



Amy Domini

Damned lies and statistics

A few helpful stats can come in handy when dealing with climate change skeptics.

A S A KID ON CAPE COD, I'D GET REALLY FRUSTRATED with a ground-dwelling bird that lived all around us. The Virginia quail (or bobwhite) had the most annoying call. At dawn it would start in, tentatively, "Bob? Bob White?" This would repeat until you thought you'd lose your mind. While I still spend much of my summer on Cape Cod, I haven't heard a bobwhite in 20 years.

During long summer days, I'd crawl around the boulders and pull out handfuls of mussels, bring them home and feast. I can't find them anymore. Nor do scores of conchs roll up after a storm. And I could swear there are far fewer lightning bugs in the evening.

I love the natural world and want to protect it. That's why I felt so angry with myself recently. I was on an airplane and a man next to me told me he was an electrical engineer and noticed I like numbers, too. I said I was playing Sudoku and it didn't require math. But he said no one understands simple math: Vice-President Al Gore's formula was wrong and there was no climate change. The storms were no worse than usual. We were all being played for chumps.

I didn't fight back. I hadn't spent the time memorizing a few salient facts. My experiences informed me that everything is changing but I couldn't quantify it. So here's what you need to know if this happens to you. All this comes from the Environmental Protection Agency (EPA) website: epa.gov/climatechange.

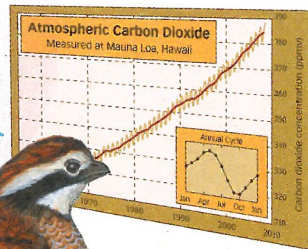
Each year the Audubon Society conducts a Christmas bird count, which show that bird migrations have shifted. Bird species in North America have moved their winter locations north by an average of 35 miles since 1966, with a few species shifting by hundreds of miles. Next: Plant hardiness zones have shifted. Large portions of the U.S. have seen shifts northward by one zone since 1990. Gardeners rely on these charts to know what will survive in their regions. The EPA site shows the changes. It is startling.

The time between last frost and first frost has long been measured. In the U.S. West, the growing season is 20 days longer now. In the eastern U.S., it's six days longer.

Glaciers worldwide have lost more than 2,000 cubic miles—yes, miles—of water since 1960, which has contributed to the observed rise in sea levels. The average global absolute sea level

increased at an average rate of 0.06 inches per year from 1870 to 2008. From 1993 to 2008, average sea levels rose at a rate of 0.11 to 0.13 inches per year—almost double the long-term trend.

And as we are all experiencing, the storms are worse. A larger percentage of precipitation comes in very intense, one-day-only events. Eight of the top 10 years for extreme one-day precipitation have occurred since 1990. (These figures pre-date the tornadoes of 2011.) Furthermore, the heat is worse. The percentage of the U.S. affected by heat waves has risen since the 1970s, with an alarming rise in very high nighttime temperatures.



Now I know a few facts that prove to me that the climate is changing. They aren't as useful as the charts one sees, but anyone can use them. My airplane buddy probably wouldn't care

about the EPA, but it does have documentation about climate change on its website.

My airplane buddy wouldn't care what the Securities Exchange Commission thinks. But it acts like it believes in climate change, releasing guidelines on when to report risks concerning climate change: "Physical

Impacts of Climate Change: Companies should also evaluate for disclosure purposes the actual and potential material impacts of environmental matters on their business."

The Investors' Network on Climate Change includes 100 institutional investors, with assets totaling \$10 trillion. Investors managing trillions are not generally chumps. And they formed a coalition to address the challenge of a changing climate. Yep. I guess I'm a believer in climate change. Socially responsible investors have used climate change criteria in stock selection, filed shareholder resolutions to ask for climate change risk reporting and spurred the growth of green funds. We've tried to be a voice of responsibility to the planet, our only home.

I don't dare hope for a reversal of damage done; I doubt the Bobwhite, mussels and conchs will be abundant on Cape Cod. But when strangers on airplanes spout off, it is sobering. I only hope Americans will wake up so we can change our ways in time. ■

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