Future Arctic: Why it's time for action, not resignation

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For many Canadians, his writings from the far north will be immediately familiar. But *Future Arctic* should be the book that introduces him to the rest of the world because his unique voice needs to be heard.

In places so remote that few of us can locate them on a map let alone expect to visit, Struzik paints troubling pictures of an unseen Arctic that is on the brink of unravelling under human pressures both near and far.

He endures all the discomforts of the Arctic during his travels: vast storms, freezing cold, long journeys in heaving sailboats and clouds of biting insects so dense that you leave a wake behind you as you walk through them.

In one place where Struzik seeks shelter his host shocks him awake in the night by firing a rifle through the front door at a marauding bear. There are places that are sublime and others, like Ellef Ringnes Island, which are "closer to Hell than to Earth". As he writes: "Nowhere is there a speck of colour or a hint of life, just nature in despair."

The unique advantage of Struzik's travels is that his "field notes" allow him to relate an intimate knowledge of place back to widening circles of global influence.

Visits to the Peace-Athabasca delta prove the value of his method. The Peace river, flowing east from the Rockies, and the Athabasca river, flowing north through Alberta, meet in the middle of nowhere to create the world's largest freshwater delta, a maze of lakes and winding channels.

Many indigenous people used to make a good living in the delta from its fish and wild fowl. Struzik meets Cowboy Joe Wandering Spirit, the last person to still live there all year round, alone in a one-room cabin with his 10 sled dogs. The middle of nowhere is not far enough away to escape human influence, it turns out.

In 1967, a huge reservoir was completed far away on headwaters of the Peace river in British Columbia. Since then the delta has been drying out, with lakes and channels vanishing, despite efforts to release enough water to keep it healthy. "The Canadian government knew then that the dam would have an enormous effect on the delta downstream, but no one bothered to tell anyone who lived there," he explains.

Then came the oil sands industry, a couple of hundred miles up the Athabasca. In 1986, a massive spill polluted the delta leaving locals in fear of another. And as the oil sands industry grows, it sucks ever more water from the river: 2 per cent of its flow now, rising to perhaps 30 per cent in 2030, Struzik tells us.

In the far-off mountains where the rivers begin, global warming continues to melt the snows and glaciers that give the rivers life. The circles of human interference close in on the delta, with the one ray of hope that a wetter phase of a climate cycle may be on its way. But to be sure of that we need better long-term data. And, this, Struzik explains, is increasingly difficult when "the Conservative government of Prime Minister Stephen Harper has been hostile to climate change debates, toward scientists, and toward most environmental initiatives".

The fate of the caribou is another of Struzik's many stories with the same structure. Caribou live in vast migratory herds across the Arctic but most are in decline. In 1986, there were 450,000 in Nunavut's Bathurst herd; by 2009, only 32,000 were left.

Over-hunting is one factor that can be quickly reversed. The wider circles are beyond local control. Warmer climates bring more insects and diseases. More rain and less snow create

layers of hard ice that prevent caribou reaching the lichens they feed on. More development in the Arctic carves up the old forests, allowing deer to move in along with wolves that feed on them but then take caribou, too. Once again, all these impacts are superimposed on natural cycles that we don't understand.

Despite Struzik's often worrying accounts drawn from across the Arctic, on land and in the ocean, he is neither an ideologue nor a pessimist. A penultimate chapter looks at arguments for an international treaty to protect the Arctic. But this is largely superfluous for, like everyone else, he sees no practical route to its realisation.

He scores much better on solutions to individual problems: there are ways to protect calving caribou, and a water management scheme used in Texas may be just what is needed to help the Peace-Athabasca delta, for example. There is much that can be done to ameliorate each individual problem and Struzik's book demands action, not resignation or anger.

But lurking in the background is the seemingly unstoppable force of changing climate, bringing a flood of unfamiliar creatures to the north, which Struzik records, and creating a new Arctic that we cannot yet imagine.

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