MARKUS G. DYCK (1966-2021)

Like the polar bears that captured his heart, Markus Dyck was an icon of the North, known for an unflagging dedication to his work and his passionate personality. Born 25 March 1966 in the small, rural town of Riedlingen, Germany, the bright blue-eyed, tow-headed boy could not imagine the future that he would create. He spent his days outdoors swimming in the local canals and playing soccer. Soccer was his first passion and one he held throughout his life, playing semi-professionally and always supporting German national teams. After graduating high school, Markus joined the working ranks in 1983 as a customs officer inspecting beer-making facilities, among other things. Realizing there was more adventure to be had, he enlisted in the German military from 1986 to 1993, rising to the rank of Mastercorporal. His skills for order and leadership shone, leading to his becoming the youngest drill sergeant at that time. Klaus Klan, a friend from high school and the military, recalls Markus's icy exterior so familiar to many of his colleagues and friends. Cracking the ice, however, he found a mischievous, fun-loving man that painted his Volkswagon Käfer with Queen's "A Kind of Magic" and pretended to do radar controls on passing cars on the highway. Markus's mischievousness was never far from sight and, while waiting to board his flight to Resolute for his last field season, he was spinning a yarn to a friend in the airport about how he was going up to Lancaster Sound to survey snow lemmings, the rare subspecies of lemmings that are pure white, burrow in the snow along leads in the ice, and are very rarely spotted. They are also a completely fictional creation he made up on the spot for the sheer joy in having someone on.

In 1990, Markus and his then wife Natascha, took the opportunity to travel overseas with the German military where they were stationed at the then German Army Training Establishment Shilo in Manitoba. Markus grabbed any opportunity to travel throughout North America during his time off and fell in love with the raw, wild beauty of Canada. On what was supposed to be his last vacation before returning to Germany, he chose to visit Churchill to experience the Arctic and see the polar bears. It proved to be a life-changing experience.

On this first visit to Churchill, Markus was fascinated by the polar bears. Not content to simply enjoy a standard tourist tour, he peppered the tundra buggy driver with questions about how one comes to work there and study the bears. The tundra buggy driver, exasperated with Markus's questions, drove him by the Churchill Northern Studies Centre (CNSC) and dropped him off with the advice that he should talk to the people inside, but not to take too long or the buggy would leave without him. Markus had a conversation with a scientist inside who advised him that he would need to come to Canada and attend university. Undaunted by the grueling years of education and immigration bureaucracy such an endeavour would require,



Caption: Markus Dyck at Allen Island during the Davis Strait polar bear subpopulation survey, September 2018 (Photo: Jasmine Ware).

Markus decided then and there that he would do whatever it took to become a polar bear biologist.

From 1992 to the early 2000s, Markus was either living as a Churchill resident or working and volunteering at the CNSC, moving his way up to Assistant Manager and then Manager of Facilities. Within 10 years of immigrating, he had perfected English as his second language, graduated from Brandon University with a BSc in Zoology (1997), and completed his MSc in Natural Resource Management from the University of Manitoba (2001).

Markus was a perceptive observer of humans and wildlife and delighted in watching both. His years in Churchill were instrumental in laying the foundation for understanding research, the politics of polar bear science, and forging lifelong friendships. Each summer Markus assisted researchers from whom he learned the methods and techniques used to study animals ranging from insects to polar bears. During this time, he also learned that the relatively small world of polar bear research was not always friendly to outsiders or those who questioned the status quo. However, this did not deter Markus who was nothing if not determined. He forged ahead, believing in himself and finding people who believed in him. Markus credited the mentorship of his late, close friend Malcolm Ramsay for giving him a chance in polar bear research.

For his masters research project, Markus conducted the first study on how Churchill's tundra vehicle industry influenced polar bear behaviour. Harvey Lemelin, former Executive Director of the CNSC and close friend to Markus, remembers his sheer determination; within hours of meeting each other, Markus confidently declared, "I will be a polar bear biologist." Harvey also recalls the intelligence, humour, and unexpected wisdom in the advice Markus had to offer. While they routinely got into memorable shenanigans at the CNSC, it was Markus' unwavering belief in and support of him that Harvey cherishes most. "When I had my doubts about becoming the Executive Director, it was Markus that supported me and told me to take the job. When I began to have doubts about going back to graduate school, it was Markus who reminded me to pursue my dreams. In hindsight, what was most remarkable about his support," Lemelin noted, "was that even though we were nearly inseparable during our years together in Churchill, Markus knew that the pursuits of our dreams would eventually lead us down different paths. But he was okay with that because the man was selfless and knew that goals were meant to be pursued and achieved."

After completing his masters degree in 2001, Markus joined the Government of Nunavut (GN) as the Polar Bear Technician and acting Polar Bear Biologist until 2003. While working for the GN, he applied his exceptional organizational skills to managing and tracking the largest polar bear harvest program in the world along with developing Nunavut's first bear-human conflict management plan. Markus then spent a short but memorable time with the Department of Fisheries and Oceans in 2003, leading the Sylvia Grinnell River Arctic Charr Monitoring Program while based out of Igaluit. Following up on Inuit Qaujimajatuqangit (IQ or Inuit traditional knowledge) reports, he applied for and received independent funding to document reports of polar bears actively fishing for Arctic charr at the mouth of the Union River near Creswell Bay, Nunavut. The observations he recorded during his 2005 and 2006 field seasons were published as the first documented cases of polar bears fishing for Arctic charr. Stefan Romberg fondly remembers the experience of helping Markus on that project and the start of a longtime friendship. He recalls the sheer beauty and abundance of wildlife in that location, including beluga, narwhal, bowhead, various seal species, polar bear, muskox, and wolf as "one of the most beautiful places I've ever been to."

In 2004, Markus joined the faculty at the Nunavut Arctic College in Iqaluit where he taught a myriad of classes for the Environmental Technology Program, ranging from Communications to Limnology to Wildlife Management. Wherever he went, Markus made an impact with his dedication to leave things in better condition than he found them. At the college he redesigned courses, updated teaching materials, and wrote instructor manuals. His students recall an instructor who expected much of them, but who also believed they could achieve those expectations. He was a fixture in Iqaluit, running his own dog sled team, hunting, and sporting his iconic red beard.

The polar bears lured Markus back to the GN's Department of Environment in Iglulik in 2006 where he served as the Polar Bear Technician and helped collect data on over 1000 polar bears for the Davis Strait subpopulation study and gained valuable experience on how to conduct large-scale population surveys of wildlife.

He returned to the Arctic College in 2007 and spent much of his time teaching students on the land or leading skidoo-based research teams aimed at finding less invasive ways to study polar bears. Markus embraced the Arctic lifestyle: engaging in activities on the land and living and working alongside field workers and colleagues. Markus' years of living, working, hunting, and educating students in Nunavut earned him the respect of Nunavummiut as a true ally and de facto Nunavummiug. He left Nunavut in 2009 to pursue his PhD at Queen's University under the supervision of Steve Lougheed. When his initial idea for a genetic-based project using the Davis Strait polar bear subpopulation study data did not pan out, he again demonstrated determination and shifted his thesis to study density-dependent effects on the population ecology of weevils as a model for a dynamic energy budget approach to studying polar bear persistence. Ever focused on his goals, Markus left the program in 2012 when he landed his dream job of Senior Polar Bear Biologist for Nunavut. Years later, in 2020, a PhD student who built upon the rich foundation of Markus' doctoral weevil work marveled at the quality and volume of data he had collected. With Markus' consent and input, the student refined the methodology Markus had developed some 10 years previously, and together they published that work.

In his senior role with the GN, Markus displayed the full breadth of his capabilities. He carried the weight of Nunavut's polar bear research and management program on his shoulders, which represents more than half the world's polar bears. From 2012, he led or participated in surveys on 10 out of 12 of Canada's subpopulations, spending years in the field and on the land collecting data on thousands of bears. Often single-handedly, he juggled and organized these large field projects, which frequently spanned months.

Always thirsty for more knowledge through research, Markus was known to spend his evenings and weekends reading the latest in scientific literature, as his workdays were filled with more pressing matters. Because of his strong belief in the importance of scientific research, he used his own time to become a highly valued reviewer for many journals including Arctic. Recognizing the limits of what one person can do, Markus developed collaborations with an ever-growing list of experts. Every new article that came out with his contributions had its cover page printed and pasted to his office wall as a reminder of all there was to learn. He authored or co-authored over 50 peer reviewed articles, with many more either submitted or in press at the time of his passing, along with an untold number of reports, presentations, and outreach materials for Nunavummiut. Markus' passion for new projects never diminished. His

excitement was often palpable, as he regularly bounced jauntily into his colleagues' offices with fresh research ideas.

This dedication and passion were noted by many others, including his close friend, collaborator, and colleague at Nunavut Tunngavik Incorported, David Lee. David notes:

Markus was singularly focused on the task of improving our scientific knowledge of the species. This included the organization and execution of some of the most logistically challenging polar bear census surveys. Through this and numerous meetings, one could readily observe how committed he was to Nunavut and especially working with Inuit and Inuit organizations. There was no hesitation to meet with Inuit to discuss research plans and results, and more importantly, listen to any concerns. Although Markus could appear intimidating by his physical appearance and demeanor, once you worked with him, it became apparent that he was a kind spirit who was deeply passionate about polar bears and their conservation.

Similarly, polar bear biologist and statistician, Eric Regehr, who worked with Markus over the past decade, reflects on Markus' impact, "His contribution to polar bear management and conservation was huge. Markus was the kind of person you wanted to work with and didn't want to let down."

While many speak of Markus' renowned directness and bluntness, supervisors at the CNSC noted his diplomacy, even early in his career, in dealing with difficult visitors and contractors. Markus honed his subtle, humble, and honest diplomacy throughout his career. He employed it often in his days as senior biologist, where he excelled at smoothing ruffled feathers and using his well-polished tact to keep multi-jurisdictional working groups focused on common goals. As GN's Polar Bear Biologist and friend who worked with Markus from 2017 until his death, I was astounded by how he could develop and organize research programs and fieldwork while negotiating the demanding tasks and relationships associated with a senior role in a government agency. I learned so much from him and felt that there was so much more to learn. His passion, caring, fortitude, and ability to stay above the fray was inspiring.

Markus navigated through it all, keeping his dry humour and sharp wit intact. The infamous gruff exterior belied a devoted and loving man underneath, for those that he chose to reveal that side of himself. "A unique curmudgeon with a sweet inside. A man who stayed true to himself and true to his word in a world where that wasn't always the case. If Markus was in your personal and professional corner, you went forward knowing you had a loyal friend and ally," summarizes friend Peter Van Coeverden de Groot. Ever private and extremely camera shy, Markus eschewed the limelight. However, his love of wildlife overrode his dislike for cameras on a trip to the Galápagos Islands in

December 2015 with longtime friend, Meghan Marriott. She states, "Markus begged me to take a picture of him, sunburned and half-naked, because the lizards sharing our accommodations took to crawling on him in the evenings, likely using his sunburned body for warmth. He thought it was the coolest thing and giggled with delight each time a lizard hopped on." As far as Markus was concerned, his beloved dogs Atsuli, Kahru, Lily, and Daisy could do no wrong, and to his friends, his loyalty and support were unparalleled. Multiple close friends recall talking for hours with Markus, who would always find time to listen and support them through difficult times. There was no other hug like a Markus hug; in his embrace he transferred the care and love he offered, and you felt that deeply.

Markus died 25 April 2021 in a helicopter crash near Resolute Bay. For those of us left behind, we are challenged to fill the personal and professional void that he has left. However we will strive to be as strong as Markus and live our lives as filled with dedicated purpose as he did.

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