

TURNING POINT

Andrew Dessler

Andrew Dessler, an atmospheric scientist at Texas A&M University in College Station, was named one of 21 Google Science Communication Fellows on 21 February.

What attracted you to climate research?

After my BA in physics at Rice University in Houston, I was sick of school. I worked for an investment bank on Wall Street for two years before realizing that I wasn't motivated by money — instead, I wanted to work on interesting problems. My father, an academic, suggested that the environment was going to be rife with difficulties in the future. Scientists had just discovered the ozone hole, so I worked on stratospheric ozone at the University of Maryland in College Park until the mid-1990s, when it was clear that the problem was essentially solved by the Montreal Protocol — the international agreement banning ozone-depleting chemicals.

What did you then focus your research on?

I looked for a big problem where I could make a contribution. I had worked on stratospheric water vapour previously, and moved down through the atmosphere to the troposphere to focus on the role of water vapour in climate. It took three to five years to make the transition to publishing entirely on climate research.

How and why did you enter the policy arena?

I heard that the White House Office of Science and Technology Policy (OSTP) was looking for someone. I had no idea what it would be like, but thought it would be a valuable experience — even if it slowed down my research a bit. I was there for the last year of the Clinton administration. Seeing how people at that level of government consume science made an impression on me. For better or worse, complex scientific results often get stripped of nuance by politicians. What's left — for example, long-term data trends — is what helps to shape policy.

How did you begin your efforts to communicate science to the public?

I helped teach a class at the University of Maryland on climate and policy after my stint at the OSTP. I noticed that the students perked up more when we discussed policy rather than black-body radiation. I co-wrote the book *The Science and Politics of Global Climate Change: A Guide to the Debate* with Edward Parson, now a professor at University of Michigan Law School in Ann Arbor. I also started a blog in 2006 for *Grist* magazine. At first, I was



enamoured with blogging, until I realized how repetitive it was to keep answering the same questions. I decided I wanted a more high-impact way to spend my time.

What did you think of 'Climategate' — the release of hundreds of leaked e-mails from the University of East Anglia in Britain?

It was a disaster. From a public debate standpoint, it was a huge setback. The University of East Anglia has been exonerated of any wrongdoing. But regardless, theirs is only a small part of the evidence supporting climate-change theory. Unfortunately, it is the kind of thing that is going to be with us for a long time.

Are you uneasy about stepping into the fray?

No. I'm convinced that the risks of climate change are severe. I view it as a moral responsibility to communicate those risks in the same way that if a train is heading for a small child, I've got to run and pull the child off the tracks. I'm not one to chain myself to a bulldozer, but I'm doing as much as I can with my personality and constitution.

Have you hopes for the Google Fellowship?

I realize I can't change the climate-change debate by myself. I need to find force multipliers — things that allow a small number of climate-change researchers to have an effect. For sceptics, spreading misinformation is a full-time job. But my full-time job is teaching and research, and I have to communicate in my spare time. There aren't many climate scientists in the world. We need ways to allow a few people to articulate what we know and the trade-offs that society faces. I'm hopeful that Google will find technological innovations that will help to spread the word. ■

INTERVIEW BY VIRGINIA GEWIN

ONLINE GAMES

Research role play

A free online game that simulates health-research projects in a virtual world aims to give players a taste of what it is like to be a scientist. In *Power of Research* (www.powerofresearch.eu), launched on 23 February by Biolution, a life-sciences consultancy in Vienna, players imitate the life of a researcher by choosing an institute and research topic, preparing for experiments, applying for funding, seeking staff, publishing results, attending conferences and collaborating with others. They need to be good at negotiation and time management. As players improve, they can win awards or become an institute leader. The game was developed with a €617,000 (US\$849,000) grant from the European Commission (EC), and is based on actual institutes and projects in the EC's research funding programme.

UNITED STATES

Rise in female scientists

The proportion of women occupying academic positions in biological and life sciences in the United States has risen slightly since 2001, finds a report by the US National Science Foundation (NSF). *Women, Minorities and Persons with Disabilities in Science and Engineering: 2011* says that women made up 31% of life scientists in 2001, and 36% in 2008. The growth matches the increasing number of women earning doctorates in the field, says Bobbie Mixon, an NSF spokesman. The report, released on 28 February, also found that by 2008, the overall number of life scientists working in industry and academia was 16% less than at its 23-year peak in 2006. Mixon links the decline to pharmaceutical and biotechnology layoffs.

UNITED KINGDOM

Opportunities in wheat

A £7-million (US\$11.4-million) research project into the genetic factors that affect wheat yields, plant size and resistance to drought and pests is hiring 17 researchers, including 8 postdocs, to work in molecular genetics, phenotyping and bioinformatics at centres around Britain. The project is the first of its kind in the country for more than 20 years, and is one of several worldwide. Researchers will build a database of genetic markers that can be used to create wheat varieties. The Biotechnology and Biological Sciences Research Council will fund three-year grants from April 2011, with the potential for extension.