



## Central Coast Climate Science Education

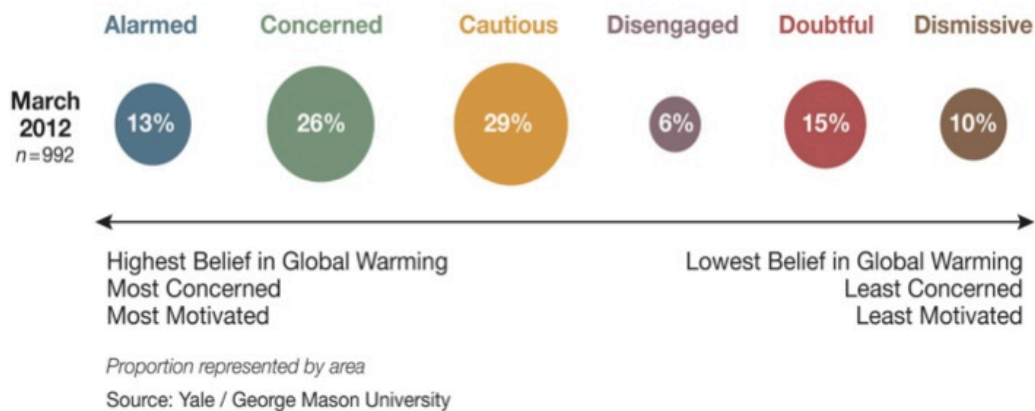
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### Communicating Climate Science and Story Telling: Five Examples

Anyone speaking to or writing for an audience is always admonished to “know your audience”. In the case of communicating with the public about climate change a series of landmark studies carried out by a group at the Yale Project on Climate Change Communication and a group at the George Mason University Center for Climate Change Communication divided the American public into six categories (“The Six Americas”) and tracked how the percentages in these groups and their opinions about climate-related issues have changed with time. The six categories are: the Alarmed, Concerned, Cautious, Disengaged, Doubtful and Dismissive. These opinions run from being fully convinced about the reality and danger of human-induced climate change (Alarmed) to the firm opinion that there is no such thing and thus no action in dealing with greenhouse gas emissions should be taken (Dismissive.) By going to <http://www.climatechangecommunication.org/report/climate-change-american-mind-2009> you can download “Global Warming’s Six Americas 2009” that describes these groups. The latest survey was conducted in March 2012 and gives the percentages in each group as follows:

**Figure 1: Proportion of the U.S. Adult Population in the Six Americas, March 2012**



It will be interesting to know how these percentages have changed following the extreme weather events since March 2012, including the severe drought in large parts of the U.S. and superstorm Sandy.

Those studying what makes effective communicators of climate science are sending an increasingly strong message to climate scientists and those of us engaging with the public in trying to explain the realities of a warming world: Simply supplying more and more scientific information will do little to engage the bulk of the public comprising the middle four segments nor motivate them to advocate for action regarding climate change. The message is that one needs to make clear how climate change directly affects the lives of Americans here and now, not in some distant future, and that extensive use of metaphors are effective. Better yet, get the message across by “telling a story”. (See for example the book by Randy Olson “Don’t be Such a Scientist”)

In preparing for my course of 4 classes on climate science in February 2013 (see <http://jeffrygreen.wix.com/lifelong-learners/apps/blog/new-course-the-science-impacts-of-climate> ) I have been thinking about this advice as well as keeping an eye out for various resources I have come across that might be of interest to the general public. Here are five, along with my comments on which of these six groups might profit from seeing them.

### **Extreme Winter Weather: Scientific American December 2012 issue**

This is at the “wonky” end of the spectrum and will be of most interest to those already convinced of the reality of global warming and having some scientific background in the subject. It deals with the seemingly paradoxical suggestion by some climate scientists that the recent extreme loss of arctic summer sea ice will affect winter weather in parts of the U.S. and elsewhere in the northern hemisphere. This loss of summer sea ice may have weakened the circulation patterns that normally contain very cold arctic air and allow it to penetrate to the U.S. more readily. Should this be realized in the winter months of 2012-2013 we can expect a barrage of chortling deniers who will use such outbreaks as “proof” that global warming is not occurring. The group of people for whom I think information like this Scientific American article is useful are those with some background in climate science and who should be able to explain to their friends, neighbors and relatives what climate scientists are now thinking about such outbreaks of severe winter weather.

### **Weather Gone Wild: National Geographic September 2012 issue**

This article lays out a scientifically responsible and readable account of the extreme weather events that are increasingly engaging the attention of the public and the relation of “weird weather” to global warming. Powerful adjuncts to any words dealing with climate change are compelling visual images and, as is characteristic of the National Geographic, there are many of these in this article. I think the first five of these six groups would all benefit from this resource.

### **“Planet Earth”: BBC version: Disc 5: “The Future”**

The BBC, along with the Discovery Channel, produced a monumental TV series on the Earth’s environment called Planet Earth. A supplement to this series on “The Future” explores in three episodes various conservation issues. The photography is superb and amazing. These three episodes include, but by no means focus exclusively on, the role of climate change as it impacts human life as well as animal and plant life. What I found valuable about these episodes is that they explore the interrelatedness of human poverty, population growth, habitat destruction and species extinction along with climate change. Those of us whose interests tend to focus on climate change *per se* need to be reminded of these interrelations and that they all need to be addressed.

### **“Chasing Ice”: James Balog Documentary.**

This documentary, released in movie theaters in the U.S. in December 2012, draws upon some material previously incorporated in James Balog’s work but adds new and important material. It can be seen online at (<http://freeplaymovies.com/chasing-ice-2012.html>) but for its full impact it should be seen on a full movie screen. As in Planet Earth, the photography is stunning, I would even say, breathtaking. But it goes beyond this and really does “tell a story” about Balog and his colleagues. It also has interviews from climate scientists that I feel are nicely incorporated in the film. I strongly recommend this documentary to *everyone*, regardless of which of the six Americas they inhabit.

### **“Flight Behavior”: A Novel by Barbara Kingsolver**

Barbara Kingsolver is a skillful and effective writer of both non-fiction and fiction. She recently wrote about an account of her experience in rural Virginia with her family in eating locally. This novel is at the opposite end of the spectrum from the Scientific American article in that it really is a story, weaving together personal family dynamics with the local impacts of climate

change in rural Tennessee. Whether readers will enjoy all the angst of the family dynamics is a matter of opinion, though as a parent and grandparent I found her descriptions of her two children on-target and amusing. I mentioned in the introductory remarks above the role and power of metaphor. Even if there were nothing else about this book worth reading, the episode near the end of the book of a TV interview gone awry contains a very powerful and effective metaphor for the urgency that many climate scientists feel.