

DR TIMOTHY DOUGLAS JAMES

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EDUCATION

- Ph.D., School of Geography, University of Leeds, Leeds, UK.** 01/2000 to 07/2004
Thesis Title: Error identification and correction methods for automatically-derived digital elevation models
Synopsis: For flood plain modelling and other high-precision applications I developed approaches for managing quality issues of large topographic data sets derived using aerial photography and laser altimetry primarily.
- M.Phil., Department of Geography, University of Cambridge, Cambridge, UK.** 10/1996 to 10/1997
Dissertation: Optimization procedures of stereo-matching aerial photography over complicated topography
Course: Geographic Information Systems (GIS) and Remote Sensing
Synopsis: Course work addressed the principles of GIS and remote sensing from practical, theoretical and administrative perspectives covering a wide range of applications. My research investigated the influence of factors such as grid density, vegetation and model parameterization on the quality of topographic data and their implication on forest ecology research.
- B.Sc.H., Department of Geography, Queen's University, Kingston, Ontario, Canada.** 09/1992 to 04/1996
Course: Physical Geography
Synopsis: Honours degree in physical geography with a focus on geomorphology, remote sensing and geographical information systems. Was trained in a variety of scientific methods and professional skills including field techniques and instrumentation, formal report preparation and oral presentation.

EMPLOYMENT HISTORY

- Honorary Research Fellow, Dept. of Geography, Swansea University, U.K.** 08/2015 to present
Synopsis: I am taking a personal sabbatical in order to return to Canada and undertake a number of projects. During this period I have been appointed as an Honorary Research Fellow at Swansea and will continue my research at a reduced level.
- Senior Lecturer/Project Manager, Dept. of Geography, Swansea University, U.K.** 10/2009 to 07/2015
Synopsis: Senior lecturer and project manager for the HEFCW-funded Climate Change Consortium of Wales (C3W) whose aim was to establish Wales as a global centre of excellence for climate research and facilitate communication with policy makers. My time was split between 40% logistics/administration, 40% research and 20% teaching. In this role I developed a unique skill set for large, multi-stakeholder project administration and logistically-demanding field work. I managed Swansea's C3W budget of ~£1 million which employed a staff of 17 over the project's lifetime.

- Researcher/Project Manager, Dept. of Geography, Swansea University, U.K.** 09/2007 to 09/2009
Synopsis: Project manager and post-doctoral researcher for the Leverhulme Trust-funded GLIMPSE Project. The project aim was to determine the controls on thinning of the periphery of the Greenland Ice Sheet. In addition to my research, I was responsible for managing the £900K project budget and coordinating complex field logistics.
- SLICES Post-Doctoral Researcher, School of Geography, University of Leeds, U.K.** 07/2004 to 06/2007
 The NERC-funded SLICES project aimed to quantify 20th century changes in glacier geometry and extent in Svalbard. This project was my first taste of proposal preparation and managing logistically challenging field campaigns.
- Teaching and Research Fellow, School of Geography, University of Leeds, U.K.** 09/2003 to 06/2004
 Main teaching responsibilities included convening the core Level I module of 260 B.Sc./B.A. students including the coordination of 4 other lecturers and 6 post-graduate teaching assistants. I was also responsible for the practical component of a Level II module of 85 B.Sc. students. Research goals included writing-up the results from my Ph.D. research and preparing for the Svalbard 2004 field season.
- GIS Photogrammetry Technician, J.D. Barnes Ltd., Markham, Ontario, Canada.** 01/1998 to 11/1998
 Undertook a GIS data conversion project involving the digitisation of a full inventory of the electrical distribution system of the City of Whitby, Ontario. I also was involved in the implementation of a digital photogrammetric production line including evaluation of hardware/software and management of personnel for the analytical to digital transition.
- Assistant Project Manager, Agricon International Inc., Cambridge, Ontario, Canada** 10/1997 to 01/1998
Synopsis: Responsible for writing hard-copy and on-line help manuals for several Agricon GIS software products. Also contributed to the preparation of several proposal submissions including cost estimation, company profiling and scheduling.

QUALIFICATIONS AND RELEVANT SKILLS

<i>Qualifications</i>	Twelve years post-Ph.D. experience working in the public sector in a university environment engaged in glaciology and climate-related research, teaching and public engagement. I have undertaken 14 Arctic field seasons (in Greenland and Svalbard) and have an excellent working knowledge of Arctic logistics and research.
<i>Work ethic</i>	Highly motivated, independent self-starter who deals well with high pressure.
<i>Writing and oral communication</i>	Accomplished in a variety of writing styles including academic papers, reports and science for a general audience. Well-practiced in oral presentation to scientists, policy makers and the general public.
<i>Project management</i>	Have been responsible for budgeting, financial monitoring and personnel management for two complex, results-orientated projects with budgets of about CAD\$2 million.
<i>Leadership and team work</i>	Have years of experience in a working environment requiring leadership, time management, and decision-making in complex and high stress situations.
<i>Community outreach</i>	Participated in an MP-Scientist Pairing Scheme giving policy makers and scientists a view into each other's worlds and facilitating the dissemination of research to government. Led campaign to appear at the Royal Society Summer Science Exhibition and coordinated the successful exhibit, <i>Can you GLIMPSE the future of the Greenland Ice Sheet?</i> Organised an International Glaciological Society British Branch Annual Meeting (Swansea)

and a European Science Foundation (ESF) Exploratory Workshop (Mallorca, Spain) on Improving Estimates of the Rate of Sea-Level Rise from the Greenland Ice Sheet. Regular user of Twitter (@arctic_mit), Facebook (SwanseaGlaciology) and YouTube (SwanseaGlaciology) for professional purposes.

<i>Fundraising</i>	Actively involved as lead, co-investigator and contributor in many funding bids to government, charitable and industrial funding bodies.
<i>Computer skills</i>	Expert user of office software applications and a number of specialist software packages.
<i>Languages</i>	I am fluent in English and French.

SELECTED PUBLICATIONS

- Everett, A. Murray, T., Selmes, N., Rutt, I. C., Luckman, A., **James, T.D.**, *et al.* (in review). Annual down-glacier drainage of lakes and water-filled crevasses at Helheim Glacier, south east Greenland, *Journal of Geophysical Research*.
- James, T.D.** (in review). Monitoring Environmental Change. Chapter 26 in *Introduction to Physical Geography and the Environment*, 4th Ed. (J. Holden Ed.). Pearson Education, Harlow.
- Wagner, T.J.W., **James, T.D.**, *et al.* (2016). On the role of buoyant flexure in glacier calving, *Geophysical Research Letters*, 43: 232-240.
- Murray, T., Nettles, M., Selmes, N., Cathles, L.M., Burton, J.C., **James, T.D.**, *et al.* (2015). Reverse glacier motion during iceberg calving and the cause of glacial earthquakes. *Science*, 349(6245): 305-308.
- Murray, T., Selmes, N., **James, T.D.**, *et al.* (2015). Dynamics of glacier calving at the ungrounded margin of Helheim glacier, south-east Greenland. *Journal of Geophysical Research - Earth Surface*, 120(6): 964-982.
- James, T.D.**, *et al.* (2014). Buoyant flexure and basal crevassing in dynamic mass loss at Helheim Glacier. *Nature Geoscience*, 7: 593–596.
- James, T.D.**, *et al.* (2012). Observations of enhanced thinning in the upper reaches of Svalbard glaciers. *The Cryosphere*, 6: 1369-1381.
- James, T.D.** (2012). Remote Sensing of Environmental Change. Chapter 26 in *Introduction to Physical Geography and the Environment*, 3rd Ed. (J. Holden Ed.). Pearson Education, Harlow.
- Selmes, N., Murray, T. and **James, T.D.** (2011). Fast draining lakes on the Greenland Ice Sheet. *Geophysical Research Letters*, 38(L15501).
- Murray, T., Scharrer, K., **James, T.D.**, *et al.* (2010). Ocean regulation of glacier dynamics in south-east Greenland and implications for ice-sheet mass changes. *Journal of Geophysical Research - Earth Surface*. 115: F03026.
- James, T.D.** (2008). Remote Sensing of Environmental Change. Chapter 23 in *Introduction to Physical Geography and the Environment*, 2nd Edition (J. Holden Ed.). Pearson Education, Harlow.
- Kohler, J., **James, T.D.**, *et al.* (2007). Acceleration in thinning rate on western Svalbard glaciers, *Geophysical Research Letters*, 34(L18502).
- James, T.D.** (2005). Remote Sensing of Environmental Change. Chapter 22 in *Introduction to Physical Geography and the Environment* (J. Holden Ed.). Pearson Education, Harlow.