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On global warming, cooler minds prevail

Doug Merrill's recent commentary is commendable in its skepticism of extremist and doomsday predictions regarding global warming. At the same time, his lack of understanding, skewing and misrepresentation of scientific research is extremely troubling and in need of response.

Mr. Merrill begins his article by noting that the 2006 hurricane season was quieter than hurricane specialists expected. Contrary to his claims, no scientist worth her salt expected 2006 to be as bad as or worse than the 2005 hurricane season. Mr. Merrill himself states that the National Hurricane Center outlook for 2006 was for a season with 13-16 tropical storms, about half as many as the record-setting 28 storms in 2005, and in line with the 12-16 storms that occurred every year from 1998-2004.

He also dismisses the National Hurricane Center's hypothesis that a late-developing El Nino was to blame for the lower number of storms in 2006. But the last time we had so few hurricanes in a season was 1997 (eight storms), when the strongest El Nino of the 20th century began to develop.

Citing a recent NOAA study reporting a slight decrease in ocean temperatures from 2003-2005, he then proceeds to make a case that global warming is either nonexistent or irrelevant. However, he fails to acknowledge that 2003 had the highest ocean temperatures recorded in at least 100 years, and 2005 was still the fourth highest on record, only 0.05 degrees F cooler than in 2003. To suggest that 2005 or 2006 ocean temperatures were historically "cool" is incorrect.

But regardless of whether global warming influences hurricanes, the evidence for climate change over the past 150 years is overwhelming. It is important to separate future climate predictions from scientific observations of how climate has changed in the recent past. Air-temperature records show us that 1998 and 2005 tied for the warmest years in the last 500 years, and probably in the last 1,000 years. The warmest seven years on record have all occurred since 1997. The warmest 17 years on record have all occurred since 1983. Natural forces are unable to account for most of the warming over the last 50 years, and human activities played a major role.

As Dr. Tsutomu Ohno points out in his commentary (BDN, Dec. 7), it is not scientifically debatable that more greenhouse gases, such as carbon dioxide and methane, on *average*, produce higher temperatures. There is also no scientific debate that human activities have increased the amount of carbon dioxide and methane in the air to the highest levels in at least 650,000 years.

OP ART BY ANYA JOHNSON

Sea level is currently rising at a rate of about 1 foot per century, mostly due to rising ocean temperatures. The fact that sea level continued to rise during the 2003-2005 ocean cooling indicates that melting ice sheets are raising sea-level as well. Our best estimate is that the Antarctic ice sheet is not growing as Mr. Merrill claims, but actually shrinking, creating a sea-level rise of 0.08 mm/year. Studies published this year show that the Greenland ice sheet is likewise shrinking, and scientists in the UMaine Climate Change Institute have found that glaciers on the coast of Greenland are retreating at unprecedented rates, signaling accelerated melting.

When discussing future consequences of climate change, however, extremists on both sides of the debate engage in fear mongering tactics. Some media sources and "environmental groups" predict a doomsday scenario and others, such as Mr. Merrill, argue that human-induced global warming is a myth. How is the public to decide if this is an issue worthy of their concern and action?

To this end an international group of climate scientists has been tasked to distill the latest scientific consensus of the most likely future scenarios of climate change. This group, called the Intergovernmental Panel on Climate Change (IPCC), thoroughly examines the literature from a variety of scientific disciplines before summarizing it in their reports, which are publicly available at www.ipcc.ch.

When looked at in this comprehensive, scientific manner, rather than the ad-hoc basis employed by partisans from either side of the debate, the predictions are not as spectacular as what the extremists would like. The IPCC findings do not support a doomsday scenario, but they do predict that concerning trends will continue into the future, including rising sea level, higher air temperatures and decreasing snow cover globally. The authors of these reports conclude that these trends are very real, are likely to accelerate in the future and that human activities are playing a major role.

Mr. Merrill's conclusion of a global warming fantasy concocted by mad scientists whose predictions fail to materialize disregards the basic nature of science. We only come to an understanding of the world around us through questioning, hypothesizing and experimenting. His narrowly focused rant against warming counteracts the fundamental aspects of scientific inquiry used to educate the public. We recommend that people interested in learning more about this topic examine the IPCC web site noted above to better understand the issues in the ongoing debate regarding global climate change and its impact in Maine.

Erich Osterberg is a member of the Graduate Student Climate Group at the Climate Change Institute, University of Maine, and wrote this commentary on behalf of himself and members Susan Kaspari, Bruce Williamson, Nathan Vogan, Nicole Spaulding, Benjamin Gross and Elena Korotkikh.