

## **Michael Bordt – Environmental Statistician**

May 30, 1954 - August 5, 2021

The statistical community lost a great friend, thinker and doer this summer. Dr. Michael Bordt passed away suddenly but peacefully on August 5<sup>th</sup>, 2021 at his home in Ottawa. Michael was known, quite literally, in the four corners of the world for his commitment to environmental statistics and accounting – not to mention his towering presence and gentle nature. It is no exaggeration to say that the world would not have the environment statistics it does today without Michael's many contributions and dedication.

Born in Germany in 1954, Michael moved to the small town of Prescott, Ontario as a youngster. Perhaps it was there, looking out on the breadth of the great St. Lawrence River, that his passion for the environment was born. Whatever its source, this passion was to drive Michael's academic and professional work for much of his life.

Graduating from Queen's University with a degree in biology in 1977 and York University with a Master of Environmental Studies in 1980, Michael was ahead of his time in seeing the environmental crisis as requiring both rigorous thinking and a strong evidence base. He began working on both as a young analyst at Statistics Canada, where he would spend much of his career. Statistics Canada was then, as it is now, at the forefront of environment statistics and Michael was assigned to its first major compendium on the topic, *Human Activity and the Environment* (HAE). These two were to go on to have a long and productive relationship, with Michael playing a major role in nearly every edition of HAE until 2012.

It was not long before one of Michael's other passions – travel – picked him up and took him to Paris to help the OECD develop its fledgling environment statistics questionnaire. Back at Statistics Canada in the mid-1980s, Michael (whose skills as an analyst were always in high demand) got lured away by the social statistics modelling team for a few years (of course, he made a major contribution). He returned to the environment fold in the late 1980s but, again, his love for other places and people drew him away, this time to Indonesia. It was there Michael had his first experience helping a developing country build its environmental statistics program. It was also there, to his great fortune, that he met his wife of 31 years, Liswati Seram.

What started as a three-month contract working for Dalhousie University and the Indonesian Ministry of State for Environment on the *Environmental Management and Development in Indonesia* project spawned a multi-year series of engagements to help Indonesia develop its environmental statistics. Michael would return to Indonesia many times through the early 1990s, even using his vacation time to do so. Helping developing countries get started with environmental statistics was a theme Michael would pick up with renewed vigour later in his career.

While Michael was known professionally for many things, a constant among them was his knack for informatics and spatial analysis. In the 1980s, when other people were just learning what micro-computers were, Michael was building them in his basement and programming them to do amazing things (including to make music, another of his passions). He was among the first to apply computers and geographic information systems to environmental statistics, an approach he would use to great effect throughout his career. In every group he worked with, Michael was the “computer guy”. Always happy to help, he never made you feel bad for asking a dumb question, even if you had asked it twice before.

Michael translated his exceptional informatics skills into a major data salvage success in the late 1990s, when he led the team that resurrected the *Canada Land Inventory* (a detailed digital map of Canada’s land capability) from computer tapes destined for the scrap pile. Michael’s team won an award from the Government of Canada for that work, recognition of which he was justifiably proud. The *Canada Land Inventory* continues to this day as a backbone of Canada’s environmental statistics.

The early 2000s saw Michael again leave environment statistics, this time to apply his abilities in the emerging field of innovation statistics. Naturally, he shone and further expanded his list of admirers within Statistics Canada and beyond. But his passion for the environment drew him back one more time. In 2006, he was appointed senior advisor on environment statistics and began working on the important new topic of ecosystem statistics and accounting. He was fully engaged during these years as lead of the pioneering inter-departmental project *Measuring Ecosystem Goods and Services*, which culminated in the [first official statistics on ecosystem goods and services](#). This work remains one of the best such efforts

globally and was a springboard to much follow-on work by Statistics Canada and others.

In 2012, Michael decided that 32 years was enough to give to any one institution (after all, he had other things to do!) and retired from Statistics Canada. Not to his garden though, but to life as a doctoral student at the University of Ottawa. Working with [Professor Marc Saner](#), Michael pursued his love for conceptual work through a dissertation titled [\*Improving Convergence and Aggregation in National Ecosystem Accounting\*](#). While completing his dissertation, he returned to helping developing countries with their environmental statistics, working closely with the United Nations Statistics Division to set up ecosystem accounting projects in (again) Indonesia, South Africa and Mexico. These countries have gone on to find themselves at the forefront of ecosystem accounting globally.

With his doctorate in hand, Michael was off to Bangkok for a three-year stint with the United Nations Economic and Social Commission for Asia and the Pacific as regional advisor on environment statistics. From there, he travelled the Asia-Pacific region and the world, speaking to as many governments, experts and ordinary people as he could about the importance of measuring ecosystems. During this remarkably productive period, he hatched a plan (with [Professor Ben Milligan](#) and a few others) to create nothing less than a [global partnership for ocean ecosystem accounting](#). He didn't just hatch the plan though. He got it funded, built the committees, made the connections and, back home in Ottawa, got to work on the numbers with colleagues at the Department of Fisheries and Oceans.

Although fully occupied with ocean accounting in recent years, with Michael there was always room for more. Importantly, he found time to review and contribute to the revision of the SEEA Ecosystem Accounting framework. Thanks in part to his ability to make difficult concepts understandable, the [SEEA Ecosystem Accounting was recognized as a global statistical standard](#) in March 2021. On top of this, his legendary work ethic made him an excellent consultant and collaborator, so he was in constant demand for projects at one international organization or another. He had also returned to the University of Ottawa in 2020, where he was named Adjunct Professor and was on his way to building his academic and teaching careers. All of this ended far too soon for Michael, for his family and for the statistical community.

If Michael was a consummate professional, he was an equally fine human being. Known to all who met him as a gentle giant, Michael's physical stature was no match for his kindness of heart. He [was a loving husband, father, son and brother](#) and a [dear friend to people around the world](#). Quick to laugh, always self-deprecating and never one to speak without careful consideration, Michael was an inspiration to all of us lucky enough to have worked with him. We miss you, Michael. Rest in peace.

To mark Michael's untimely passing, a \$1000 annual scholarship in his name has been created at [the Faculty of Environmental and Urban Change at York University](#). This permanent scholarship will support students sharing Michael's passion for using informatics to solve the world's environmental challenges. Donations to the scholarship fund would be gratefully accepted at <https://giving.yorku.ca/MichaelBordtAward>. Donations are tax deductible for Canadian taxpayers. Questions about the scholarship may be addressed to Robert Smith ([rob@midsummer.ca](mailto:rob@midsummer.ca)) or Dr. Peter Victor ([peter@pvictor.com](mailto:peter@pvictor.com)).