

Voicing the human experience of polar science

by Jen Freer



JR18007. SD046. PS152. These are research expeditions I've joined as a marine scientist with the British Antarctic Survey. Even their names are numbers and abbreviations. Fitting for the world

of scientists, who seem to have a particular affection for both. Each one brought a different ship, crew, location, and science quest, but all of them guaranteed quite the journey.

And I don't just mean the distance. These expeditions took us to the Arctic and Southern Oceans. Places as far away from familiar life as it gets. We crunch through sea ice, spy city-sized icebergs and are treated to wildlife spectacles. But we are not there to enjoy the view. This icy seascape is the backdrop for our science – science that has often been years in the planning and is logistically near impossible. Career plans, future projects and scientific breakthroughs can all hinge on what we achieve in just a few weeks. It all comes down to what we observe and recover from the ice and the water: samples, measurements, data. So the stakes are high, time is precious, and life aboard soon enters a cycle of deploying and recovering instruments, problem solving failures, battling storms and seasickness, and fighting fatigue to analyse another sample. Eat, science, coffee, repeat.

And yet, for all for all our ambitions to operate with the relentless efficiency of the instruments around us, there's no escaping that we are, in fact, human. And something about this unique combination of

remoteness, adrenaline, stress and novelty makes these two personas – the professional and personal, rational scientist and emotional being – blur into one, intense human experience. We deploy instruments *and* stop to delight in the curious penguins. We slice sediment cores *and* swap life stories with teammates. We are exhausted and still show up to the birthday party in homemade fancy dress. We lose an experiment we've spent days preparing *and* find the resolve to start again. We are engrossed in our work *and* miss loved ones back home. On returning to the same stretch of sea year upon year, we never fail to be overwhelmed by its beauty, or indeed its rapid change.

The truth is, we bring back so much more than data, memories that resist being neatly filed away like our samples: the colour of the midnight sun, the sound of ice on hull, daily gestures of kindness, expanded vocabularies, new skills, the ache of leaving a place that has both tested and transformed you. Quite simply, we go for the science but it's the human connections and experiences that bring tears when it's over.

These experiences stay with us long after we return home but they do not fit easily into the places



scientists are trained to record things. Scientific papers may acknowledge the people involved, but rarely the emotional depth. Data and reports don't hold space for them either. Photos capture them in fragments. To process and express things fully, I found myself reaching for another language. One capable of holding both precision and feeling. Poetry.

Now let's be clear. I am a scientist with no formal training in poetry. But I began writing haiku during the pandemic, as a way to step away from my screen and reconnect with my surroundings. I

learned that the process of writing poems can help untangle jumbled thoughts, give shape to emotions or spark a bit of silliness. On board, it's no different.

Sometimes a poem can capture a turn of events better than any photo or debrief. This poem was written after our most valuable net (called the MAMMOTH) took a battering in rough seas, temporarily sinking our hopes:

MAMMOTH

Half chewed and spat out
entrails paraded on deck
crushed, but not extinct



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Others emerge from the strange humour of life at sea as an ecologist studying tiny underwater creatures:

Copepods and I
share similar fates at sea
expanding fat sacs

But I am never the only wannabe poet on board and poems can quietly emerge as part of shipboard culture. One scientist left handwritten haiku for the night shift taped to the salinometer. Those scribbled pages are now treasured keepsakes. A chief scientist invited us to recite a poem at the end of our daily briefings, later preserving them in an appendix to the science report. I offered *To a Mouse* by Robert Burns when our "best laid plans" for a 48 hour sampling station went from bad to worse.

Another scientist captured an unscheduled stop to Husvik Bay, South Georgia (From *Calling Us*, by Amanda Burson):

Sheltered, we waited out the storm
serenaded by eerie calls from ashore
mingled with the good-will whispers
of explorers long before

And when it is time to leave, poems can also capture feelings that are difficult to voice:

At the gangway we hug and find polite words
of I don't remember what
and I, accepting the way of things,
descend
to somewhere I knew not

All these poems attempt to hold something that might otherwise have slipped away: the disappointment after a failed deployment, the absurd reality of too much food at sea (and the importance of mealtimes!), the imposing magic of South Georgia, and the bonds that form between people. They didn't change the science we brought home but they changed how we experienced and intensified how we remembered it.

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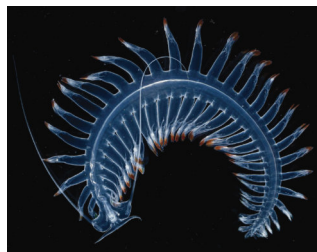


There is another less adventurous side to polar science. One that sits in an office or lab, usually in a city thousands of kilometres from the poles. Almost all our time is spent there in fact, battling spreadsheets and meetings and deadlines. Academic life offers flexibility, but also relentless pressures to publish, win funding, find the next big thing. Sometimes it is easy to lose sight of the bigger picture: what our data represent, the world-shaping questions we are trying to answer and the extraordinary environments we have the privilege of knowing so closely.

Poetry can hold a space for us to pause and re-connect to the processes we study, away from the distractions of admin and bureaucracy. This is an excerpt from *A Tale of Light and Fear*. In writing it, I hoped to describe the phenomenon of diel vertical migration – the vast daily movement of animals in our oceans that culminates in the transport of carbon to the deep sea, locking it out of the atmosphere. But it captured the magnitude and the wonder of this process more fully than I anticipated, touching on physics, light, energy, survival and time.

Their ascent begins as the light goes out.
A migration of millions of millions.
Jellies drift
pteropods fly
copepods hop and worms writhe.
Fish and krill of all stages and size
arrive.

To feast and be feasted upon.
To live and to die!
To scatter Sun's energy
far and wide.
The dead pass it on
the rest respire it below
a living-breathing-carbon-flow.
From sunbeam to seabed
via millions of millions of
invisible breaths.



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If polar scientists can find themselves preoccupied by daily life, what about everyone else? The polar regions capture people's imagination, but many will never witness their sights and sounds firsthand. 'Out of sight out of mind' is an attitude we cannot afford when sea ice decline and glacier melt are tipping into a new norm with consequences no one can avoid. Science gives numbers and evidence. Poetry can provide empathy and connection. We desperately need both.

Perhaps this is what Rachel Carson meant when she wrote, "...no one could write truthfully about the sea and leave out the poetry". What else would surface if more scientists wrote poems as well as papers?

Jen Freer is a marine ecologist at the British Antarctic Survey. Her research combines polar field expeditions with spatial modelling and forecasting tools to understand how animals such as krill and fish respond to climate change. Jen has undertaken several creative storytelling projects to engage wider audiences in polar science: <https://jffreer.squarespace.com/>

Note: unless indicated otherwise, all quoted lines of poetry are my own.