

TIMOTHY D. JAMES, PH.D.

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PERSONAL STATEMENT

I am an established research scientist, academic, editor, and project manager with a 20-year career encompassing a range of fields in environmental science and conservation. I have a wide diversity of interests and experience, and I believe my publication record is indicative of my flexibility, aptitude for strategic thinking, and ability to anticipate emerging issues and opportunities.

EDUCATION

Ph.D., School of Geography, University of Leeds, Leeds, UK. 01/2000 to 07/2004

Thesis Title: Error identification and correction 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.

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. 09/1991 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.

CAREER TIMELINE

Scientific Advisor and Consultant, WWF-Canada and WWF-Arctic 07/2017 to present

I have been working on two important projects for WWF that are laying the groundwork for ambitious and unprecedented marine conservation initiatives in the Arctic. WWF-Canada's Marine Ecological Conservation for the Canadian Eastern Arctic (MECCEA) has developed a network of priority areas for conservation across the Canadian Arctic (~1.5 million km²). WWF-Arctic's ArcNet project has undertaken the same groundwork to identify a conservation network for the entire Arctic region (~6 million km²). My roles have been to undertake science writing/editing, to provide expertise on satellite data and oceanographic connectivity, and general project support.

Owner, High Impact Communications 02/2017 to present

Through my successful communication and editing firm, I help clients across the globe with manuscript preparation targeting high-impact journals like *Science*, *Nature* and *Cell*.

- Adjunct Associate Professor, Dept. of Geography, Queen's University, Canada** 07/2016 to present
 Since returning to Canada in 2015, Queen's has provided me with a home for maintaining my academic and research interests, while I explore the world of Arctic conservation and governance with WWF.
- Senior Lecturer/Project Manager, Dept. of Geography, Swansea University, U.K.** 10/2009 to 08/2017
 I was a founding member of the Climate Change Consortium of Wales (C3W) whose aim was to establish a global centre of excellence for climate research and to initiate and facilitate communication between stakeholders. My time was split, 40% logistics/administration, 40% research, and 20% teaching. This split allowed me to develop my skills for managing large, multi-stakeholder projects and logistically demanding field work. I was responsible for managing a complex budget of over £1 million and staff of 17 over the project's lifetime while undertaking my own research.
- Researcher/Project Manager, Dept. of Geography, Swansea University, U.K.** 09/2007 to 09/2009
 As part of the Leverhulme Trust-funded GLIMPSE Project, our aim was to determine the controls on thinning of the periphery of the Greenland Ice Sheet. In addition to my exciting research and coordination of complex field logistics, I was responsible for managing the £900K project budget and leading our community outreach program.
- 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 provided my first taste of proposal preparation, managing logistically challenging field campaigns and multi-institutional research projects.
- Teaching and Research Fellow, School of Geography, University of Leeds, U.K.** 09/2003 to 06/2004
 My main responsibility was convening the core Level I module of 260 students including coordinating 4 other lecturers and 6 teaching assistants. I was also responsible for the practical component of a Level II module of 85 students and several small teaching groups. Research goals included writing-up the results from my Ph.D. research and preparing for my first Arctic field season.

RELEVANT EXPERIENCE

- Stakeholder Engagement*
- Government** – I have interacted with municipal, regional and federal governments through local representatives, government agencies, scientific advisors, boards, attendance at Parliamentary Select Committees meetings, and presentations to political parties.
 - NGOs** – I have initiated and fostered a number of relationships with NGOs including The Royal Society, The Leverhulme Trust, and WWF.
 - Scientists** – I have organised several conferences and meetings aimed at public sector scientists including the 2008 International Glaciological Society British Branch Annual Meeting and a European Science Foundation (ESF) Exploratory Workshop on Improving Estimates of the Rate of Sea-Level Rise from the Greenland Ice Sheet. I have attended and presented at numerous international and national conferences and workshops.
 - Business/Industry** – Collaborated with businesses large and small on scientific projects for services/knowledge exchange to our mutual benefit.
 - Community** – I have led several community outreach activities including a Royal Society Summer Science Exhibition exhibit, *Can you GLIMPSE the future of the Greenland Ice Sheet?* I have presented on Arctic life and research to school children, and hosted and presented to a number of dignitaries, including members of the Royal Family. I have been interviewed several times for print and digital media and worked with film crews in the field and office.
- Academic Citizenship*
- Reviewer for a number of government foundations including the German Research Foundation (DFG), the (NSF) and the Netherlands Organisation for Scientific Research (NWO). I am also a regular reviewer for many important high-impact scientific journals.

- Many years experience presenting at national and international conferences and university seminars including a number of invited talks.
- Invited to contribute to 4 editions of a key undergraduate text in physical geography and environmental monitoring.
- Acted as external expert for Ph.D. viva examination panel in the UK and Denmark.

Communication and Languages

- I have published in a variety of formats, drawing on my skills in many writing styles including scientific papers, reports, and science for a general audience.
- Well-practiced in oral presentation to scientists, policy makers and the public.
- Professional editor and owner of High Impact Papers, a successful editing business specializing in preparing manuscript for high-impact journals like Science and Nature.
- I speak/read/write French to an intermediate level and am actively learning Spanish.

Miscellaneous Experience

- Member of the Municipality of Highland's East short-term accommodation committee who was tasked with drawing up legislation to regulate the local holiday rental industry.
- Graduate of *Indigenous Canada*, University of Alberta, Feb. 2, 2024.
- Board member of Safe Quiet Lakes, a non-profit promoting safe and sustainable use of Ontario's cottage country.

HIGHLIGHTED PUBLICATIONS

- **TD James**, M Sommerkorn, B Solovyev, J Morriston, et al. (2024) Whole-ocean network design and implementation pathway for Arctic marine conservation. *npj Ocean Sustainability*, 3(25).
- G Aðalgeirsdóttir, **TD James** (2023) Acting now will reduce glacier loss. *Science*, 379(6627): 29-30.
- TDL Irvine-Fynn, TO Holt, **TD James**, et al. (2022) Time-lapse photogrammetry reveals hydrological controls of fine-scale High-Arctic glacier surface roughness evolution. *Earth Surface Processes and Landforms*, 47(6): 1635-1652.
- **TD James**, et al. (2021) A Guide to ArcNet. WWF-Arctic, 51 p.
- KG Olsen, M Nettles, LM Cathles, JC Burton, T Murray, **TD James** (2021) Improved Estimation of Glacial-Earthquake Size Through New Modeling of the Seismic Source. *Journal of Geophysical Research: Earth Surface*, 126(12): e2021JF006384.
- JC Roff, M Giangioppi, A Gerhartz-Abraham, W Merritt, **TD James**, E Keenan, E Davidson (2020) Marine Ecological Conservation for the Canadian Eastern Arctic (MECCEA) – a Systematic Planning Approach for Identifying Priority Areas for Conservation. WWF-CANADA. 281 + xxii pages.
- GF Gilson, H Jiskoot, JJ Cassano, I Gultepe, **TD James** (2018) The thermodynamic structure of Arctic coastal fog occurring during the melt season over East Greenland. *Boundary-Layer Meteorology*, 168: 443-467.
- TJW Wagner, **TD James**, T Murray, D Vella (2016) On the role of buoyant flexure in glacier calving. *Geophysical Research Letters*, 43(1): 232-240A.
- T Murray, M Nettles, N Selmes, LM Cathles, JC Burton, **TD James**, et al. (2015) Reverse glacier motion during iceberg calving and the cause of glacial earthquakes. *Science*, 349(6245): 305-308.
- **TD James**, T Murray, N Selmes, K Scharrer, M O'Leary (2014) Buoyant flexure and basal crevassing in dynamic mass loss at Helheim Glacier. *Nature Geoscience*, 7(8): 593-596.

Full list via Google Scholar: <https://scholar.google.com/citations?user=vtc4vkoAAAAJ&hl=en>