MICHELLE RUTTY Julian M. Szeicz Award for Early Career Achievement

Introduction

It is with great pleasure that I write in support of Dr. Rutty's nomination for the Early Career Achievement award. I have observed her exceptional growth as an Indigenous scholar (Abitibiwini First Nation) over the last decade, as her committee member (MES, PhD), research advisor (Mitacs Accelerate), and now as her Dean in the Faculty of Environment.

Quality of the Nominee

Dr. Rutty is a Canada Research Chair (CRC, Tier II) in *Tourism, Environment, and Sustainability*, and an



Assistant Professor in the Faculty of Environment, University of Waterloo. As evidenced by Dr. Rutty's CV, she has an established record of excellence that has led to international recognitions and invitations, with demonstrated research impact that spans disciplines and engages academic, government, and business communities.

Dr. Rutty has a very strong publication record for her career stage, with over 50 publications, including 24 peer-reviewed publications in top-tier tourism journals, including *Tourism Management* (Impact Factor (IF): 6.012), *Journal of Sustainable Tourism* (IF: 3.400), and *Current Issues in Tourism* (3.395). She has also been invited to write chapters in books edited by leading scholars in sustainable tourism. According to Google Scholar, Dr. Rutty's research has 1178 citations (as of January 2021), with citations in diverse scholarly journals that span well beyond tourism (e.g., *Nature Climate Change; Sustainability Science; Environmental Science and Policy; Science of the Total Environment; PLOS Biology*). The diversity of journal outlets is indicative of her interdisciplinary research program, which incorporates conceptual frameworks and methodological techniques from fields as diverse as applied climatology, engineering, and sociology to study sustainable tourism and sustainability more broadly. This is both a particular strength of Dr. Rutty's research program and the true mark of a geographer, with her innovative and impactful research coming at the edges of disciplines.

To support her research, Dr. Rutty has been a principal and co-investigator on grants totaling over \$800,000, including *SSHRC; World Bank; Mitacs Accelerate*; and the *Michigan Department of Environment, Great Lakes, and Energy.* The originality and relevance of her research is also reflected by her numerous awards and honors, including the Travel and Tourism Research Association (academic), World Meteorological Organization (government), and the World Tourism Forum (business). In 2017, she was also recognized as a "Sustainable Tourism Thought Leader" by the United Nations Environment at a Sustainable Tourism Summit in Washington, DC. During her graduate career, Dr. Rutty received a number of research awards and scholarships, including a SSHRC Doctoral and Postdoctoral Fellowship, as well as the University of Waterloo President's Scholarship.

A particularly notable skill relates to Dr. Rutty's knowledge mobilization efforts. She is a highly effective communicator with academics and business/government stakeholders alike. On multiple occasions she has been invited to present at high profile international meetings, including as a keynote presenter. Dr. Rutty excels at translating research to the language of business or government decision-makers (through multiple 'plain language' reports, presentations, media interviews), which is something that many academics struggle with. For example, her research on the impacts of climate change on the Olympic Winter Games led to media coverage in over 30 countries in top news outlets (e.g., *BBC, New York Times, Time Magazine, National Geographic, Globe and Mail, Huffington Post, Al Jazeera*). This skill set is highly valuable for building productive and long-term research partnerships that will support her research program throughout her career.

Her growing reputation is further demonstrated by her extensive collaborative network, publishing with over 50 co-authors from 12 different nations. Her recent selection as co-Chair of the International Society of Biometeorology's Commission on Climate, Tourism and Recreation (2019-2021) is yet another indicator of her international status and the global network she is connecting with. Her expertise is also pursued on a number of international research projects, providing consulting services for the *United Nations Development Program* (UNDP), *UK Department for International Development* (DFID), the *Australia Agency for International Development* (AusAID), *Michigan Humanities Council, Erb Institute for Global Sustainable Enterprise*, and the *Lundin Foundation*. She has also served as a peer reviewer for 21 different journals that span tourism and sustainability, and served as an expert reviewer for various national and international research bodies (e.g., *Natural Resources Canada, Swiss National Science Foundation*). She is also a contributing author to the upcoming North American chapter of the Intergovernmental Panel on Climate Change (IPCC) Sixth Assessment Report (AR6).

Significant Research Contributions

Using a multi-methods approach, Dr. Rutty's SSHRC-funded research was the first empirical study to examine tourists' thresholds of optimal to unacceptable climatic conditions. Dr. Rutty's research advanced tourism climatology by increasing our understanding of the complexity tourists' climatic preferences and called into question the highly cited macroeconomic models that had been used to evaluate how climatic resources for tourism would be redistributed under climate change. The research findings have gone on to become the most cited paper in the *Journal of Tourism Planning & Development*, including citations in the IPCC 5th Assessment Report. Her research has also spurred international scholars to replicate Dr. Rutty's methodological approach in tourism destinations across the globe (e.g., Caribbean, China, Europe, Middle East, North America, Scandinavia, South America). The results have also been utilized to develop tourism climate indices (e.g., Holiday Climate Index), directly addressing publications where thermos-physiological indices had been applied to the tourism sector without understanding the complex relationship between personal and meteorological parameters that make tourists' unique.

Dr. Rutty's research has also advanced climate vulnerability assessments for winter sports tourism (Canada, European Alps, USA, Olympic Winter Games), establishing an international standard to inform effective adaptation strategies and allow for inter-market comparisons and export of knowledge and techniques to other tourism markets. Dr. Rutty led the first temporal

analogue study to use high resolution data at the individual operator scale to understand the impact of climate change on ski resorts, as well as the refined leisure behavior constructs to answer key questions about the future demand patterns of tourists in response to contemporary and projected marginal climate conditions. Rutty also led the development of an Engine Idling Reduction Program for ski resorts Ontario, which has since rolled out across North America. Rutty's research efforts were acknowledged through the Tourism Industry Association of Ontario, receiving an award of excellence for sustainability.

Conclusion

Dr. Rutty has demonstrated research excellence throughout her early career through her engagement with diverse stakeholders, creative interdisciplinary approach to research questions, development of national and international networks, and passion for impactful research. I unequivocally believe that Dr. Rutty has the research record, network, and prospects that deem her the worthy recipient of the Julian M. Szeicz for Early Career Achievement.