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Wild weather proves global warming

By Dr. Reese Halter

August 17, 2010

In 2006, I finished the book "Wild Weather: The Truth Behind Global Warming." As a field biologist with a quarter century of experience I felt anxious about how nature and people would cope with the times ahead.

So far this year globally the weather patterns, insects, wild fires, melting glaciers and sea ice and the oceans all appear to be on performance-enhancing drugs eclipsing, in some cases, thousand year events.

The first half of 2010 shattered many weather records since the inception of continuous record keeping in 1879. Of immediate concern is the lightning speed of 34,000 square miles, each day in June, that Arctic sea ice melted; it was more than 50 percent greater than the average rate of 20,000 square miles a day set in 2006.

Ice, be it on polar seas or land is crucial for reflecting incoming solar radiation and keeping Earth cool, particularly at night.

Let me remind you that we are using four times more energy than our forbearers did 100 years ago. Our consumptive use of fossil fuels is 16 fold over the same time period. And fossil fuels release CO₂ which traps heat and raises Earth's temperature.

Last week a chunk of ice four times the size of Manhattan Island broke off the Petermann Glacier on Greenland, the third chunk since 2001; it will contribute to raising sea levels and likely cause havoc in shipping

lanes off Newfoundland.

Whenever Earth warms up a few degrees the Arctic appears to multiply that factor by about three. Polar bears will not only perish due to missing sea ice but also from exposure to melting ice releasing persistent organic pollutants including flame-retardants and bisphenol A (BPA) used to harden plastics. The latter is a horrid chemical which disrupts all animals (including humans) endocrine system and it's a synthetic estrogen which lowers sperm counts in males. Globally, we manufacture six billion pounds of BPA a year.

It stores in fat cells of seals, which are the main food source of polar bears. These contaminants are bio-accumulated and bio-magnified up the food chain. So the higher you are, the higher the contaminants.

As Arctic soils, which were permanently frozen, thaw about 1.5 billion tons of CO₂ is being released. In comparison, cars and light trucks in the U.S. emit about 300 million tons of CO₂ per year.

In April in the Andes a chunk of ice measuring 1,640 feet by 665 feet broke off from the Hualcan glacier crashing into a lake creating a 75-foot tsunami-like wave that swept away at least three people and destroyed the water processing plant serving 60,000 people in Carhuaz, Peru.

Indonesia's high elevation Papuan glacier has been decimated by 80 percent of its ice since 1936, two-thirds of that melted since it was last measured in 1972. One square mile that is 32 yards deep is all that remains. Inside glaciers are flecks of dust and trapped miniature air bubbles; they hold all the answers to ancient weather shifts. Globally, glaciers are disappearing faster than scientists can decipher them.

Even more distressing news recently revealed that 40 percent of the world's phytoplankton is missing. The culprit is the warming surface oceans' that are preventing nutrients from mixing effectively in the upper layers and denying natural fertilizer to green life. Phytoplankton, incidentally, is responsible for removing one third of the rising CO₂ from our stratosphere.

Two weeks ago the State of Climate report was released by 300 scientists from 48 countries and they unequivocally agree human-induced global warming is undeniable.

As ocean temperatures rise coral reefs are mass bleached. In other

words, the corals that hold a symbiotic relationship with algae, expels them — they both die and the coral turn white. So far this year severe bleaching has occurred in Thailand, Malaysia and Indonesia, and scientists are waiting with bated breath to see the outcome on Papahānaumokuākea Marine National Monument, Hawaii. Some of the most potent pain and cancer medicines ever discovered (and awaiting discovery) reside in coral reefs around the globe.

Almost three million acres of forestland have burned in Russia, including 20,000 dried-up peat bogs as it's experiencing what their top weatherman is now calling a one in one thousand year heat wave. Moscow reached 100 degrees for the first time in recorded history.

This spring and summer, forest fires have charred six million acres in northern Canada and now NASA's Aqua Satellite has recorded enormous plumes of carbon monoxide from the fires forming a ring around the planet as it moves northward.

Billions of native bark beetles have laid waste to 81 million acres of forests in Alaska, Alberta, British Columbia, Colorado and Wyoming in the largest feeding frenzy in modern times. As temperatures rise, forests dry out and trees are unable to manufacture gooey pitch, their only means of protection against the beetles.

Those forests are of paramount importance for holding winter snowpacks, which have been diminishing over the past 50 years, releasing moisture slowly in the springtime and providing fresh water to about 55 million people across the West. And Lake Mead, the enormous reservoir of the Colorado River that feeds Arizona, Nevada, California and Northern Mexico, is the lowest it's been since first being filled in 1930.

Droughts in Russia have caused one third of the grain crops to fail and the price on the world markets has spiked wheat by 70 percent and barley by 50 percent.

In April, Australia experienced a biblical plague of crop-destroying locusts encompassing 190,000 square miles or the size of Spain. Another swarm is now amassing and \$1.8 billion worth of pastures, cereal and forage crops are at risk.

Torrential monsoonal rainfall has affected 20 million people (8 million children) in Pakistan. Over 700,000 people have been evacuated to 450 relief camps.

Interestingly, there is a link between the torrential rains in Pakistan and inferno heat in Russia. As air was pumped into the upper stratosphere by monsoonal Asian winds it created a high pressure condition thousands of miles away conducive to heat waves now blanketing Russia.

Energy efficiency in America is a necessity.

The lawmakers in Washington must retro-fit all government buildings, colleges and military facilities across our nation. About five million people on Main Street need jobs. Moreover, by painting rooftops white, air conditioning costs on government buildings will be reduced by \$750 million dollars a year, which can help offset workers' salaries. In addition, white roofs will mimic millions of square miles of missing sea ice, helping to cool the Earth's temperature.

Texas oil giants Valero Energy and Tesoro Corp have mounted a fear campaign to thwart AB 32, California's Global Warming Law, this November. Californians have always valued the environment first and foremost. It's time to take a stand, once and for all, and allow innovation to deliver a made-in-America green technologies energy solution.

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http://www.smdp.com/Articles-c-2010-08-16-70147.113116_Wild_weather_proves_global_warming.html