South Field Unit. Parks Canada.
- 2008** *Preliminary Results of the Heritage recording at the Kraus Hot Springs and Poole Field Cabin Sites.* Nahanni National Park Reserve. Parks Canada.
- 2008** *Archaeological Investigation of the Menzies Prescribed Burn Unit, 2007.* Riding Mountain National Park. Parks Canada.
- 2008** *Archaeological Investigation at Farwell's Post (6N).* Cypress Hills Massacre NHSC. Saskatchewan South Field Unit. Parks Canada.
- 2008** *Interim Report: Prince of Wales Fort Wall Stabilization Project, 2008.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2008** *Interim Report: Archaeological Impact Assessment of the Proposed Francois Paulette Trappers Cabin, Slave River.* Wood Buffalo National Park. Permit No. WB-2008-1893. Parks Canada.
- 2007** *Archaeological Evaluation of Site 2243R, Slave River.* Wood Buffalo National Park. Parks Canada.

- 2007** *Archaeological Testing at Lake Audy Campground, 2007.* Riding Mountain National Park. Parks Canada.
- 2007** *Archaeological Investigations during the 2007 Prince of Wales Fort (PWF) Wall Stabilization Project.* Prince of Wales National Historic Site of Canada. Manitoba Field Unit. Parks Canada.
- 2007** *Archaeological Mitigation at the C. Paulette Cabin Site, Wood Buffalo National Park.* Progress Report, Permit No. WB-2007-1291. Parks Canada.
- 2006** A Campsite and Stone Heating Pit at Childs Lake, 2006, by D. Deck and J. Ward. Unpublished report on file, Manitoba Historic Resources Branch, Winnipeg.
- 2006** Charcoal Analysis from the Little Bow Project, Alberta, by D. Deck. In Press FMA, Alberta.
- 2006** Sample Analyses from Two Sites in The Pas Area: FIMh-1 and FkMh-5, by D. Deck & J. Ward, Report submitted to the Manitoba Museum.
- 2006** Sample Analysis from the Otowhowin Site (GkLr-11), by D. Deck & J. Ward, Report submitted to the Manitoba Museum.
- 2006** Archaeological Mitigation of the Maple Estates Site (Ecla-13) at the Maple Creek Estates Subdivision on the Winnipeg River, 2005, by D. Deck and J. Ward. Unpublished report on file, Manitoba Historic Resources Branch, Winnipeg.
- 2005** Archaeological Excavation in the Childs Lake Subdivision at the Childs Lake Site (EjMg-2), Duck Mountain Provincial Park, 2005, by D. Deck and J. Ward. Unpublished report on file, Manitoba Historic Resources Branch, Winnipeg.
- 2005** Archaeological Investigation on the Winnipeg River, 2001 and 2002, by D. Deck and J. Ward. Unpublished report on file, Manitoba Historic Resources Branch, Winnipeg.
- 2005** A Controlled Surface Collection at the Deer Rapids Site (EaLf-52) in the Parish of St. Andrews, by D. Deck and J. Ward. Unpublished report on file, Manitoba Historic Resources Branch, Winnipeg.
- 2004** *Digging the Past: Archaeology for Kids.* Inter-active booklet on Manitoba Archaeology, 24p. Published by Wind River Research Services.
- 2004** The Public Archaeology Project at the Healing Site, by D. Deck and J. Ward. Report for Historic Resources Branch, In Progress.
- 2000** In Search of the Meeting House: The 1999 Public Excavation at the Little Britain Site (EaLf-28). Unpublished report on file, Historic Resources Branch, Winnipeg.
- 1999** The Little Britain Site Reveals Early Manitoba History: Investigations of the 1996 Field School and the 1997 MAS Public Archaeology Program, by D. Deck and J. Ward. *Manitoba Archaeological Journal* Vol. 9(2):26-87.
- 1999** In Search of the Meeting House: The 1999 Public Excavation at the Little Britain Site (EaLf-28). *Manitoba Archaeological Journal* Vol. 9(2):139-169.
- 1999** Past Subsistence Activities on the Winnipeg River: Investigations at EaKx-8 and EaKw-30, by D. Deck, A.K. Peach and J.E. Ward. *Manitoba Archaeological Journal*, Vol. 9(1):139-168.
- 1999** Illustrator for the book *Legacy of Stone: Projectile Point and Hafted Knife Forms from Eastern Manitoba* by H. Bowe, published by the Anthropology Museum, University of Winnipeg.
- 1998** The Little Britain Site Reveals Early Manitoba History: Investigations of the 1996 Field School and the 1997 MAS Public Archaeology Program, by D. Deck and J. Ward. Unpublished report on file, Historic Resources Branch, Winnipeg.
- 1998** Seed Identification from Karilowa Doukhodbor Village Site (FcNs-1). Unpublished report prepared for Stacey Kozakavich, MA student, University of Saskatchewan.
- 1997** The Birston Site: 1992 Archaeological Field School. Unpublished report on file, Historic Resources Branch, Winnipeg.
- 1996** Sturgeon Fort Seed Analysis. Prepared for Canadian Heritage, Winnipeg.
- 1994** DhPs-4 Flotation Analysis. Prepared for D. Walde, Consultant, Alberta.
- 1994** Charcoal and Seed Analysis, by D. M. Deck and C. Thomas Shay, pp. 66-91. In *Archaic Occupations at the Forks.* Compiled by S. Kroker and P. Goundry.
- 1993** Charcoal and Seed Analysis, by C.T. Shay and D. M. Deck, pp. 72-92. In *A 3000 Year Old Native Campsite and Trade Centre at The Forks.* Compiled by S. Kroker and P. Goundry. The Forks Public Archaeological Association, Inc. Winnipeg.

- 1993** Archaeological Collections Registration Update Project: Anthropology Museum, University of Winnipeg. *Manitoba Archaeological Journal*, Vol. 3(1 and 2):34-85.
- 1992** Preliminary Report of Plant Remains from the Lockport Site (EaLf-1), by D.M. Deck and C. T. Shay. *Manitoba Archaeological Journal* 2(2):36-49.
- 1992** Redtail Creek Site (FbNp-10) Flotation Analysis. Prepared for Charles Ramsay, University of Saskatchewan.
- 1992** Herschel Site (EjOc-3): 1992 Excavation Preliminary Report, by P. Filopoulos and D. Deck. 20p.
- 1991** The Quantification of Wood Charcoal Remains from Archaeological Sites. C.T. Shay and D.M. Deck. Unpublished manuscript.
- 1991** Botanical Analysis from Five Sites within the DgMr Borden Block. Prepared for Cottonwood Heritage Services. 7p.
- 1991** Plant Remains Recovered from 21K (Fort Gibraltar 1) The Forks 1990 Archaeological Project. Prepared for Sid Kroger, Quaternary Consultants Ltd. 5p.
- 1990** Paleobotanical Studies at the Forks: Analysis of Seeds, Charcoal and Other Organic Remains C.T. Shay, S. Coyston, H. Isfeld, M. Waddell and D. M. Deck. Prepared for the Manitoba Heritage Federation.
- 1990** Preliminary Report of the Plant Remains from the 1989 Excavation at the Forks by D.M. Deck and C. Thomas Shay, 3p. In: The Forks (1989) Pilot Public Archaeology Project: Research Report Excavations at 21K (Fort Gibraltar I) Prepared for Canadian Parks Service, The Forks Renewal Corporation, Historic Resources Branch Manitoba Culture, Heritage and Recreation.
- 1989** Plant Remains from the Lockport Site (EaLf 1). Prepared for Historic Resources Branch, Manitoba Culture, Heritage and Recreation, Winnipeg. 24p.
- 1988** Modern Vegetation Survey and Flotation Samples from the Melhagen Site (EgNn 1), Saskatchewan. Prepared for Allyson Hall, University of Saskatchewan. 29p.
- 1988** Prehistoric Ethnobotany of the Canadian Prairies. An interim report for July 1 to December 31, 1987, by C. T. Shay, J. M. Shay, assisted by D. Deck and L. C. Wilson. Prepared for the Manitoba Heritage Federation.

GRANTS:

- 2003-2005** Received \$76,654 on behalf of the Manitoba Archaeological Society for a three year public archaeology program, analysis, exhibit and edukit at the Selkirk Healing Centre. Funding was received from the Selkirk District Community Foundation, Sustainable Development Innovations Fund, Historical Foundation, Manitoba Heritage Grants Program, Summer Career Placement, Young Canada Works and Sioux Valley First Nation.
- 2002** Received \$1,947 through the Manitoba Heritage Grants Program for an archaeological kids booklet.
- 1999** Received \$3,000 from Manitoba Hydro in conjunction with P. Dawson for an archival research project on Whitemouth Falls, Manitoba.
- 1998** Received \$1,811 for the publication of a projectile point book and \$920 for research of a traditional technology video on manufacturing a Northern Plains Bow and Arrow through the Manitoba Heritage Grants Program.
- 1992-1998** Received \$289,274 for Phases I-VII of a collections registration project for the Anthropology Department, University of Winnipeg from the Museums Assistance Program, the Manitoba Heritage Grants Council, the Manitoba Heritage Federation, Challenge and the University of Winnipeg Work-Study Program.

MEMBERSHIPS AND COMMITTEES:

- 2002, 2014-2016** Member of the Canadian Archaeological Society.
- 1987-2016** Member of the Manitoba Archaeological Society. Active participant in the society as Second Vice-president (1988), First Vice-president (1989-91), Editor, Manitoba Archaeological Newsletter (1989-1994) and member of the Manitoba Archaeological Publications Committee (1992-96), layout of Manitoba Archaeological Journal (1996-98).

1986-1997, 2003-2016 Member of the Saskatchewan Archaeological Society.

1996-2006 Member of the Selection Committee for the C. Thomas Shay Scholarship in Anthropology, University of Manitoba.

1996-1999 Member of the Archaeology and Native Heritage Committee, Manitoba Historic Resources Branch.

1992-1993 Representative on the Association of Manitoba Museums Training Committee.

AWARDS:

2000 Prix Manitoba Award for Distinguished Service - Vocational.

1999 Certificate of Recognition for Outstanding Technical Support which Contributes Significantly to Research, Sigma Xi, The Scientific Research Society, Manitoba Chapter.

Gilles Lussier

EMPLOYMENT HISTORY:

Parks Canada Agency (PCA)

Asset Management Services (AMS)

Acting Manager of Architectural, Engineering, and Technical Services (AET) - March 2016 to Present

AMS Engineer, Western and Northern Canada, September 2015 to March 2016

Revelstoke, BC

Provide civil and municipal engineering advisory services to field units as well as coordination and leadership for the AET team:

- **Management of AET services including mentoring of staff and promoting a consistent professional service to PCA stakeholders**
- **Perform civil engineering reviews of proponent infrastructure proposals. Examples include Canadian Zinc mine access road at Nahanni NP and Marmot Basin's water reservoir at Jasper NP**
- **Participation in working groups and committees including the Construction Permitting working group and the Mountain Parks Long Term Gravel Strategy team**
- **Provide support and advice in Maximo development, implementation, and adoption by PCA staff**

Voyageur Engineering Limited

President - December 2008 to August 2015

High Prairie, Alberta

Independent project management and municipal/civil engineering services to public and private sectors in northwest Alberta, including:

- **Engineering design and project management for municipal road construction and upgrades**
- **Stormwater management plan design and stormwater infrastructure construction management**
- **Water distribution and sewage collection design and construction management**
- **Gravel pit development and reclamation design and project management**
- **All field surveys, design, drafting, and construction administration related to the above functions**

Municipal District of Big Lakes

Chief Administrative Officer - May 2007 to November 2008

High Prairie, Alberta

Primary advisor to Council, manager for a permanent staff of fifty, and responsible for the corporate affairs and operations of a large rural municipality with four urban centres

- Initiated the MD of Big Lakes' first infrastructure master plan involving four hamlets as well as key rural areas, with future deliverables to include new off-site levy calculations and a standards and specifications guide for developers
- Planned and facilitated Council and public strategy sessions in order to set short and long-term goals for the area

Municipal District of Big Lakes

Superintendent of Public Works - February 2004 to May 2007

Reporting to CAO, responsible for construction, operation and maintenance of urban and rural infrastructure, as well as fleet management, and solid waste management

- Created the MD of Big Lakes' first ten-year water/wastewater and road construction/paving capital plans, as well as a twenty-year road network plan
- Led a Council committee review of roadway classifications and associated service standards for incorporation into the road maintenance policy
- Projects managed include the installation of membrane filtration for one water treatment facility and the introduction of SCADA for all facilities, the construction of a 10,000 sqft sand and salt storage facility, and numerous road, bridge, and subdivision projects

Municipal District of Big Lakes

Project Engineer - February 2001 to May 2003

Served as the municipality's key technical advisor and project manager for roadway and utility projects.

- Surveyed, designed, tendered, and managed construction for water line installations, road grading, and street paving projects
- Led implementation of a new Geographical Information System for the municipality

MD of Smoky River

Director of Operations - May 2003 to January 2004

Falher, Alberta

Reporting to CAO, responsible for all capital projects and public works operations

- Carried out water management feasibility study, including hydraulic analysis of a creek channel in a flood prone neighborhood, for submission to Council and Alberta Environment
- Designed, tendered, and managed major resource road paving project

Ledcor Industries Limited

Project Manager - March 2000 to February 2001

Edmonton, Alberta

- Instrumental in securing 7 provincial highway maintenance contracts in central Alberta
- Key member of project team in negotiations with Alberta Infrastructure, suppliers, and subcontractors during mobilization phase of highway maintenance contracts

Ledcor Industries Limited

Project Manager - March 2000 to February 2001

Edmonton, Alberta

Project Coordinator / Estimator - March 1996 to December 1998

- Assembled and submitted tenders, procured materials, managed subcontracts, monitored costs and progress for highway, street, and bridge construction or upgrading contracts
- Site Office Manager for a major natural gas pipeline installation - tracked daily production and costs, handled purchases, and coordinated payroll for a staff of up to 300 workers

Housing People of Zimbabwe

Projects Officer (VOLUNTEER) - January 1999 to December 1999

Harare, Zimbabwe

Provided engineering and project management services to housing cooperatives, who were clients to this NGO

- Prepared estimates, tender documents, and designs for new low-cost urban housing developments and managed work in progress

- Performed site inspections, offered technical advice, and prepared progress reports for subdivision - Analyzed cooperative finances, developed project financing plans, and submitted proposals to financial institution

PROFESSIONAL AFFILIATIONS:

AMSA Alberta Municipal Supervisors Association

- Past President and Former Director - 2003 to 2007
- Facilitated spring and fall conferences promoting public works best practices

APEGGA Association of Professional Engineers, Geologists, and Geophysicists of Alberta

- Member - 1995 to Present
- Volunteer spokesperson at school career fairs and classrooms

APWA Alberta Public Works Association

- Member - 2003 to 2008
- Participant, and host for regional "Idea Group" meetings

ASGA Alberta Sand and Gravel Association

- Member (Voyageur Engineering) - 2013 to 2015
- Participant in seminars related to environmental regulations and best practices

EDUCATION:

Post Secondary University of Alberta

BSc in Civil Engineering

- Achieved First Class Standing in Fourth Year of studies

Continuing Education Accreditation

EPIC Educational Program Innovations Center

- **Urban Drainage and Stormwater Management Facility Designs - March 2014**

Global Innovative Campus

- **Water Distribution Systems Design Workshop - February 2012**

EPIC Educational Program Innovations Center

- **Designing Wastewater Pumping Systems and Lift Stations - April 2011**

Alberta Infrastructure and Transportation

- **Class B Bridge Inspection - 2002 - 2010**

Emergency Management Alberta

- **Emergency Operations Centre Exercise - 2007**