Views

Comment

On thin ice

The frozen Arctic sea I trekked across to reach the North Pole is melting, creating a potential shipping super-highway. It's very worrying, says **Pen Hadow**

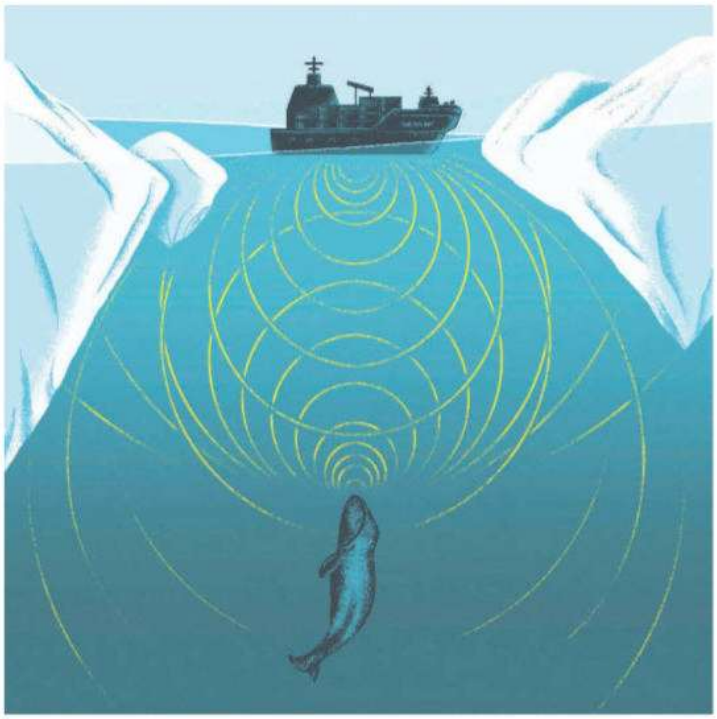
IT WAS 21 years ago that I trekked and swam solo, without resupply, across the icy Arctic Ocean from Canada to the North Geographic Pole. The feat hasn't yet been repeated and probably won't be due to a drop in sea-ice cover caused by warming resulting from greenhouse gas emissions far to the south.

It had taken three attempts over 15 years before success in 2003 in reaching the pole, around 770 kilometres from Canada in the central Arctic Ocean's "high seas". By then, the nature of the 75-day challenge had morphed to require an amphibious element – swimming between drifting ice floes was the only way to get there, with 30 hours in the water in total.

I have spent over 10,000 hours on the Arctic Ocean since 1989, and have been witness to how the region's floating "ice-reef" habitat is dwindling faster than projected.

My anecdotal experience is borne out by satellite data. NASA reports a decline in the minimum extent of Arctic sea ice – which waxes and wanes seasonally – of 12.2 per cent per decade over the past 40 years. The rise in average ocean surface temperature in the region is four times that seen more broadly, and, in some Arctic sea areas, it is seven times.

The Arctic Ocean could be 85 per cent ice-free in the summer, including at the North Pole itself, from 2035. It could be totally ice-free for nine months each year within another 45 years. The loss of our planet's northern white "cap" – a critically important reflective heat shield – will trigger far-reaching and uncharted consequences for the northern hemisphere and beyond.



ELAINE KNOX

As the natural floating barrier of sea ice recedes, new direct impacts, stressors and risks are looming for wildlife from vessel-based activities – commercial fishing, cargo shipping, tourist cruises and deep-sea mining.

Take shipping. Bottlenecks in key routes are creating increasing costs, delays and accessibility challenges. This follows recent geopolitical pressures in the Red Sea affecting the Suez Canal and an unreliable water supply for the drought-hit Panama Canal. For some, Arctic routes might look attractive as the ice recedes.

China intends to operate its "Polar Silk Road" (aka the Transpolar Sea Route), a project to optimise the efficiency of shipping between east Asia and Europe, which involves transiting the Arctic Ocean via the North Pole itself when it becomes ice-free for much of the year. That could be around 6000 km shorter than some non-Arctic routes, making it quicker, more fuel efficient and cheaper.

But all vessel-based activities can be damaging and potentially disastrous for marine biodiversity and its associated ecosystem. They also have a big impact on the circumpolar Indigenous peoples, many of whom depend on local animals for their food and culture.

Explosive surveying techniques, oil tanker spills, commercial-scale fishing and ships hitting marine mammals are oft-cited issues. But worryingly under-reported is the effect on sea life of the noise pollution created by propellers. Marine mammals, for example, have evolved acoustic capabilities to navigate, hunt, socialise and find mates. The impact of ship noise, along with chemical and biological stressors, on some of the Arctic's most charismatic species, including narwhals, orcas and seals, needs to be addressed.

In response, I have set up the 90 North Foundation. Along with Indigenous peoples, scientists, conservation organisations and policy-makers, it will advocate for measures to safeguard the Arctic Ocean's biodiversity. We can't rebuild sea-ice cover in the decades or even centuries ahead, but we can boost the resilience of the biodiversity there by minimising the risks from ships. Establishing an internationally recognised North Pole Marine Reserve to achieve this is our shared goal.

Pen Hadow is an Arctic explorer and ocean conservationist