

# Short Sharp Science

February 12, 2009 11:12 PM

## Ocean climate change: a really inconvenient truth

*Peter Aldhous, San Francisco bureau chief*

The effects of climate change may be even more devastating for marine species than for those on land. That is the message from conservation biologists gathered at the [AAAS meeting](#) in Chicago.

I'm familiar with dire predictions about the future of biodiversity in a warming world, having reported on the [prospects for terrestrial ecosystems](#) from last year's [annual meeting](#) of the [Society for Conservation Biology](#).

Still, the latest projections for the world's marine fish, revealed at the AAAS by [William Cheung](#) of the University of East Anglia in Norwich, UK, gave me pause for thought.

Cheung's team has developed a computer model to calculate the likely impact by 2050 of climate change on 1000 species of fish and shellfish throughout the globe. There will be a wholesale redistribution of species, with fish shifting towards the poles on average by more than 40 kilometres per decade, the team predicts.

Many won't be able to cope with this shift, Cheung and his colleagues warn in a paper published this week in [Fish and Fisheries](#). For instance, the northward shift of Atlantic cod is predicted to reduce its abundance by 20 per cent, with some populations off the US coast crashing by 50 per cent. Species that already live near the poles, such as the Antarctic striped rock cod, may go extinct.

Worryingly, Cheung's model doesn't include the effects of [acidification](#), which will happen as the oceans absorb increasing quantities of carbon dioxide. "So our projections are actually conservative," he warns.

Then there is what [Patrick Halpin](#) of Duke University in Durham, North Carolina, calls the "really inconvenient truth". One of the big conservation successes of recent years has been the creation of [marine protected areas](#) to preserve valuable ocean habitats. The problem, says Halpin, is that most of these have been created near the coasts at high latitudes, which are the areas predicted to be worst affected by global warming and other environmental shifts.

"Our marine protected areas are about to receive an overdose of temperature, acidity and nutrient loading," Halpin says.

**Categories:** [Environment](#) | [Life](#) | [Live from the AAAS](#)

**Tags:** [climate change](#) | [conservation](#) | [environment](#) | [oceans](#)

Posted on February 12, 2009 11:12 PM | [Permalink](#) | [Comments](#) (8) |

### 8 Comments:

All comments should respect the [New Scientist House Rules](#). If you think a particular comment breaks these rules then please [let us know](#), quoting the comment in question.

Just more of the usual global warming clap trap, long on scare tactics short on science.

...my model predicts doom and gloom...yeh whatever, get a life.

By Kendra on [February 13, 2009 2:15 AM](#)

Wow, I find this information to be disturbing! I just finished reading a very informative book titled, "[Agenda for a Sustainable America](#)," written by John Dernbach (along with 40 additional sustainable experts). The book makes it clear that sustainability is not just the new buzz word for environmentalism. Sustainability, rather, is about how the environment is linked to everything else we care about. Our marine life is connected to EVERYTHING. We all need to get educated and learn how we can prevent further destruction from taking place.


By Becky on [February 13, 2009 7:45 AM](#)

More computer models hey? They are so useful, as without them you have nothing and with them you have garbage. Please tell me of a computer model that can accurately predict a 5 day weather forecast for the sky above anyone's house in the UK? No, thought not. 40 years.... do me one, will'ya!

By Ian on [February 13, 2009 1:33 PM](#)













A science news blog from  
**NewScientist**

Buy New Scientist

- New Scientist
- Short Sharp Science
- New Scientist Jobs
-  Subscribe (?)
- Contact us

 SHARE   

### Categories

- Being Human (16) 
- Environment (74) 
- Fred's Footprint (7) 
- From the Editors (3) 
- Health (22) 
- Life (27) 
- Live from the AAAS (4) 
- Opinion (10) 
- Physics & Maths (13) 
- Science in Society (121) 
- Space (44) 
- Technology (104) 

### Recent Entries

- Noah's flood can't drown the joy of Natural Selection beer
- Ocean climate change: a really inconvenient truth
- Did home cooking make us human?
- Tom Hanks and Ron Howard visit CERN
- Pointing and waving gives kids a head start in life
- Science stimulus needs a better response
- Political row is Wikipedia's gain
- Eating my way through 4 billion years of evolution
- ET wrongly accused of damaging wind turbine
- Vatican backs Darwin, dumps creationism

### Tags

- technology
- space
- environment
- climate change
- election08
- Obama
- NASA
- video
- energy
- evolution
- robots
- internet
- religion
- politics
- creationism
- genetics
- Google
- health
- Moon
- web

### Monthly Archives

- February 2009 (30)
- January 2009 (37)
- December 2008 (46)
- November 2008 (55)
- October 2008 (61)
- September 2008 (42)

