

As a South African scientist and consultant who follows climate change and other environmental issues very closely, Dr. Kelvin Kemm always has unique perspectives to share with readers around the world who might otherwise receive only a western, first world or environmentalist viewpoint. His article today provides another timely analysis of environment and climate change issues, just as the UN global warming conference gets underway in Doha, Qatar.

As Dr. Kemm notes, far too much of what passes as science on climate change, melting polar ice caps and related issues is far removed from actual science. It thus provides a harmful, almost “Alice in Wonderland” parallel universe “reality” that ill serves our decisions on the most important energy, environmental and economic public policy issues of the day.

## **Alice in Wonderland science**

Our energy and environment deserve better – in South Africa and Qatar

Kelvin Kemm, 29 November 2012

A few weeks ago, perhaps as a prologue to the “global warming disaster” convention in Doha, Qatar, South Africa’s Department of Environment Affairs took out a full-page advertisement in our country’s newspapers, promoting National Marine Week.

The ad showed a map of the Antarctic continent, from above the pole, surrounded by the vast blue Southern Ocean. It also promoted South Africa’s new Antarctic research vessel, SA Agulhas II.

The advertisement’s text mentioned the massive Antarctic Circumpolar Current, which is responsible for distributing vital nutrients to the world’s oceans. It noted that the truly massive quantities of phytoplankton found in the ocean are vital marine building blocks in ocean processes. All that is true, and I certainly applaud efforts to protect the environment and promote National Marine Week and our country’s research efforts.

But then, sadly, the ad’s discussion of physics content went off the rails. Referring to phytoplankton, it said “these microscopic creatures also use carbon to create energy.” Wrong!

The most basic law of thermodynamics says energy is neither created nor destroyed, but merely converted from one form to another. The only way to “create” energy is via a nuclear process, whereby matter is converted to energy in a nuclear reaction, as Einstein famously postulated over a century ago. Nuclear processes operate outside the laws of thermodynamics, but there is certainly no nuclear process going on in phytoplankton.

I could have lived with that slip up in the physics. But it got worse – much worse. The ad went on to blame global warming for upsetting the phytoplankton. In a declaration straight out of *Alice in Wonderland*, it asserted: “The increase in surface temperature over Antarctica from climate change is having a catastrophic knock-on effect, depleting phytoplankton stocks, melting the Antarctic ice sheet and causing an alarming reduction in all marine life.”

First, to the best of my knowledge, there has been no “alarming reduction in all marine life.” None of my colleagues are aware of it. Second, the surface temperature over Antarctica is not increasing.

In fact, a new record has just been attained. Antarctic sea ice has just reached an all-time record for total acreage. Day 265 of the year 2012 set an all time record, and then on day 266 that record was broken. The days 265 to 270 were the six highest Antarctic sea ice extent days of all time.

The environment department then compounded these errors by committing the unforgivable scientific sin of claiming a supposed increase in surface air temperature over Antarctica “is having a catastrophic knock-on effect” – then providing no evidence to back up its assertion and not telling readers what the alleged knock-on effect is.

I cannot even begin to imagine how this knock-on is supposed to alter the Circumpolar Current, which in turn is somehow supposed to affect the “energy creation” capabilities of phytoplankton. Come off it, folks.

There is so much good Antarctic science to be proud of – and, for that matter, really fine South African scientific achievements in the Antarctic to brag about. That the DEA would feel compelled to celebrate National Maritime Week by resorting to phytoplankton scares supposedly related to nonexistent Antarctic heating is beyond mystifying.

Meanwhile, over the last few months, newspaper stories have told of reduced sea ice extent at our planet's other pole, the Arctic. Terms like “alarming rate” of ice depletion were bandied about casually. Yes, there were reductions in Arctic sea ice cover.

However, on September 18, a video posted by NASA on its website showed that a large and long lasting Arctic cyclone “wreaked havoc on the Arctic sea ice cover,” by “breaking up sea ice.” The unusual reduction in Arctic sea ice cover was due to high winds – not to any warming of the Arctic or global warming in general. NASA's belated analysis demonstrated that a large section of ice north of the Chukchi Sea was cut off by the churning storm, broken up and pushed south into warmer waters, where it melted.

The storm also broke up other ice, accelerating drifting and melting elsewhere. Reuters finally reported that “NASA says a powerful cyclone formed off the coast of Alaska in early August and moved toward the centre of the Arctic Ocean, weakening the already thin sea ice as it went.”

NASA noted that this was an “uncommon event” and that there have been only about eight storms of similar strength during August in 34 years of satellite records. However, a major storm every four years is not all that “uncommon.” Paul A. Newman, Chief Scientist for Atmospheric Sciences at NASA's Goddard Space Flight Centre, added that such wind disturbances produce many effects and can also lift warmer water from the depths of the Arctic Ocean up to the surface to accelerate melting.

For some reason – probably having to do with its regular promotion of “dangerous manmade global warming” claims – the storm story was barely mentioned in the mainstream popular media. By contrast, the “alarming ice cover reduction” narrative was covered extensively.

Now jump back in time five years, to December 12, 2007. On that date Associated Press writer Seth Borenstein distributed an article that stated: “An already relentless melting of the Arctic greatly accelerated this summer – a sign that some scientists worry could mean global warming has passed an ominous tipping point. One scientist even speculated that summer sea ice could be gone in five years.”

Well, five years have come and gone. Borenstein was dead wrong. Does anyone suppose the AP will now publish an apology, admitting that its “science writer” was on thin ice when he made this outlandish statement, and saying he should not have tried to scare the public like that?

Perhaps the answer can be found in Lewis Carroll's *Alice in Wonderland*.

“There's no use trying,” Alice said. “One can't believe impossible things.” “I daresay you haven't had much practice,” said the Queen. “When I was younger, I always did it for half an hour a day. Why, sometimes I've believed as many as six impossible things before breakfast.”

Especially with the Doha climate change confab in full swing, taxpayers, newspaper readers – and anyone dreaming of a better life through reliable, affordable energy – deserves more honest reporting and more science-based energy and environmental policies than they have been getting.

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