

BIODIVERSITY AND ECOLOGY

Ocean species shift



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Glob. Change Biol.

doi:10.1111/j.1365-2486.2009.01995.x (2009)

The world's major commercial fisheries could shift their distribution within decades if greenhouse gas emissions continue to soar. While high-latitude regions are expected to benefit from anticipated changes in ocean fisheries, the tropics are likely to suffer a decline in this much-needed food source, finds a new study.

A team of researchers led by William Cheung of the University of East Anglia, UK, estimated probable

changes in the potential catch of 1,066 commercially exploited marine species, ranging from krill to sharks. Using an approach known as the bioclimatic envelope model to identify species' environmental preferences, the team analysed changes in the distribution of these fisheries up to the year 2055, relative to a 2005 baseline, in a low- and in a high-emissions world. Under the most extreme scenario, they found that catch potential would increase by an average of 30–70 per cent at high latitudes and decrease up to 40 per cent in the tropics. If these projections materialize, fishing nations in the Indo-Pacific region will fare badly, as will fisheries in semi-enclosed seas such as the Red Sea.

The authors note they were unable to account for some key variables that could influence fisheries, such as ocean acidification.

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conventional or 'green' online store, in which they were either exposed to items or invited to purchase items. The same students then participated in a game that involved sharing money with an unidentified person in a separate room. While those exposed to the green products shared more money than those exposed to the conventional products, participants who had bought green products shared less money. In a final experiment, which set 90 students the task of playing a computer game, purchasers of green products were the most likely to lie and steal to earn extra money.

The authors suggest that buying green products may act as a 'moral offset', prompting people to be more lax with other ethical norms.

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TECHNOLOGY

Risky business



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Geophys. Res. Lett. **36**, L19703 (2009)

Injection of aerosols into the atmosphere could be used to cool the climate in the case of a planetary emergency. But stratospheric 'geoengineering' would have considerable risks and costs, warns a new study.

Alan Robock and colleagues at Rutgers University in New Jersey evaluate the pros and cons of various methods of injecting a sulphur gas into the stratosphere. Among the dangers of such a scheme is the risk of substantial ozone depletion, including delayed recovery of the Antarctic ozone hole. Other risks include regional drought, ocean acidification, a reduction in sunlight and the end of blue skies. The cost would depend on how the gas was deployed; using existing US military planes would be the cheapest option, at roughly several billion dollars per year, say Robock and colleagues. Lofting the gas using

artillery shells or balloons would be more expensive. Other options, such as pumping the gas through a tall tower or lifting it into the stratosphere using a space elevator, may be possible in the future, say the scientists, but the costs of those methods cannot be evaluated yet.

Associated dangers, rather than cost, will ultimately limit the potential of geoengineering as a solution to climate change, conclude the authors.

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REGIONAL CLIMATE

Southeast drought



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J. Clim. **22**, 5021–5045 (2009)

A recent drought that struck the southeastern United States was largely the result of rising demand for water, rather than human-induced climate change, suggests a new study.

A team led by Richard Seager of the Lamont-Doherty Earth Observatory at Columbia University in Palisades, New York, investigated the nature and cause of the drought, which began in the winter of 2005–2006 and lasted two years. The team used a wide range of data in their analysis,

SOCIETY

Green and greedy

Psych. Sci. (in the press)

Purchasing green products can make people behave less altruistically, suggests new research.

Nina Mazar and Chen-Bo Zhong of the University of Toronto conducted three experiments to gauge how people's interaction with green products affected their other social interactions. The first experiment, involving 59 students, showed that participants rated those who buy green products as being more cooperative, altruistic and ethical than those who purchase conventional products. In the second experiment, each of 156 students was randomly assigned to shop at either a