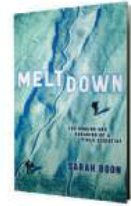


SCIENCE LIVES

Facing life's wild unknowns

A field scientist candidly reflects on navigating personal and institutional challenges **Anna Farro Henderson**



**Meltdown:
The Making and
Breaking of a
Field Scientist**
Sarah Boon
University of
Alberta Press,
2025. 312 pp.

Sarah Boon forged her scientific identity working in the stunning and sometimes unforgiving forests and glaciers of British Columbia, the Canadian Rocky Mountains, and the Arctic, where she studied the relationship between snow, weather, and hydrologic processes. In *Meltdown: The Making and Breaking of a Field Scientist*, she documents her early training, her transition to conducting independent research, and the “glass obstacle course” she navigated to achieve academic tenure. But an early knee injury foreshadows future challenges. Readers follow along as Boon consistently puts her research first, not knowing that a clock on her scientific research career is ticking.

Growing up with an Earth scientist father whose lectures flattened the sublime beauty of the Rocky Mountains, Boon swore off science at a young age. She focused, instead, on literature, setting up a lending library as a child and typing up her own newspaper. Writing would prove a worthy lifelong companion.

Her eventual passion for science came later, after a number of field-based undergraduate classes at the University of Victoria. Through hiking and designing team projects, she learns “to tell the story of what forces had acted on [the landscape] and why it looked the way it did.” It is here that long-term romances began with both the Hilda Glacier and her future husband. She would return to the glacier in Gore-Tex, fleece, and hiking boots for both her research and her wedding.

Boon's graduate research took her to the John Evans Glacier, which presented a Jenga-like challenge that the expedition team had to confront if the project was to succeed. Their days consisted of setting up temporary living quarters, supporting inexperienced and injured team members, navigating hazards, practicing mountaineering skills, planning food to sustain the team for weeks, waiting to fly in or out because of inclement weather, and cursing faulty equipment. The Arctic sun never set, and sometimes work went late into the night.

Living on a glacier as it “comes to life” in summer is an experience not captured by the static science of a textbook. Boon and her team had to rescue equipment, tents, and each other, as glacial melting causes icequakes, catastrophic drainage, artesian fountains, and raging rivers roiling with boulders. They learned that the process of discovering and developing new knowledge is messy, fraught, and uncertain.

Being in a male-dominated field complicated the underlying challenges Boon faced. She writes about working in all-male teams on expeditions and defending her qualifications and research to an all-male PhD committee. At the end of graduate school, she recalls feeling an urgency to “hurry to finish so I could get out and feel like myself again.” But when she accepted a faculty position at the University of Lethbridge in Alberta, the department asked her to step aside and not apply for a grant that year to make way for a male colleague who would be applying. No matter how many publications and credentials she acquired, Boon often felt like an outsider falling behind.

Lacking contemporary female mentors, Boon finds kindred spirits in historic scientists and mountaineers such as Elizabeth Parker,

Mary Schäffer, and Mary Vaux. These women serve as talismans and guardians, and their stories correct the false belief that women are a novelty in science. Boon does not find a real-time female mentor until she receives her faculty appointment, but their subsequent collaborations illustrate the role supportive relationships can play in research productivity.

For all the perils of the wilderness and institutional politics she navigates, in the end, Boon's health proves to be a barrier she cannot push through. Just as she achieves tenure and receives a major grant, she is incapacitated by a bipolar II disorder diagnosis. Boon writes that she now identifies as a “Spoonie”—a term used by people with disabilities and chronic illnesses to conceptualize the “limited number of spoons of energy [they have] each day.” She finds that she can no longer contort herself to fit into the university system: “I had become my job and it had become me.” The book ends as she comes to terms with building a new life and redefining success, embarking on a new career as a freelance writer and editor.

Boon's story is a reminder that although academic doors may slam shut, the world beyond remains expansive. Opportunities to explore the landscape, and ourselves, are vast and deeply necessary. □

10.1126/science.ady3159

PODCAST



Device and platform designs often fail to plan for user death.



<https://scim.ag/DeathGlitch>

SCIENCE OF DEATH

Facebook users die. So do iTunes customers. So do smart device users, YouTubers, and video game streamers. Yet few of today's technologies are built to accommodate this reality. This week on the *Science* podcast, Tamara Kneese, author of *Death Glitch*, explains how this fundamental design flaw has implications for everything from how we are remembered to how our assets are handled after death.

10.1126/science.adz3936