

JOHN W. JOHNSTON

Curriculum Vitae

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Extensive geosciences background acquired while working in industry (Chevron Canada Resources, Indiana Geological Survey) and several academic institutions (Indiana University, University of Waterloo, Wilfrid Laurier University, University of Toronto Mississauga). Curiosity, an outgoing attitude, and drive for success have contributed to becoming a leader in two high profile research groups studying hydrology of two of Canada's most important drainage basins, the Laurentian Great Lakes and Mackenzie. I am currently leading efforts to finish a manuscript producing the most detailed paleohydrograph for Lake Superior that is needed for the International Joint Commission's review of the Upper Great Lakes regulation plan (<http://www.iugls.org/>). See our latest published work in Geophysical Research Letters and associated news release "5,200-year record warns of impending water shortages in western North America" at http://www.wlu.ca/news_detail.php?grp_id=0&nws_id=7973.

SUMMARY OF EDUCATION

2004	Ph.D.	Dept. of Geological Sciences, Indiana University, Bloomington, IN, USA. (Started Sep. 2001)	Dissertation: <i>Changes in water level, vertical ground movement, shoreline behaviour and climate in the Lake Superior basin during the last 5,000 years.</i> (Advisors: Drs. Thompson & Olyphant)
1999	M.Sc.	Dept. of Earth & Env. Sci., University of Waterloo, Waterloo, ON, CAN. (Hired by IGS Jun. 1998)	Thesis: <i>Sedimentology and Depositional History of the Wasaga Beach and Ipperwash Areas.</i> (Advisor: Dr. Paul Karrow)
1995	B.Sc.	University of Guelph, Guelph, ON, CAN.	Honours, Physical Science Minor in Geology

- Three different degrees from three different universities have broadened my interests, provided many new opportunities and life-altering experiences.

SUMMARY OF EMPLOYMENT

- I have worked in industry as a practicing geologist at Chevron Canada Resources and the Indiana Geological Survey and have worked in academia as a teaching assistant, lecturer, post-doctoral fellow, research assistant professor, visiting professor and assistant professor (limited term appointment).
- Working for four very different universities has provided me with various perspectives of research and teaching. I have been very lucky to have worked with such inspiring people.

SUMMARY OF TEACHING EXPERIENCE

Summary of university classes I taught between 2004 and 2011 (not including guest lecturing):

University Level	Number of Semesters and Location	Class Codes and Number of Times Taught	Total # of Students (range)
1 st year	1 UTM, 3 WLU	GGR117 / GL102 / GG101 x 2	809 (90-360)
2 nd year	1 UTM, 3 WLU, 2 UW	GGR214 / GG231 x 3 / Earth235 x 2	796 (48-275)

3 rd year	1 UTM, 3 WLU, 2 UW	GGR377 / GG389/GG399/GG380 / Earth333 x 2	230 (16-78)
4 th year	2 UTM	GGR479 / GGR489	4 (1-3)
1 st -4 th yr	4 UTM, 9 WLU, 4 UW	(17 total courses)	1839 (16-360)

SUMMARY OF MENTORED STUDENTS

- Experience training 8 students including high school, undergraduate and graduate students. All eight have completed their studies and are pursuing successful careers.
- I have successfully supervised one undergraduate thesis to completion, co-supervised a high school co-op student and two masters student to completion.
- I have been on two completed masters committees and on two completed doctoral committees.

SUMMARY OF REFEREED PUBLICATIONS

- Twelve published manuscripts & two preparation.
- Successful collaborations with 11 different departments at 9 different institutions.
- Published in 9 different journals, 5 of which were invited for special issues.
- Special issues recognized expertise in paleohydrology, paleolimnology, sedimentology, geomorphology, glacial isostatic adjustment and paleoclimatology in the Laurentian Great Lakes.

SUMMARY OF PUBLISHED ABSTRACTS

- Fifty presentations (oral or poster).
- Seventeen I presented, 18 my students and 15 others (8 different collaborators).
- In 2009 co-chaired a special session “Quaternary Geology & Sand Dune History of the Great Lakes” at the International Assoc. for Great Lakes Research Annual Conference.
- In 2003 co-chaired a special session “Water Levels, Past, Present, and Future Trends” at the combined IAGLR , 46th Annual Conference and the International Lake Environment Committee, 10th World Lake Conference.
- In 1999, participant in the Great Lakes Paleo-Levels Workshop: the last 4000 years at the Great Lakes Environmental Research Lab – NOAA, Ann Arbor, MI

SUMMARY OF INVITED TALKS

- Seventeen invited talks in 1996 and 2001 to 2011.
- Six different university seminar series (2 sponsored - Great Lakes Research Consortium).
- Invitation to lead the “Coastal Session” at the U.S. Army Corp of Engineers “Interpreting the Sediment Record, Theory and Field Methods” in Traverse City Michigan in August 2011 recognizing expertise in Great Lakes coastlines.
- Invitation to contribute to the International Upper Great Lakes Study - Glacial Isostatic Adjustment Workshop (IUGLS-GIA) in 2007 recognized leading Canadian expert on extracting and analyzing glacial isostatic adjustment (GIA) from ancient shorelines.
- Invitation to speak at the 7th Annual Grand River Watershed Water Forum, Global Realities ~ Local Solutions in 2007 recognized expertise in the Great Lakes that provided a historical and regional perspective after a talk from the Canadian Space Agency.

Extensive experience with land-based Vibracore system, Russian and Gravity corers.
Built & Tested Ice-based Monopod Vibracore System for use in remote areas (i.e. NWT)

EMPLOYMENT

Soon after receiving two undergraduate awards for exemplary performance in studies of the Earth Sciences, completing an honours B.Sc. degree at the University of Guelph and winning a competitive competition to represent U of G at the Canadian Society of Petroleum Society's Student Industry Field Trip, I became a hydrodynamic geologist at Chevron Canada Resources in Calgary. An inquiry about a published manuscript during my M.Sc. led to a unique opportunity working as a research associate at the Indiana Geological Survey, Indiana University with many leading scientists funded by the U.S. Geological Survey Global Climate Change Program. After returning to Ontario to be closer to family several opportunities opened up including lecturer, post doctoral fellow and research assistant professor at the University of Waterloo and then visiting professor followed by assistant professor at Wilfrid Laurier University. I am currently employed as a lecturer teaching four courses at the University of Toronto Mississauga.

Sep. 2010 to present	Lecturer	Dept. of Geography, UTM, ON.
Sep. 2009 to Aug. 2010	Assistant Professor Limited Term Appointment	Dept. of Geog. & Env. Studies Wilfrid Laurier University, ON.
Jul. 2008 to Jun. 2009	Assistant Professor Limited Term Appointment	Dept. of Geog. & Env. Studies Wilfrid Laurier University, ON.
Nov. 2007 to Jun. 2008	Visiting Professor	Dept. of Geog. & Env. Studies Wilfrid Laurier University, ON.
Oct. 2006 to Jun. 2008	Research Assistant Professor (includes parental leave)	Dept. of Earth and Env. Sciences University of Waterloo, ON.
Jan. 2005 to Sep. 2006	Post Doctoral Fellow (also operated two Gamma Spectrometers)	Dept. of Earth and Env. Sciences University of Waterloo, ON.
Sep. 2005 to Apr. 2006	Lecturer	Dept. of Earth and Env. Sciences University of Waterloo, ON.
Sep. 2004 to Apr. 2005	Lecturer	Dept. of Earth and Env. Sciences University of Waterloo, ON.
Jul. 1998 to Jun. 2004	Research Associate	Indiana Geological Survey, Indiana University, Bloomington, IN, USA.
Sep. 1995 to Apr. 1998	Teaching Assistant	Dept. of Earth and Env. Sciences University of Waterloo, ON.
Jun. 1995 to Aug. 1995	Hydrodynamic Geologist	Chevron Canada Resources, Calgary, AB.

TEACHING EXPERIENCE

Description of university classes I taught (2004-2011) with notable accomplishments:

Semester	Location	Course Code and Title	# of students
Winter 2011	Geog - UTM	GGR377 Global Climate Change	35
	Created Singapore-Canada Climate Connection (SC ³) Project with 22 students from United World College of SE Asia. Gained awareness, took action, reflected upon climate change. **UTM course says “Think Globally, Act Locally” http://mediumonline.ca/2011/03/21/utm-course-says-%E2%80%9Cthink-globally-act-locally%E2%80%9D		
	Geog - UTM	GGR214 Global Weather&Climate	175
	Successfully engaged & attracted numerous students into Geog. after first attempt teaching.		
	Geog – UTM	GGR489 Spec. Top. Human Geog.	1
	Compiled and evaluated the spatial and temporal aspect of lake level change.		
Fall 2010	Geog - UTM	GGR117 Where on Earth?	360
	Implemented the “Writing Initiative” with the director of the “Robert Gillespie Academic Skills Centre at UTM - challenged students to improve communication through writing.		
	Geog - UTM	GGR479 Coastal ENV Processes	3
	Integrated leading coastal research into a special topics course for Physical Geographers.		
➤ Taught five different courses, first to forth year from 1 to 360 students (total = 574). Implemented the “Writing Initiative” and created the Singapore-Canada Climate Connection (SC ³) Project.			
Winter 2010	GES - WLU	GG389 Climate Change	44
	Created CANQAT Climate Connection Project - 86 students from 3 classes in Doha, Qatar.		
	GES - WLU	GG231 Risks and Disasters	275
	Internationally prominent guest lecturer, Linda Mortsch (EC/IPCC) – Canada Perspective.		
	GES - WLU	GG101D Intro. to Physical Geog.	177
	Tweaked course during busy semester (3 diff. courses, 7 lectures-3 new/week, 496 students)		
Fall 2009	GES - WLU	GG399 Third Year Field Studies	78
	Co-taught course with a Human Geographer, supervised the design, collection (in Leamington, ON), analysis of data and presentation of material for 13 group projects.		
	GES - WLU	GG101B Intro. to Physical Geog.	182
	Created new lectures. Coordinated class with GG101A. Largest first-year class I taught.		
➤ Taught five courses, first to third year from 44 to 275 (total = 756). Challenging winter semester managing 496 students in seven lectures a week while creating the Climate Change course.			

Continuation of ... University classes I taught (2004-2011) with notable accomplishments:

Semester	Location	Course Code and Title	# of students
Winter 2009	GES - WLU	GG231 Risks and Disasters	126
	Incorporated Google Earth lab exercises for the first time and used Google Earth in lectures.		
	GES - WLU	GL102 Surface of Earth	90
	First introductory course taught. Developed lectures and overhauled lab assignments.		
Fall 2008	GES - WLU	GG380 Field & Lab Tec – Phys G.	16
	Developed entire class with weekly applied field exercises & study site assessment project.		
	GES - WLU	GG231 Risks and Disasters	123
	Developed entire class, integrated new text, and used WebCT for the first time.		
➤ Developed three new classes from scratch, first to third year from 16 to 126 (total = 355). Created a very successful “study site assessment project” with the UW and WLU librarians.			
Winter 2006	EES - UW	Earth 333 Sedimentology	34
	Major overhaul of course from the 1960’s version. Used PowerPoint, internet & UW-ACE.		
Fall 2005	EES - UW	Earth 235 Strat. & Earth History	49
	Co-leader in Bancroft Fieldtrip with Mineralogy class. Started to use UW-ACE.		
	EES - UW	Earth 333L Sedimentology	23
	Prepared, taught, administered and marked labs for course. Purchased flume table.		
➤ Taught three courses while a Post Doctoral Fellow at UW, a second and third year class totalling 106 students. A co-leader in a fieldtrip to Bancroft.			
Fall 2004	EES - UW	Earth 235 Strat. & Earth History	48
	First entire class that I taught – a welcomed challenge. Developed web page for class.		

Description of invited guest appearances (2002-2011):

Date	Position	Location	Event or Course	
Dec. 2007	Research Professor Visiting Professor	GES – WLU Waterloo, ON	Geography GG232 Landscapes of Great Lakes	60
• Brought leading-edge research from an expert workshop (IUGLS-GIA) to the classroom.				
Fall 2003	Research Associate	Dept. Geol. Sciences	Geology G334	46
Fall 2002	PhD Candidate	Indiana University	Principles of Sed. & Strat.	41
• First guest lecture. Integrated expertise with GPR into lecture on Seismic Stratigraphy.				
Fall 2002	Research Associate PhD Candidate	Fieldtrip to Cagles Mills, IN	Geology G415 Principles of Geomorph.	15
• Invited Co-Fieldtrip Leader. Renowned Quaternary exposure of (inter)glacial periods (15 studs).				
Fall 2002	Research Associate PhD Candidate	Stop #11 Au Train Strandplain, MI	48 th Midwest FOP Field Conference	74
• Invited Fieldtrip Leader (74 attendees). Tools, techniques & concepts needed to study shorelines.				
Sum. 2002	Research Associate PhD Candidate	Indiana Geol. Survey, IU & S. IN	Indiana’s Limestone, Geology for Teachers	20
• Helped train high school teachers in Earth Science (lectures & fieldtrips) (20 participants)				

MENTORED STUDENTS

	Supervised or co-supervised	Committee Member
High School Co-op	2010 – Dylan Whittemore	
Undergraduate	2009 – Erin Dobson	
Masters	2008 – Suzanne Jarvis 2010 - Mathew Ennis	2008 – Jocelyn Bailey 2007 – Kenneth Clogg-Wright
Doctoral		2010 - Jayson Childs 2010 - Bronwyn Benkert

Completed:

Ennis, M., 2010, Paleolimnological reconstruction of Slave River discharge over the past millennium using stable isotopic methods, MSc, Dept. of Geography & Environmental Studies, Wilfrid Laurier University (**co-supervisor with B. Wolfe**).
Current position: Env. Tech. at Toronto Inspection Ltd. Geo-environmental Consultants.

Benkert, B., 2010, Isotope hydroclimatology and paleohydrology of the Slave River Delta, NWT, PhD, Dept. of Earth and Env. Sciences, U of Waterloo. (**committee member**)

Childs, J., 2010, Littoral cells, longshore transport and wave climate - An examination of littoral transport along the western shore of Prince Edward County, ON, PhD, Dept. of Geography & Environmental Studies, Wilfrid Laurier University. (**committee member**)

Dobson, E., 2009, Shoreline protection structures interfering with the natural movement of sediment between Kettle Point and Point Edward, ON, undergraduate thesis, Dept. of Geography and Environmental Studies, Wilfrid Laurier University. (**supervised**)
Current position: MSc student, Wilfrid Laurier University (with B. Wolfe)

Bailey, J., 2008, Reconstruction of Paleoclimate Time-Series in the Peace-Athabasca Delta, Northern Alberta, from Stable Isotopes in Tree-Rings, MSc, Dept. of Earth and Env. Sciences, University of Waterloo (**committee member**)
Current position: PhD student, U of Manitoba. (VP of the ArcticNet Student Assoc.)

Jarvis, S., 2008, Reconstruction of Peace River flood frequency and magnitude for the past ~600 years from oxbow lake sediments, Peace-Athabasca Delta, Canada, MSc, Dept. of Geography and Environmental Studies, Wilfrid Laurier University. (**co-supervised**)
**Wilfrid Laurier University, Geography and Environmental Studies 1st MSc graduate.
**Wilfrid Laurier University Gold Medal for Academic Excellence recipient
Current position: Geomorphic Systems Technician, Geomorphic Solutions (Mississauga).

Clogg-Wright, K., 2007, Isotope hydrology and paleo-hydrology of the Slave Delta, NWT, MSc, Dept. of Earth and Env. Sciences, University of Waterloo (**examiner**).
Current position: Environmental Scientist, Worley-Parsons Komex (Calgary)

REFEREED PUBLICATIONS (* = invited) (☺ = student)

- Thompson, T.A., Lepper, K., Endres, A.L., Johnston, J.W., Baedke, S.J., Argyilan, E.P., Booth, R.K., and Wilcox, D.A., 2011, **Mid Holocene lake level and shoreline behavior during the Nipissing phase of the upper Great Lakes at Alpena, Michigan, USA**, *Journal of Great Lakes Research*, doi:10.1016/j.jglr.2011.05.012.
- Wolfe, B.B., Hall, R.I., Edwards, T.W.D., Johnston, J.W., 2011, **A 5200-year record of freshwater availability for regions in western North America fed by high-elevation runoff**, *Geophysical Research Letters* 38, L11404, doi:10.1029/2011GL04759.
- Johnston, J.W., Köster, D., Wolfe, B., Hall, R.I., Edwards, T.W.D., Endres, A.L., Martin, M.E., Wiklund, J.A., and Light, C., 2010, **Quantifying Lake Athabasca (Canada) water level during the 'Little Ice Age' highstand from palaeolimnological and geophysical analyses of a transgressive barrier-beach complex**, *The Holocene*, 20(5) 801-811, doi: 10.1177/0959683610362816.
- Sinnatamby, R.N., Yi, Y., Sokal, M.A., Clogg-Wright, K.P., Asada, T., Vardy, S.R., Karst-Riddoch, T.L., Last, W.M., Johnston, J.W., Hall, R.I., Wolfe B.B., and Edwards T.W.D., 2010, **Historical and paleolimnological evidence for expansion of Lake Athabasca (Canada) during the Little Ice Age**, *Journal of Paleolimnology*, v. 43, no. 4, p. 705-717, doi: 10.1007/s10933-009-9361-4.
- Wolfe, B.B., Hall, R.I., Edwards, T.W.D., Jarvis, S.R. ☺, Sinnatamby, R.N., Yi, Y., and Johnston, J.W., 2008, **Climate-driven shifts in quantity and seasonality of river discharge over the past 1000 years from the hydrographic apex of North America**, *Geophysical Research Letters* 35, L24402, doi:10.1029/2008GL036125.
- * Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2007a, **Systematic pattern of beach-ridge development and preservation: Conceptual model and evidence from ground penetrating radar**, in Baker, G.S., and Jol, H.M., eds., *Stratigraphic Analyses Using GPR: Geological Society of America Special Paper* 432, p. 47-58.
- * Johnston, J.W., Thompson, T.A., Wilcox, D.A., and Baedke, S.J., 2007b, **Geomorphic and sedimentologic evidence for the separation of Lake Superior from Lake Michigan and Huron**, *Special issue, the Greater and Lesser Great Lakes, Journal of Paleolimnology*, v. 37, p. 349-364.
- Argyilan, E.P., Forman, S.L., Johnston, J.W., 2005, **Optically stimulated luminescence dating of late Holocene raised strandplain sequences adjacent to Lakes Michigan and Superior, Upper Peninsula, Michigan USA**, *Quaternary Research*, v. 63, p. 122-135.
- Sharma, S., Mora, G., Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2005, **Stable isotope ratios in swale sequences of Lake Superior as indicators of climate and lake level fluctuations during the late Holocene**, *Quaternary Science Reviews*, v. 24, no. 16-17, p. 1941-1951.
- * Baedke, S.J., Thompson, T.A., Johnston, J.W., and Wilcox, D.A., 2004, **Reconstructing paleo lake levels from relict shorelines along the Upper Great Lakes**, *Special Issue on Lake Superior, Journal of the Aquatic Ecosystem Health and Management*, v. 7, no. 4, p. 435-449.
- * Johnston, J.W., Baedke, S.J., Booth, R.K., Thompson, T.A., and Wilcox, D.A., 2004, **Late-Holocene lake-level variations in southeastern Lake Superior: Tahquamenon Bay, Michigan**, *Special issue on Lake Superior Research, Journal of Great Lakes Research*, v. 30 (Supplement 1), p. 1-19.
- * Thompson, T.A., Baedke, S.J., and Johnston, J.W., 2004, **Geomorphic expression of late Holocene lake levels and paleowinds in the upper Great Lakes**, In Hansen, E.C., ed., *The Geology and Geomorphology of Lake Michigan's Coast, Michigan Academician*, v. 35, no. 4, p. 355-371.

MISCELLANEOUS PUBLICATIONS (* = invited) (☺ = student)

- Childs, J. ☺, Johnston, J.W., Endres, A.L., and Byrne, M.L., 2009, **Internal structure of a mixed sand and gravel beach examined through ground penetrating radar, Wellington Bay Barrier, Sandbanks Provincial Park: A Reconnaissance Survey**, October 2009, Report to Ontario Parks, Sandbanks Provincial Park, 9p.
- * Johnston, J.W., Baedke, S.J., and Thompson, T.A., 2002, **Beach-Ridge Architecture, Lake-Level Change, and Shoreline Behavior in the Au Train Bay Embayment, Au Train, Michigan**, In Loope, W. L, and Anderton, J.B. (eds.), *A field guide for the 48th Midwest Friends of the Pleistocene field conference: Deglaciation and Holocene landscape evolution in eastern upper Michigan*, Grand Marais and Munising, Michigan, 49-55.
- Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2001, **Preliminary report of late Holocene lake-level variation in southeastern Lake Superior Part II: Tahquamenon Bay, Michigan**, *Indiana Geological Survey Open-File Study* 01-04, 24 p.
- Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2000, **Preliminary report of late Holocene lake-level variation in southern Lake Superior: Part 1**, *Indiana Geological Survey Open-File Study* 99-18, 11 p.
- Thompson, T.A., Baedke, S.J., Johnston, J.W., Sowder, K.H., and Hill, B.T., 2000, **Ancient shorelines of southwestern Lake Michigan**, *Indiana Geological Survey Poster 2.1*.

PUBLISHED ABSTRACTS (* = invited) (☺ = student)

- Argyilan, E., Forman, S.L., Lepper, K., Thompson, T.A., Johnston, J.W., Wilcox, D.A., 2010, **A review of optical dating of coast strandplains across the Upper Great Lakes**, *Geological Society of America Annual meeting*, Oct. 31 to Nov. 3, Denver, CO, U.S.A.
- Ennis M.J. ☺, Lyons, S.K.L., Light, C.W., Wolfe, B.B., Hall, R.I., Johnston, J.W., and Edwards, T.W.D., 2010, **Identifying $\delta^{13}\text{C}$ relations among dissolved inorganic carbon, phytoplankton and lake sediment organic matter to track climate-driven regime shifts in hydrology over the past millennium in the Peace-Athabasca and Slave River deltas**, *2nd Annual Student Colloquium, Interdisciplinary Centre on Climate Change*, University of Waterloo, Waterloo, ON.
- Ennis M.J. ☺, Lyons, S.K.L., Light, C.W., Wolfe, B.B., Hall, R.I., Johnston, J.W., and Edwards, T.W.D., 2010, **Tracking millennial-scale climate-driven regime shifts in the hydrology of the Peace-Athabasca and Slave River deltas using carbon isotopes in lakes**, *World Water Day*, Wilfrid Laurier University, Waterloo, ON.
- 2010-----
- Ennis M.J. ☺, Wolfe, B.B., Johnston, J.W., 2009, **A ~1200-year record of hydrologic variability in the Slave River system**, *Association of Canadian Universities for Northern Studies International Student Conference*, Whitehorse, Yukon.
- Ennis M.J. ☺, Wolfe, B.B., Johnston, J.W., and Hall, R.I., 2009, **Water level decline in Great Slave Lake and the Slave River at the end of the Little Ice Age**, *Canadian Geophysical Union - Hydrology Section Ontario Student Conference*, York University, Toronto, ON.
- Ennis, M.J.☺, Wolfe B., and Johnston, J.W., 2009, **A record of Little Ice Age induced hydrologic change in the Slave River Delta, NWT**, *Ken Hewitt Symposium on Cold Regions and Water Science Research*, Wilfrid Laurier University, Waterloo.
- Ennis, M.J.☺, Wolfe B., and Johnston, J.W., 2009, **A multi-centennial record of Slave River Delta hydrological response to climate change**, *1st Annual Student Colloquium, Interdisciplinary Centre on Climate Change*, University of Waterloo, Waterloo.

- Johnston, J.W., Argyilan, E.P., Lepper, K., Thompson, T.A., Baedke, S.J., and Wilcox, D.A., 2009, **Late Holocene lake-level paleo-hydrograph for Lake Superior constructed from hundreds of ancient shorelines**, *International Association for Great Lakes Research 52nd Annual Conference*, Toledo, Ohio. Abstracts with Program.
(co-chair session: “Quaternary Geology & Sand Dune History of the Great Lakes”)
- Thompson, T.A., Lepper, K., Johnston, J.W., Baedke, S.J., Argyilan, E.P., Booth, R.K., Endres, A.L., and Wilcox, D.A., 2009, **Pre-Nipissing lake-level rise at Alpena, Michigan**, *Geological Society of America*, Abstracts with Programs, v. 41, no. 4, p. 14.
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- Brock, B.E.☺, Harms, P.L.☺, Johnston, J.W., Wolfe, B.B., Hall R., and Edwards, T.W.D., 2008, **Reconstruction of Slave River flood history from lake sediments in the Slave River Delta, NWT, using x-ray imagery and magnetic susceptibility**, *Ontario-Quebec Paleolimnology Group Graduate Student Conference*, Laval University, Quebec City.
- Ennis, M.J.☺, Wolfe B.B., and Johnston, J.W., 2008, **The Slave River Delta during the Little Ice Age: Examining hydrological response to past climate change**, *Canadian Geophysical Union – Hydrology Section Ontario Student Conference*, Frost Centre Institute, Dorset.
- Hall, R.I., Wolfe, B.B., Edwards, T.W.D., Jarvis, S.R.☺, Sinnatamby, R.N., Yi, Y., and Johnston, J.W., 2008, **Climate-driven shifts in quantity and seasonality of river discharge from the headwaters of the Mackenzie River Basin over the past millennium: Implications for river-ocean interactions and natural resource management in the North**, *Arctic Change 2008*, Quebec City.
- Harms, P. L.☺, Brock, B.☺, Wolfe, B.B., Johnston, J., and Hall, R., 2008, **Multi-proxy paleolimnological reconstruction of hydroecology in the Slave River Delta, NWT**, *Ontario-Québec Paleolimnology Group Graduate Student Conference (PALS2)*, May 7 - 9, Université Laval, Quebec City, Quebec, Abstracts with Program.
- Johnston, J.W., Baedke, S.J., Thompson, T.A., Argyilan, E.P., Wilcox, D.A., 2008, **How do ancient shorelines help in regulation efforts of the upper Great Lakes?**, *International Association for Great Lakes Research*, May 19-23, Peterborough, ON, Abstracts with Program.
- Johnston, J.W., Köster, D., Wolfe, B.B., Hall, R.I., Edwards, T.W.D., Endres, A.L., 2008, **Transgressive barrier movement during the Little Ice Age: confirmation of a major Lake Athabasca (Alberta, Canada) high-water stand that inundated the Peace-Athabasca Delta**, *Geological Society of America Northeastern Section Conference*, March 27-29, Buffalo, New York, Abstracts with Program, v. 40, no. 2, p. 64.
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- Jarvis, S.☺, Wolfe, B.B., Johnston, J.W., Edwards, T.W.D., 2007, **Paleohydrologic Reconstruction of the Peace River from Magnetic Susceptibility Measurements of Oxbow Lake Sediments, Peace-Athabasca Delta**, *First Annual Ontario-Québec Paleolimnology Group Graduate Student Conference*, April 18 – 20, Wilfrid Laurier University, Waterloo, Ontario.
- Jarvis S.R.☺, Wolfe B.B., Johnston J.W., Edwards T.W.D., and Hall R.I., 2007a, **Peace River flood frequency and magnitude reconstruction from oxbow lake sediments in the Peace-Athabasca Delta, northern Alberta, Canada**, *8th ACUNS International Student Conference on Northern Studies*, October 18 – 21, Saskatoon, Saskatchewan.
- Jarvis S.R.☺, Wolfe B.B., Johnston J.W., Edwards T.W.D., and Hall R.I., 2007b, **Peace River flood frequency and magnitude reconstruction from oxbow lake sediments in the Peace-Athabasca Delta**, *NSERC Northern Research Chair Workshop*, Saskatoon, Saskatchewan.

- Jarvis, S.☺, Wolfe, B.B., Johnston, J.W., Edwards, T.W.D., and Hall, R.I., 2007c, **Peace River flood frequency and magnitude over the past millennium from oxbow lake sediments in the Peace-Athabasca Delta, northern Alberta**, *Canadian Quaternary Association Conference*, June 4-8, Carleton University, Ottawa, Ontario.
- Jarvis S.R.☺, Wolfe B.B., Johnston J.W., Edwards T.W.D., and Hall R.I., 2007d, **Flood frequency of the past 800 years in the Peace-Athabasca Delta, northern Alberta**, *Cold Regions Research Centre First Annual Northern Research Day*, February 8th, Wilfrid Laurier University, Waterloo, Ontario.
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- Jarvis, S.☺, Wolfe, B.B., Johnston, J.W., Edwards, T.W.D., Hall, R.I., 2006, **800 Years of Peace River Flood Frequency and Magnitude from Oxbow Lake Sediments, Peace-Athabasca Delta**, *Canadian Geophysical Union - Hydrology Section Conference*, Dec. 1-2, Carleton University, Ottawa, Ontario.
- Jarvis, S.☺, Wolfe, B.B., Johnston, J.W., Hall, R.I., Edwards, T.W.D., 2006, **Peace River paleohydrology from oxbow lake sediment cores in the Peace-Athabasca Delta, Canada**, *10th International Paleolimnology Symposium*, June 25-29, Duluth, Minnesota, Abstracts with Program.
- Köster, D., Johnston, J.W., Adam, M.E., Wolfe, B.B., Hall, R.I., Edwards, T.W.D., Endres, A.L., 2006, **Lagoon sediments in a Barrier Beach Complex –recording water level changes in Lake Athabasca**, *10th International Paleolimnology Symposium*, June 25-29, Duluth, Minnesota, Abstracts with Program.
- Thompson, T.A., Baedke, S.J., and Johnston, J.W., 2006, **Late Holocene lake level in the upper Great Lakes: What lake level do you want it to be?** *Geological Society of America, NC-Section, April 20-21*, Abstracts with Programs, v. 38, no. 4, p. 7.
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* Johnston, J.W., Thompson, T.A., Baedke, S.J., Booth, R.K., Argyilan, E.P., Jackson, S.T., Forman, S.L., and Wilcox, D.A., 2004, **Lake Level, post-glacial rebound, and climate in the Lake Superior basin during the last 5,000 years**, *International Association for Great Lakes Research*, 47th Annual Conference, Waterloo, Ontario, Abstracts, p. 74.

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(co-chair of session entitled “Water Levels, Past, Present, and Future Trends”)

Johnston, J. W., Thompson, T. A., Baedke, S. J., Argyilan, E. P., Forman, S. L., Wilcox, D. A., 2003b, **The Separation of Lake Superior from Lake Michigan/Huron**, *Geological Society of America Abstracts with Programs*, v. 34, no. 7., p. 294.

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* Johnston, J.W., Thompson, T.A., and Baedke, S.J. 2002a, **Late Holocene quasi-periodic lake-level fluctuations in the upper Great Lakes**, *Geological Society of America Abstracts with Programs*, v. 34, no. 6., p. 550.

* Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2002b, **Preliminary report of late Holocene lake-level variation in southeastern Lake Superior: Tahquamenon Bay, Michigan**, *Superior: State-of-the-Lake conference Abstracts with Program*, p. 24.

Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2002c, **Insight into beach ridge formation using ground penetrating radar**, *Geological Society of America Abstracts with Programs*, v. 34, no. 2, p. A12.

Thompson, T.A., Johnston, J.W., and Baedke, S.J., 2002a, **Reconstructing past lake-level change in Lake Superior from relict shorelines**, *Superior: State-of-the-Lake conference Abstracts with Program*, p. 35.

Thompson, T.A., Johnston, J.W., and Baedke, S.J., 2002b, **Reconstructing paleo lake levels in Lake Superior from relict shorelines**, *Society of Wetland Scientists Abstracts with Program*, p. 68.

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Capps, D.K., Thompson, T.A., Johnston, J.W., and Jock, S.R., 2001, **An Algonquin Shoreline in southern Lake Michigan**, *Geological Society of America Abstracts with Programs*, v.33, no. 4, p. A-47.

* Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2001, **Relative late Holocene lake levels and isostatic rebound in the Lake Superior basin**, *Geological Society of America Abstracts with Programs*, v.33, no. 4, p. A-11.

Thompson, T.A., Baedke, S.J., and Johnston, J.W., 2001, **Development of Great Lakes lake-level curves from the sedimentologic study of strandplains of beach ridges**, *Geological Society of America Abstracts with Programs*, v.33, no. 4, p. A-10.

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* Johnston, J.W., Thompson, T.A., and Baedke, S.J., 2000, **Strandplain evidence for late Holocene lake level in Tahquamenon Bay, southeastern Lake Superior**, *Geological Society of America Abstracts with Programs*, v. 32, no. 4, p. A-19.

Thompson, T.A., Johnston, J.W., and Baedke, S.J., 2000, **The Geologic Framework of Great Lakes Coastal Wetlands**, *Society of Wetland Scientists*, Millennium Wetland Event Program and Abstracts, p. 306.

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Johnston, J.W., 1999, **Sedimentology and Depositional History of Two Barrier Beach Complexes along Lake Huron, Ontario**, *Geological Society of America Abstracts with Programs*, v. 31, no. 7, p. A-50.

Johnston, John W., Thompson, Todd A., and Baedke, Steve, J., 1999, **Strandplain evidence for lake level in central Lake Superior**, *Geological Society of America Abstracts with Programs*, v. 31, no. 5, p. A-25.

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Johnston, J.W., 1997, **Barrier complexes at Wasaga Beach and Ipperwash, Ontario**, *International Association for Great Lakes Research Abstracts with Program*, p. 122.

INVITED TALKS

Date	Position	Location	Event or Course
Mar. 2010	Assistant Professor	University of Toledo, Toledo, OH	Dept. Env. Sciences Seminar Series Great Lakes Res. Consortium sponsored
• Title: "Are North America's largest lakes rising or falling?" Taped by WGTE Public Media.			
Dec. 2008	Assistant Professor	Queen's University, Kingston, ON	Dept. of Biology PEARL Seminar Series Great Lakes Res. Consortium sponsored
• Title: "Five millennial-long paleo-hydrographs (Upper GL's) constructed from ancient shorelines"			
Mar. 2008	Research Professor Visiting Professor	IGS – Indiana U, Bloomington, IN	U.S. Geological Survey Global Climate Change meeting
• Title: "Late Holocene lake levels in the Upper Great Lakes"			
Nov. 2007	Research Professor Visiting Professor	U.S. Army Corps of Engineers, Chicago, IL	International Upper Great Lakes Study GIA Workshop – IJC
• Title: "Shoreline Evidence for Glacial Isostatic Adjustment (GIA) and Lake Level"			
Sept. 2007	Research Professor Visiting Professor	GRCA Main Office, Cambridge, ON	7th Annual Grand River Watershed Wtr Forum (Global Realities - Local Solns)
• Title: "Great Lakes Historical Perspective". Provided bridge b/t Can. Space Agency and GRCA			
Feb. 2007	Research Professor	Brock University, St. Catharines, ON	Dept. Earth Sciences Seminar Series Great Lakes Res. Consortium sponsored
• Title: "Five thousand years of lake-level change in the upper Great Lakes"			
Oct. 2006	Research Professor	PA Convention Center Philadelphia, PA	Geological Society of America Annual Meeting & Exposition
• Title: "Developing Strandplain Age Models using 14C and SAR-OSL"			
Mar. 2006	Post-Doctoral Fellow	USGS GL's Sci. Ctr., Ann Arbor, MI	U.S. Geological Survey Global Climate Change meeting
• Title: "Late Holocene lake levels in the Great Lakes"			
Feb. 2006	Post-Doctoral Fellow	McMaster University, Hamilton, ON	School of Geography & Earth Sciences Seminar Series
• Title: "Raised beaches in the Great Lakes: Insight into past lake levels"			
Oct. 2005	Post-Doctoral Fellow	Laval University, Quebec City, QB	NSERC, Northern Research Chair Annual Meeting
• Title: "Bustard Island: archive of Lake Athabasca water level history"			
Feb. 2005	Post-Doctoral Fellow	University of Waterloo Waterloo, ON	Dept. of Earth and Environmental Sciences Seminar Series
• Title: "Raised Beaches in the Great Lakes: Insight into Past Lake Levels"			
Dec. 2003	Ph.D. Candidate Research Associate	Indiana University, Bloomington, IN	Indiana Geological Survey Seminar Series
• Title: "Ground Penetrating Radar: Principles, Practice, and Procedures"			
Oct. 2002	Ph.D. Candidate Research Associate	USGS GL's Sci. Ctr., Ann Arbor, MI	U.S. Geological Survey Global Climate Change meeting
• Title: "Insight into Beach Ridge Formation using Ground Penetrating Radar"			
Oct. 2001	Ph.D. Candidate Research Associate	Indiana University, Bloomington, IN	Indiana Geological Survey Seminar Series
• Title: "Introduction to Ground Penetrating Radar and the Noggin 250 SmartCart"			
Mar. 2001	Research Associate	University of Guelph, Guelph, ON	Dept. of Land Resource Sciences Seminar Series
• Title: "Raised beaches in the Great Lakes: Insight into past lake levels"			
Mar. 2001	Research Associate	USGS GL's Sci. Ctr., Ann Arbor, MI	U.S. Geological Survey Global Climate Change meeting
• Title: "Water Level and Vertical Ground Movement in Lake Superior for the past 5,000 years"			
Aug. 1996	M.Sc. Candidate	WB Provincial Park, Wasaga Beach, ON	Wasaga Beach Provincial Park Nature Walk
• Title: "Shorelines and Water Levels at Wasaga Beach Provincial Park"			

SCHOLARSHIPS & AWARDS

2003-04	Award for Academic Achievement – In recognition of promise and potential in the geosciences in the Department of Geological Sciences, Indiana University
2003	Distinguished Service Award – In recognition of valuable contributions to the Geological Society of America Limnogeology Division
2003	International Association for Great Lakes Research Scholarship - “ <i>Changes in water level, vertical ground movement, shoreline development/preservation, and climate in Lake Superior during the last 5,000 years</i> ”
2003	Indiana University Department of Geological Sciences Estwing Award - For outstanding academic achievement
2003	Best Graduate Research Presentation Award – Indiana University Department of Geological Sciences Research Day
2002	IU Bloomington Professional Council and the Office of the Chancellor Award - “ <i>Late Holocene quasi-periodic lake-level fluctuations in the upper Great Lakes</i> ”
2002	Best Graduate Research Presentation Award - Indiana University Department of Geological Sciences Research Day
1997	University of Waterloo Graduate Scholarships – “Sedimentology and Depositional History of the Wasaga Beach and Ipperwash Areas
1995	University of Guelph Geology representative for CSPG - SIFT – Canadian Society of Petroleum Geologists Student-Industry Field Trip: Geology of the southern Rocky Mountains
1993-94	Canadian Society of Petroleum Geologists Undergraduate Award - For outstanding competence in studies relating to Petroleum Geology
1993-94	Geological Association of Canada Undergraduate Award - For exemplary performance in studies of the Earth Sciences
1991	Esse Quam Videri Ontario Academic Credit Award - For best all around student

PROFESSIONAL AFFILIATIONS

University of Waterloo <u>Adjunct Professor</u> in the Dept. of Earth and Env. Sciences http://www.earth.uwaterloo.ca/ Member in The Water Institute http://water.uwaterloo.ca/	
Wilfrid Laurier University <u>Adjunct Professor</u> in the Dept. of Geog. and Env. Studies http://www.wlu.ca/homepage.php?grp_id=149	
International Association for Great Lakes Research http://www.iaglr.org/	Great Lakes Research Consortium http://www.esf.edu/glrc/
Geological Association of Canada http://www.gac.ca/	Geological Society of America http://www.geosociety.org/
American Geophysical Union http://www.agu.org/	

SELECTED SERVICE

Department, faculty and university activities:

2011	First-year Instructors, Scholars Reception, Teaching and Learning Symposium.
2009-2010	WLU Geography Awareness Week, Faculty of Arts 4x3 Poster Day, Laurier Day.
2008	<u>Input and member</u> of the proposed Integrated Water Institute , U of Waterloo.
2002-2003	<u>Vice President</u> of Student Advisory Committee in IU Dept. of Geol. Sciences.
2002-2003	<u>Corresponding Secretary</u> : IU-SGE, National Honor Society for Earth Sciences .

Contributions to profession:

2011	<u>Invited presenter</u> at the U.S. Army Corp of Engineers “Interpreting the Sediment Record, Theory and Field Methods” Workshop in Traverse City, MI.
2009-2010	<u>Invited Presentations</u> : University of Toledo & Queens University , sponsored by the Great Lakes Research Consortium .
1998-2011	<u>Reviewed manuscripts and abstracts</u> for the Indiana Geological Survey, Geophysics, The Holocene, J of Soil and Water Conservation, Environmental Science & Technology, American Chemical Society (ACS) Petroleum Research Fund, Human Impact, Relief, Environment; Advances in GeoEcology 40, Eos-Transactions: American Geophysical Union, J of Great Lakes Research, Can. J of Earth Science and Science.
2003-2009	<u>Web Manager</u> for the Limnogeology Division, Geological Society of America
2007	<u>Invited contributor</u> : International Upper Great Lakes Study Glacial Isostatic Adjustment (IUGLS-GIA) Workshop , U.S. Army Corp. Engineers, Chicago, IL.
2003	<u>Co-chair</u> of session entitled “Water Levels, Past, Present, and Future. Trends” - International Association for Great Lakes Research , 46th Annual Conference and the International Lake Environment Committee, 10th World Lake Conference , Chicago, IL.

Outside Community Involvement:

2011	<u>Creator & Coordinator</u> : The Singapore-Canada Climate Connection (SC³) Project - Gained awareness, took action, reflected upon climate change with my third year class and students from the United World College of SE Asia.
2010	<u>Creator & Coordinator</u> : The CAN/QAT Project - Bridging climate literacy between WLU and The American School of Doha in Qatar.
2002-2010	<u>Final draft revisions</u> of the International Upper Great Lakes Study for the International Joint Commission (2002, 2005 and 2010).
2008	<u>Invited contributor</u> : Ontario Council of University Libraries (OCUL) – Geo-Visioning Workshop , Ryerson University, Toronto, ON.
2007	<u>Panellist</u> at the 7 th Annual Grand River Watershed Water Forum , Global Realities ~ Local Solutions