

**MEETING DEMAND** A smart grid needs smart household appliances

ECOLOGIST  
MAY 2009

# ECOLOGIST

THE WORLD'S LEADING ENVIRONMENTAL MAGAZINE

MAY 2009

ENVIRONMENTAL IMPACT OF DRUGS  
REGULATING ENERGY DEMAND  
STOP THE SEAL CULL  
STELLA MCCARTNEY INTERVIEW  
ECO-SUFFRAGETTES



## Drugs on tap

**HOW SAFE IS OUR WATER?**

MAY 09

£3.50



[www.theecologist.org](http://www.theecologist.org)

**THE FUNDING CRISIS**  
Why green groups are a threatened species

**STELLA MCCARTNEY**  
Exclusive interview & new eco collection

**JOINING THE CLUB**  
BRITISH BUSINESSES PROFITING FROM THE CANADIAN SEAL CULL

# mobius

[www.mobiusgreenprint.com](http://www.mobiusgreenprint.com)

020 7836 3864

## environmentally friendly printing

flyers, posters, leaflets, booklets, postcards,  
business cards, stationery and more...



## every order plants a tree

**FOREST CARBON** in partnership with Forest Carbon  
[www.forestcarbon.co.uk](http://www.forestcarbon.co.uk)

## call for a quote today!

# mobius

020 7836 3864

[print@mobiusindustries.com](mailto:print@mobiusindustries.com)

[www.mobiusgreenprint.com](http://www.mobiusgreenprint.com)





**EDITORIAL**

**Pat Thomas**

Editor, the Ecologist

# ECOLOGIST

102D Lana House Studios  
116 - 118 Commercial Street  
Spitalfields, London E1 6NF  
Tel: 020 7422 8100  
Fax: 020 7422 8101  
Email: [editorial@theecologist.org](mailto:editorial@theecologist.org)  
Website: [www.theecologist.org](http://www.theecologist.org)

**Editor** Pat Thomas  
**Art Editor** Nadia Rooney  
**News Editor** Mark Anslow  
**Consumer Affairs Editor** Matilda Lee  
**Daily Life Editor** Laura Sevier  
**Science Editor** Peter Bunyard  
**Sub-Editor** Eifion Rees  
**Researchers** Chris Carroll, Duncan Hodson, Laura Laker, Tom McLoughlin  
**Web Editor** Phil Moore  
**Publishing Director** Richard Coles  
**Assistant Publisher** Kristen Harding  
**Advertising Manager** Vicky Hague  
**Advertising Executive** Simon Pearce  
**Director** Zac Goldsmith  
**Founding Editor** Edward Goldsmith  
**Editorial Board** Helena Norberg-Hodge, Steven Gorelick, John Page, all of ISEC  
**Printed in the UK by MPG Impressions** Tel: 020 8974 0300

**SUBSCRIPTIONS/RENEWALS**  
[www.theecologist.org](http://www.theecologist.org); 01371 851879

**DISTRIBUTION**  
*Retail Distribution:* Central Books  
Tel +44 (0)20 8986 4854;  
[sasha@centralbooks.com](mailto:sasha@centralbooks.com)  
*Ink Distribution*  
Tel +44 (0)1227 749 991;  
[inkdistribution@btconnect.com](mailto:inkdistribution@btconnect.com)  
*Newsstand COMAG Specialist*  
Tel +44 (0)1895 433 800;  
Fax +44 (0) 1895 433 801  
*North America only:*  
DISTICOR Newsstand Services  
Tel 905-619-6565,  
Fax 905-619-2903

*Ecologist* is published 10 times a year, monthly except January & August. International Serial Number: ISSN 0261-3131. North America: Periodicals Postage Paid at Rahway, NJ. Postmaster: Send address corrections to: *Ecologist*, c/o Mercury Airfreight International Ltd., 365 Blair Road, Avenel NJ 07001.

All information correct at time of going to press. All rights reserved. Reproduction in whole or in part is prohibited without prior written permission of the copyright owner. No responsibility will be accepted for any errors or omissions, or comments made by writers or interviewees. Views expressed and goods advertised are not necessarily the views of, or are endorsed by, Ecosystems Ltd. © *Ecologist* 2009.

**ADVERTISING POLICY**

As a business the *Ecologist* magazine and the *Ecologist* website are made possible by support from two areas: individual subscribers and advertising revenue. The companies that advertise in the magazine and on the website are those that are seeking to expand the market for green and sustainable products, or to promote green or sustainable practices, through their business. Their appearance in the *Ecologist* does not in any way constitute an endorsement by the magazine and neither editorial tone nor content is shaped by advertising revenue. While we accept advertising from a wide variety of sources, we reserve the right to reject advertisements we consider to be inappropriate.

For details go to [www.theecologist.org](http://www.theecologist.org)



*Ecologist* is printed on 100% recycled paper, using environmentally friendly inks

# Red pill, blue pill

**In the movie *The Matrix*, characters are presented with a stark choice related to self-imposed ignorance. They can choose to swallow a red pill, after which they will become immersed in the real world, with all its hopelessness and despair and desolation. Or they can swallow a blue pill, which will cause them to forget everything they know about the real world and continue living their lives in a dream.**

I was reminded of this as we ploughed through the research for this month's cover features on the myriad ways our drug use – prescription, over-the-counter and leisure – impacts on the environment and as, ironically, news of the new 'polypill' hit the headlines.

There is no love lost between the pharmaceutical industry and me. Big Pharma is a cynical business. The medicalisation of our minds our bodies and our souls – indeed our daily lives – is deeply damaging and is as relevant to our seeming acquiescence to eco-geddon as is our unremitting reliance on pesticides, fossil fuels and economic growth.

With the polypill we are looking at one of the ugly faces of the 'science will save us' dream. It contains aspirin to thin the blood, a statin drug to lower cholesterol levels and three blood-pressure-lowering medications – an ACE inhibitor, a beta-blocker and a diuretic. It also includes folic acid to reduce the level of homocysteine in the blood, which is another risk factor for heart disease.

In a chilling 1984-like statement, the manufacturers say that combining all of the drugs into one easy-to-take tablet should improve 'compliance' – that is, make sure people pop their pills regularly. Nowhere in this scenario is there a mention of the lifestyle that causes heart disease in the first place; not just the poor diet and lack of exercise but also the overwhelming evidence of the part that loneliness and social isolation play in the development of the disease. Ofttimes if a person has heart trouble they are literally 'broken-hearted'.

And never mind that each of these medications carries substantial risk of adverse effects singly and in combination. The polypill also ignores the importance of individual, differential diagnosis. It is a lazy, scattergun approach to 'healthcare' that ignores the fact that people who do well on a single medication – a diuretic, say – may not need a beta-blocker and may actually fare worse when one is added to the regime.

In the same way that we can't shop our way out of trouble, we can't medicate our way out of it either. We are going to need much clearer heads, and stronger bodies, and a lot less consumer baggage if we are to face the future with any degree of confidence.

We'll also need access to better, more independent information. And if you look on the *Ecologist* website you will see some exciting improvements. You can now keep in touch with all things environmental, updated daily, through exclusive web content including interviews, reports and investigations, polls, podcasts and all the *Ecologist* Film Unit films. We welcome your comments and your input on our *Daily Dilemmas* about things like whether Fairtrade is the best way to support developing countries and whether electric cars are really green. We invite you to browse the more than 1,000 articles and investigations – including all of our popular *Behind the Label* series – in our archive of published material from 2000 onwards. You can also sign up to our weekly newsletter for even more exclusive content and to be kept up-to-date with more exciting changes to the site. We believe the new website is a valuable resource for readers and look forward to your feedback.



**In the same way we can't shop our way out of trouble, we can't medicate our way out of it either**

# 14

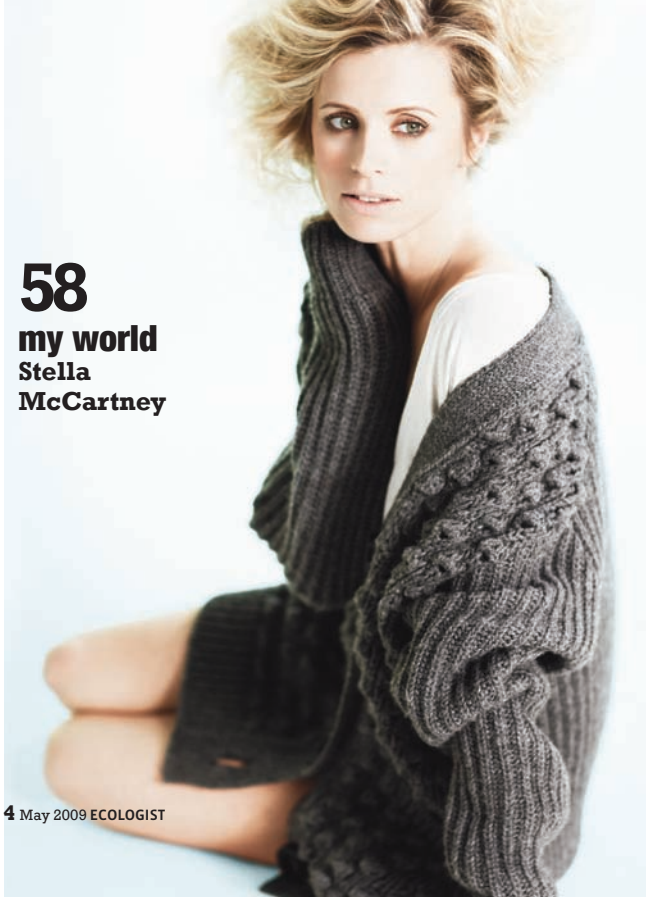
## ecologist investigates

Environmental  
impact of drugs



# 58

my world  
Stella  
McCartney



34  
ecologist  
investigates  
The Green  
Depression



# CONTENTS MAY 2009

VOLUME 39, ISSUE 4

## ecologist investigates

**14 Cocaine's environmental impact**  
How much rainforest does it take for one celebrity to snort another one under the table? *Nick Kettles* investigates the devastating environmental impact of cocaine use

### cover feature

**22 Drugs on tap**  
Our tap water contains an alarming mixture of over-the-counter and prescription drugs that have unknown effects on our health. *John Naish* investigates

**26 Alternate currents**  
Generating enough electricity exactly when and where we need it is hugely polluting. *Mark Anslow* finds out why

**30 Signed. Sealed. Delivered.**  
*Andrew Wasley* investigates the UK companies selling controversial Canadian sealskins

**34 Buddy can you spare some green?**  
Life as a conservationist is far from glamorous – or well paid – says *Joe Franke*

## take action

**41 Campaigns** Want to make a difference in your world? Here's where you start

**42 Life on a boat**  
*Paul Miles* begins his three-month sojourn of sanity along the UK's canals in a narrowboat

**44 Local hero: Tamsin Omond**  
*Laura Sevier* meets the climate suffragette famed for climbing the Houses of Parliament

**49 On the frontline**  
Campaigning for Tibet can be a dangerous business. *Andrew Wasley* investigates

**50 Lessons on water**  
*Leonora Oppenheim* reports on new initiatives to bring water to Ethiopian villages

## regulars

**06 The big picture** New report shows how the police subvert peaceful protest

## DAILY LIFE

**53 Spotlight on... Nettles**  
More than just weeds in your back garden

**54 This month**  
Happy composting, rocket pesto and wildlife photography. By *Laura Sevier*

**58 Stella McCartney**  
An exclusive interview and preview of her eco collection. By *Matilda Lee*

**63 My world: Jonathon Porritt**  
On renewables, roast lamb and life at Westminster

**64 Dilemma** *Pat Thomas* on why good salt is worth its weight in gold

**66 How to... repel insects naturally**  
*Andy Hamilton* gives his top tips on keeping unwanted bugs at bay

**68 Going with the flow**  
Messing about in canoes is the perfect ethical holiday. *Eifion Rees* gets his paddle out on the river Thames

**12 News focus** Is Sense About Science the most sinister organisation on the planet?

**82 Letters** A lively, regular forum for readers' views

**84 Comments** We could learn a lot from island economies, says *Andrew Simms*; a green new deal? It all looks pretty brown to *Joss Garman*; has direct action had its day? *Sarah Lewis* looks at some recent events; spiralling national debt means much more than simply numbers on a balance sheet, says *Molly Scott Cato*; *Reverend Billy* sermonises over unholy waters in New York; will high-altitude renewables succeed where others have failed, asks *Jim Thomas*

**90 How to be free** Lame protests for jobs will simply have the captains of industry chuckling into their claret, says *Tom Hodgkinson*



www.theecologist.org

Get the *Ecologist* delivered directly to your door FREE.  
To subscribe and take advantage of our digital offer  
go to [www.theecologist.org](http://www.theecologist.org). NEXT ISSUE OUT 22 MAY

COVER PHOTOGRAPH: ARTHUR WOODCROFT | CONCEPT & ART DIRECTION: NADIA ROONEY | COVER MODEL: LAURA HAYES | MOT MODELS

# Thugs in uniform

Kent Police face censure from Liberal Democrats over 'disproportionate' response to peaceful protest and abuse of stop-and-search powers during Kingsnorth Climate Camp

**'Deeply disturbing' – that's how Liberal Democrat shadow justice secretary David Howarth has described the policing of the Climate Camp held at E.ON's Kingsnorth coal-fired power station last summer.**

In a report released by the party and the Climate Camp legal team in March, a wealth of evidence gathered from protesters themselves reveals a police operation which amounted to 'harassment', according to Liberal Democrat leader Nick Clegg.

'It is impossible to square what happened – an extraordinarily expensive and repressive police operation – with Government descriptions of it at the time as "proportionate"', said Howarth. 'The police seem to have crossed an important line between preventing crime and preventing protest itself.'

'To equate people who want to protest against Government policies on climate change with violent extremists is absurd.'

Among the various tactics used by the Kent Police forces at the camp were the abuse of stop-and-search powers, continued pressure on campers to give personal details without reason, heavy-handed and aggressive handling of protesters, and the use of sleep-deprivation tactics, including playing loud music and shining searchlights into tents during the night.

Kent Police was also discovered to have filmed and monitored members of the press, and that some of its officers had failed to understand journalists' press cards.

As a result of the report, Kent Police referred the matter to the Independent Police Complaints Commission (IPCC) – a

step that frees the officers in charge from having to make any further statements to the press. However, Allyn Thomas, assistant chief constable at Kent Police, speaking to the *Guardian* before the IPCC referral, said that although the use of helicopters playing anti-riot messages and vans piping blaring music into the camp may have been a mistake, the operation had been 'very successful'.

The Liberal Democrat report was released less than two weeks after the Joint Committee on Human Rights published a report entitled 'Demonstrating respect for rights? A human rights approach to policing protest'.

In the report, peers and MPs warned that 'counter-terrorism powers should

never be used against peaceful protesters', and that the Serious Organised Crime and Police Act 2005 should be repealed to 'protect the right to freedom of peaceful assembly around Parliament'.

The authors added:

'We are concerned that protesters have the impression that the police are sometimes heavy-handed in their approach to protests, especially in wearing riot equipment in order to deal with peaceful demonstrations'.

Both reports came within a month of the protests at the G20 summit in London, during which police in riot gear were accused of inciting protesters to violence by corralling and barricading demonstrations.

See <http://tinyurl.com/ctmosm>



**Carol**, a legal observer, reported that a man in his mid-70s had his walking stick seized on the grounds that it could be used as an offensive weapon. It was taken by PC2475 of the Welsh Police during a search at the Golf Club search point on 8 August 2008 at approximately 12.35pm. The man asked her to approach the officers to ask for it to be returned. She was told he could not have it back unless he gave his personal details, which he refused to do.

**Enrico** was searched on Wednesday 6 August at 12pm or so at the Golf Club search point and declined to give his name. The officer informed him and his non-English-speaking friend that they had to give their names to prove they had the right to be in the country, as they could be illegal immigrants or have overstayed. Both stated they were Italian. They were told that they could be from anywhere and would be arrested if they could not prove they were not illegal, and so reluctantly gave their details.

**Joseph** was stopped on 7 August 2008 by the Welsh Police. He had been delivering food, and despite having been searched when the van was searched was searched again when the food was being brought through. When he refused to give his name and address, the officer said his accent (he is of mixed Scottish/English descent) and his refusing to give his details gave them reasonable grounds to suspect him of being in the country illegally. He tried to shout for advice but the distance at which the legal observer was being kept made that unrealistic. Eventually, uncertain about the situation, he gave his name and address, and was released. He was filmed extensively throughout.

**Megan**, aged 16, had a penknife seized on 5 August 2008, and was told she had to give her name and address to get it back. A legal observer said this wasn't true and was pushed away. The officer then said it would make it easier if she gave her details.

## NEWS ROUNDUP

### INSIDE THIS MONTH...

- Is economic growth our saviour? p8
- Investing in green infrastructure p9
- Obama garden upsets agri-lobby p10
- Eco essay competition p11

## ON THE WEB

Some of the key environmental stories from the past month that you may have missed. Visit [www.theecologist.org/news](http://www.theecologist.org/news) to read and follow up...

- » US academic calls for a revolution in copyright laws, arguing that they hinder intellectual progress
- » EU Parliament and the European Food Safety Agency to tighten up regulations on nanotechnology
- » National Grid plans to use 'carbon targets' to measure managerial staff performance
- » MP Alan Whitehead proposes a bill to see more recycled resources used in new products
- » Government committee calls for standardisation in eco labelling, to help tackle greenwash
- » What would a sustainable welfare system look like? A New Economics Foundation report reveals all...
- » Snow time: Japanese authorities use a 200m-wide pile of insulated snow to cool Hokkaido airport
- » Food Standards Agency refuses to ban Bisphenol-A in food packaging and baby milk bottles
- » Cancer expert believes link with mobile phones will be 'definitively proven' in next 10 years

## NEWSLETTER

See [www.theecologist.org](http://www.theecologist.org)

- » Weekly news, exclusive web articles, images, videos, podcasts and previews of content from the magazine, our weekly e-newsletter is vital reading for those who can't wait for the next edition...

PHOTOGRAPH: GETTY IMAGES

# To grow or not to grow?

Environmental experts persuaded by climate change science but disagree on whether economic growth is the problem or solution

**To grow or not to grow? The question of whether continued economic growth is compatible with tackling climate change is shaping up to be the defining debate of the century, and official reports and policy advice are beginning to fall into opposite camps.**

March saw the release of two heavyweight policy documents by equally respected contributors: the first, Lord Nicholas Stern's new book, *A Blueprint for a Safer Planet*, which builds upon the work of his 2006 Stern Review to present a comprehensive economic roadmap to tackling global warming; the second, a radical new report from the Government's Sustainable Development Commission (SDC), *Prosperity Without Growth?*, written by economics commissioner Professor Tim Jackson,

Both authors are equally persuaded by the latest climate science: Stern describes the Intergovernmental Panel on Climate Change as 'structurally conservative', and as such

producing 'muted' statements that are 'in urgent need of revision'; Jackson's report highlights the 'particular urgency' of climate change and peak oil, and warns that we have enough fossil energy reserves 'to keep the economy going for a while even as we head towards the cliff'.

Similarly, both are equally firm on the need for immediate change: Stern says that the financial crisis and subsequent recession should 'make us ever more committed to the movement away from hydrocarbons and towards low-carbon growth'; Jackson that 'there is no better time to make progress towards a more sustainable society'.

But that is where agreement ends. For Stern, growth – albeit low-carbon growth – is essential to tackling climate change, and he is scathing of those who would attempt to throttle back the engine of the global economy.

'It is neither economically necessary nor

ethically responsible to stop or drastically slow growth to manage climate change,' he argues. 'Not only would it be analytically unsound, it would also pose severe ethical difficulties and be so politically destructive as to fail as policy.'

Jackson, on the other hand, argues that continued economic growth is unethical.

'There is disturbing evidence that both the benefits and the costs of economic growth are unevenly distributed,' he writes. 'The continuing disparities between rich and poor nations are unacceptable from a humanitarian point of view and generate rising social tensions.'

The two diverge even further on the issue of material consumption, with Jackson arguing that its growth is 'damaging the basis for future wellbeing and isn't even well-aligned with current wellbeing', while Stern invites a 'major consumption boost' to tackle the current recession. Both, however, call for low-carbon investments for the future.

To read *Prosperity Without Growth?* visit <http://tinyurl.com/d4qkfg>

## FAO: 'Fish-farming is the way forward'

**Environmentalists have reacted with dismay to the latest 'State of World Fisheries and Aquaculture' report from the UN Food and Agriculture Organization (FAO), which encourages the global growth of fish-farming to satisfy the world's growing appetite for seafood.**

In its biennial report, the FAO said that the annual rate at which aquaculture is expanding had started to slow, and that it was necessary to increase its output to make up for the levelling off, or even decline, of catch from natural fisheries.

The report's authors acknowledged that the availability of feed for farmed fish, which is derived from natural fisheries, is a limiting factor in the growth of aquaculture. They argue that the shortages are overstated, however.

'Thus far, fishmeal has been less of an

effective constraint than many feared,' the document reads. 'However, given the difficulty in replacing fish oils, particularly in feeds for salmon, it is clear that competition for fish oil is likely to be a more serious obstacle for some sections of the

aquaculture industry.'

But environmentalists were angry that the report contains only passing mentions of the industry's ecological impact.

'We've totally trashed our wild fish populations, so now we need to farm them,' Greenpeace's Willie Mackenzie told the *Times* newspaper. 'It just doesn't make sense to catch fish to feed to fish – you lose four to five times the weight and that's without all the problems of infestations, escapes and pollution from the farms.'

His warning was echoed by a report released on the same day by marine campaign group Oceana, which found that seven of the

top 10 fisheries in the world target so-called 'prey fish' – smaller species that are food for carnivorous fish, but also used to produce fishmeal for aquaculture. This is depriving some fish of their natural food, the group says, and has led to the discovery of 'emaciated' and 'scrawny' predators such as dolphins, bass and even whales.

In its report, 'Hungry Oceans', Oceana's researchers argue that aquaculture is increasingly the driving force behind the overfishing of prey species.

'Aquaculture currently consumes more than 81 per cent of the prey fish captured and "reduced" to fish oil, and approximately half of those captured for fishmeal,' the report says, adding that one-third of all global fish landings are destined for fishmeal or oil production.

Oceana recommends a moratorium on new prey-fishing grounds, strict catch limits, and a prioritisation system that would see the needs of the ecosystem met first, then direct human consumption, then recreational fish bait, and only processing for fishmeal and oil once all other needs had been met.

To see the *Ecologist* Film Unit's fish food investigation, see [www.theecologist.org/ETV](http://www.theecologist.org/ETV)



The \$8.42 trillion bank bail-out – around £5.88 trillion – promised by governments would be enough to end global extreme poverty for 50 years, Oxfam has revealed

**HOW ARE OUR SUPERMARKETS ON TACKLING PESTICIDES? DATA FROM PESTICIDE ACTION NETWORK SPEAK VOLUMES...**

	Aldi	Asda	Co-op	Lidl	M&S	Morrisons	Sainsbury's	Somerfield	Tesco	Waitrose
Publishing residue tests	☹️	☹️	😊	☹️	😊	☹️	😊	☹️	☹️	☹️
Action plan beyond legal compliance	☹️	☹️	😊	☹️	😊	☹️	😊	☹️	☹️	☹️
Phasing out hazardous pesticides	☹️	☹️	😊	☹️	😊	☹️	😊	☹️	☹️	☹️
Stated aim to reduce pesticides	☹️	😊	😊	☹️	😊	☹️	😊	😊	😊	😊
Promoting alternatives to pesticides	😞	😊	😊	😞	😊	😞	😊	😊	😊	😊
Supporting growers to reduce use	😞	😊	😊	😞	😊	😞	😊	😞	😊	😊
Consumer info on pesticide use	☹️	☹️	😊	☹️	😊	☹️	😊	☹️	☹️	☹️
Info on use for cosmetic purposes	☹️	☹️	☹️	☹️	☹️	☹️	☹️	☹️	☹️	☹️

😊 A company is taking concrete actions for a specific criterion and describes in some detail the aims and methods.

☹️ A company mentions the issue but gives no detail on how this is implemented, or lacks targets or reporting on progress.

😞 A company may be addressing the issue, but does not provide any information on it, or the information is too vague to judge whether it is making a genuine effort.

☹️ There is no policy commitment or no information provided for consumers.

Source: Pesticide Action Network UK, available at [www.pan-uk.org/Projects/Food/supermarkets.html](http://www.pan-uk.org/Projects/Food/supermarkets.html)

**IN BRIEF**

**Victory for Brazil indians**

In what is being hailed as a major victory for indigenous communities, Brazil's supreme court ruled in March that the Raposa-Serra do Sol indian reserve in the north of the country should not be broken up.

A coalition of rice farmers and politicians had wanted to redefine the reserve's boundaries to increase agricultural land areas.

Fiona Watson, campaigns co-ordinator at Survival International, said the ruling would be a 'tremendous relief' to the 20,000 indians in the reserve.

**Hyper(polluting)markets**

Best put the booze-cruise on hold. A study by a French environmental consultancy has revealed that, per €100 spent, shopping at an out-of-town hypermarket emits four times more CO<sub>2</sub> than shopping at a local supermarket – even shopping at suburban supermarkets instead will see a CO<sub>2</sub> saving of 45 per cent.

If hypermarkets need to be built, the study concludes, the outskirts – rather than the hinterland – of a town are more efficient from a CO<sub>2</sub> perspective.

See <http://tinyurl.com/893tvw>

**Are you really worth it?**

Think twice before you soap-up: new research from scientists at the universities of Birmingham and Warwick has suggested that the antibacterial compounds used in shampoos and cleaning products are leading to the evolution of antibiotic-resistant bacteria.

When quaternary ammonium compounds (QACs) enter the sewage system they become diluted, giving bacteria time to adapt to them. But the researchers discovered that the same adaptations also give the bacteria some resistance to medical antibiotics.

The scientists found the bacterial strains in soils that had been fertilised with sewage sludge.

See <http://tinyurl.com/d9z4en>

**Sue for your scallops**

How to control rampant environmental destruction such as scallop-dredging? Use public nuisance laws, say academics from the University of the West of England.

In a paper published in *Environmental Law and Management* journal, Tom Appleby and Mark Everard argue that classifying the environment as providing 'ecosystem services' makes it easier to sue those intent on destroying it, and depriving society of its benefits.

# Investing in greener cities

**Adapting to climate change should mean investing in 'hundreds of thousands of green roofs, millions more street trees, more parks, and new urban greenways', according to Helen Phillips, chief executive of Natural England.**

Speaking before a conference on urban parks hosted alongside the Commission for Architecture and the Built Environment, she said public spending on 'grey' infrastructure runs into billions, while the amount spent on green infrastructure remains 'tiny', arguing that Britain's roadbuilding budget could produce 1,000 parks and funds for widening the M25 could plant 3.2 million urban trees.

Phillips also said that green urban environments would bring health benefits, create jobs and bolster urban resilience to

climate change, especially by reducing street-level temperatures in summer.

One week later, the UK Green Building Council released a study into biodiversity in towns and cities, arguing that the built environment, 'if done sensitively', could actually increase the ecological value of a site.

The Council calls for a standardised method of measuring the changes to biodiversity at a site, and also for ecological targets to form part of planning guidance and local authority evaluations. Case studies published alongside the report include green roofs, a 'living wall' of ferns and wildflowers at the Westfield shopping centre, West London, and the use of traditional grassland management on land next to a distribution centre.

# Obama garden offends CropLife

**Just about everyone was pleased to hear in March of the Obamas' plan to plough up a section of the White House lawn to produce organic fruit and veg. Everyone, that is, except for the US agrichemical industry.**

According to documents seen by US author Jill Richardson, and published on her blog 'La Vida Locavore', the Mid America CropLife Association (MACA) wrote to Michelle Obama extolling the benefits of intensive farming, and warning against promoting small-scale horticulture.

'If Americans were still required to farm to support their family's basic food and fiber needs, would the US have been leaders in the advancement of science, communications, education, medicine, transportation and the arts?', the letter's authors ask.

They continue:

'The time needed to tend a garden is not there for the majority of our citizens, certainly not a garden of sufficient productivity to supply much of a family's year-round food needs.'

The letter, available at [tinyurl.com/c9bdyx](http://tinyurl.com/c9bdyx), details what MACA sees as the great achievements of US agriculture, including 'four-wheel drive tractors' and 'biogenetics'. In an attempt to blame home cooks for bland,

industrial produce, the authors write that unwholesome and tasteless food depends on 'how it is stored or prepared rather than how it is grown'.

'As you go about planning and planting the White House garden, we respectfully encourage you to recognize the role conventional agriculture plays in the US in feeding the ever-increasing population, contributing to the US economy and providing a safe and economical food supply,' the letter concludes.

On her blog, Richardson also posts the leaked internal email to which the official letter was an attachment. Part of it reads:

'Did you hear the news? The White House is planning to have an "organic" garden on the grounds to provide fresh fruits and vegetables for the Obama's [sic] and their guests. While a garden is a great idea, the thought of it being organic made Janet Braun, CropLife Ambassador Coordinator and I shudder.'

MACA is supported by, among others, Dow AgroSciences, Monsanto and DuPont.

■ Meanwhile, attempts to set the biotechnology industry's facts straight in the UK have met with some vicious hostility.

The team behind the Golden Rice project,

which is trying to market biofortified rice as a cure for vitamin A deficiency in the less-industrialised world, sent a letter to the *Daily Mail* complaining about an article on the rice written by anti-GM campaigner Brian John and published on [dailymail.co.uk](http://dailymail.co.uk)

On the Golden Rice website the team had implied that its letter was published by the paper, whereas it had in fact been rejected. John emailed Adrian Dubock, Golden Rice project manager, to point this out. He received the following reply:

*'From: adrian.dubock <contact@goldenrice.org>  
Date: 14 March 2009 14:50:33 GMT  
To: 'Brian John' <brianjohn4@mac.com>  
Subject: RE: Unpublished letter from "reputed scientists"  
Reply-To: contact@goldenrice.org*

*The letter was sent to the daily mail. That is what it says. We are thinking about taking it off the site because it only gives visibility to a failed bunch of cranks.*

*Had I realised you[r] piece was only published online, we wouldn't have bothered responding. Did you notice how little response you got? We did.*

*YOU, and your kind, really are degenerately immoral.'*

## Global warming vs cultural heritage

**March brought warnings from climate scientists that we have underestimated the speed and severity of global warming: Australian scientist John Church said that sea-level rises could be 1m or more by 2100 (compared with predictions from the Intergovernmental Panel on Climate Change of between 18 and 59cm); economist Lord Nicholas Stern confessed that he had underestimated the risks of climate change in his seminal review in 2006; and a report from the UK's Tyndall Centre for Climate Change Research argued that the Government is using 'naively optimistic' research data to set its climate change targets.**

And there are worries too that we may not yet have taken stock of what we stand to lose if climate change is allowed to worsen.

In the March/April issue of *Archaeology* magazine, a special article looks at the effects that rising sea levels, increased rainfall and melting ice might have on the world's cultural and historical heritage.

'With climate change, we're feeling a sense of urgency,' University of Northern Colorado anthropologist Michael Kimball told the magazine. 'It may be intangible, but when a community loses its connection to history it loses something pretty important.'

The article details six sites of historical importance likely to be affected by climate change, including the thawing of Scythian tombs buried in now-melting permafrost, the effect of increased rainfall on the 1,000-year-old Peruvian city of Chan Chan, and the slow but steady advance of the Sudanese desert towards 2,000-year-old sandstone temples at Musawwarat es-Sufra.

See [www.archaeology.org](http://www.archaeology.org)

## MMR complaint

**Andrew Wakefield, the doctor at the centre of the controversy surrounding possible links between the MMR vaccination and the development of autism, has filed a complaint with the Press Complaints Commission (PCC) in response to an article in February claiming he 'manipulated' data to suggest the link.**

The *Sunday Times* article by freelance journalist Brian Deer accused Wakefield of 'selective reporting' and 'changes to findings'. Deer also suggests that Wakefield's diagnoses of gut complaints associated with autism in the children studied differed from those in previous pathology reports.

In his 58-page complaint, Wakefield accuses Deer of 'cherry-picking' information, and 'ignoring data that contradict his premise'. He says Deer is involved with a General Medical Council investigation of Wakefield and should not be publishing articles about the case.

'Journalists have a right and responsibility to report on matters of public interest,' Wakefield said, 'but also an obligation to make certain their information is accurate.'

See the complaint at [tinyurl.com/b3g4nh](http://tinyurl.com/b3g4nh)



**'We need government to govern again, instead of leaving it to the market. We need to move from the idea of "sustainability" to the idea of "resilience" – the ability to withstand shocks. And we need to rethink protectionism. It has become a dirty word, but exporting the same number of potatoes to Germany as we import back is ridiculous.'**

Rob Hopkins, co-founder of the Transition Movement, at 'Making Local Food Work' conference, Aston University Business School, 30 March 2009

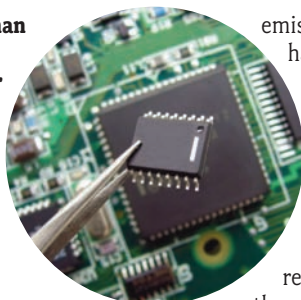
## Companies taking the WEEE

**When is 'reuse' not better than 'recycle'? When you're an electronic waste contractor attempting to pass off defunct computers as donations to the less-industrialised world, according to the UK branch of the European Recycling Platform (ERP).**

In a response to the Government's consultation on waste electrical and electronic equipment (WEEE), ERP is calling for the Environment Agency to ensure that WEEE is handled ethically.

'The reuse of electrical products is something we'd like to see more of, but it needs to be properly managed so that waste doesn't end up outside of the WEEE system,' said ERP's general manager, Scott Butler.

At the other end of the chain, Greenpeace is maintaining pressure on electronics manufacturers to reduce greenhouse gas



emissions and to phase out the most harmful chemicals from products.

At the beginning of March the green group launched its Climate Leadership Challenge for the IT industry, calling on the CEOs of the world's biggest electronics firms significantly to cut emissions and increase the use of renewable energy. But by the end of the month, computer manufacturers HP, Lenovo and Dell had all been given a black mark for backtracking on pledges to phase out polyvinyl chloride (PVC) and brominated flame-retardants.

All three companies dropped in Greenpeace's respected 'Guide to Greener Electronics' ranking. Only Apple and Acer upheld their pledges on the phase-out.

'If Apple can find the solutions, there should be no reason why the other leading PC companies can't,' said Greenpeace toxics campaigner Iza Kruszewska.

## The forest carbon conundrum

**Here's a tricky question – how do you put a price on the carbon locked up in the world's forests to discourage deforestation, without flooding markets and sending the price of carbon plummeting, stopping essential renewable energy projects in their tracks?**

It's one that has policymakers everywhere scratching their heads, and the Government's recent Eliasch Review, published in October 2008, thought it had come up with an answer.

To avoid depressing the price of carbon, Eliasch argued, restrict the amount of forest credits a developed country could buy to offset emissions, perhaps to 20 per cent of the total. That would ensure most international carbon trading cash would still go to renewable energy and energy efficiency measures.

Now, a new report from Greenpeace and economic consultants KEA 3 has pointed out a

flaw: yes, you can restrict the amount of forest credits available, but at the expense of making any real dent in the rate of deforestation.

The report argues that while allowing forest carbon to be traded freely alongside 'other' carbon would send the carbon price tumbling by 57 per cent, it would avoid some 82 per cent of deforestation. On the other hand, if you restrict the availability of forest carbon credits there would be less of an effect on the price, but you would end up reducing the amount of continued deforestation by just 16 per cent – an unacceptably small target.

As a possible solution, Greenpeace advocates having a 'market-linked' trading system, where the price of forest carbon reflects the price on the general carbon markets, but is not directly linked to it.

See [www.greenpeace.org/forestsforclimate](http://www.greenpeace.org/forestsforclimate)

## 30 years ago

A few of our more enlightened scientists and economists have rightly accepted that economic growth is now neither feasible... nor desirable. Rather than allow growth to come to a halt by itself, we should seek instead purposefully to achieve a 'Steady State Economy' (Daley) or an 'Equilibrium Society' (Meadows).

This is indeed a very necessary first step, but is it sufficient? Can our social and physical environment support, except in the very short term, our present population, living at its present level of consumption? I am quite convinced it cannot [and that those who think it can] have overlooked two important factors.

The first is that problems that have up till recently been local in character are rapidly becoming global. This means that they can no longer be exported, because there is nowhere left to export them to.

...The second is that the impact of [our destructive] activities is cumulative over and above the rate of natural biospheric recovery. If [their] impact is greater than the environment can sustain, the latter will deteriorate and its ability to support the impact of our activities over the succeeding period will be correspondingly reduced even if the extent of these activities does not increase.

Edward Goldsmith, 'The Steady State Economy', *The Ecologist*, May-June 1979

## Eco essay comp

Carbon trading is a hot topic. Some, like Nicholas Stern, see it as our salvation. Others, like the climate campaigners massed outside the European Climate Exchange in April, see it as a dangerous distraction from the realities of global warming. (The stakes are high: if carbon markets fail, nature doesn't do bail-outs.)

We'd like to know what you think, which is why the *Ecologist* is teaming up with the New Economics Foundation to run an essay competition. The question: **HOW DO YOU PRICE THE TONNE OF CARBON THAT, ONCE BURNED, TIPS THE BALANCE AND TRIGGERS CATASTROPHIC, IRREVERSIBLE GLOBAL WARMING?**

All submissions must be under 1,000 words, submitted to [andrew.simms@neweconomics.org](mailto:andrew.simms@neweconomics.org) and [mark@theecologist.org](mailto:mark@theecologist.org), and received by 30 June. The winner will be considered for publication in the *Ecologist*, and receive a copy of Andrew Simms' *Ecological Debt*.



# Bowdlerising biotech

Why would the publishers of a new guide to GM leave out information on its contributors? Because of their background in the industry? Now *that* makes sense, says **Jonathan Matthews**

## A row has broken out over the failure of a new guide to GM food to disclose the industry affiliations of many of its authors.

*Making Sense of GM*, which claims to provide the public with all it needs to know on the topic, enjoyed a high-profile launch with coverage on Radio 4's *Today* programme and in the *Telegraph* newspaper, and declarations of support from heads of research institutes such as the John Innes Centre and other prominent GM supporters.

Lord May of Oxford, for instance, was quoted as saying: 'This important guide addresses the doctrinaire, and largely fact-free, objections to so-called GM crops... The guide aims to refocus the debate on the really important question of who sets the agenda for the use of these techniques.'

No sooner was it published, however, than *Making Sense of GM* came under fire. An article in *Times Higher Education (THE)* magazine reported the guide's failure to mention in the biography of contributor Professor Vivian Moses that he headed the industry-funded GM lobby group CropGen. Also under attack was its failure to mention that the John Innes Centre, where eight of the guide's 28 contributors are based, receives funding from the GM industry.

Michael Antoniou, a geneticist at King's College London, described the omissions as 'outrageous'. Guy Cook, a professor at the Open University, who conducted two research studies into the language and arguments of the GM debate, agreed that the contributors' interests should have been declared.

'If not, they deal a severe blow to their own cause, the authority of science, which rests upon rationality, objectivity, evidence and disinterest,' he said. 'The problem with GM advocacy is that it has compromised these principles, and in so doing has dangerously undermined public trust in scientists.'

But Tracey Brown of Sense About Science (SAS), the guide's publishers, hit back, calling the *THE* article 'mischievous' and 'rude', and claiming it relied on 'tenuous' and 'tortuously indirect links' between the authors of the guide and the GM industry. However, letters to *THE* disputed the 'tenuous' nature of the links,

noting that the John Innes Centre had done deals with the GM industry worth tens of millions of pounds.

The row continued on the *THE* website, where one of the guide's contributors, Professor Anthony Trewavas FRS, declared the article in *THE* 'a disreputable use of space' and accused critics of *Making Sense of GM* of being 'ideologically corrupt'. This drew the response that when it came to ideological corruption, defenders of the guide should take a closer look at the directors of SAS, who are part of the so-called LM (Living Marxism) group behind online magazine Spiked and the Institute of Ideas. They promote climate change denial, eulogise GMOs, human cloning and nuclear power, and portray environmentalists as Nazis.

A further letter to *THE* from David Miller, professor of sociology at the University of Strathclyde, noted that while SAS describes itself as a 'charity', 'a quick glance at the last accounts it lodged with the Charity Commission shows all the substantial sums from its named donors came from life science, chemical, pharma, big oil and mobile phone companies – funnily enough, the very industries whose interests it defends against their critics'.

Professor Miller has dismissed *Making Sense of GM* as merely 'a PR exercise', and the guide certainly deals almost exclusively in reassurance. This can be seen, for instance, in the section entitled 'Eating GM foods', where readers are told, 'In the US, foods containing GM ingredients have been eaten for over a decade... and over a trillion meals containing GM ingredients have been consumed without revealing any adverse health effects'. It is not explained that at a similar point in the history of many health-damaging substances (trans fats, for instance) almost identical claims could have been made about widespread consumption and the lack of evidence of harm.

The guide then quotes from a review of research on animals fed on GM, which claims that 'recombinant DNA fragments or proteins derived from GM plants have not been detected in tissues, fluids or edible products of farm animals'. This statement completely ignores a series of peer-reviewed papers that have shown such recombinant DNA fragments are traceable in farm animals fed on GM, and that small amounts even appear in the milk and meat that people eat. These studies – 'Detection of genetically modified DNA sequences in milk from the Italian market', 'Assessing the transfer of genetically modified DNA from feed to animal tissues', 'Detection of Transgenic and Endogenous Plant DNA in Digesta and Tissues of Sheep and Pigs Fed Roundup-Ready Canola Meal' – should all be known to those with expertise in this area of toxicology, so why aren't they mentioned?

In this context, it may be worth noting that the controversy over the guide took a further dramatic twist when *Private Eye* reported that it had obtained a copy of an unpublished draft of the guide which showed that more than just the industry connections of contributors had been omitted. One of the contributors listed in the draft version had been removed from the published version entirely.

This ghost contributor was none other than toxicologist Andrew Cockburn, Monsanto's former director of scientific affairs and a figure so controversial that when he was invited to author part of the Government's official GM Science Review it led to questions being raised in Parliament and the resignation of one of his fellow Science Review panellists.

*Private Eye* concluded, 'No wonder Sense About Science felt erasure was the better form of valour'.

**Jonathan Matthews is the founder and editor of GM Watch. [www.gmwatch.eu](http://www.gmwatch.eu)**



The **co-operative** bank  
good with money

# All your eggs in one basket can now be a good thing...

Switch to Current Account Plus with a linked savings account\*:

- earn interest on your savings as you go
- easy transfers between the two accounts
- fee-free £200 overdraft facility
- customer-led Ethical Policy.

For more information call  
**08000 280 184**  
quote ref: 20105  
[co-operativebank.co.uk](http://co-operativebank.co.uk)



Part of The **co-operative** financial services

\*The interest rate on your Savings Plus is guaranteed to track 0.5% below the Bank of England Base Rate for the life of your Current Account Plus. Although the rate should be 0% at this time, we are currently paying interest of 0.5% Gross AER. Interest rates may vary and are correct at time of going to print 08/04/09. To open and maintain an account you must credit it with £800 minimum a month. Credit facilities are subject to status and only available to those aged 18 or over. The bank reserves the right to decline any application. Registered Office: The Co-operative Bank p.l.c., P.O. Box 101, 1 Balloon Street, Manchester M60 4EP. Registered in England & Wales (No. 990937). Co-operative Financial Services Limited, Registered Office: New Century House, Manchester M60 4ES. Registered Number IP29379R. The Co-operative Bank is authorised and regulated by the Financial Services Authority (No. 121885), subscribes to the Banking Code, is a member of the Financial Ombudsman Service and is licensed by the Office of Fair Trading (No. 006110). The Co-operative Bank is a member of the Financial Services Compensation Scheme established under the Financial Services and Markets Act 2000. In respect of deposits with a UK Office, payments under the Scheme are limited to 100% of the first £50,000 of the depositor's total deposits held with the bank. Visit [fscs.org.uk](http://fscs.org.uk) for details.

While presenting the *GQ* magazine Men of the Year Awards in September 2008, Elton John quipped to a worse-for-wear Lily Allen that he could snort her under the table. Given that it takes four square metres of pristine rainforest to produce just one gram of cocaine **Nick Kettles** just had to ask...

# How much rainforest does it take for one celebrity to snort another one under the table?



**T**he connection between hard-partying celebrities – from A-list to F – and the Revolutionary Armed Forces of Colombia (FARC) might not be immediately apparent to most. But then the free-market makes strange bedfellows of us all. The twin desires to usurp the existing Colombian power-base on the one hand, and maintain the illusion of bright-lights, big-city careers on the other, have collided to throw the spotlight on a largely ignored form of ecocide.

As controllers of the majority of Colombia's cocaine production for more than a decade, FARC has been responsible for the slash and burn of more than two million hectares – an area the size of Wales – of both pristine primary- and secondary-growth Amazon rainforest, in the most biodiverse (per square kilometre) country in the world.

As controllers of a large majority of the public's imagination, celebrities who either openly or clandestinely take cocaine are helping ensure that the Colombian coca farmers who work for FARC stay in business.

The mind boggles at how the ideologies of such diverse groups could find themselves on common ground, but it seems that when it comes to the environment, neither can see beyond the tip of their noses. It's estimated that four

square metres of rainforest are required for the production of every one gram of cocaine. More worrisome is that for every hectare of coca planted, approximately three to four hectares of forest are actually cut down.

The thinly veiled euphemism for cocaine use – 'partying hard' – often cited in the tabloids, suggests it is a drug of choice for celebrities. Since his agent refused to take our call, we cannot be sure that when Elton John quipped to Lily Allen, at the *GQ* magazine Men of the Year Awards last year, that he could 'snort her under the table', he wasn't talking about tobacco snuff.

If, however, hypothetically, he was talking about cocaine – and according to an interview in the *Observer* in 2004, Sir Elton, at his peak, was taking cocaine every four minutes – then it begs the question, just how much pristine rainforest does it take for one A-lister to snort another A-lister under the table? Are we talking a parcel of land the size of the back garden of a terraced house? A tennis court's worth? Or more?

Moreover, do we assume that the donations and endorsements given by some hard-partying celebrities to environmental and conservation charities are in fact some perverse form of carbon offsetting?

It may seem facetious to lay the blame for rainforest ecocide squarely at the feet of Hummer-driving, private-jet-setting, cocaine-tooting celebrities. And certainly,



## Cannabis

Tales from California, where cannabis (marijuana in the US) is grown illegally in national parks, are instructive. Since 2000, authorities at Sequoia and Kings Canyon National Parks have found as many as 50,000 cannabis plants each year – at best half of what is being grown – planted on illegal grow-sites, and disrupting the land and wildlife on hundreds of acres of wilderness. A 7,000-plant crop can yield a street value of \$28 million.

■ Growers elsewhere in the world indiscriminately clear grow-sites and show little respect for the environment. Run-off from pesticides and herbicides, including DDT, poses risks to wildlife, plantlife and aquatic life nearby.

■ Arsenic-based poisons are used to kill small animals and rodents, which in turn can devastate the food chain and area water supplies.

■ Drugs cartels protect their grow-sites with firearms, including AK47s, used to warn off other growers seeking to move in on the site, but also to protect them from bears and other wildlife.

■ In Europe, where cannabis is more likely to be grown in artificial, hydroponic environments, chemicals such as hormones are added to increase yields and then simply flushed down the toilet or the drain.

■ More than 60 per cent of the cannabis smoked in Britain is cultivated in this country, compared with just 11 per cent a decade ago.

ignorance of the complexity of our carbon footprint is not their exclusive preserve.

As entertainer Graham Norton commented in *Marie Claire* magazine, cocaine is the 'middle-class choice of drug' (his views about drugs were heavily criticised by NGOs such as the National Drug Prevention Alliance and DrugScope, but vigorously defended by the BBC). Like many other drugs, hardcore cocaine addicts make up a minority of users; the vast majority are recreational users, from a broad spectrum of society, and quite likely also include middle-class, broadsheet-reading, environment-supporting greens, not to mention members of the media. A few years ago singer Robbie Williams was widely reported as claiming to have taken cocaine with the same journalists who were hounding Kate Moss at the time for her own use of the drug.

The latest figures from the European Monitoring Centre for Drugs and Drug Addiction reveal that across Europe an estimated 12 million EU citizens aged 15-64 have taken cocaine. More revealing is that the UK has the highest number of cocaine users, and that nearly 13 per cent of Britons aged between 15-34 had taken the drug.

With the Home Office suggesting that a line of cocaine can cost as little as £1 – less than a cup of coffee – perhaps the Heathrow runway campaigners should be maximising their impact by decamping in the early hours to protest outside London's most exclusive nightclubs.

## Being accountable

Whatever your background, whether celebrity or Jain monk, sweeping the path before you to avoid treading on any insects, every choice is a complex one.

The cocaine I experimented with in the late 1980s was more likely sourced from Peru than Colombia, but the chemicals used in its production would have been the same. These include pesticides and herbicides such as Paraquat, banned in the EU, and the tens of millions of gallons of kerosene, sulphuric acid, acetone, cement and other pollutants that get dumped each year, straight on to the ground and into nearby rivers, damaging plant, animal and aquatic wildlife.

Life in the spotlight comes with certain responsibilities, however. When it comes to the potential impact of celebrities' brazen promotion of drug-taking, their 'lifestyle' choices and their ignorance of the environmental consequences of their actions, they must be held to account. Especially since their use perpetuates the destruction of still more rainforest through the influence they have on young people.

Last year's annual report of the International Narcotics Control Board – a UN agency – highlighted for the first time the influence of drug-taking film actors, sports stars and rock musicians on impressionable fans. The report noted:

'Celebrity drug offenders can profoundly influence public attitudes, values and behaviour towards drug abuse,

particularly among young people who have not yet taken a firm and fully informed position on drug issues.'

It also blamed law enforcement agencies for treating stars 'leniently' and failing to make an example of them. Professor Hamid Ghodse, a member of the board, said:

'They get more lenient responses by the judiciary and law enforcement, and that is regrettable. Not only does it give the wrong messages to young people, who are often quite impressionable, but the wider public become cynical about the responses to drug offenders.'

Alun Morinan, a scientific advisor to Hope UK, a preventative drugs education charity, says: 'When you see these free London newspapers, with pictures of celebrities falling out of nightclubs and then into rehab as something they can drop in and out of, as if it's an MOT, it's presented as a lifestyle that young people look up to.'

## Stemming the supply

We rightly believe that it is the duty of governments to protect citizens from illicit drugs by stemming their supply at source, and when it comes to cocaine there's no shortage of ideas.

Initiatives such as the US-backed, \$600 million a year Plan Colombia (the dire environmental consequences of which were detailed in the *Ecologist* in March 2006), a campaign of aerial spraying coca plants with glyphosate (Monsanto's RoundUp) – in scenes reminiscent of the spraying of foliage in Vietnam with Agent Orange.

However, while the Colombian government claims to be increasing manual eradication of coca – in 2007 it estimated that 66,000 hectares was removed by hand – when plantlife is seen as a national security threat it's inevitable that more aggressive measures will also be applied. Professor Jaime Fernando González of the Universidad Nacional de Colombia, an expert on the effects of glyphosate on river fisheries, likened the environmental effects of Plan Colombia to the use of chemotherapy against cancer.

A recent US Congressional report suggested that despite record aerial eradication and the diminution of the threat of FARC, Plan Colombia did not stop coca cultivation in Colombia rising by 15 per cent between 2000 and 2006. Eradication efforts are thwarted by farmers using improved cultivation techniques, the planting of new herbicide-resistant varieties of coca bush and increased processing efficiency.

Social programmes have been set up too, such as the UN-sponsored programme *Familias Guardabosques* (forest wardens), which provides employment and alternative income opportunities through the sustainable use of environmental goods and services to communities that make a commitment to maintaining coca-free zones in areas where eradication has previously occurred. The programme has been successful for some of Colombia's 60,000 coca-growers, but is not accessible to the majority, who otherwise might still choose to grow the plant.

The simple fact remains that demand for cocaine incorporates coca-growers into the global economy in a way other subsistence crops – crops people can eat – don't. Colombian farmers grow coca because they know there is a valuable market where they can sell it for more

## Crystal methamphetamine

Among the thousands of makeshift labs discovered in the US, hazardous byproducts from crystal meth production have been found dumped directly into domestic water wells, down mine shafts and on to farmland, posing immediate environmental effects and creating broader public health risks from contaminated water.

■ To produce every 1lb (2.2kg) of crystal meth 5-6lb (1.1-1.3kg) of hazardous waste is generated.

■ This includes red phosphorous, known to be harmful to aquatic organisms, and iodine, which even at low doses, as little as a couple of grams, can be fatal.

■ When the Government recently upgraded crystal meth from class B to class A, following advice from the Advisory Council on the Misuse of Drugs, it took into account, among other reasons, the environmental impact of the chemicals used in its production.

than they can get for other crops. What they get doesn't make them rich, but coca clearly offers them a better income for their families.

As Lilitiana M Dávalos, assistant professor at the Consortium for Inter-Disciplinary Environmental Research at Stony Brook University, New York, says:

'Successful eradication efforts require sustained investments over decades, and direct engagement with growers. Thailand and the Lao People's Democratic Republic, for instance, reduced their opium production dramatically by reaching out to growers, luring them away from marginal



lands with schools, roads and medical centres, as well as guaranteeing technical support, sponsoring farmers' co-operatives and virtually ensuring the purchase of legal agricultural products.'

Indeed, there are those who believe that Colombian vice-president Francisco Santos Calderón's Shared Responsibility campaign, through which the environmental consequences of cocaine have become more widely known, is nothing more than a public relations exercise, designed to shift attention away from the well-intentioned but haphazard approach to tackling supply described above.

Heavy-handed though it may be, the fact remains that the Colombian government is right to have highlighted the connection between individuals' cocaine consumption and the ecocide of the Amazon rainforest. After all, as Calderón admits, even if attempts were successful in stemming supply, while demand remains, supply would inevitably move elsewhere. As when you press down on a balloon full of water, the water simply bulges towards the opposite side.

Cocaine usurped coffee as a national crop in Colombia in the first place after production migrated from Peru because the government there started indiscriminately shooting down light aircraft suspected of trafficking. Already New Guinea, an established cocaine transshipment point in West Africa, with lax infrastructure and lush rainforest that provides ideal growing conditions, is being touted as the next Colombia.

We need to focus on demand as much if not more than supply, because while demand remains, suppliers will be pushed to ever more extreme measures to fulfil supply, with inevitable consequences for the environment. This is true of almost all recreational drugs (see boxes).

### A new view on prevention

If governments' attempts to eradicate supply simply add insult to environmental injury, and if the will of suppliers is such that they will always find a way to meet demand, then we must consider a new approach to combating demand.

In drugs education, for example, the environmental impact of drug use offers an opportunity to engage children at a much deeper level – especially those more likely to switch off from arguments about health and mental wellbeing.

This is exactly what the most recent Government guidance, entitled *Drugs: Guidance for Schools*, states: that drug education should allow all children an opportunity to explore their attitudes towards drugs and help them to develop skills to make informed choices, rather than simply focusing on improving their knowledge and understanding.

Siobhan Farmer, a Healthy Schools Consultant for St. Helens Council in Lancashire, says that while it won't work for every child, examining the environmental consequences of recreational drugs presents many opportunities for teachers and pupils to be more creative in how they explore the role of drugs in today's society: 'Learning about drugs

## 'Cocaine usurped coffee as national crop in Colombia after production migrated from Peru'



can be linked to wider curriculum subjects such as citizenship (including politics and rights and responsibilities), geography, biology and sociology.'

What if children were asked, for example, to consider the impact of cocaine use on the recently discovered gold frog, the size of your fingernail, whose habitat of just 42 acres is in the remote mountains of Colombia? Or the recently discovered Gorgeted Puffleg hummingbird, which only lives on some 1,200 hectares in the cloud forests of southwestern Colombia and is predicted to disappear within two years?

What conversations might arise from understanding the impact of ecstasy use on the tigers, pangolins, peacocks, pythons and wild cats trapped for food or sold illegally by the people who run the sassafras oil distillation camps in the Cardamom mountains of Cambodia? With these facts at their fingertips, might at least some children view drug-promoting celebrities in a different, less deferential light?

To ensure the emphasis on the environment is not lost on them, however, the low self-esteem among some children that sees them looking up to drug-endorsing celebrities in the first place, must also be tackled. As John Naish writes in his book *Enough: Breaking free from the world of more*, some people view celebrities as the alpha members of our virtual tribe, and our instincts urge us to imitate their every habit in hope of gaining entry to their VIP circle. More worrisome is that we perpetually fear being snubbed by such alphas (see also John Naish's article, page 21).



## Ecstasy

Writing in the *Journal of Psychopharmacology* recently, Professor David Nutt, head of the Advisory Council on the Misuse of Drugs, trivialised the use of ecstasy by comparing the statistical risk of being killed by it to horse-riding, but it still poses huge risks to the environment.

■ The purest form of Sassafras oil, which comes from sassafras oil, commonly used to make toiletries and a precursor in the production of ecstasy, is secured from endangered Mreah Prew Phnom trees, which grow in the Cardamom mountains, in Cambodia.

■ The Cardamom mountains are the largest intact piece of tropical rainforest in mainland south-east Asia, with phenomenal biodiversity and where seven or eight new species are discovered each year.

■ In June last year, 33 tonnes of sassafras oil, which Fauna & Flora International (FFI) helped to confiscate, were destroyed at a public ceremony organised by the Cambodian government and the Australian Federal Police (AFP). The AFP claims that the oil could have produced 245 million ecstasy tablets with a street value of \$7 billion.

■ Cutting down Mreah Prew Phnom trees also puts at risk the cardamom trees, which grow best in their shade and which provide a source of income to local indigenous spice traders.

■ Still more trees are cut down to heat the distillery vats in which the roots of the Mreah Prew Phnom tree are boiled for up to 12 hours to obtain sassafras oil. Vat oil often leaks into nearby streams, killing aquatic wildlife.

## Recreational vs dependent?

Making the environmental consequences of recreational drug use more widely known would also offer governments and drug education charities a chance to challenge the excuse of many users that since they are not dependent, somehow their use harms no-one and so it's okay to continue.

Might we imagine a future society in which Earth jurisprudence was firmly established within the legal framework, and where cocaine-snorting celebrities, even self-exposed ones such as mezzo soprano Katherine Jenkins, might be heavily fined, or even banned from performing?

Though it may sound far-fetched, the trial of Greenpeace protesters, acquitted last September of causing criminal damage to Kingsnorth power station, sets an important precedent. The judge ruled that the protest was reasonable given the potential future harm to the environment that the coal-fired power station could cause. By the same token, the use of recreational drugs on its current scale also constitutes genuine future harm to people and ecosystems.

If recording artists such as Lily Allen knew they risked fines such as those imposed on ex-Chelsea footballer Adrian Mutu – who was ordered by FIFA to pay the club £13.68 million in compensation after he tested positive for cocaine while playing there – would they think twice about spouting off about their right to party hard?

In the meantime, we could do no worse than consider a new system of drugs classification that considers the overall impact of drugs, instead of one that invites people to use it as a guide to the potential harm of a drug to their health.

But, says Alun Morinan, 'We would need to avoid this being misinterpreted as the equivalent of food labelling – and so inviting people to use it as further justification for their drug choices – but presenting the full range of facts, including environmental, is critical.'

## Tobacco

Tobacco, believed by some researchers to be as addictive as heroin, also has a devastating effect on the environment. By 2010 it is predicted that 87 per cent of the world's tobacco will be grown in the developing world. Available data suggests:

- Tobacco accounts for five per cent of Africa's total deforestation and 20 per cent of deforestation in Malawi. Tanzania also faces a wood shortage as a result of tobacco-growing.
- Globally, tobacco curing requires 11.4 million tons of solid wood every year. In developing countries producers still rely on readily available, unregulated wood supplies from forests.
- Less direct impacts on forests include the paper used in cigarette manufacture. A modern cigarette manufacturing machine can use up to 3.7 miles of paper an hour.
- Tobacco plants strip more nutrients from the soil – especially potassium – than many other crops.
- Vast quantities of pesticides, fertiliser and herbicides are used. Tobacco crops can be given more than a dozen applications during their three-month growing period.
- Trillions of cigarette butts are discarded each year. The plastic-like material can take up to 15 years to break down, all the while releasing toxins into the environment.



## Lifestyle choices

For many users, drugs are a way of escaping the harsh realities of modern life on the poverty line, or even just to let go of the stress of the 9-to-5 grind. Drugs are mood-altering, and for many there's not a lot to cheer about in the modern world – not least the looming threat of climate change. Even when the outlook is bleak we cling to our right to be happy.

As Elizabeth Farrelly, author of *Blubberland: The Dangers of Happiness*, says so succinctly: 'In popular culture, the gratification compulsion chugs on. For most of us, religion is in the reject pile, and the Enlightenment a disappointment, but the pursuit of happiness through pleasure survives as the supreme orthodoxy of our times.'

But all that has to change.

The impact of crystal meth production and an industrialised approach to marijuana cultivation are seemingly less critical, as far as global warming is concerned, but there are clear links between the use of cocaine (and by consequence crack) and ecstasy, and the diminution of valuable rainforest. These are the same forests that new research published in *Nature* by Dr Simon Lewis, a Royal Society research fellow at the University of Leeds, suggests are responsible for absorbing some 18 per cent of the CO<sub>2</sub> that burning fossil fuels adds to the

atmosphere each year, substantially buffering the rate of climate change.

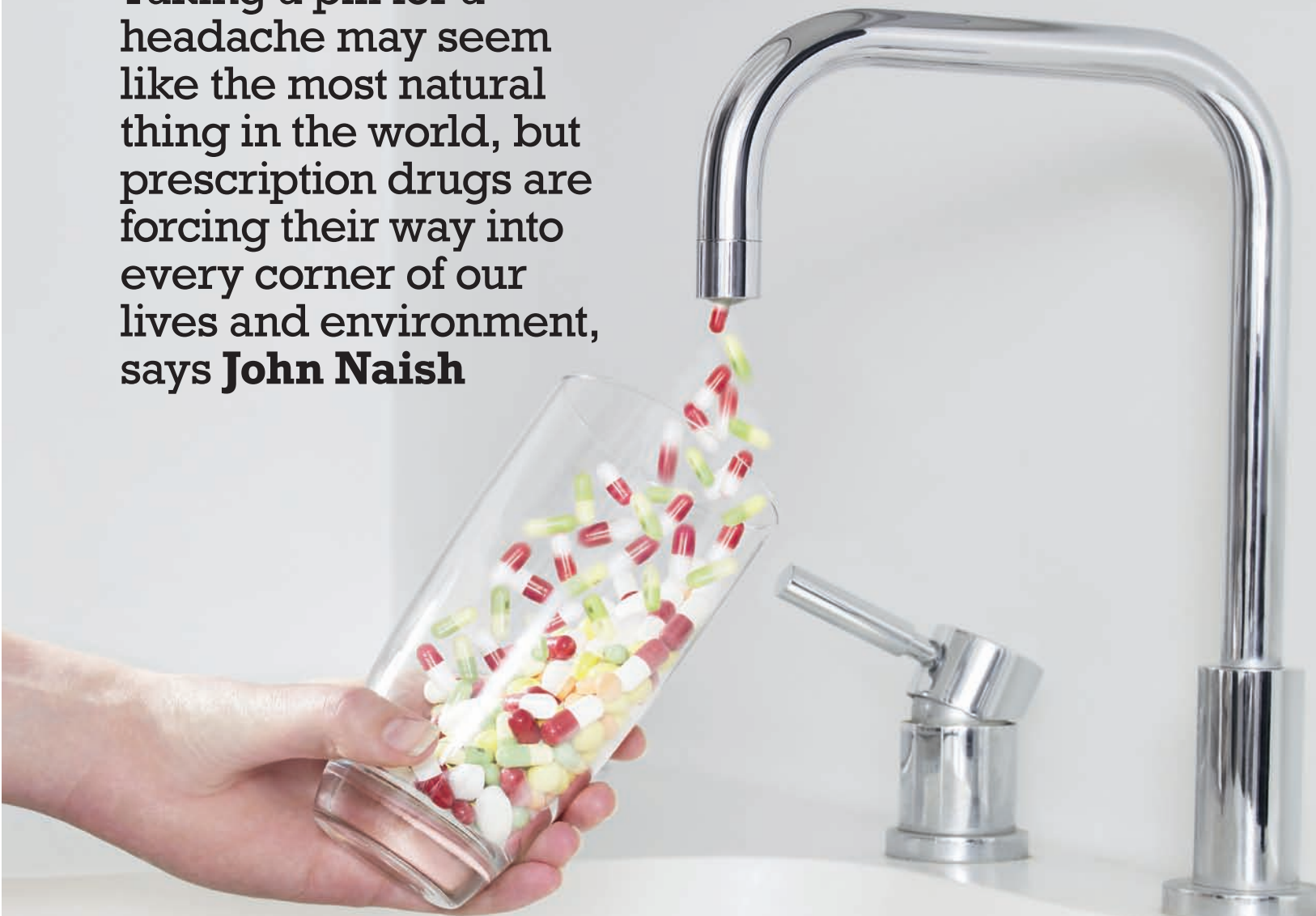
The impact on the environment of opium production in Afghanistan (responsible for more than 90 per cent of the world's heroin supply) is less easy to establish, and yet being a key source of funding to the Taliban, in the same way coca funds FARC, it is implicit in the environmental consequences of the war itself. More than half the forests in three Afghan provinces have been destroyed in 25 years of war in the region.

Unless governments suddenly decide to offer drugs on prescription from sustainable sources of supply, or institute an organic standard for them, it falls to individual drug users to reconsider the ominous threat to the environment of their habits.

That will rely on governments willing to communicate that message, but it also will rely on governments to consider how to create a society in which people feel sufficiently valued for their contribution, so they're less prone to seek ways of artificially altering their experience of reality in the first place. Part of this cultural shift, as Elizabeth Farrelly suggests, will mean that we begin to learn the difference between what we want and what is right.

Nick Kettles is freelance writer and creative consultant

Taking a pill for a headache may seem like the most natural thing in the world, but prescription drugs are forcing their way into every corner of our lives and environment, says **John Naish**



# Drugs on tap

**B**ritain has a serious and unnecessary drug habit, but the implications of our pill-for-every-ill culture go far beyond the adverse effects on human health. The complex chemicals in modern pharmaceuticals, as well as the manufacturing processes involved, leave a massive industrial footprint on the natural world that is largely ignored by both science and government.

While pharmaceuticals may often be lifesavers, they are also the product of a massive global industry that

manufactures compounds that can interfere, in myriad and unintended ways, with complex biological functions. They are often designed to break down slowly and have yet-unknown consequences to the environment. As a new Government report points out, they also contribute significantly to global warming: NHS drug-purchasing alone is responsible for millions of tonnes of carbon dioxide emissions a year.

We are an overmedicated society with older people and children receiving the vast majority of needless drug

prescriptions, according to a 2003 report in the *Journal of Social and Administrative Pharmacy*. Our over-the-counter drug use is spiralling: UK sales of the painkiller Anadin in 2007 totalled nearly 27 million packs. As its maker, Wyeth Healthcare, boasts: 'If stacked on top of each other, they would reach over 56 times the height of Mount Everest'.

Our ever-growing consumption is encouraged by a powerful triumvirate: Big Pharma with its demanding shareholders; doctors who fire off quick fixes from their prescription pads and health journalists hungry for the next 'medical breakthrough' story. Having worked in health journalism for 20 years, I have frequently witnessed how lazy writers and headline-hungry editors ignore clear evidence of thin or dodgy science when publicising drug cures for everything from shyness to brain tumours.

The ecological cost is publicly invisible, but all the bioactive chemicals we ingest ultimately enter the water system, either through lavatories or refuse disposal. Thus they contaminate the food chain and our drinking water. As a result, each of us now consumes between 50g and 150g of active pharmaceutical ingredients a year via our tap water, according to a report by the UK Drinking Water Inspectorate in November 2007. The cumulative result is... Well, we don't know, because nobody is trying too hard to find out. Despite official indifference, however, a picture is starting to emerge. And it looks worrying.

## Pills in the developing world

There is a serious ethical dimension to the ecological problem, too. We are exporting many of the worst effects of our desire for cheap pills to the developing world, in particular to India and China, where so many of these medicines are now made.

Joakim Larsson, an associate professor at Gothenburg University, Sweden, has, over a number of years, tested river water at the pharmaceutical industry zone of Patancheru, near Hyderabad, central India. His recent report, published in the journal *Nature* in February 2009, revealed the presence of unprecedented levels of drugs.

Larsson's team found that the plant discharges an estimated 45kg of the antibiotic ciprofloxacin in one day, equivalent to five times the daily consumption of Sweden. Water from 90 Indian pharmaceutical factories goes through a water-treatment plant before discharge into the river, but Larsson's data showed that the supposedly cleaned water was a soup of 21 different active pharmaceutical ingredients, used in generic (i.e. non-branded) drugs for the treatment of hypertension, heart disease, chronic liver ailments, depression, gonorrhoea, ulcers and other ailments. Half of the drugs measured at the highest levels ever detected in the environment.

India has become one of the world's leading pharmaceutical exporters, with most of its products going to the US and Europe. Half of the 242 generics on the

Swedish market examined by Larsson's team contained substances from India. We can't tell what precise proportion of Indian pharmaceuticals are used in British generic drugs, because the UK Government does not monitor this.

According to a spokesman for the Department of Health: 'The sourcing of generic medicines from outside the UK is a matter for individual licensed importers'.

Larsson's study found that ciprofloxacin and the popular antihistamine cetirizine were found in the highest levels in the wells of six nearby villages where local residents have no choice but to drink the contaminated water. Such concentrations of riverborne antibiotics effectively provide a training school where bacteria can learn how to fight them – presenting the risk of new drug-resistant bacteria strains becoming pandemic.

Rajeshwar Tiwari, who heads the Patancheru area's pollution control board, says regulations have tightened since Larsson's initial research in 2005, but adds that screening for pharmaceutical residue at the end of the treatment process is not required.

China also has evident problems: a 2007 study by Chinese scientists in the journal *Environmental Monitoring and Assessment* found that riverborne emissions from one Chinese contraceptive-manufacturing plant contained 10 times the amount of oestrogen required to make a fish population collapse.

## Absorbing issues

In Europe and the US, the primary pollution problem stems not from factories but from the fact that medicines are excreted without being fully metabolised by people who take them. How much passes through the body depends on the medicine. Data collected by the chemist James Shine at the Harvard School of Public Health shows that the body metabolises more than 80 per cent of the pain-reliever acetaminophen and the antidepressant fluoxetine, yet absorbs only 20 per cent of other drugs, such as metformin for diabetes and atenolol for high blood-pressure. The rest goes down the loo. Add to this the intensive use of antibiotics in agriculture: 446 tonnes of active ingredient were used by UK farmers in 2005, according to the Soil Association; in the UK, more than 90 per cent of veterinary antibiotics are used in pig or poultry production. Much of this use is 'preventative', or 'just in case', rather than curative.

Wastewater in Britain is treated to remove contaminants, a process sporadically tested by contractors and academics, says the UK Drinking Water Inspectorate. The purifying systems are not specifically designed to remove drug residues, however, and a report commissioned by the inspectorate says that reported removal rates for pharmaceuticals vary considerably between studies. Sophisticated European treatment systems may even backfire, it cautions: 'Concentrations of some compounds have been found to increase during the treatment process, probably as a consequence of the transformation of conjugates back to the parent compound'.

Doctors are currently most concerned about the effect of waterborne 'cytotoxic' – cell-killing – cancer drugs currently taken by 250,000 Britons. These drugs are flushed from the body and into sewers largely unaltered, remaining highly toxic. They are hard to destroy in water-treatment plants. Dr Andrew Johnson, a water quality scientist at the Centre for Ecology and Hydrology at Wallingford, Oxfordshire, has

**'Half of the drugs in the river measured at the highest levels ever tested in the environment'**



led two studies on pollution risk in rivers, including one on the Thames, and concluded that there may be sufficient chemotherapy drugs to contaminate tap water. 'There is at least the theoretical risk of low-level contamination by cytotoxic drugs,' he says. 'It is highly unlikely that concentrations below the nanograms per litre level would represent a risk to adults. But human foetuses and new babies could be particularly vulnerable to minute amounts of these agents, which are designed to prevent cell division.'

In an ongoing study, Britain's Drinking Water Inspectorate is running pilot tests of potential high-risk rivers at the point where human drinking water is extracted, to ascertain if there is any danger of pharmaceutical pollution. The trials test for three unnamed pharmaceuticals and at least one illegal drug, such as cocaine or heroin, but the test results will not be available until next year.

### **...and Prozac for all**

Back in 2004, the Environment Agency first cautioned that Prozac was detectable in British drinking water, though the levels were thought to be at 'very low concentrations'. Subsequently, the Agency asked manufacturers in May 2005 to monitor the water levels of Viagra and Prozac, worried that they could be harmful.

Fluoxetine hydrochloride was first introduced in 1988 by Eli Lilly and Company, and marketed under the trade name Prozac. Since the patent expired in 2000, the compound has been marketed in the UK by a number of other companies. In 2004, UK doctors issued more than five million prescriptions for fluoxetine – equating to around 4.1 tonnes of the compound. Research suggests that once fluoxetine is in the environment it is not easily broken down.

In the US, meanwhile, a five-month investigation by the

Associated Press in 2008 found that the drinking water in many major cities contains a variety of prescription medicines in low concentrations. The drugs include sex hormones, antibiotics, mood stabilisers and anticonvulsants.

The British water industry's scientific collaborative body, UK Water Industry Research, is currently investigating how it can cost-effectively remove oestrogens from sewage, via two pilot projects run by Thames Water and Severn Trent Water. It says it believes there is an 'acceptably safe' level of oestrogen in river water that will not harm wildlife.

The pharmaceutical industry says it supports monitoring of environmental residue levels and likewise believes that they are safely well below any level that could harm human health. But how would it know? Ecotoxicity data is available for less than one per cent of human pharmaceuticals, according to estimates published in the journal *Regulatory Toxicology and Pharmacology* in April 2004. Nor do we know what the drug compounds do when they break down in the environment, during water treatment and inside our bodies.

Some scientists fear that they may become more toxic. We simply do not know what happens when lots of these chemicals combine; they may, for example, make new compounds whose toxicity is powerful but unknown. There are also significant concerns about the effects on humans of long-term exposure to multiple drug contaminants at low levels. Dr Johnson says: 'There is a need for a lot more research. However it is not currently fashionable. The public are concerned, but the research-funding agencies much less so. We don't have enough information to rule out whether it is an issue. The concentrations of chemotherapy drugs

represent by far the largest proportion of procurement – a full four million tonnes of CO<sub>2</sub> a year, equivalent to an extra three quarters of a million cars on the road. Commenting on the report in a *British Medical Journal* editorial in January 2008, Ian Roberts, professor of epidemiology and public health at the London School of Hygiene & Tropical Medicine, warns: 'The Government's emissions-reduction strategy is weak in this area, saying that "research will be undertaken into the carbon footprint of pharmaceuticals within the NHS to better understand this and to inform actions to produce significant reductions." This sounds like a dodge.'

He adds: 'The NHS could reduce drug-related carbon emissions either by reducing the carbon intensity of drug production or by reducing drug use. Because the global atmosphere also bears some of the costs, the real cost of drugs is even higher than the monetary cost. The NHS can and should use its purchasing power to press the drug industry to decarbonise.'

Professor Roberts sees drug-carbon reduction as a public health-promotion issue, too. He predicts that if the Department of Health does not strengthen its strategies for encouraging healthy eating, walking and cycling, Britain will have a predominantly obese society by 2050: 'If we want to avoid a situation where more than half of the population is taking carbon-intensive drugs to suppress their appetite or to prevent their bodies from absorbing fat, then we will need to do much better.'

A spokesman for drug-manufacturers' body the Association of British Pharmaceutical Industries says that its members are already committed to reducing their environmental impact: 'For instance, GSK [GlaxoSmithKline] has committed to reduce its energy use and global warming potential by at least 45 per cent by the end of 2015 on a per unit sales basis, and Eli Lilly has set a global 15 per cent energy efficiency improvement target by 2013.'

Measures are under way to reduce the carbon footprint of pharmaceutical production. For example, engineers at the UK research-and-development organisation, C-Tech Innovation, launched a prototype in March of a new microwave technology that speeds the chemical reactions necessary to produce active ingredients in drugs. But this type of efficiency may prove double-edged. Lower energy use is a business advantage that may enable drug-making multinationals to produce more pills that will inevitably end up in the environment.

As individuals, we bear a significant personal responsibility for reducing drug-related pollution. As well as cutting the environmental levels of antibiotics by eating less intensively reared meat, we could also ensure that we pop far fewer pills. As any hard-pressed GP knows, prescribing tablets is a great way to get recalcitrant patients out of their surgeries. Studies show that half the antibiotics prescribed by GP surgeries are unnecessary. Likewise more than 30 per cent of pills work because of a placebo effect: the actual chemicals do nothing, it's just we believe so strongly in a 'pill for every ill' that we think we can't get better without them.

The UK's over-the-counter (OTC) remedy market is huge and continues to grow: income from painkillers alone jumped by nearly a quarter between 2001 and 2006, to approximately £900 million, according to drug industry body the Proprietary Association of Great Britain. Big marketing budgets pay big dividends in a world where one drug in four sold by pharmacists is a painkiller. The patents are long expired for the three basic analgesics available OTC

## 'Big marketing budgets pay dividends when one drug in four sold by pharmacists is a painkiller

involved are the same as the levels of oestrogens that we know can cause problems in fish.'

In wildlife, the most documented problem is the feminisation of male fish living downstream of wastewater treatment plants. A February 2008 study in *Chemical & Engineering News* by Karen Kidd, a biology professor at the Canadian Rivers Institute, says: 'It doesn't take a lot of oestrogen to feminise male fish. If you can measure the oestrogen in the water, then that's enough to cause an effect, and we can measure it at very low parts per trillion.'

Furthermore, fish exposed to an antidepressant drug, venlafaxine (marketed as Effexor) startle less quickly and become easy prey, according to a study reported by Meghan McGee of Minnesota's St Cloud State University to the 2008 North America annual meeting of the Society of Environmental Toxicology and Chemistry. Similar research shows that antidepressants can impair a fish's ability to eat, to avoid being eaten – and perhaps to attract a mate.

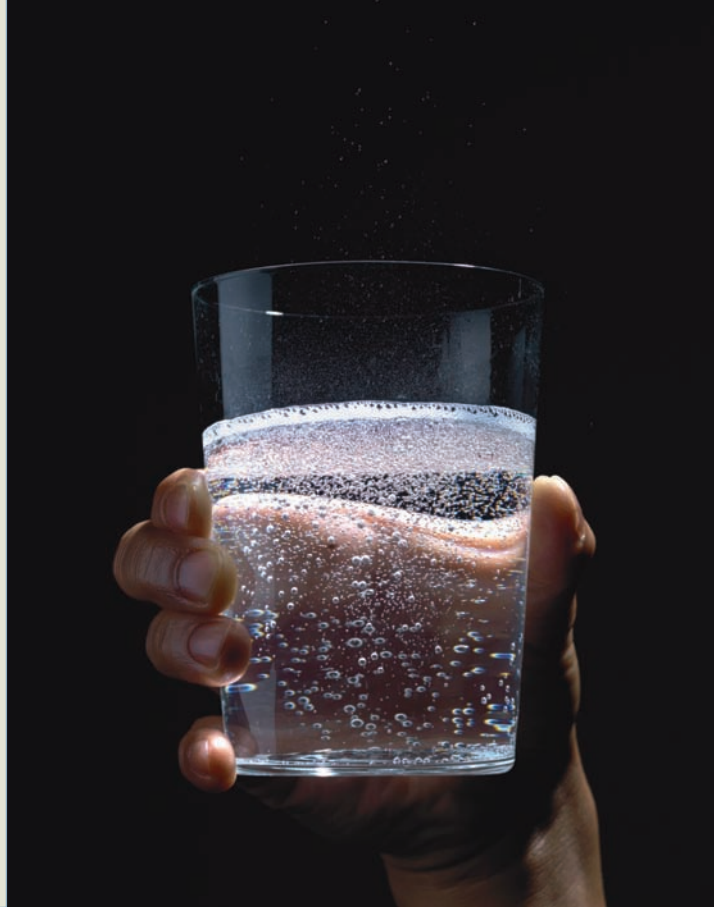
### Carbon pharmacopoeia

On top of the biological problem comes the carbon problem. The NHS carbon-reduction strategy for England, titled *Saving Carbon, Improving Health*, was published in January and reveals that the largest part – 60 per cent of the NHS carbon footprint is from procurement. Pharmaceuticals

## So should you still drink tap water?

The Government doesn't require drug testing of tap water or bottled water (often simply filtered tap water) and current purification processes don't get rid of all drug residues. There are no at-home filters that are certified to remove all drugs. A reverse osmosis (RO) filtration system will remove most pharmaceuticals from water, but can be wasteful, flushing three to 20 litres of 'waste' water down the drain for every litre of treated water (though some newer models claim to be virtually waste-free). In a world running out of water this is not a sustainable option.

So should you drink tap water? The short answer is yes, because what other option do you have, and because of the ethical, moral and environmental impacts of bottled water. But also become more aware of your own drug habits. Most OTC drugs are taken for self-limiting (i.e. they get better by themselves) conditions. Be more vocal about the issue of water pollution. Write to drugs companies about their waste and their irresponsible encouragement of drug use. Write to your MP and let Government know that it is unacceptable continuously to shift responsibility to the consumer to try to deal with waste that is created by major multinationals and then ignored by official agencies.



PHOTOGRAPH: GETTY IMAGES

in Britain – aspirin, paracetamol and ibuprofen – so they can be made and sold very cheaply.

Big Pharma is constantly inventing ingenious ways to sell the same substances. Nowadays, painkillers are marketed as lifestyle accessories. Solpadeine, for example, promises to 'make you feel human again', while Anadin's Ultra Double Strength pills launched with a £4 million campaign as the pill, 'For people who just get on with it'. Seductive packaging is crucial, too: when Nurofen launched its special 'mobile' pack (the 20th different Nurofen niche sub-brand), creators Design Cognition said it 'reinforced Nurofen as an innovative, aspirational and world-leading brand'. Aspirational? Four months after landing on UK shelves in 2002, it had boosted Nurofen's market share from 23 per cent to 28 per cent.

### The incurable headache

Continually pushing the stressy-ill market has a perverse but lucrative result: swallowing more OTC painkillers makes people increasingly prone to 'rebound headaches' – headaches caused by withdrawal symptoms from OTC painkillers. This encourages habitual pill-poppers to take more painkillers, and the costly cycle continues.

This cycle offers a stark metaphor for so much of our pharmaceutical use, where drug-science is frequently offered by our culture as a panacea for problems that our culture creates. This is perhaps most clearly exemplified by depression, a condition often induced or exacerbated by chronic stress, and which the World Health Organization says is about to become the second-biggest health problem in the developed world (other fast-growing illnesses such as cancer and hypertension are also viewed as significantly stress-related).

The most effective remedy for depression, as recommended by the Government's own watchdog NICE (National Institute for Health and Clinical Excellence),

involves comparatively expensive and time-consuming talking interventions, such as cognitive behavioural therapy. Lifestyle changes, such as bolstering one's relationships with friends and family, and developing one's own spiritual side, are also known to help significantly.

As NICE itself admits, however, our GPs are also part of the rush-rush culture, with only a few minutes per patient consultation, and limited budgets – so quick-fix antidepressant drugs remain the frontline therapy. Their use has spiralled over the past decade. Prescriptions for British children under the age of 16 alone rose from 48,264 in 1997 to 454,797 in 2007.

Such virulent antidepressant use carries serious environmental as well as social dangers. A Swedish study reported in *The Pharmaceutical Journal* in March 2009 listed seven drugs considered ecologically perilous, because they degrade slowly and are liable to bioaccumulate. Three of the drugs were antidepressants: Citalopram, Mirtazapine and Escitalopram.

As consumers, we must strive to resist the siren call of the chemist shop, which thrives by offering convenient pills and potions to soothe away the headaches and stomach pains produced by high-stress, high-impact, accelerated lifestyles. Ultimately, cutting our pharmaceutical dependence will depend on the developed world adopting a considerably more holistic approach to health: we need to examine and tackle the root cultural causes of environmentally induced mental and physical illnesses. Piling more drugs into the equation certainly won't help the long-term problem. They will only give us a much bigger headache – in the shape of a therapeutically poisoned ecosystem, as well as a chronically overstressed culture.

**John Naish is a freelance journalist and author of *Enough: Breaking free from the world of more* (Hodder & Stoughton, £7.99)**

# ALTERNATE CURRENTS

Instead of spikes in demand and coal-fired solutions, fridges and washing machines may soon be available that can regulate their own energy usage. **Mark Anslow** reports on a new generation of electrical appliances that 'listen' and learn

**W**hat do you think was happening here?' Jon Fenn, electricity operations manager for National Grid, is standing pointing at a jagged graph projected on to the wall of his office in the grid's electricity control centre in Berkshire.

The graph shows the nation's total electricity demand during the first round 2006 World Cup match between England and Sweden. Demand steadily falls throughout the first half, followed by a sudden spike at half-time, followed by another steady fall, then another spike and a plateau at the end of the match. Fenn is pointing to the lowest point of demand, right at the end of the game's first half.

'What do you think we were looking for?' he asks?

I look blank.

'We were looking to see if there was going to be any extra time played,' he explains patiently.

For the controllers who staff the National Grid's control room 24 hours a day, extra time in a national football match means something very significant. They are waiting for hundreds of thousands of kettles to be boiled at half-time, countless fridge doors to be opened and a multitude of kitchen lights to be flicked on. At half-time in 2006, electricity demand soared by almost two gigawatts in a matter of minutes – equivalent to suddenly needing the combined output of nearly two Dungeness B nuclear power plants. Twenty minutes later, as everyone sat back down in

front of the TV, the demand had disappeared.

To anticipate this sort of spike in demand, the grid engineers quickly need to bring extra power plants online. Extra time played in the game could mean they bring the power on too early, risking tripping fuses on the grid. Bring it online too late, however, and blackouts could result.

It's a fine balancing act, and also highly expensive and polluting. A key component of being able to match these sudden spikes in demand is what is known as 'spinning reserve' – essentially keeping a power station running but only using a part of its output, ready to ramp up to full power at a moment's notice.

Because this kind of use is unsuited to nuclear power plants, which take days to come on- or offline, and can potentially damage the more modern and sensitive natural gas plants, it tends to be the workhorse coal power stations that fulfil this 'balancing' role. One estimate suggests that more than 2.1 million tonnes of CO<sub>2</sub> are produced every year simply keeping these power stations 'ticking over', waiting for us to flip the kettle on.

It's not just football matches that generate these spikes in demand, however. In fact,

every winter's day our demand for electricity soars from a night-time low of around 35 to almost 60 gigawatts during the evening rush hour. In the summer, that profile is different still – flatter, but with different peaks when air conditioning equipment is switched on in the heat of the day. Fenn can point to little spikes in our electricity demand during the middle of the night when night storage heaters suddenly trip into life.

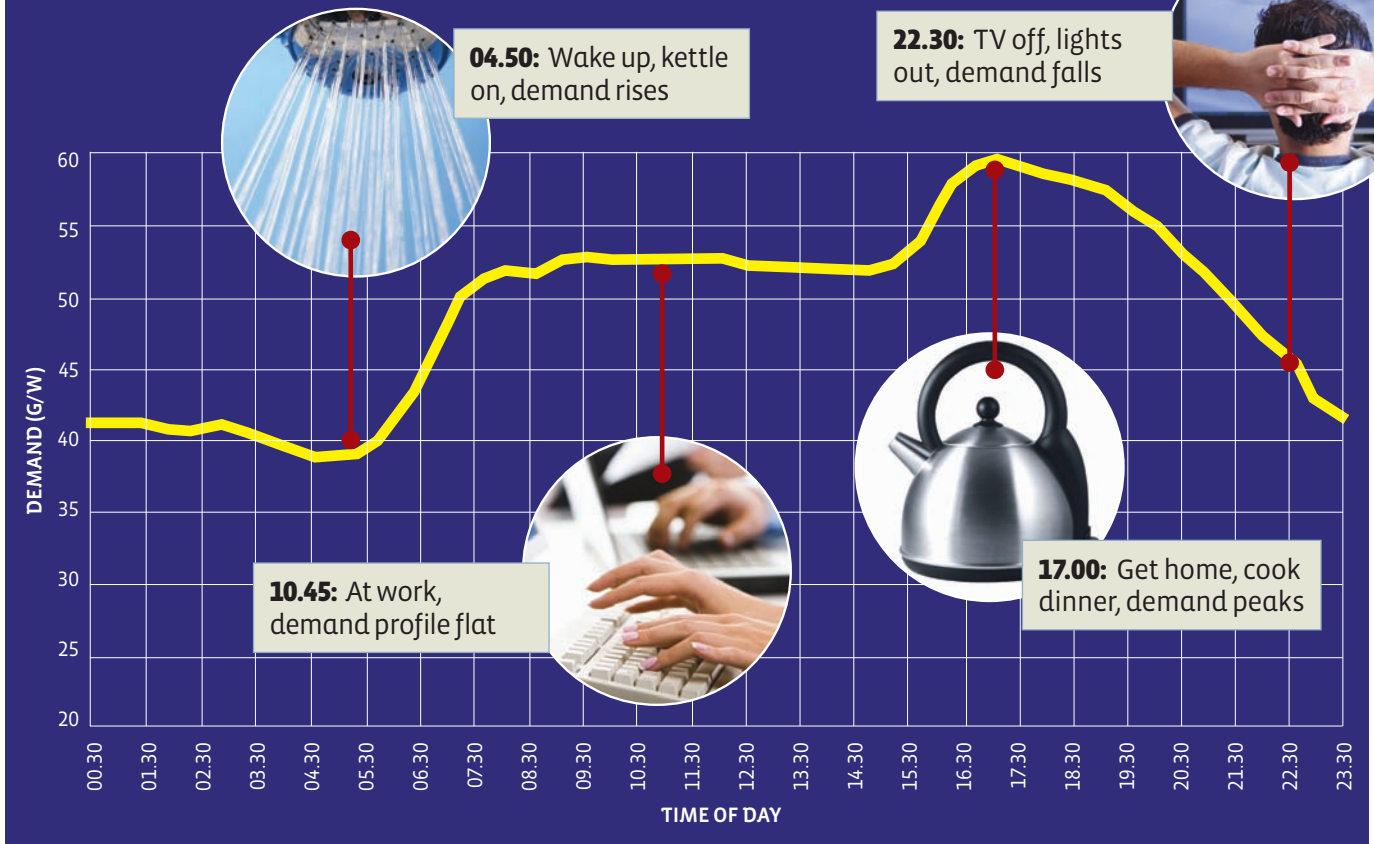
'We're students of collective public behaviour,' he admits.

## A cool innovation

Endearing as it may be, however, our electrical behaviour is becoming increasingly problematic. The current reliance on coal power plants to balance out demand will come to end as a result of the 2007 Large Combustion Plant Directive – legislation that regulates the non-CO<sub>2</sub> emissions from coal and oil plants, and which will force several to close by 2015. And on the flip-side, as more wind energy is brought online the variability of the grid will increase. Although wind energy is not 'unpredictable' as some critics suggest – it can be accurately forecast hours in advance – it does prove a problem for the

**'One estimate suggests 2.1 million tonnes of CO<sub>2</sub> are produced every year, just waiting for us to flip the kettle on'**

## DEMAND LEVELS: DAILY DEMAND PROFILE – WINTER MAXIMUM (29/11/05)



Source: NGC

current grid setup, where supply has to be matched to demand at all costs. Wind may blow strongly in the middle of the night, when the demand is low, but slacken off during the evening rush hour.

What's clearly needed is some way of matching not only supply to demand, but also demand to supply – some sort of what the industry likes to call 'demand management'.

'Don't say demand management!' hisses David Hirst when we first meet. 'Say demand participation. Only the electricity companies would be so arrogant as to talk about "managing" their customers.'

A former IT expert and the inventor of a technology that might help even out the variability on the grid, Hirst has developed a small, cheap piece of electronics that could be built into all new home fridges and freezers. Currently being marketed by British company RLtec, the device would constantly 'listen' to the frequency of the grid – a direct indication of whether the grid is over- or underpowered. If the grid frequency drops then the fridge would know that lots of consumers had suddenly increased their electricity demand – perhaps for the half-time cuppa – and that operators in the grid control room would be about to open the throttle on a series of coal-

fired power plants. In response, the fridge could switch its cooling unit off until the grid frequency had returned to a normal level – in effect reducing 'non-essential' demand until the grid operators had managed to balance the system again, hopefully without resorting to too much coal.

'The fridges would only remain off for between 15 and 30 minutes,' Hirst says. 'Any longer than half an hour, and the fridges would say to themselves, "stuff this for a laugh", and start working again. Food preservation is paramount.'

Some good scientific modelling work has been done on this, which suggests that if each of the three million domestic fridges sold in the UK every year were fitted with this technology (known as 'dynamic demand'), then the equivalent electrical response of all these units would be 35 megawatts – the size of a small wind farm. If, however, all of the UK's 40 million fridges were eventually replaced with dynamic demand units, then the response level would rise to between 728 and 1,174 megawatts – a level that RLtec claims would make an entire spinning reserve power plant obsolete.

It's an attractive idea, and one that National Grid welcomes.

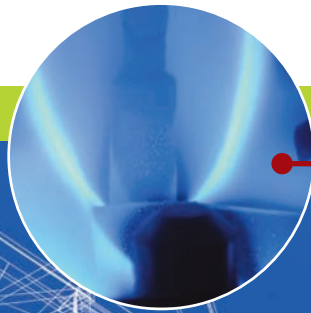
'Evening-out demand would make things very much simpler for us,' Fenn says. 'There's a great opportunity for technology here.'

There is, however, also a great shrugging of shoulders when it comes to deciding who will pay for installing the dynamic demand equipment in the fridges. In theory, the rapid-response service provided by the fridges is worth a fair amount of money to National Grid – between £4.40 and £34.10 per fridge, in fact, according to Government-commissioned research. This is because it offsets expensive charges made by coal power plant operators for their usual balancing services. National Grid, though, is reluctant to commit to funding the fridges without knowing exactly how effective they will be in aggregate. There is also talk of using money from the Carbon Emissions Reduction Target (CERT) energy efficiency levy on the power companies – the tax that explains why your utility is throwing energy-saving light bulbs at you and offering to lag your loft. As yet, everyone is waiting for the result of a larger smart fridge trial, due to report back in 2010.

### Intelligent metering

Fridges are only the tip of dynamic demand iceberg, however. For a start, Hirst says, they

THE LISTENING APPLIANCES



**Water & space heaters**

Like fridges, heating devices have the ability to 'store' some energy, in this case in the form of warmth (rather than the 'coolth' of fridges). This means that, as long as certain conditions for hot water or air are met, they can run whenever energy is cheap and the grid not overloaded. This is the principle behind night-storage heaters, of course, which run between 00:30 and 7:30. Future electric heating devices are likely to be much smarter, not only reacting to the price of electricity, but also probably, like fridges, responding to signals from the grid. An important technology in the move away from gas.

**Dishwashers**

As long as your dishes are clean for breakfast, it often doesn't matter when the dishwasher runs. Future kitchen appliances may 'talk' to your smart meter, calculating when will be cheapest to soap up the crockery. This would avoid late evening demand caused by thousands of dishwashers powering up after dinner.



**Fridges**

Forty million fridges in the UK currently switch their cooling compressors on and off whenever their thermostats tell them to. In future, fridges fitted with dynamic demand technology would respond to the state of the grid, temporarily halting their compressors if they detect that demand is at a high point.



essentially only allow the grid to 'borrow' power for half an hour – after that, they all need cooling back down again. Where things get more exciting, though, is when you look at the possibility of shifting the 'on' times of other appliances, such as dishwashers.

Hirst calculates that if the UK's 10 million dishwasher owners were to load up the machines with crockery and then, rather than switch them on immediately after dinner, set the machines simply to have the load washed between 11pm and 7am, then the grid would effectively have 10 gigawatt hours (Gwh) of flexible storage. This vast amount is equivalent to the capacity of the Dinorwig pumped storage plant in Wales, which pumps water up into a huge reservoir when electricity is cheap and then lets it roar through turbines when demand surges in the evening. It could also save a considerable amount of CO<sub>2</sub> often produced during the evening peak by gas power stations.

**Electric cars**

As electric-car ownership increases, so will electricity demand. It makes sense to charge cars at night when demand is low, but linked into smart meters, cars could charge whenever electricity is cheap – when the wind is strong, for example. They could also feed power back to the grid at times of high demand, like a giant battery.

The list goes on. Immersion heaters in our hot water tanks are, like fridges, currently a law unto themselves, tripping on when their thermostats tell them to. As long as water is hot for morning showers or evening baths, however, the exact time at which these devices run is not especially important to us – but very important in terms of running a low-carbon electricity system. Similarly, certain space-heating systems, such as storage heaters or

underfloor heating could become more flexible. What's needed is a way of bringing these appliances together so that they know when is the most efficient time to power up.

Enter the smart meter – the only part of the much-vaunted 'smart grid' that the householder will ever see. A smart meter is essentially a meter that allows two-way communication: the electricity company can read the meter remotely and the householder can see both how much power they are using, and how much it costs. Unfortunately, that's about where consensus on smart meters stops. Some would like the meters simply to give customers information on energy usage; others see the display part of the meters – sited in the house – as a tool to discourage householders from using energy at peak times; still others would like to see the meter communicate remotely with appliances in the house, allowing them to operate at the most efficient times of day.

Joe Short, an expert in the field and founder of the charity Dynamic Demand, warns that a mistake with smart meters at this early stage could spell disaster for developing truly energy efficient ways of running our homes.

'We need to be very careful that the smart meter agenda is not driven by the agenda of the large energy suppliers,' he says. 'The big players are interested in smart metering because of the automatic meter-reading element, but we need a signal to get into the house – either a carbon or price signal. We need not to miss the opportunity of all these smart meters.'

David Hirst is worried about the influence of the energy companies on smart metering for a different reason.

'Do you really want someone to be able to control the appliances in your house? Least of all the electricity companies?' he asks, voicing a concern already raised by consumer groups.

Hirst has a different model for smart meters, one that explains why he insists on referring to demand 'participation' rather than 'management'. He wants to see smart meters tune into future price broadcasts from the electricity companies, sent out every few minutes. A high electricity price would indicate high demand on the grid (and hence, high CO<sub>2</sub> emissions), while a low price would

## 'What's needed is a way of bringing these appliances together so they know the most efficient time to power up'

indicate either low demand or an abundance of wind or solar energy. Appliances – laundry machines, dishwashers and even electric cars – would calculate when would be cheapest to run and plan to wait until the best time to switch themselves on.

'It would mean you, and your appliances, would have a choice,' Hirst says. 'Occasionally, you may simply say, "I need it urgently – I'll pay the extra". That's participation.'

### The smarter way forward

The future of smart meters – and smart appliances – is yet to be written. A recent trial in the District of Columbia, US, saw 1,400 customers fitted with smart meters coupled to their air conditioning units. With the householder's day-to-day permission, the electricity company was able to deactivate the home's air conditioning system at times of peak electricity demand, and give customers a rebate on their bill as a result. The UK's own

trials, conducted by Ofgem, have been disappointing, dogged by equipment problems. But elsewhere in Europe – notably in Italy, where almost 30 million meters have been installed – the response has been positive.

'Smart' appliances and demand-responsive fridges are, of course, only bits of kit. If householders and tenants fail to engage with the new devices – and in one of the UK trials a quarter of those using energy monitors didn't even bother to replace the batteries when they ran out – then no amount of technical wizardry will help. The purpose of all these devices is simple: in the words of Jessica Strömbäck of the VaasaETT Global Energy Think Tank at a 'demand response' conference in January, 'It is important in the long run that customers change their view of electricity from a natural human right to the costly resource that it is'.

Mark Anslow is the Ecologist's News Editor

**superior products to grow your own**



**Natural and Safe garden pest control**  
FROM £4.95



**Recycle the rain with water saving solutions**  
FROM £29.95



**Reuse household waste with Wormeries and Composters**  
FROM £69.95



**Raising standards with our Timber Raised Beds**  
FROM £12

**PLUS MORE!** Netting • Crop Tunnels & Cloches • Composting Solutions  
Pest Control • Greenhouse Equipment  
Sneeboer Tools • Watering  
Plant Supports • Pot Stands  
Decorative Structures • Fruit Presses  
Organic Vegetable Seeds & Plants

**Harrod HORTICULTURAL**

QUOTE REF: 09SA172

free 112 page catalogue 0845 402 5300  
[www.harrodhorticultural.com](http://www.harrodhorticultural.com)

**LOOKING FOR HOME INSURANCE?**

**The Offers\***

- Charitable commitment with each sale
- No price rise guarantee if you renew Year 2
- We'll 'match or beat' your best alternative quote
- Up to 20% off, with 'No Claims Discounts!'

**The Cover**

- Up to £400,000 of buildings cover
- Up to £75,000 of contents cover
- Unspecified high risk items, up to £5,000 of cover

**The Choice**

UK Service Centre  
**0845 355 1150** (low call rate, mobile rates vary)  
Or visit [insurance4everyone.co.uk](http://insurance4everyone.co.uk)

**insurance 4 everyone**  
HELPING YOUR FAVOURITE CHARITY .co.uk

These insurance policies are arranged by Berkeley Alexander Ltd who are authorised and regulated by the Financial Services Authority. Cover, terms and premiums are dependent on your circumstance and subject to underwriters acceptance. \*'No price rise' guarantee applies at first renewal and is subject to no claims in previous 12 months, for terms and conditions of the 'match or beat' offer see our website for details



The first blows may be struck on Canadian ice, but it's at the checkout that the coup de grace is delivered. **Andrew Wasley** explores the UK companies profiting from the trade in seal fur

# Signed. Sealed.

**T**he Canadian seal cull, which takes place each spring off the country's east coast, has become an annual showdown between campaigners and the Canadian authorities. It sees as many as 300,000 harp seals shot or clubbed to death for their fur and other byproducts, including oil, meat and body parts prized for aphrodisiac purposes.

Repeatedly condemned as 'barbaric' by animal welfare campaigners, these bloody scenes on the ice floes nevertheless seem disconnected from life in Britain. But new evidence shows that UK-registered companies are at the centre of a global trade in Canadian seal skins.

An investigation by the *Ecologist* has revealed how a number of London-based fur dealers are procuring the controversial skins

from Canadian companies and shipping them to Europe and Scandinavia, before despatching them to China and elsewhere to be manufactured into fur garments and fashion accessories – including coats, scarves, hats and handbags – sold across the world.

## Canada's cull of the wild

Activists claim the seal cull is cruel and unsustainable. They say that many seals are shot but not killed outright – many allegedly retreat underwater where they are unreachable and thus left to suffer a lingering death – or are repeatedly clubbed before being dragged to nearby sealing boats for skinning, in some instances while still alive.

Video footage obtained by the International Fund for Animal Welfare (IFAW) showing the violent, prolonged killing of seal pups during last year's cull provoked criticism of the hunt

and put the issue back on the international agenda. Campaigners and journalists attempting to cover the hunt have previously reportedly been attacked or threatened by sealers armed with knives, guns and clubs, and face arrest or imprisonment for attempting to obtain pictures without a permit.

The Canadian authorities and the fur lobby maintain that the hunt is economically and culturally important, and that the killing is humane and subject to strict guidelines and observation by veterinary experts. The International Fur Trade Federation (IFTF) refers to sealing as an 'excellent example of a renewable resource industry' and claims the landed value of seal pelts in 2006 was almost \$30 million.

The fur lobby also argues that the hunt is sustainable, with strict annual quotas in place to prevent overexploitation – something hotly



# Delivered...

contested by animal welfare groups, which point to research suggesting seal populations are under threat from both overhunting and degradation of habitat due to climate change. The quota for this year's hunt, which got under way last month, has been set at 280,000 by the Canadian government.

Although some seal hunting in Canada is carried out by indigenous groups, most of the killing, say campaigners, is undertaken by fishermen working on a commercial basis.

## On the trail

Seal hunting is an emotive issue with the British public, and the Government is under increasing pressure to pursue a ban on seal products. Several European countries – including the Netherlands and Belgium, as well as the US – have already outlawed seal goods, and in May this year the EU as a whole

is expected to vote on whether to implement legislation for a complete ban.

Campaigners have long suspected that UK-based dealers are playing a role in fuelling the international trade in sealskins, but little has been known about the companies or trading routes involved – until now.

Posing as fur-buyers, *Ecologist* reporters tracked the complex trail of skins from Canada to the Far East, via several European countries, including Britain, and met with representatives of UK businesses offering seal

pelts on a commercial basis. Although there was no suggestion of illegality or wrongdoing by any of those involved, the disclosure that British businesses are involved in such a trade could prove controversial.

The *Ecologist* has established that one of the world's major players in the sealskin trade is London-registered Alaska Brokerage International (AB International). Run by Peter Bartfeld and his son Gideon, the company – along with another enterprise called Bartfeld Trading Limited – has offices in

**‘Although some seal hunting is carried out by indigenous groups, most is undertaken by commercial fishermen’**

PHOTOGRAPHS: ECOSTORM

## What's the true cost of the fur industry?

Sealskins, although controversial, represent just one part of a truly global and highly lucrative fur industry.

Worldwide it has been estimated that more than 40 million animals are killed for their fur annually – some 85 per cent are bred and killed on fur farms, the rest are trapped in the wild. This figure does not include the millions of rabbits killed annually, whether bred specifically for their fur or for their meat, with the fur a byproduct. Commonly farmed fur-bearing animals include mink, foxes, chinchillas, otters and even hamsters.

Sixty-four percent of fur farms are believed to be in northern Europe, 11 per cent are in North America and the rest dispersed throughout the world, in countries such as Argentina and Russia.

In the EU there are some 6,500 fur farms, and Europe is responsible for 70 per cent of global mink-fur production, and 63 per cent of fox-fur production. The countries that farm the most

animals for their fur are Denmark, China and Finland.

Although the majority of the animals that are slaughtered for their fur are killed in these notoriously cruel fur farms, each year trappers kill millions of raccoons, coyotes, wolves, bobcats, opossums, nutria, beavers, otters and other fur-bearing animals.

It is estimated that approximately two million cats and dogs are slaughtered in Asia each year for their fur, many of them in China.

Demand for fur exists worldwide, but the largest consuming markets are China, Italy, Germany, Korea, Japan, Russia and many of the former Soviet Republics, Spain and the US.

In recent years, fur has undergone a renaissance in the fashion world, with in excess of 350 leading international designers working with fur in their collections. In 2004/05, international sales of fur garments reached a value of some \$12,770 billion. **Tian Spain**



London and New York, and each year buys skins originating from the Canadian hunt before exporting them to China and Russia for manufacture into clothing and accessories.

Undercover reporters met with representatives of AB International on two separate occasions, in London and Beijing, and were told that sealskin forms a 'large part' of the company's business. Gideon Bartfeld offered reporters the pelts of 'beaters' – young harp seals, some of which are unable to swim properly – as younger animals are considered by the fur industry to yield the best-quality skins and furs. Top-grade pelts can command \$22 each, while lower-quality specimens as little as \$8 each, according to AB International.

Bartfeld disclosed that the company is the main European agent for GC Rieber Skinn

AA, one of the world's biggest suppliers of dressed sealskin and fur to garment, footwear and accessory manufacturers. Each year the Norwegian company, a subsidiary of the giant GC Rieber group, which also has interests in shipping, real estate and minerals, purchases between 50 and 80 per cent of the Canadian seal catch – approximately 150,000 and 200,000 pelts – along with skins from similar hunts in Norway, Namibia and Russia.

In Canada, after the skins are collected from the ice, they are taken to a plant in Newfoundland, where subsidiary GC Rieber Carino Company Ltd initially sorts them before they are dispatched for full processing in Tromsø, Norway.

AB International's contract with Rieber sees them access skins on a regular basis and in tune with customers' requirements. 'Our customers say they want skins in January, April and March [for example], and they give us colours and grades and every month they are shipped out,' Bartfeld said. 'Basically 90 per cent [of Rieber's seal fur] goes to us, to China, and to Russia.'

Bartfeld told *Ecologist* reporters that AB International itself ships skins from Norway to a dealer in China, who in turn sells on to manufacturers, and to a broker in Helsinki, Finland – KH Furs International – who exports the sealskins into Russia. Both China and Russia are major destinations for sealskins to be turned into winter coats, hats and other garments.

Some AB International skins are imported directly into the UK, however – particularly, according to Bartfeld, lower-quality specimens, typically used in the manufacture of accessories. Southampton is among the UK ports that have been used by AB International.

The company says that its Rieber skins are the highest quality in the world: 'We've been working with [Rieber] for 60 years... Their products are just a different class,' Bartfeld said. 'It is not easy to do the dressing, other people just don't do it as well.' He said that they occasionally buy from a second company – a Canadian factory called Newmil – but these skins are reserved for customers wanting a 'cheaper product'.

During a meeting at AB's North London HQ, Bartfeld disclosed how he visits the Rieber factory twice a year and would have liked to attend a recent seal hunt in Canada in person. He also joked that the company is thinking of diversifying by 'starting stag weekends going seal clubbing'.

AB International has been caught up in controversy previously. Peter Bartfeld, Gideon's father, a former director of the British Fur Trade Association, was exposed by the BBC in 1999 after a representative of the company admitted to an investigative reporter from the *Newsnight* programme that it was willing to supply Chinese cat and dog skins to clients, but using strict code words to disguise the fur's origin because of British sensitivities to such products.

### A spreading network

A second London-based company identified as dealing in sealskins is Infelber Ltd, run by David Morgan and Michael Lepski. During a tour of the company's London warehouse, *Ecologist* reporters secretly filmed a variety of sealskins from both Canada and elsewhere, and were told by Bartfeld that the Infelber philosophy is to supply furs or skins from virtually any animal required.

Infelber works closely with AB International, which uses the Infelber



**Left: Gideon Bartfeld of AB International**  
**Below: Jermone Guimont, owner of Tamasu, which supplies skins to UK-based company Fein & Co**



**Pictured: Sealskins piled up for processing inside a fur factory**

**Right: A skin laid out for inspection by undercover reporters**



warehouse to store furs imported into the UK. As well as sealskins, Infelber is a major player in the procurement and supply of other fur products, including farmed mink. According to Bartfeld the company always has in stock some 200,000 mink furs.

The *Ecologist* has uncovered a third significant supplier of sealskins operating from the UK – Fein and Co. The company, based out of offices in central London, procures and exports sealskins for the Russian market and sources its Canadian skins from a rival to Rieber: Tamasu, based in Quebec’s Magdalen Islands.

Owned by Jerome Guimont, Tamasu is understood to procure approximately 10,000 sealskins annually, which undergo initial processing in Canada before being shipped overseas to China or to Germany, many destined for the specialist tannery MPV Franke KG, based near Stuttgart. Fein & Co trades Tamasu skins in Russia via its representative Troika, which sells the skins on to hat and other fur garment manufacturers for retailing in Russia and beyond.

Although much of the clothing and accessories manufactured in Russia and China serve those countries’ domestic markets, items containing sealskin have been found on sale across the European Union in recent years, including in the UK. Last year it was revealed by Sky News how sporrans – traditional Scottish fancy-dress items often used to decorate kilts – were being made using Canadian sealskin. In recent years, leading fashion houses including Prada, Versace and Gucci have been criticised by groups such as the Humane Society of the United States for using Canadian sealskins in the manufacture of their clothing.

## A response from the fur industry...

The *Ecologist* contacted the British companies involved and was referred to the British Fur Trade Association, which said:

‘There is no conservation reason to ban the trade in seals. The Canadian seal hunt is well regulated and monitored by scientists. Victims of this ban will be the growing seal populations and the communities, including the Inuit, that depend on them. In many countries, including Canada, Greenland, Namibia, Norway, Russia, South Africa and Uruguay, sealing provides essential food supplies and a rare opportunity to earn cash income for aboriginal and coastal communities.

‘The international fur trade is calling for the EU to encourage international welfare standards for all seals, including those hunted for population management reasons within the EU, and to allow derogations to the proposed ban for countries that can meet these standards.

‘In terms of negative impact to the UK trading company, it would of course have some impact, but most importantly it would deny consumers of a traditional, warm, durable and beautiful product while missing a unique opportunity to develop [at EU-level] welfare standards for hunting seals.’

## Don’t join the club

Seal remains in demand from some manufacturers, though IFAW claims that the global market for seal fur is saturated, causing prices to drop by almost half, with processors reporting that sales of seal pelts all but stopped at the end of 2007 – and have still not recovered. IFAW says this supports the case that this year’s hunt quota is too high and – more importantly – that there is no economic reason for the cull to continue.

Campaigners have expressed concern that UK fur dealers are involved in the trade in sealskins, and are lobbying the EU parliament to vote to introduce a Europe-wide ban on such products in May this year.

Opposition to the import of Canadian sealskin products has been growing for some years, leading to MEPs from across the political spectrum calling for legislation to outlaw the trade. The British Government is opposed to Canada’s commercial seal hunt, but it has stated that it would rather work through the European Union than implement domestic legislation.

Although an EU ban would not prevent the Canadian hunt from taking place, and possible loopholes may enable European fur dealers to continue trading sealskins ‘remotely’, activists say it would seriously disrupt the global trade – no European ports could be used for the transit of seal items – and make the business even less financially viable than it currently is.

■ **Ecologist online:** to see pictures of this year’s seal hunt in Canada, as well as to view responses to the *Ecologist’s* investigation, visit [www.theecologist.org](http://www.theecologist.org)

## For more information

- Write to your MEP to support the proposed EU legislation. If you don’t know your MEP log on to <http://www.writetothem.com> to find out.
- Add your voice to the Humane Society International’s Ban the Cruel Seal Trade campaign at [https://community.hsus.org/campaign/protectseals\\_pledge\\_challenge](https://community.hsus.org/campaign/protectseals_pledge_challenge)
- International Fund for Animal Welfare (IFAW) [www.ifaw.org](http://www.ifaw.org)

**Andrew Wasley is a journalist with investigative agency Ecostorm**

# BUDDY CAN YOU SPARE SOME GREEN?

Fighting to save the world is not all it's cracked up to be. In a story that will resonate with environmentalists everywhere, **Joe Franke** explores the US experience of an underpaid, poorly supported and largely unappreciated workforce – and says for conservation and environmental workers, it's always the Great Depression



**J**udging from how we're portrayed on TV, biodiversity conservation and environmental work is romantic stuff. It's riding off into the waves and spume with Paul Watson to save whales from the harpoons of Japanese factory ships in Antarctica. It's Jeff Corwin travelling the world to beat hapless reptiles into video-worthy submission. It's the romance of scientific discovery, of working with indigenous people in unspoiled landscapes. It's saving species from extinction, hashing out international treaties.

These are, I suspect, the PBS and Discovery Channel-inspired images that are called up when I tell people what I do. 'Wow, that must be fun,' they say, imagining some sort of a carefree existence ruled by idealism, hope and deep, quotidian meaning. Sometimes they seem vaguely jealous, perhaps projecting

the misery they feel at their own workaday drudgery. They always look perplexed when I say, 'Yeah, it's great when there's actually work. Right now there isn't any'. Sometimes I feel that by telling them the truth, I'm cruelly popping a hole in their escapist fantasies.

As I reach my late 40s, exhausted and at the end of my involvement in conservation work, I'm looking back on a vastly different reality.

It starts out with the tacit rule of years of unpaid apprenticeships before, if you're lucky, getting work that pays a living wage. It's graduate degrees attained in conditions of neglect and servitude, followed by crushing debt. It's the extreme economic vulnerability of riding the soft money dragon, year after year. It's being a free agent working late into the night in application of tiny grants that have a minute chance of being obtained. It's the dubious relationships with unsupportive

institutions through unpaid 'research associate'-type positions in pursuit of these grants; such organisations are only too happy to accept the amount in your line item set aside for 'institutional overheads' in exchange for use of their name.

It's having to get used to three-hour-long interviews in which a group of perky, hip-looking, nosering-wearing earth mothers and other laconic, painfully hip staffers fill yellow legal pads with your ideas then end up hiring somebody of half your age and with half your experience. It's working for ungrateful management rife with the pathologies associated with economic scarcity: nepotism, careerism and self-interest. It's being expected in the name of marketing to participate in a cult of phony optimism.

It's years of privation, sacrifice and disappointment. It's being part of one of



the most vulnerable, unsung and uncared for workforces in the country. We're as expendable as Wal-Mart cashiers or people who work in chicken-processing plants. You're expected to put up with the job insecurity, the low pay and other difficulties the same way that concerned consumers are expected to put up with the low quality of recycled aluminium foil and toilet paper – because it's for a higher cause.

And never mind the recent hoopla about expanding opportunities in the ill-defined 'green jobs' market, which doesn't seem to

include things like ecological restoration, biodiversity conservation and certainly not advocacy or 'environmental' education. Instead it seems part of the techno-fetishism so rife in our society: if you're not an electrician or energy expert there would seem to be no expansion of job possibilities for people doing these other, seemingly unimportant things.

### Out of the green, into the red

There are no employment statistics kept for people working for conservation/

environmental causes, but anecdotal observation suggests that for these people it is always the Great Depression.

During its height in 1933, 24.9 per cent of the total US workforce was unemployed – and I think the environmental sector is easily approaching that figure. As was the case during the Depression, much if not most of the rest of the workforce would be considered underemployed, meaning that we're either underutilised – in that we're overqualified for the jobs we're doing – or we're picking up bits of work here or there, subsisting on a series of seasonal and part-time employment that's almost always poorly paid when training and on-the-job experience are considered. The fact that this is unsubstantiated by statistics is an indication of how little we matter. The US is wasteful of all resources, including human potential.

**'When I tell people what I do they imagine a carefree existence ruled by idealism, hope and quotidian meaning'**

Some evidence of this extreme vulnerability might be found in our passivity in the face of lay-offs and other forms of workforce reduction. Unlike lay-offs in traditional industries or sectors, there are few publicly visible large-scale incidences of downsizing, such as the massive Greenpeace lay-offs back in 1997, when the organisation reduced its US staff from 400 to 65 and closed all 10 of its field offices. What was interesting about this incident was the total acquiescence of its workforce, which unsurprisingly left without a peep.

More recently, the Nature Conservancy fired 400 people, 10 per cent of its staff worldwide. Ecology Action recently conducted a survey of environmental and conservation groups in central California, and found that by early 2009 (near the beginning of the downturn), 24 per cent of environmental or conservation organisations and agencies had experienced staff lay-offs, and 62 per cent had reduced staff or reduced workforce hours – 24 per cent by at least 40 per cent. Thirty per cent are experiencing impacts to at least 50 per cent of their total organisational budget.

Among subcontractors, 32 per cent have experienced staff lay-offs, and 72 per cent have reduced staff or reduced workforce hours (including 27 per cent having reduced hours by at least 40 per cent). With continued economic decline, this is likely to get worse.

### Lambs to the dole queue

All over the country, small, local groups are starving to death. In any other enterprise – such as in the car industry, where plant closings and lay-offs bring extensive press coverage – there is righteous indignation and justified anger on the part of workers. People doing conservation or environmental work leave as quietly as dewy-eyed lambs. In such a crowded market and a relatively tight-knit community, you can't afford to be blacklisted as a troublemaker. And never mind about unionisation; that's for workers who have the leverage bestowed on them by the production of goods or services – be they widgets or TV shows – valued by society at large.

The only possible upside of this situation is that it has perhaps led to increased empathy for the underclass in this country on the part

of the mostly white environmental workforce. I've lost any residual arrogance towards people who become too tired to continue struggling. Unless pushed to the very limit of physical survival, if you can't provide for yourself or for a family, it becomes difficult, if not impossible, to act as an agent of positive cultural change.

This stress of chronic unemployment/underemployment is magnified by the very sense of urgency we feel about the issues behind the work. The combined stresses of extreme economic vulnerability and the pain caused by the central issues we're trying to deal with can't be underestimated. It's a serious but unrecognised liability for the environmental movement.

There are certainly many measures of success or failure in a social or environmental movement. Our failures are not difficult to measure. For instance, according to the Pew Research Center, Americans think global warming ranks at the very bottom of a list of 20 national priorities, even lower than 'moral decline'. Another survey, conducted by Rasmussen, demonstrated that 44 per cent

### Where the money goes

Lack of funding for environmental groups is a chronic and worldwide problem.

These groups are arguably some of the most important change-drivers. They are the ones with the data at their fingertips, the energy and creativity to tackle environmental problems head-on, and the will to keep at it even when the mainstream media has decided that, this week, some other fad is more interesting. Yet these resources and skills are being hampered by a chronic and, for some, severe lack of funding.

Since the issues facing the planet are so dire in their implications, so ominous in their warnings, you'd think people might feel moved to help those who are trying to help all of us survive. Yet when asked what issues concern them most, registered voters consistently place things such as climate change close to or at the bottom of their lists.

This isn't a product of the current economic downturn, either. Green charities and organisations have suffered from chronic underfunding for years. According to a report by New Philanthropy Capital in 2007, only an estimated two per cent of charitable grants in the UK go to environmental charities and only an estimated five per cent of public donations go to environmental causes.

Major funders are also not coughing up the cash. A report by the Environmental Funders Network (EFN) in 2008 showed larger funders gave just £34 million in environmental grants in 2005-6 – a mere 1.6 per cent of the £2 billion given by the UK's largest grant-making trusts in 2004-5. It also found that funding directly tackling climate change accounts for just eight per cent of the environmental grants made by the larger trust-funders.

On the one hand it could be argued that funders remain daunted by the scale of the issues these groups are tackling and are unsure about how to track the impact of their investments – which may be why the EFN report showed the projects most likely to win funding from trusts and foundations is measurable, 'practical' conservation work, closely followed by education projects.

On the other hand there is the issue of public apathy that nobody seems to know how to address. This, in part, may also be due to an inability to measure things – such as the rate and seriousness of global change, the impact of individual actions and the relative feel-good factor of buying a Fairtrade coffee versus funding an environmental NGO.

Because it is fundamentally a grassroots movement, environmentalism is dependent upon subscriptions, donations and private financing. It can't be expected to have to rely upon largesse from governments or corporations (in many cases commercial sponsorship is a real hindrance to progress). Private funds and private citizens are not going to donate to a cause they don't know/care about or can't make sense of. Which may be why Europeans spend their money on other things: \$10 billion on ice cream, \$13 billion on haircare products each year. These, seemingly, are things we understand.

The irony is that there is a tacit understanding among most environmental groups that the ultimate measure of their success will be when the day comes that they are no longer needed. Thanks to the funding squeeze, many will go out of business long before they can have the chance to bow out gracefully. **Pat Thomas**



of Americans don't think climate change is caused by human activity. Another measure of failure, however, is our collective inability to protect our workforce. A movement that can't take care of its on-the-ground workforce is no movement at all.

If their disinterest in providing for salaries is any indication, many of our funders seem to look upon pay for lower-level employees as a kind of welfare for grubby, tofu-eating hippies and are loathe to provide money for this purpose. People who criticise the environmental movement as being elitist and classist have a point, as most of the big foundations and funders were started by and continue to be led by the wealthy.

Most of the larger organisations continue to be headed by overpaid white men, and the very high salaries for the leaders of Inside-the-Beltway organisations such as Conservation International and the Nature Conservancy (whose leaders make more than \$300,000 and \$800,000 per year respectively) are justified by their abilities to move within a high social echelon. The funders are also mostly headed by elites

ILLUSTRATION: RUSSELL TUDOR

## 'The low pay and lack of job security within the environmental sector are directly reflective of society's values'

that are uncomfortable with members of the underclass – they like to deal with their own. The general thinking is that these are people who could make even more money if they were ensconced in the corporate world or in another profession, but this is clearly a self-serving assertion.

The low pay and lack of job security within the conservation and environmental sector are directly reflective of our society's values. Idealistic motivations such as altruism, fair play and concern for the welfare of other beings unable to speak for themselves are treated with disdain, while greed and self-centredness are rewarded. Eventually, this situation wherein to do good work you're expected to be poor beats the idealism out of you.

Over a period of years, if your ideals are

treated with disdain, you begin to capitulate and accept your place. However, at some point it simply becomes economically impossible to stay where you are, no matter how deeply you believe in something. I'm a study in what happens when the sacrifice is too great, and now, with the 'downturn' in the economy, a whole cadre of eco-Okies is being created, with no mythical California for which to strive. And I don't expect to be the only one heading out of the dustbowl.

### Market forces

Like ants and other members of the lower orders, however, we're the little things that run the show. We keep the whole ecosystem going and collectively do the heavy lifting involved in manifesting the necessary, profound cultural change we need. If there's an objective macro issue beyond the personal tragedies created by the situation, it's that, in terms of getting done what needs to be done in order to bring about a survivable planet and a sustainable future for the human species, the present elite cadre is an inadequate workforce. If we're truly committed to 'holistic' models of societal change, the sustainability of jobs and the mental health of those working towards these goals must be worthy of consideration.

There are other ways in which we're tied to corporate America, and the irony seems to be lost on most of us. We're subject to the vicissitude of market forces in that we're among the first people to feel the squeeze of economic recession. When the financial portfolios of individual donors and foundations decrease in value, so does available funding. In this way we're all held hostage to the same forces that are destroying what we're trying to protect.

Instead of operating on the same tired, ineffective model, we should be at the forefront of new thinking about how to run an organisation. To be honest, though, I've run out of big ideas. I'm packing up the truck and heading down to Big Bend National Park to clear my head before coming back to a new line of work. In the immortal words of Tom Joad, 'It don't take no nerve to do somepin when there ain't nothin' else you can do.'

I hit the road a bit depressed and full of regret, but I'm also more than a bit relieved.

**Joe Franke is a former conservation biologist and restoration contractor based in Albuquerque, New Mexico**



# SOUND ENVIRONMENTAL IMPACT AWARDS 2008/09

gained an overall score of 400 or more. Unions can build their overall score by meeting any of the 159 optional bonus criteria – as the name suggests these are non-compulsory, but the more they get, the higher their score, helping them on their way to a Silver standard. The five highest scoring unions will receive the Gold award.

## A FOCUS ON RELEVANT PRACTICAL ACTION

The criteria in Sound Impact have been specifically designed to make

Three years ago the National Union of Students established the Sound Environmental Impact Awards to help our member students' unions address common bad environmental practices such as inefficient lighting, non-recycling and selling non-Fairtrade beverages.

The scheme continues to go from strength to strength with over a third of our member unions now taking part.

## AN ACCREDITATION SCHEME WITH AN AWARDS ELEMENT

Sound Impact is an accreditation scheme with an Awards element, allowing it to tap into the competitive nature of students' unions! Participating unions complete a workbook comprising 192 criteria, including twenty-two Bronze and eleven Silver essential criteria. To gain the Bronze standard, unions need to have met all twenty-two criteria marked as Bronze essentials - these are the actions that we think all students' unions could, and should, be doing as a minimum. Those who do not meet all Bronze essential criteria are classed as working towards accreditation.

New to this year is the Silver standard. To gain the Silver standard, unions need to have met all the Bronze essentials plus all Silver essentials, and






them relevant to the typical operations of students' unions. Unlike many other accreditation schemes, our criteria relate to specific practical actions – such as changing light bulbs, installing recycling bins, and selling Fairtrade tea and coffee. Because they cover all the main environmental impacts of a typical students' union, the scheme effectively delivers a comprehensive prioritised action plan for becoming a greener organisation.

## AUDITS AND FEEDBACK

Participating unions are externally audited and each union receives confidential feedback showing how they compared to the average score for each assessment category. In April each year Awards are presented at a glitzy awards ceremony at our Annual Convention to celebrate our collective achievements. Our showcase booklet, available in May 2009, will provide a benchmark for the sector and celebrate the innovative and exemplary environmental projects to be found in students' unions.

## A GREENER UNION AND A GREENER SECTOR

It is really encouraging that many students' unions are now using their Sound Impact score as a benchmark for becoming greener, setting strategic

	<p>Partners</p>  <p>n u s national union of students</p>  <p>people &amp; planet student action on world poverty and the environment</p>	 <p>environmental campaign</p>  <p>eauc The Environmental Association for Universities and Colleges</p>	 <p>n u s services limited</p>  <p>ECOLOGIST THE WORLD'S LEADING ENVIRONMENTAL MAGAZINE</p>	 <p>HIGHER EDUCATION HE EPI ENVIRONMENTAL PERFORMANCE IMPROVEMENT</p>
	<p>Main sponsors</p>  <p>Office DEPOT. Taking Care of Business</p>  <p>The co-operative</p>	<p>Sponsors</p>  <p>Pentel</p>  <p>THE WICKED COFFEE COMPANY www.wickedcoffee.co.uk</p>  <p>E-PONA CLOTHING</p>  <p>THE FEEL GOOD DRINKS CO.</p>		

objectives for increasing their scores by gaining more criteria year-on-year.

In this, our third year, the average overall score has increased by 41% and the percentage of unions who achieved a minimum of a Bronze standard has increased by 37%. This demonstrates that the scheme is delivering practical action across the students' union movement - a fantastic result for all involved!

### COULD THIS WORK FOR YOU?

We think that our model of a practical environmental accreditation scheme with an awards element has great potential and the model could be developed for other sectors, for example sports clubs and schools. We have a team of trained volunteer students that are eager to help us roll our programme out in their local communities. **If you would like to discuss our scheme further please contact us!**



## AWARDS AND STANDARDS 2008-09

Well done to all those unions that took part this year. Special congratulations to our award winners...

- **GOLD AWARD** Loughborough Students' Union (overall winner); Edinburgh University Students' Association; Leeds University Union; Newcastle University Union Society; University of Central Lancashire Students' Union.
- **SILVER STANDARD** 35 unions (see [www.nus.org.uk/sound](http://www.nus.org.uk/sound))
- **BRONZE STANDARD** 20 unions (see [www.nus.org.uk/sound](http://www.nus.org.uk/sound))
- **OFFICE DEPOT GREEN INNOVATION AWARD** Reading University Students' Union (Overall winner); Union of UEA Students (Highly commended)
- **ECOLOGIST COMMUNICATIONS CHALLENGE AWARD** Loughborough Students' Union
- **THE CO-OPERATIVE MOST IMPROVED UNION AWARD** University of Plymouth Students' Union

For more information about the Sound Environmental Impact Awards, including joining or sponsoring the 2009/10 Awards, please visit [www.nus.org.uk/sound](http://www.nus.org.uk/sound) or email [soundimpactawards@nussl.co.uk](mailto:soundimpactawards@nussl.co.uk).

The Sound Environmental Impact Awards are supported by NUS, People & Planet, EAUC, HEEPI and Ecologist magazine. The main sponsors are Office



Clockwise from top Loughborough Students' Union accepting their Ecologist Communications Challenge Award; Edinburgh University Students' Association and their greening offices initiative; Leeds University Union ethical shop; Newcastle University Union Society receiving their Gold Award from presenter Hardeep Singh Kohli; University of Central Lancashire Students' Union, People and Planet information stall.

Depot and The Co-operative. In June 2008 Anna Heywood, Founder of the Sound Environmental Impact Awards, won The Observer Ethical Awards Grassroots Campaigner of the Year for her role in this project.

# Something stirring in the forest...

The Centre for Contemporary Art and the Natural World is an innovative educational charity which uses the arts to explore new understandings of our place within nature. In 2006, it opened in Haldon Forest Park, near Exeter, which now attracts over 300,000 visitors a year.

Since then, exhibitions and activities have explored our feelings towards forests and the use of timber in contemporary architecture, and – as in the case of the Harrisons' 'Greenhouse Britain' – specifically tackled climate change.

This Spring, the sculptor Peter Randall-Page explores the complex relationship between geometry and biology, and poet Elizabeth-Jane Burnett curates an 'ecopoetics' event. The Summer exhibition shows artist/photographers Marlene Creates, Susan Derges and Vikky Minette and filmmaker Andrej Zdravic. The programme also includes workshops, film evenings and live music. The first Devon Organic Festival will be at Haldon on 20 September.

**Directions to CCANW and programme details are on [www.ccanw.co.uk](http://www.ccanw.co.uk).**

Centre for Contemporary Art and the Natural World



## SPRING/SUMMER EXHIBITIONS

Peter Randall-Page: Natural Selection

10 April-31 May

Ecopoetics: Skylines, 6-28 June

Reflections on Water, 4 July-4 October

For details of our programme please see [www.ccanw.co.uk](http://www.ccanw.co.uk)

CCANW, Haldon Forest Park

Exeter EX6 7XR T: 01392 832277

E: [info@ccanw.co.uk](mailto:info@ccanw.co.uk)

CCANW



Marlene Creates, *Water Flowing to the Sea Captured at the Speed of Light*, 2002-2003



## 15 Hatfields

Conferences and Events

If you are a seasoned conference organiser looking for a genuinely sustainable conference and event facility, located in the heart of London, with a wide range of flexible venues, why not consider 15Hatfields?

At 15Hatfields we have gone that extra mile for the environment, transforming an empty shell into a remarkable example of ecologically sustainable development.

**No.1** for sustainable events and conferences

But don't just take our word for it visit [www.15Hatfields.com](http://www.15Hatfields.com), arrange a site visit with our friendly events team or email [warren@15Hatfields.com](mailto:warren@15Hatfields.com)



[www.15Hatfields.com](http://www.15Hatfields.com)

# TAKE ACTION

CAMPAIGNS

LOCAL HERO

ACTIVISM

COMMUNITY

Want to do something to help? Get involved with these campaigns

## STRAW-BALE BUILDINGS

North Kesteven District Council has been granted planning permission to build two three-bedroom properties using straw bales as part of a new affordable housing scheme in Lincolnshire. The low-carbon buildings have been designed by West Yorkshire company Amazonails, and all construction materials will be sourced locally. While the superior insulating qualities of straw should keep out the cold for most of the year, wood-burning stoves will be installed for the coldest of winter nights, designed to reduce both energy consumption and utility bills. The houses will be finished with limestone to give the properties the appearance of a conventional home, although they really are anything but.

For more information about these low-carbon homes, see <http://tinyurl.com/ckpvju>

## » The Urban Wine Company

First Bordeaux, then California, now... Tooting? It will be if Richard and Tim, founders of the Urban Wine Company, have their way. What began in Richard's garden as an observation on all the grapes going to waste in the area has developed into a community of winegrowers in London and the South East.

For the aspiring wine producer the company can provide the vine, as well as support with planting, cultivating and cropping it. Ongoing advice is also available to help members get the best results and the highest yield from their vines. Before you know it, grapes could be being whisked off to meet their bottled destiny and you could be enjoying a glass of your garden's finest.

For more information, contact Richard on 07944 983286 or visit [www.urbanwineco.com](http://www.urbanwineco.com)

## » OPAL project

The Open Air Laboratories project (OPAL) has launched a new web portal that will accept records for scientific study on a mass scale from the general public, giving an opportunity for millions of amateur ornithologists, botanists and entomologists to help create a clearer picture of Britain's flora and fauna. Built and managed by the Natural History Museum, the results will feed into the National Biodiversity Network's (NBN) 'Gateway' site, which maps biodiversity.

People can submit information on a range of environmental subjects related to OPAL between now and 2012, when the project ends. The first of five national surveys looks at soil and earthworms, and people can use the portal to enter their findings. All the information generated by OPAL surveys will be used by scientists in ongoing research and will also contribute to the very first community-led study of the natural world.

To log your findings, go to [www.opalexplornature.org](http://www.opalexplornature.org)

## » Rethinkingfinance.org

With most governments seemingly unwilling to countenance the idea that the global financial system needs anything more than a quick back-and-sides, and with most reform proposals moderate at best, the arrival of rethinkingfinance.org is certainly welcome. This new website, launched by an international group of civil society organisations including the Bretton Woods Project and Casino Crash, provides a platform for alternative voices for a new social and financial architecture.

On the website you can find alternative ideas and analyses, information about and comments on latest events, and useful resources to download. It also consolidates the latest thinking from the best blogs, commentary and analysis, and includes links to the most important mainstream media coverage. Find out more at [www.rethinkingfinance.org](http://www.rethinkingfinance.org)

## » Community Wind Farms

Happy birthday Westmill Wind Farm! The community wind farm in South Oxfordshire celebrates a year of producing clean renewable energy, having generated enough electricity over the past 12 months to power 2,500 homes.

Westmill Wind Farm's five turbines, installed on an old airfield near Watchfield, generated 11.5 gigawatt hours (GWh) of electricity during their first year in operation.

But the community isn't resting on its laurels: money made from the sale of the turbine's energy will be put towards encouraging the deployment of sustainable energy through education, the arts and developing low-carbon communities within a 25-mile radius of the wind farm.

Westmill's five 49m wind-turbines were the first in the south-east, and formed the first wholly community-owned wind farm in the UK.

For more information, visit [www.westmill.coop/westmill\\_windfarm.asp](http://www.westmill.coop/westmill_windfarm.asp)

## Planet Positive Initiative

The Planet Positive Protocol, version 2.0, is for businesses, events, products and people serious about reducing their carbon footprint. Yes, we know – not another one! Well, the team at Planet Positive believe that what makes their system different is that it works in three stages. First, Planet Positive assesses the carbon footprint of a company or individual over a year, looking at everything from the transportation of waste in non-company-owned vehicles to food purchases. Then it requires the applicant to make a binding reduction commitment. Finally, the company or individual concerned has to invest 110 per cent of its remaining footprint in greenhouse-gas-reducing projects. Fail to meet your targets within two years and your Planet Positive status is revoked.

Find out more at [www.planet-positive.org](http://www.planet-positive.org)

Cruising the rivers and canals of Britain, 'it wouldn't be a penance to take more time...'

In the first of a three-part series, a repentant travel writer trades in his long-haul flights and luxury holidays for three months living on a narrowboat

**Paul Miles**

# MAN ON A BOAT

**T**he winter of 1963 was exceptionally cold. Canals and rivers in Britain froze, and thus ended the era of cargo-carrying on the inland waterways. The boats were frozen in and couldn't move. Until this winter past, that scene seemed like one from another age.

I was born in 1963 and the picture of coal and steel, bricks and sand being transported by canal similarly seems truly historic. Perhaps I am deluding myself about how many years have passed? Forty-six, if you haven't worked it out already. It sounds old. I am ready for a change. I've lived in London for the past 10 years and, rather exotically, in the South Pacific for five years before that. I've never bought a home, thinking it more important to make the most of life rather than be enslaved by a mortgage I can't afford.

I can fit all my possessions into a transit van. Even that seems too much. This may seem odd coming from someone who has been writing for publications promoting consumption. One magazine has readers who, according to surveys, spend an average of \$11,000 a year just on jewellery and watches. Perhaps now their time is up? I find it hard to empathise with the super-rich who have found themselves a few million pounds poorer because they wanted more and trusted their money to a man with a satirically suitable surname.

While crooked Wall Street businessman Bernie Madoff was busy fleecing investors and everyone was living on the never-never, I have been guilty of fuelling the dreams of those who, in the same reader surveys, state that their most valuable luxury is free time. How have I done this? As a guest of tour



operators and airlines I have swanned around the world, writing on travel, much of it luxury and, incongruous as it may seem, various shades of green (or should that be greenwash?) I have stayed in a vast tented room with elephants wandering into my outdoor shower and been chauffeured by helicopter to an alpine eco-chalet with personal cook and guide. Now, in complete contrast, I am about to live on the British canals in a boat just 68ft long and 7ft wide.

'All of man's unhappiness stems from his inability to stay alone in his room,' said 17th-century French philosopher Blaise Pascal.

**'I can fit all my possessions into a transit van. Even that seems too much'**

I quoted this in a feature about travel in the January edition of the *Ecologist* (Out of this world?). It is a favourite aphorism of modern-day philosopher Alain de Botton. I began to wonder whether my constant wanderlust was symptomatic of an underlying search for myself? Could I stay alone in my room for several months? The joy of living in a narrowboat is that I can stay at home and still be on the move. Is that cheating? Anyway, I'm not sure how much I agree with Pascal. Yes, we need to be comfortable with ourselves, to be able to be alone and think, but what an impoverished and antisocial world it would be if we all stayed inside on our lonesomes all of the time.

I've been struggling to read *The Ecology of Wisdom* by Arne Naess, the Norwegian philosopher who started the 'deep ecology' movement. It is about putting nature – or as he calls it, 'the ecosphere' – first in everything. He thought and wrote while living at the top of a mountain in Norway. It took more than 60 trips with a horse to carry the building materials to construct



he only owns what he can carry. To him, it is not possessions but a story that is important in life. Perhaps if those of us who love travel gave up owning anything more than we can carry and travelled the world as lightly as a drover then our carbon emissions may be excusable? We would travel slowly and overland wherever possible, of course.

We all know emissions at altitude are far more damaging, and it wouldn't be a penance to take more time.

By living on a boat for the next few months and exploring a slower, parallel world, one that harks back two centuries – a system of canals and locks and winding holes – I expect to find lots of that greatest luxury: free time. I want to think, read and find direction. Please step aboard and accompany me on the journey.

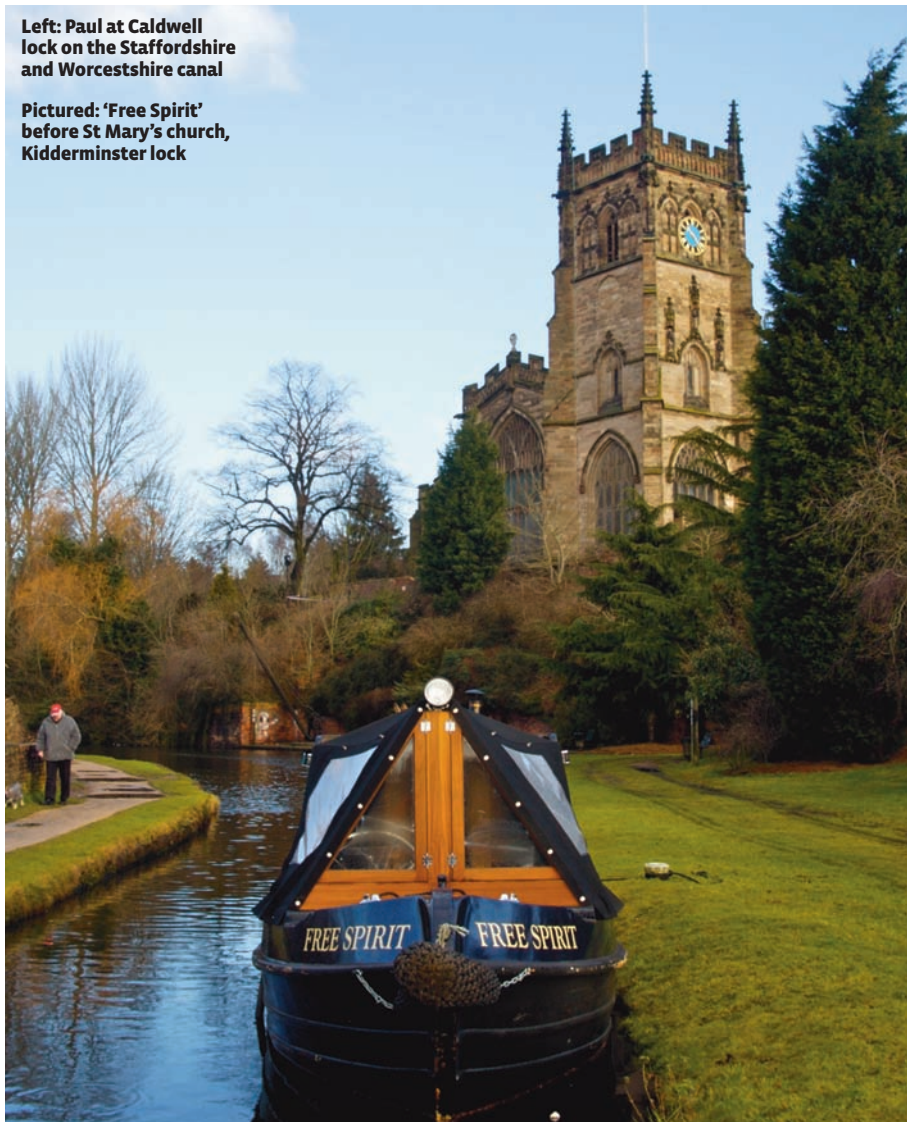
---

**Paul Miles is a freelance writer and photographer**

**'By living on a boat for a few months I expect to find lots of that greatest luxury: free time'**

**Left: Paul at Caldwell lock on the Staffordshire and Worcestershire canal**

**Pictured: 'Free Spirit' before St Mary's church, Kidderminster lock**



his simple hut, Tvergastein, Europe's highest dwelling, at an altitude of 1,500m. By comparison, my narrowboat won't take any effort. I'll just have to collect it from the hire company, appropriately named Cruise Free Spirit, and cruise off into the waterways. Yes, there will be muddy tow-paths to contend with, a toilet to pump out and water tank to fill, but there will also be a cosy wood-burning stove and ducks outside my window.

### **Slow boat to Staffordshire**

Last summer I spent a week on a narrowboat, steering a circuit through Staffordshire, Worcestershire and the Midlands. The green arteries breathe life into decayed industrial areas. Even in the middle of cities, as well as bobbing plastic bottles and drug paraphernalia there were herons flying ahead. Moored on the Severn one night, a salmon leapt through the water and a mink crept aboard. It was like *Tales of the Riverbank*.

In the film *Australia*, the character of the Drover, played by Hugh Jackman, says that



## Local Hero: Tamsin Omond

# Climate Suffragette

She's applying the same principles to environmental campaigning as her forebears did to fighting for universal suffrage. **Laura Sevier** meets the founder of the Climate Rush

**O**ne day in late August last year, activist Tamsin Omond was struck with a brilliant idea. She was at the Climate Camp at Kingsnorth and reading a book about the Suffragettes. In it she noticed a date: 13 October 1908. It was the day the Suffragettes rushed Parliament, when more than 60,000 people rallied in Parliament Square and groups of Suffragettes tried to force their way past police lines. Thirty-seven people were arrested.

It got her thinking. What if, to mark the centenary of the rush, there were to be a protest in Parliament Square, this time to lobby for climate action rather than women's rights. And so the idea for the Climate Rush 2008 was born.

Time was ticking, though: there were only two months to go before October.

As a member of the protest group Plane

Stupid and one of the so-called 'Commons Five' who scaled the roof of the Houses of Parliament in February 2008, Tamsin is no stranger to radical antics – although the bail conditions that arose from her subsequent arrest made a return to Parliament a risky one.

Then there were the nuts and bolts of putting the event together. Spotting a ripe opportunity for a protest is one thing – actually pulling it off is another.

### Suffragette city

As it turned out, on 8 October 2008 more than 1,000 people turned up in Parliament Square. It made for an extraordinary scene. Many wore Edwardian costume, hundreds wore Suffragette-style red sashes emblazoned with the slogans 'Climate Code Red', 'No Airport Expansion', 'No New Coal' and 'Reform Climate Policy'. One banner read 'Well-Behaved Women Never Made History'.

After hearing speeches from the likes of veteran feminist and sustainable food champion Rosie Boycott and Green MEP Caroline Lucas, a group broke police lines, lightly vaulted makeshift barriers and rushed towards the doors of Parliament. Fists banging against closed doors they chanted 'Deeds Not Words'.

What began as a single event has now grown into a high-profile environmental activist group inspired by the actions of the Suffragettes. The Climate Rush has since staged the infamous Edwardian picnic at Heathrow Terminal 1 and more recently the No New Coal Awards, among other acts of 'peaceful civil disobedience'. You've probably read about them in the press. The events tend to get coverage because of their innovative nature. More imaginative than protest marches, they blend costume, humour and entertainment with a strong environmental

message. They're planning an event a month until Copenhagen in December.

Tamsin herself has also become something of a poster girl for the green movement. She's young (mid 20s), clever (with a 1st from Cambridge), pretty (she's been asked to model for various glossy magazines) and passionate about her causes. And she's cool. I meet her in her house in Hackney, which she shares with six others, all activists or artists. With her mop of blonde hair, slogan t-shirt, waistcoat and Converse trainers she looks more like an artist herself. She's also articulate, informed (she can reel off facts about carbon and coal like clockwork) and has a natural charisma. It's no wonder she's gaining attention – and new recruits. 'Every time we go out and do an action it grows by about 300,' she says.

Sitting cross-legged on the rug drinking tea she tells me her story. After leaving Cambridge she trod an unusual path, combining a calling to the priesthood – she spent a year as 'a sort of trainee priest' in Primrose Hill – with Plane Stupid actions on the side. 'I managed to get my church to change its energy provider and spend a little less time worrying about the organ,' she says, 'but in the end I decided I wanted to dedicate all my time to the environment.' Like a calling? 'Yes, I guess so,' she laughs. 'A calling that everyone has to get.'

She says the Suffragettes have always been 'a huge inspiration. Their extraordinary actions reshaped society, redefined what people believed was possible. It was a truly radical struggle and it worked. I think there's tons to be learned from them – organisational, propaganda, all-involving...'

Like anyone who is clued into the science and urgency of climate change Tamsin realises that we need to get things moving more quickly and that we need more people shouting louder for change. And that there is power in numbers.

'At Parliament Square nothing would have happened if there were 100 people,' she says. 'It's this thing of critical mass. Everyone sort of knew that it was celebrating the 100th anniversary of when the Suffragettes rushed Parliament and that at 7.30 they might be expected to rush. It's about creating a context wherein something that is ostensibly legal, like standing in Parliament Square, becomes something where so much more can happen just because of a collective group.'

The Climate Rush, intended to be a one-off event, evolved into an ongoing campaign group. 'There was an unexpected amount of support for it,' says Tamsin. 'We had loads of women saying, "We love this and we really want you to do something else." They liked the creative, inclusive thing about it.'

One of the aims of Climate Rush is to make direct action more accessible and engage

## Tamsin's Top Five Action Tips

- 1 Join the Climate Rush and give us some money. [www.climaterush.co.uk](http://www.climaterush.co.uk)
- 2 Wise-up: read the latest climate science at [www.climatesafety.org](http://www.climatesafety.org)
- 3 DIY: grow your own veg, make your own clothes, mount your own protest.
- 4 Have a dinner party and get your friends talking about the climate crisis.
- 5 Put 5 December in the diary – 'Why March When You Can Rush?' – the climax of our Copenhagen campaign.

average people who would never have thought of themselves as activists. 'We need to wake up a lot of people to the fact that this really is the defining issue and is going to be hugely impactful on all our lives,' she says. And for those people who are awake it gives them something they can do that is more than simply changing their lightbulbs or individual way of life, but maybe less than getting involved in a more covert group where you know you may get arrested.

At a Climate Rush event you can go along and think 'maybe if I do something I might get arrested but actually I can just stand back and watch it happen'.

Following the Parliament Square Rush, newly recruited climate Suffragettes didn't have long to wait for the next event: 'Dinner at Domestic Departures' on 12 January this year.

The mission? To protest against Heathrow expansion plans and domestic flights. The method was inspired and the resulting scene memorably absurd: 250 Climates Rushers were briefed beforehand to enter Terminal 1 under the guise of normal travellers but to wear turn-of-the-century-style clothing underneath their coats ('think *Mary Poppins* for style'). In their carry-on wheelee cases were picnics, tea and cake, blankets, cushions, fold-out chairs and tablecloths. At 7pm, when the string quartet played its first note, picnic blankets reading 'No Domestic Departures' and 'Climate Chaos – It's No Picnic' were rolled out and sat on. Picnickers then tucked into cucumber sandwiches, samosas and cloudy lemonade. After dinner began the dancing – a conga round the terminal.

## And the award goes to...

The police were 'somewhat bemused – and out in their hundreds', but ultimately, as the protest was peaceful, what could they do? There was no disruption to flights.

The picnic at Heathrow was widely covered in the media, which Tamsin sees as a useful tool. 'If the climate movement had the same advertising budget as Coca-Cola then we'd be fine. Everyone would want to be green. But in a way the coverage we get is our form of getting the message out there for free. The media is our loudspeaker.'

In March, the Climate Rush organised the



**Tamsin Omond's focus is on a creative form of protest that is still challenging. After the Iraq War march, she says, 'We understand the Government's response to marches'.**



No New Coal Awards – an event designed to 'highlight the ridiculousness' of the UK Coal Awards Ceremony due to take place in a swanky London hotel. 'The absurdity at having an awards ceremony for the coal industry at a time of climate crisis... We want to draw attention to the issue of coal being the dirtiest way to produce electricity.'

Rushers were invited to 'dress formally for cocktails' in the Landmark Hotel's Winter Garden, where the awards were due to take place. The idea was to schmooze with the industry and challenge them. 'What I love about the Rush is that it's people you can relate to and who could be your daughter or wife or mother – or whatever boy version.'

So you've got a 19-year-old about to go to university asking you, "Why are you being so self congratulatory? Can you at least be a little bit ashamed?"

As it turned out, unbeknown to the Rushers, the coal industry had done a crafty change of location. Unperturbed, the mock awards went ahead as planned, giving out six papier-mâché canary-shaped awards, representing the birds used to detect lethal gas in coalmines. 'They also represent the arctic ice caps, which are the canaries of our world. They have started melting – a warning sign to us.' Categories included Best Supporting Role, which went to 'the biggest climate coward' Gordon Brown, and UK Coal Personality of the Year, which went to the CEO of E.ON for outstanding services to greenwash (while plotting to build Kingsnorth).

Spirited and strategic, it's a form of protest that does things creatively and yet is still challenging. 'One of the reasons why our generation is protesting in this way is because we are the anti-Iraq-War-march generation,' Tamsin says. 'We understand the Government's reaction to marches.'

This year, however, she thinks the feeling of disempowerment seems to be turning, what with the Obama frenzy. People are realising 'they can make things happen and put the right people in the right place – but you have to get a bit more involved'.

Tamsin has a refreshing faith in people power. 'Every individual is as powerful as he or she realises themselves to be. Just divert your being into it.'

What's the bravest thing she's ever done? 'I don't know. I think I'm mostly reckless rather than

## Climate Rush in pictures

**Clockwise, from right:**

**The first climate rush – more than 1,000 women rush the Palace of Westminster in Parliament Square; a picnic blanket is laid out at Heathrow Terminal 1 for 'Dinner at Domestic Departures'; the Climate Rush hits Heathrow; Climate Rushers rebrand the UK Coal Awards the 'No New Coal Awards'**



PHOTOGRAPHS: AMELIA GREGORY/JONANGELO MOLINARI

[www.theecologist.org](http://www.theecologist.org)

brave...’ Reluctant to appear like some kind of heroine she instead shifts the conversation to the wider cause. ‘It’s the thing with the Suffragettes again: 100,000 women were prepared potentially to risk prison because there was this huge issue. That’s the thing that really inspires me to act – that and the knowledge that how the future is going to look is so much defined by our actions now.’

### The next stage

I ask her if men feel excluded because of the obvious Suffragette connection. Tamsin says the movement started off being quite women-led but has opened out to include men. Although she doesn’t like the idea of ‘separate spaces’ she is aware they can have benefits. For instance, ‘at big meetings women don’t actually speak out as often as men. Whereas in a big group of women suddenly you get women you’ve never heard speak out before giving their voice. It’s a good way to empower women.’

Another thing Tamsin recognises is that, in campaigning terms, it’s quite useful to get people together based on the similarities that they already share, and then to bring them into the wider debate on climate change.

As a result there are now 1,000 Climate Rushers on the mailing list, as well as a Facebook group with 1,500 members. ‘There are lots of emails I get from people who are on

the mailing list who want to be involved,’ she says. ‘We need to make it clear how easy it is to do things yourself, with friends; to make your own group and just go out and do it.’

The Rush is ‘not an expensive campaign’ to run, says Tamsin. It’s operated out of its members’ bedrooms and various cafés in East London on a shoestring budget based on donations made to the website. To pay the rent Tamsin writes articles for ‘anyone who will give me money’, and is also writing a book – ‘I’m hoping the royalties will fund the Rush. We need more money.’

There’s also now an Oxford and a Brighton Climate Rush. The various groups perform acts of solidarity when mass actions are taking place but ‘largely do their own thing’.

‘I want anyone to use the Climate Rush

### Feeling the Rush...

#### IN PRINT

**RUSH! *The making of an activist*** by Tamsin Omond (Marion Boyars, £7.99) will be published in October.

#### ON FILM

A Climate Rush documentary is in the making, but the group needs to raise £3,500 to pay license fees for music and archive footage of the 1908 Suffragette rush. All donations are hugely appreciated. To watch the trailer, see [www.mrinf.co.uk/CR](http://www.mrinf.co.uk/CR)

brand as long as they’re raising awareness about climate change,’ says Tamsin. ‘What we want to happen, apart from these mass actions, is for there to be climate Suffragettes outside every important meeting.’

As well as aviation and coal she says there are ‘loads and loads of targets’. Banks that ‘finance the fossil fuels industry and the arms trade’ are just one example. The Royal Bank of Scotland was targeted by rushers as recently as March. Corporate sponsorship – such as the FA cup being sponsored by E.ON – is another focus.

So what’s next on the Climate Rush calendar? ‘We’re keeping our cards fairly close to our chests, but people just need to keep an eye on our site, sign up to our mailing list and we’ll let them know when and where to get involved.’ There will be ‘something big before Copenhagen’ and an event each month in the run up to it.

‘2009 is a really important, urgent year,’ says Tamsin. ‘Lots of different groups and voices are focused on the same aim, all coming at it from different angles and with different tactics, which I think is going to be such a strength. We’re just one of many. We’re the newest high-profile one, but there will be more.’

**Laura Sevier is the Ecologist’s Daily Life Editor**



**‘100,000 women were prepared to risk prison because there was this huge issue – that’s the thing that really inspires me’**

PHOTOGRAPHY: PHIL FISK



# Enlightened Gifts



Unique and unusual gifts that make a difference to the lives of Tibetans



#### EMERGENCY AID

£15

*F*rostbite afflicts many Tibetans who flee from Tibet into Nepal. A third of these are children who have trekked for weeks on end, enduring snowstorms, gales and extreme cold. Without treatment some lose their limbs. Your gift could supply the Reception Centre in Kathmandu with a medical kit including special antiseptic ointments and dressings so refugees can make a full recovery.



#### TIBETAN HERITAGE

£30

*H*elp save a sacred Tibetan text from decay. The Library of Tibetan Works and Archives in Dharamsala, India has a huge collection of irreplaceable Tibetan archives, both spoken and written, that urgently need to be catalogued and transcribed to electronic media before they disappear forever. This will make Tibet's priceless legacy available to the world - and help Tibetans keep their history and culture alive.

**A great way to make a difference whilst, at the same time, spreading the message about Tibet**  
Visit [www.enlightenedgifts.org](http://www.enlightenedgifts.org) or call 020 7272 1414 to be sent a catalogue  
See [www.tibetrelieffund.co.uk](http://www.tibetrelieffund.co.uk) for more information about Tibet Relief Fund

# ON THE FRONTLINE

This month: the real Tibet. By Andrew Wasley

**T**hirteen months ago we watched in horror as the Chinese authorities launched a brutal crackdown on Tibetan dissidents protesting against the occupation of their country. At least 120 were killed when soldiers opened fire on protests in the capital Lhasa and elsewhere. Thousands were injured or arrested. The Olympic Games may have briefly focused our attention on the plight of Tibet – despite the best efforts of the Chinese – but the media's gaze, predictably, has long since shifted. Tibet is no longer on our screens.

For those left behind, the legacy remains. As many as 6,000 Tibetans were rounded up during the uprising; the fate of almost 1,000 remains unknown. Among the detainees were activists, film-makers and outspoken religious leaders. Tibet is one of the most dangerous places in the world for any sort of dissent.

Since Chinese tanks rolled into Tibet in 1950, freedom of speech, information, religion and assembly have been curtailed, and Tibetan customs, culture and language marginalised – largely due to Beijing encouraging millions of ethnic Chinese to settle in the area.

Less well known is that Tibet's environment has also suffered. Decades of China-sanctioned logging have led to deforestation on a massive scale; less than half of Tibetan forests remain. In some areas more than 80 per cent of the original forest has been decimated, resulting in soil erosion and flooding, in turn causing landslides and damaging farmland.

Ill-planned industrial development such as hydroelectric projects and dams have further degraded land and water supplies. In one controversial case, construction of a power station at Yamdrok-Tso lake, south of Lhasa, was blamed for drying up fresh water supplies, forcing local people to drink from the lake and resulting in a host of negative health impacts.

Intensive agricultural practices have also taken their toll: overgrazing has contributed to desertification; insecticide and pesticide use has been linked to land degradation and loss of important plant species.

Tibet is home to rare species such as the lynx, snow leopard, black bear, gazelle, wild yak, Tibetan antelope and giant panda, but

trophy hunting encouraged by the Chinese has seriously depleted populations.

The biggest environmental threat, though, is large-scale mining operations for salt, chromium, coal, oil, uranium, gold, zinc and copper, among others. Mining is linked to a host of serious environmental and social ills yet China is embarking on an unprecedented programme of mineral extraction in Tibet.

In some cases entire communities face being uprooted to make way for mines and other industrial developments. Tibetan nomads – traditional custodians of Tibetan wilderness – are among those who've found themselves in the way. Since 2000, 900,000 have been forcibly relocated. Unsurprisingly they are now some of the regime's most vocal opponents.

Runggye Adak, a 55 year-old father of 11, was condemned to eight years in prison in 2007 after publicly calling for the return of the Dalai Lama. His nephew, Adak Lopoe was

## For more information

To help support Tibet's people and environment, see [www.freetibet.org](http://www.freetibet.org) and [www.tibetrelieffund.co.uk](http://www.tibetrelieffund.co.uk)

also detained, along with two other men, and jailed for 10 years for 'colluding with foreign separatist forces to split the country and distributing political pamphlets'. Lopoe, a senior monk at Lithang monastery, is a well-known critic of logging, deforestation and wildlife hunting, and a champion for education.

Monks arrested after last year's uprising testified that scores of nomads were among those crammed into notorious Chinese detention centres, rounded up for protesting against the increasing encroachment on their lands and environment. Months later, many are still believed detained.

Film-makers reporting the reality of life inside Tibet have faced a similar fate. Tibetan nomad Dhondup Wangchen and colleague Jigme Gyatso were arrested in March 2008 for producing a documentary enabling Tibetans to express views on the Olympics and Chinese



rule. Gyatso, recently released 'on probation', has testified he was beaten continuously while in detention, hung by his feet and tied to an interrogation chair for lengthy periods.

Wangchen continues to be detained, his whereabouts unknown. Sources indicate he too has been tortured, like so many others. London-based pressure group Free Tibet recently published a shocking dossier alleging the widespread use of torture against dissident Tibetan prisoners. Many have been seriously injured; others have died.

Despite the UN drawing similar conclusions the world seems happy to ignore such abuses.

The UK Government hosted the Chinese premier Wen Jiabao in February and has been strangely muted over the plight of Tibet. A recent policy document on China skirted more difficult issues raised by the use of torture, and stopped far short of calling for an end to the arrest and detention without trial of political prisoners. Britain, it appears, is happy for a simple 'reduction' in such detentions.

Sanctions such as those imposed on Burma may not be an option given China's growing influence and economic standing, but the international community has a duty to put the Tibetan issue at the heart of its dealings with the Asian superpower. As Free Tibet points out, China is now the 'workshop of the world', and desperately needs healthy relations and strong economies to thrive. This provides the outside world with unique leverage that should – and must – be capitalised on.

We as citizens urgently need to lobby ministers, the media and relevant businesses to take up Tibet's cause and support the charities and campaigns pressing for change. The ongoing silence and 'turn the other way' attitude is allowing rampant human rights abuses to continue largely unchallenged, and risks the further decimation of Tibet's natural resources and unique environment.

**Andrew Wasley is a journalist with investigative agency Ecostorm and a producer for the Ecologist Film Unit**

**Pictured: A little girl carries a jerry can of drinking water**

**Opposite left: Shawayenesha Hagos in her latrine**

**Opposite right: A dry river bed in Ethiopia**



unimaginably arduous journey up the hill.

Kidan may have mistakenly attributed her thyroid problem to dirty water, but there is no mistaking the fact that this stream is polluted causing a myriad of health problems for her, her children and her community. 'We have never seen white people, but we know you have come to see how we are suffering,' she says.

I am travelling in the northern region of Ethiopia, Hintalo Wajerat, with WaterAid, the international NGO that works in developing countries on safe water and sanitation projects. We're here specifically to see projects that are being funded by the eco-friendly detergent company Ecover, which shares WaterAid's objectives of providing sustainable solutions for cleanliness and uncontaminated water.

Kidan knows all about WaterAid's work, not only thanks to its sanitation officers visiting her village, but also because her brother Keleay lives in Adiger, a village a few miles away where WaterAid has completed a project. Kidan says of Adiger, 'they are already using clean water and we hope that they will come and serve us here too.'

Although they live in neighbouring villages, the difference between Kidan and Keleay's quality of life is stark. Kidan has to walk 5km to this unprotected stream to collect water contaminated by other communities upstream, parasites and animal waste. This is also where she washes her clothes and body. It takes more than two hours to climb back up the hill with the 25-litre jerry can of water on her back. She does this twice a day, leaving little time for any other activities.

In contrast Keleay, a teacher and community leader, benefits from clean water on tap from a capped spring in his village. His is the first household selected to trial a biogas toilet, the latest sustainable technology adopted by WaterAid, which uses animal and human waste to power lamps and cooking stoves. Keleay is so proud to have this new technology on his doorstep that he gives demonstrations to villagers and visitors, explaining how and why the biogas toilet is better for their environment than the oil they used to buy. Now, he says, everyone wants one.

For any WaterAid project to be sustainable it must first have the co-operation of the community. The sharing of information and education is the foundation model by which WaterAid works. While the disparity between Kidan and Keleay's lives might seem grossly unfair, their proximity does allow information to spread. When a village is approached by the NGO many of the residents may already know about its water projects, but the village as a whole is informed that no work will start until the community is fully dedicated to the project and has elected a water committee. The committee is usually made up of seven villagers, four of whom must be women.

# LESSONS ON WATER

**Working alongside the people of Ethiopia, WaterAid is helping bring clean water and safe sanitation to drought-hit areas, as Leonora Oppenheim discovers**

**K**idan Hagos is trying to tell me what she knows about water, but I am distracted from her animated face by the enormous swelling in her neck. Kidan diverts momentarily from her theme to explain that she has been suffering from what we know as a goitre, an enlarged thyroid gland, for 30 of her 50 years, but while the swelling is causing breathing problems and it hurts when she drinks or eats, she is more preoccupied by the need to access clean

water. 'The water sanitation officer has been teaching us our illnesses are because of the dirty water we drink from this river,' she says. 'Unfortunately we do not have safe water yet.'

We are standing at the bottom of a dusty Ethiopian valley under the burning African sun beside a trickling stream that must at one time have been a river. Cattle and donkeys mill around; some women on the far bank are busy washing clothes, others are strapping weighty jerry cans filled with water to their backs and beginning what looks like an

## Educating communities

In general it is the women's job to wash clothes and collect water for drinking and cooking; they are assisted by their children, while the men farm the fields and look after the livestock, so it makes sense for women to take a leading role in water and sanitation projects. Part of WaterAid's work is to empower women such as Kidan who, unlike her brother, is not used to holding a position of influence or being given opportunities to speak out and take on responsibilities within the community. When WaterAid is ready to work with her community she is ready to be on the water committee.

Although Kidan's enthusiasm is apparent, the process of bringing the whole community on board is not always smooth. Brhane is a water sanitation officer whose job is to explain to villagers why safe water and sanitation are important for their health. Sometimes it can take a couple of months of regular visits to gain their trust. She says this stage of the process is the hardest part, but persistence is everything. If the community is not fully involved in the implementation of the water project then they will not be able to look after the protected water source; whether a hand-dug well or gravity-fed scheme, they will not be able to fix equipment and, most importantly, will not be able to pass their new-found knowledge on to future generations.

In the remote mountain village of Gem Asa I speak to Shwaynesha Hagos, a 30-year-old mother of seven. Brhane worked closely with Shwaynesha, teaching her how to build a compost pit latrine near her house. Sensibly they chose the same construction method Shwaynesha used for her house – mud walls and a thatched roof – meaning materials are local and some knowledge was already there.

'When they were teaching me about the system and construction of the latrine I understood immediately and now I can teach others,' Shwaynesha says. 'Before I would just go in the bush around the house and would worry about whether people were looking at me or not. At times I felt ashamed, but now my children and I are safe to use the latrine at any time and I am happy about this.' The plan is for each of Gem Asa's 64 households to build its own compost latrine. Shwaynesha's work provides a key example of how simple sanitation education can easily be replicated throughout the community and beyond.

While this education model is sustainable, unfortunately it has many limitations when it comes to larger-scale projects. Sanitation classes and compost latrines are relatively low-cost, but hand-dug wells and water pumps are not schemes communities can afford

to implement on their own. Each well costs 13,000 birr (£820) to install. WaterAid asks that each community contributes 15-20 per cent of the cost through manual labour and donation of basic materials such as sand and stone. The community is taught how to build, maintain and repair the well and pump, but is not yet able to construct larger sustainable technology schemes without external funding.

Reassuringly, however, I see evidence that the community works to evolve schemes each time they are replicated by WaterAid. The biogas toilet built for Keleay Hagos in Adiger was built from expensive corrugated metal sheet. The second, recently built for the Hiluf family in the village of May Ayni, was made, like Shwaynesha's latrine, from local materials. This not only halved the price of installation, but also means other households can copy it with ease, only needing WaterAid to install the biogas technology of a digestion tanker and pipelines. The new toilet is clearly prized by the Hiluf family, who have painted patterns on their facility inside and out.

There's no doubt that WaterAid is dedicated to taking a sustainable approach; its model is one of inclusion, involvement and collaboration with every community. Through 'software', the education phase in villages and schools, it has been able to help many people understand why clean water is so important, and through 'hardware', the installation of sustainable technologies, it has empowered women in their communities, providing them with clean accessible water, which frees up their time to plant vegetable gardens and care for their children. If we zoom out to look at the bigger picture, however, we can see that WaterAid is having to run just to stand still: with thousands served there are millions more, like Kidan Hagos, who are left without.

On a darker note, wells dug only a few years ago are drying up, the water table is depleted, droughts are more frequent, the rainy season is shorter and sometimes doesn't come at all. The threat of climate change is set to make harsh climates even more so, with flooding in some areas of the globe and increased desertification in already parched countries like Ethiopia. It is a sobering thought that, even with all the resources and funding in the world, WaterAid's work and people's survival depends on there being fresh water available in the ground. During a visit to one school's sanitation club we saw just how theoretical the education model can be. Children are taught how to wash their hands and clean their bodies, but teachers have to use images on posters because there is no water at the school for practical demonstrations.

**Leonora Oppenheim** founded sustainable design consultancy **Elio Studio** and is a correspondent for **TreeHugger.com**



## On the water board

Even with its rich cultural heritage there is only one word that sums up – as Ethiopia in the public consciousness – drought – even 20 years after the terrible famine of 1984 when more than a million people died. Current water statistics do not bring any comfort that much has changed since then. Only 22 per cent of the population have access to safe water, only six per cent have adequate sanitation. There is clearly more work than WaterAid can do on its own. In order to gain access to communities in the deepest rural areas it works with the Ethiopian Orthodox Church (EOC). In this deeply Christian country, where there's a priest in almost every village, the church has connections everywhere. WaterAid and the EOC aim to provide 100,000 Ethiopians with safe water and 95,000 with sanitation and hygiene education by 2010.

For more information on the Ecover/WaterAid partnership, visit [www.ecoverwateraid.com/en](http://www.ecoverwateraid.com/en)



PHOTOGRAPHS: MARCO BETTI





# DAILY LIFE

Watch green news; enter a photography competition; be aware of your compost; make rocket pesto; save bees; celebrate World Fair Trade Day; go garden-hopping  
By Laura Sevier

## MAY

### Spotlight on...

# Nettles

**To most people nettles are a troublesome weed to be cursed, avoided or eradicated. Here are five reasons to appreciate them:**

- **WILDLIFE** In the UK, the nettle supports more than 40 species of insect, including some of our most colourful butterflies. In late summer the huge quantity of seeds nettles produce provides a food source for many birds.
- **FOOD** For centuries people have eaten nettles. At one point they would have been relished as springtime treat. In 1661 Samuel Pepys wrote in his diary of having eaten '... some nettle pudding, which was very good'. Nutritionally the nettle is an excellent source of iron, calcium and magnesium, and a range of vitamins. The young shoots can be used in soups and stews and in place of spinach.
- **HEALTH** Nettles have a long history as a medicinal herb. They are a valuable ingredient of herbal tonics and tinctures. Nettle is said to

be an excellent detoxifier because of its diuretic properties. It is currently used to provide relief from ailments including allergies, anaemia and arthritic problems.

- **TEXTILES** The first use of nettle as a fibre in clothmaking can be traced back to the Bronze Age. Research projects in Europe are trying to find economic ways of cultivating nettles and processing the fibre on a commercial scale.
- **IN THE GARDEN** Young, freshly cut nettles make an excellent compost activator. Nettles can also be made into a liquid plant-feed. Pack them into a bucket and steep them in water for two weeks, stirring occasionally. Strain and dilute one part nettle juice with 10 parts water.

➤ **13-24 May is 'Be Nice to Nettles' Week, a CONE initiative. For more information, see [www.nettles.org.uk](http://www.nettles.org.uk)**

### 3 THINGS TO DO...

**Watch** Green.tv, the online television channel for environmental films, recently launched 'Weekly News' on its website, which takes a sideways look at the week's top green stories.  
[www.green.tv/weekly\\_news](http://www.green.tv/weekly_news)

**Join** Ecomotion is a new online social network site with a difference. Joining gives you full access to the Ecomotion ethical directory. You can also connect with people, groups and businesses to make things happen – from Fairtrade tea parties to eco festivals.  
[www.ecomotion.org.uk](http://www.ecomotion.org.uk)

**Repel** Keep insects and slugs at bay naturally. Experiment with self-sufficiency expert Andy Hamilton's ideas for pest control on **page 66**.



### 8-10 May Real Food Festival

This lively festival showcases 'good, clean, fair produce' from over 400 British and European producers. More than just a giant food market, there will be chefs such as Thomasina Miers and Geetie Singh displaying their cooking skills, and cookery workshops run by the Bordeaux Quay Cookery School showing you how to eat delicious food on a tight budget. There are also daily debates – Friday's headliner is 'The Future of Food'.  
[www.realfoodfestival.co.uk](http://www.realfoodfestival.co.uk)

By Laura Sevier

# this month

### 3-9 May Compost Awareness Week

Recycle Now has a handy 'Guide to Composting in Seven Easy Steps' and links to low-cost compost bins.  
[www.compostawarenessweek.org.uk](http://www.compostawarenessweek.org.uk)



### TRAID's new store

To celebrate its 10th birthday, fashion and textile recycling charity TR Aid has opened a 10th store, a flagship in Camden open from 20 April.  
[www.traid.org.uk](http://www.traid.org.uk)

# British Wildlife Photography Awards

## A call for entries

This new international photography competition is open to all, with a prize fund of as much as £10,000 (the overall winner will receive £5,000). The subject is British wildlife, from birds and mammals to insects and marine life, whether found in the urban jungle or the undergrowth. The closing date for entries is 31 July.

For information on categories, shooting tips and details on how to enter, visit [www.bwpawards.org](http://www.bwpawards.org)  
**➤ THE EXHIBITION WILL LAUNCH AT HOOPERS GALLERY, CLERKENWELL, IN SEPTEMBER AND TOUR SEVERAL LOCATIONS AROUND THE UK.**



'Squirrel' by Niall Benvie



'Hedgehog' by Niall Benvie



'Fox' by Chris Weston

## PICKS OF THE MONTH

### CURTAIN DRESS

Designer Minna has created the Kristina jacket (£87.50) and pocket dress (£82.50) from recycled fabrics with antique buttons.

➤ **ECOLOGIST READER OFFER: 20% OFF THE SPRING/SUMMER COLLECTION FROM 1-31 MAY. DISCOUNT VOUCHER CODE IS 'ECOLOGIST'.**  
 Available from  
 ➤ [www.minna.co.uk](http://www.minna.co.uk)



### ZIP-OFF TROUSERS

Frugi, makers of organic children's clothes, has designed zip off trousers (£25) from supple canvas for boys aged 2-6 years in khaki green and midnight blue.

Available from  
 ➤ [www.welovefrugi.com](http://www.welovefrugi.com) or call  
 01326 221930



**May in Bloom**  
*Wildlife to watch*

- Birds nesting and songbirds singing
- Butterflies emerging
- Trees and hedgerows in flower
- Woodland and meadow flowers
- Shrubs with their bright, fresh young leaves.

[www.whentowatchwildlife.org](http://www.whentowatchwildlife.org)

## FOOD IN SEASON

### Vegetables

- Asparagus
- Broad beans
- Beetroot
- Cabbage
- Cauliflower
- Chard
- Dandelion
- Elderflower
- Endive
- Garlic
- Lettuce
- Morel mushroom
- Nettle
- Onion
- Peas
- Potato
- Radish
- Rhubarb
- Rocket (wild)
- Sea kale
- Sorrel
- Spinach
- Spring onion
- Swede
- Turnip
- Watercress



Asparagus is a good source of folic acid, rutin and potassium

### ➤ How to cook...

#### Asparagus

The British asparagus season lasts for little more than six weeks. May and June are the months to seek it out. Buy it as fresh as possible, chop off the woody ends and steam or boil for 3-5 minutes. Serve with melted butter or vinaigrette.

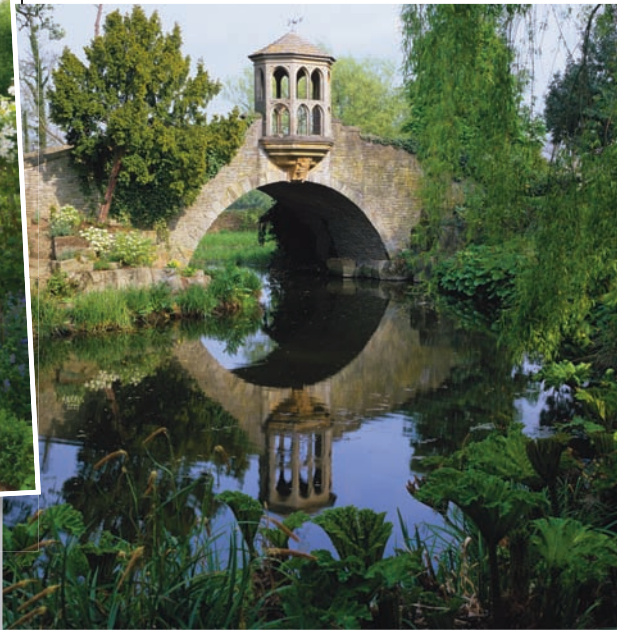


## GO GARDEN-HOPPING

Published by the National Gardens Scheme (NGS), *The Yellow Book 2009* is a county-by-county guide to thousands of gardens open to the public throughout Wales and England.

Most of the 3,600 gardens are privately owned; some open as part of a group, which gets the whole community involved. Through this the NGS raises £2 million each year for nursing, caring and gardening charities.

► **READER OFFER:** ECOLOGIST READERS CAN BUY THE BOOK FOR £6 INCLUDING P&P (RRP £8.99). ORDERS CAN BE PLACED AT [WWW.NGS.ORG.UK](http://WWW.NGS.ORG.UK) OR BY PHONING 01483 211535 (QUOTE EMYB09)



PHOTOGRAPHS: NICOLA STOCKEN-TOMKINS

# this

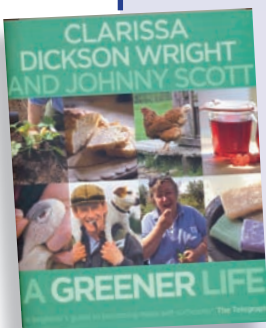
### 9 May Big Bang!!

If Big Bang!! goes to plan, hands will beat, feet will tap and Fair Trade events will pass through every continent, country, city, town and street over 48 hours on 9 May, World Fair Trade Day. This global festival of events aims to promote a fair trade solution to poverty, climate change and economic crisis by 'encircling the Earth with the roar of drums and the powerful glow of sustainable consciousness.'

For more information, visit [www.worldfairtradeday09.org](http://www.worldfairtradeday09.org)



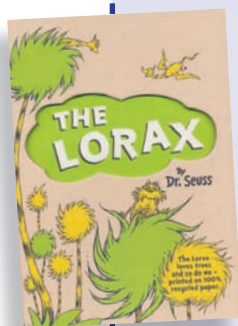
## \* OUT NOW



**A Greener Life**  
by Clarissa Dickson  
Wright and  
Johnny Scott  
(Kyle Cathie, £16.99)

For anyone aspiring to be more self-sufficient or live a more natural life, this beautifully laid-out, accessible book is packed

with ideas and practical information on how to create a 'Green Outdoors', a 'Green You' and a 'Green House'.



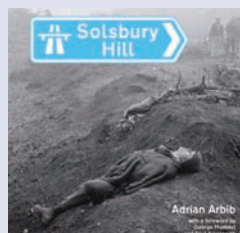
**The Lorax** by Dr Seuss  
(HarperCollins, £7.99)

The original eco-warrior is back. Creation of favourite children's author Dr Seuss, *The Lorax* was first published in 1971. Behind its zany illustrations, silly rhymes and humour is a haunting fable of the Lorax's struggle to save the Truffula Trees.

Now, more than 35 years on, its strong, underlying ecological message is no less relevant. This new hardback edition is made from 100 per cent recycled materials.

**Solsbury Hill: Chronicle of a road protest** by Adrian Arbib  
(Bardwell Press, £19.95)

With a foreword by George Monbiot and Paul Kingsnorth, *Solsbury Hill* is a unique record of an early part of a protest movement that changed Government transport policy (see [www.solsburyhill.org.uk](http://www.solsburyhill.org.uk)). At the time of the Solsbury Hill protest in 1994, Margaret Thatcher's 'largest road-building programme since the Romans' was in full swing under John Major, and a rising tide of non-violent protest emerged across the country, and nowhere was it more in evidence than Bath, where campaigners fought to halt the Batheaston



to Swainswick bypass. This book's photographs capture the spirit of a movement beginning to find its voice.

**Bike Easy: Top tips and expert advice for the new cyclist**  
by Peter Andrews  
(Eco-logic, £4.95)

Whether you're a seasoned rider or new to the saddle, this slim book is a must for all. Packed with key advice for those starting out and tips for returning cyclists, topics range from pumping your tyres to 'pootling' (choosing routes that are scenic and enjoyable) with numbered paragraphs making the book easy to navigate. There is also a Bike Easy website with additional tips and resources, visit [www.bike-easy.org.uk](http://www.bike-easy.org.uk)  
*Phil Moore*



# month

## 10 GREEN BOTTLES

**A seasonal recipe series by Anna Shepherd**

**Rocket pesto** During Roman times, rocket was considered an aphrodisiac, the perfect ingredient to boost your sex life. Great news if you've sown some because it grows thick and fast. You're bound to have more than you need, so wash and chop enough to fill both hands. Add a bag of pine kernels, crushed in a food blender or simply bashed with a rolling pin; add two cloves of chopped garlic and a large pinch of salt. Grind together using a large pestle and mortar (or a mixing bowl with a rolling pin), adding a liberal slug of olive oil and lots of grated parmesan. I like mine chunky, but keep going if you prefer a finer consistency. It'll keep for up to a month in sealed jam jars in the fridge.

➤ **NEXT MONTH... HOMEMADE LEMONADE**

22-24 May

### Biodynamic Beekeeping Workshop

Bees need all the help they can get. At this workshop, which includes hive visits, you can find out how biodynamic methods can help reduce stress and increase vitality in the beehive. On Friday evening there will be a public talk (included in the workshop) on 'The Honey Bee: threatened friend and pollinator'.

➤ **THE HATCH, KINGTON LANE, THORNBURY, BRISTOL**

You can download a programme and booking form from [www.biodynamic.org.uk](http://www.biodynamic.org.uk) or contact the Biodynamic Agricultural Association on 01453 759501 or email [office@biodynamic.org.uk](mailto:office@biodynamic.org.uk)



A rare breed in the fashion world, Stella McCartney has always combined ethics with her aesthetic. In this exclusive preview of her second 'eco collection', modelled by Laura Bailey, she talks to **Matilda Lee** about designer activism

# STELLA McCartNEY

## THE FASHION WORLD'S CONSCIENCE

**Matilda Lee: What prompted you to design an eco collection using organic and recycled fabrics and low-impact dyes?**

Stella McCartney: I would always touch on an element of a sustainable or eco collection in everything that I do. So in my lingerie collection, I have a part of the collection that is organic, or with my Adidas collaboration again there are organic materials or recycled materials in the bags or shoes, and every part of my design at some stage comes into contact with that. But what I wanted to do was isolate the collection and in itself make it completely sustainable, because I really wanted to bring all those elements together and show the importance that it has within the brand.

**What do you find most alarming about conventional cotton and dyes?**

I guess it's just a very inefficient use of resources and it's damaging. In saying that, I'm not perfect. I do use conventional dyes and cottons in the collection, but I think it's important for people to know that. I'm a great believer that something is greater than nothing, and it's difficult once you find out information about the consequences of the fashion industry to turn a blind eye. I think it's important to educate oneself, to try to provide a high-quality product for the consumer and not to lose any of the desirability, and yet also to try to be more

responsible in the way that you think and the way you source your materials.

**How did you manage to source enough organic materials for your eco collection? Did you have difficulty finding enough raw materials that were organic?**

We have a great rule that once we run out of organic fabric, that's it – we can't buy any more. So in a sense it's always slightly a limited type of collection. That is something that really appeals to me anyway, that kind of philosophy that you shouldn't just buy billions and billions and billions of the same jacket in the same colour. I think that that's not a very modern way of looking at anything in life any more.

**What was the most challenging thing about designing and producing your eco collection?**

The most challenging thing was trying to play by the rules. It's slightly more limiting: you have less colours available, you have less fabrics available, they're a different quality to the type that you're used to... I wouldn't say there are restrictions, but there are definitely challenges. I think again it comes back to anything being better than nothing. So if I have 200m of something in storage that we didn't use up in previous collections I will always turn to use that again before ordering more fabric. I think that it's just a

different way of looking at making things and creating a product.

**The Design Council has said that as much as 80 per cent of a product's environmental impact is decided at the design stage. As a fashion designer, would you agree with this?**

Yes, probably – I would say that, yes. In fact I would say that designers of every industry have to be aware of the impact [their products] have later on down the road. Certainly in the car industry, the aviation industry, in housing – in everything. Designers are at the top of the pyramid in terms of creating products and they should know. It would have less of an impact on the environment if the creative teams were more educated about the impact the products they design have on the world we live in.

In the fashion world I think that most designers know fur is wrong. More and more of them also know about the huge environmental impact of [producing] leather, in terms of the use of chemicals for tanning and dyeing. The land mass that is needed just to raise enough leather, enough skin for one handbag is far greater than growing a crop – bamboo, for example – that is sustainable. I think the consumer also has to be aware of these things and has to act responsibly in terms of the things he or she buys, and to start limiting the demand on products that are environmentally unfriendly.

**What role can/should designers take in minimising harm to humans, the environment and animals?**

Designers should get information and make adult decisions based on this information. Also they should try to avoid or simply avoid using any animal products – it's not a huge task. As far as I'm concerned that goes for the food industry, the beauty industry and the fashion industry. Billions of animals are killed every year for ridiculous things. A lot of it just gets thrown in the bin.

**Is your eco-collection just a one-off or the first of many Stella McCartney eco collections?**

It's not a one-off. We've been doing it for many years now and we intend to continue, and every year make a larger percentage of the collection more environmentally friendly.

**You've been on the outside of the mainstream in your refusal to use fur and animal products in your collections, and in many ways have put the spotlight on animal welfare issues. How do you feel when other fashion designers are critical of your ethical concerns?**


Number one, I'm not aware of it. I don't really listen to a lot of that. How do I feel when they are critical? I feel disappointed, I guess, and surprised, but I haven't really been aware of fellow fashion designers being critical of my ethical concerns – not in public anyway.

**To date, fashion buyers, press and the public haven't really held designers to account in terms of their impact on the environment. Do you think there should be more awareness of these issues in the fashion industry?**

Yes, absolutely. It is the responsibility of journalists and buyers, but at the end of the day it is also the responsibility of the consumer. It's like any industry: if people don't buy something because they don't believe in it then that's the biggest impact you can have in getting your message across.

**Your eco-collection is beautiful and sexy. Do you think the press/public should finally relent in calling eco fashion clothes just for wearers of woolly socks and sackcloth?**

I mean, yes. One of my biggest passions on this side of my collection is that 'eco' shouldn't be a word that immediately conjures up images of oatmeal-coloured garments or garments that are oversized or lacking in any sort of luxury or beauty



**Pictured: Chunky grey cardigan, £615; white t-shirt, £240**



Far left : Eco denim, £210;  
navy top, £474; Nude pumps,  
£245; Bamboo clutch, £830

Left: Chunky grey cape, £775

Opposite: Navy dress, £265;  
Bamboo clutch, £830

or detailing or desirability. I think that's something that really needs to be broken down, and there should be no compromises from the design point-of-view. Your products should not be compromised in any way just because they're environmentally friendly.

**What did you learn through doing all this?**

Every single day something is changing, somebody's inventing a new material or giving you a new piece of information, either good or bad, so you're learning a million things all the time. I guess the main thing I've learnt is that this is the right thing to do, and that decisions I've based on my beliefs and upbringing have served me well. I feel in my heart that this is the right way to work and it's the right direction to take our business.

**How can you help ensure that eco fashion becomes an underlying trend or movement and not just a one-off seasonal fashion trend?**

Anything – this subject or in general – is in danger of becoming a trend or a one-off. The important thing is that everyone keeps an interest in it, and there is a vested interest because we live on this planet and we need to look after it, as without it, we have nothing. So it's just not the fashion industry, it's every single industry and I really think it's important for me to stress that I am not perfect. I repeat: I am not perfect!

**Could you see yourself increasing the amount of organic/recycled materials used to the point where all your collections are 'eco'?**

Yes.

**Who are your heroes in the eco fashion world? Are there any designers or campaigners that are a source of inspiration to you?**

Yes, I have tons of heroes outside the fashion industry, but I can only think of Katharine Hamnett who is championing this kind of thing. I don't have enough information about what she's doing, but I think she is very vocal and very talented and I think she's a cool woman. Unfortunately I don't have enough peers who are thinking this way – I wish I could list you a million heroes in the fashion industry in the eco-world, but unfortunately I can't think of many.

Stella McCartney's eco collection is available from Stella McCartney, 30 Bruton Street, London W1. 020 7518 3100 [www.stellamccartney.com](http://www.stellamccartney.com)

Matilda Lee is the *Ecologist's* Consumer Affairs Editor

**Photographer:** Helen McArdle  
**Photography assistant:** Richard Johnson  
**Model:** Laura Bailey at Independent  
**Styling:** Natalie Chesterman  
**Make-up:** Aly Hazlewood at Terri Manduca using Organic Glam  
**Hair:** Luke Lehmann using Aveda  
**Special thanks to Street Studios**



**A model green: Laura Bailey in her own words**

'I simply try to tread as lightly as I can upon the Earth. I cycle everywhere as much as I can, recycle at home and try to learn about the provenance of what I think I need – be it food or fashion or even shampoo! I am a huge admirer of the work Stella does and think she's a true pioneer in her field. Design genius and true eco-principles/integrity are a rare combination. I'm far from perfect – I fly from time to time – but especially since I've had children, I've tried to ensure we all as a family leave only the gentlest footprint...'

# VISIT THE NEW AND IMPROVED www.theecologist.org

AND GET ACCESS TO EXCLUSIVE WEB-ONLY ARTICLES AND AN ARCHIVE OF MORE THAN 1,000 ARTICLES SINCE 2000

The screenshot shows the homepage of www.theecologist.org. At the top, there's a navigation bar with 'HOME | GREEN LIVING | ECOLOGIST TV | PARTNERS | ADVERTISING | ABOUT US | RECRUITMENT' and a search bar. Below this is a 'Top Story' section featuring an article titled 'Antibiotics fed to livestock end up in crops' with a date of 02/03/2009. To the right is a 'Newsletter' sign-up box. The main content area is divided into several columns: 'More Stories' with articles like 'Are we better off outdoors?', 'Could farmed fish save our seas?', 'A fast train to the world', 'Hackney's green fingers', 'Switching on to renewables', 'Interview with Dr. Ricardo Navarro', 'London's canals to be transformed', 'Dan Box Blog: the Carteret Islands', and 'On civil disobedience'; 'Ecologist TV & Radio' with a 'Now playing: Poznan 2008 review'; 'Daily Dilemma' with a poll 'Does responsibility for stand-by rest more with consumers or manufacturers?'; 'Most Popular Green Living' with articles like 'Are we better off outdoors?', 'Could farmed fish save our seas?', and 'A fast train to the world'; and 'Behind the Label' with articles like 'Behind the label: Comfort', 'Behind the label: Fairy Liquid', and 'Behind the label: Handwash'. At the bottom, there's a 'Calendar' section with events for October-April, February-March, and March. A 'Poll' section asks 'Can green market initiatives really make a difference?'. A 'subscribe' button is visible on the left side. The footer contains contact information and a copyright notice.

## NEW

Exclusive web content every week! Including interview, reports and investigations

Sign up to the newsletter to receive weekly updates, competitions and exclusive articles

Short film investigations from the *Ecologist* Film Unit, as well as weekly radio podcasts

Cast your vote in our polls

**NEW**  
Tell us what you think about this month's topical issues in *Daily Dilemma*

## NEW

Follow our bloggers: including Dan Box on the effects of climate change on the Carteret islands and Earthenwitch on sustainable living in a Devon earthen house

**NEW**  
The most popular articles on daily green issues

## NEW

Carefully selected calendar of events to help you plan your eco month

**NEW**  
A complete archive of the legendary *Behind the Label* feature



**Jonathon Porritt**

# Veteran environmentalist

## How do you define success?

Progress – a lot or even a little – in making sustainable development the central organising principle of everything we do.

## Was the transition from an NGO to Westminster – as part of the UK Sustainable Development Commission (SDC) – difficult?

Not particularly – though it did take me at least three years to get the hang of how the system works!

## Can you describe a typical day?

Not really. Lots of time on trains. Too many

meetings. Endless advocacy – some of which has an impact.

## What book or film would you recommend to all politicians?

I would have said *Six Degrees* by Mark Lynas, but now that he's gone bonkers by supporting nuclear power, I can't. So I'll go instead for *The Age of Stupid*, from the team that did the *McLibel* film. It would change the mind of every politician who saw it.

## What makes you angry?

Apart from Jeremy Clarkson, people whose actions do not match their knowledge. The

scientific evidence available to us should be setting us free, but it doesn't. And that's unforgivable in some people.

## Where are you most happy?

Friday evenings, back home, cooking, winding down, listening to Radio 4. Or in Cornwall for our summer holiday.

## What is your favourite meal and made by whom?

My wife's seven-hour lamb.

## What steps have you taken to lower your personal carbon footprint?

Apart from the work-related flying, my carbon footprint is pretty low. The flying is a nightmare, though.

**'It's the potential for renewable energy globally that keeps me as optimistic as I still am'**

## Do you have hope for the future of the renewables industry?

It's the potential for renewable energy globally that keeps me as optimistic as I still am.

## Where do you stand on GM crops?

Still deeply sceptical. Even if GM could answer all its critics (which it still can't) it would still represent the same old intensive mono-cropping agriculture, something that is simply unsustainable.

## When the SDC looked at the proposed Severn Barrage it gave plans for the project a cautious thumbs-up, with the strict caveat that it should be a public sector project. If, as now looks likely, it ends up in the hands of the private sector, would you withdraw your support?

Probably, but I don't think it will end up in the hands of the private sector – it's too big even for the biggest of them. And our government is just getting used, all over again, to the idea of making major investments in the future wellbeing of this nation.

Jonathon Porritt is founder and director of Forum for the Future ([www.forumforthefuture.org.uk](http://www.forumforthefuture.org.uk)), chairman of the UK Sustainable Development Commission ([www.sd-commission.org.uk](http://www.sd-commission.org.uk)) and author of *Capitalism as if the World Matters* (Earthscan, £18.99)



# WHAT TYPE OF SALT IS BEST?

**A little bit of natural seasoning won't kill you, it's what gets added – or taken away – that matters. Pat Thomas explains why refining and demonising salt is such a crude response**

**T**here was a time when salt was worth its weight in gold – literally. And quite right too. Without salt, life would cease. Your muscles would not function, your ability to think would be impaired, your memory would fail and your heart would stop beating. And yet today salt is the demon of the diet world.

As with so many of our ridiculous diet fads, the finger of blame is pointing in entirely the wrong direction, and much depends on how we define 'salt'.

There are three basic types of salt most of us can buy – standard table salt, sea salt and rock salt – and within these three categories there are numerous variations in terms of source and chemical make-up.

It may be helpful to think of salt in the same way you think of sugar. Refined sugar contains none of the trace elements (very low levels of both essential and non-essential minerals) and cofactors necessary for health that unrefined sugar does. These trace elements and cofactors are also useful in helping the body metabolise sugar better. Without them sugar is just calories.

## The unhealthy season

Salt is much the same way. Unrefined salts, whether mined from the earth or harvested from the sea, contain a broad spectrum of trace elements, often in the same balance as are found in human blood. These include magnesium and potassium, necessary for health and which help the body metabolise

the sodium better. Indeed, potassium and magnesium work synergistically with sodium to regulate water balance and nerve and muscle impulses. The more sodium you eat, the more potassium and magnesium you need to maintain balance. Few of us get enough of these elements in our diets, yet we eat high amounts of sodium in salt.

Refined, industrial grade table salt, on the other hand, has had all of these trace elements removed. It is pure sodium chloride, with an anti-caking agent and, in some cases, iodine added in.

If the concept of table salt as an industrial product jars, consider that like so many of the products we use, the popular form that salt eventually takes depends on what is most profitable for industry. Only around seven per cent of the salt produced goes for food; the other 93 per cent goes to industry, which requires chemically pure sodium chloride for the manufacture of explosives, chlorine gas, baking soda, fertilisers and plastics.

The addition of iodine to table salt is a real problem and makes the 'simple' table salt so many of us rely on little more than a poison.

In 1995 the World Health Assembly adopted the concept of universal salt iodisation (USI), – the iodisation of salt for human and livestock consumption – in order to eliminate iodine deficiency disease (IDD) and related disorders such as goitre, cretinism, myxedema in adults and neurological disorders in children. As a result countries around the world routinely require all salt to contain added iodine (apart from kosher salt, which contains no additives).

The problem is that iodising salt is a crude form of prevention more appropriate for those living in conditions of famine. People eating a relatively well-balanced diet are not at risk of iodine deficiency because iodine is

widely available in sea fish, shellfish, eggs, cereal grains, legumes and dairy products from cows fed with iodised salt. Certain food additives also contain iodine.

But there are also hidden sources of iodine that mean most of us get too much. These include cough expectorants, antiseptics, certain drugs such as sulphonamide, lithium, dopamine, steroids, aspirin and certain heart and antidiabetic drugs. Natural supplements such as kelp and seaweed also contain high levels of iodine.

Enforced medication with iodised salt adds greatly to our iodine intake, and as a result people in the West are risking iodine overload. As much as 75 per cent of the body's iodine is stored in the thyroid gland and is used for the production of hormones that regulate metabolism. Too much iodine and levels of these hormones can become dangerously unbalanced, leading to metabolic as well as immune disorders.

In Galicia, in northwest Spain, where iodised salt is mandatory, there is an abnormally high incidence of hyperthyroidism (an overactive thyroid), particularly among women. In Japan and the US, where intake of iodised salt is highest, the problems of too much iodine are responsible for health problems such as including thyroiditis (inflammation of the thyroid) and hyperthyroidism, which can produce, among other symptoms, increased heart rate and blood pressure, abnormal heart rhythms (arrhythmias), excessive sweating, hand tremors (shakiness), nervousness and anxiety, and difficulty sleeping (insomnia).



## Sodium or salt?

According to the Food Standards Agency a target daily intake of salt is:

- 0-12mths – less than 1g per day
- 1 to 3 years – 2g per day
- 4 to 6 years – 3g per day
- 7 to 10 years – 5g per day
- 11 and over – 6g per day

The recommended upper level of 6g of salt daily is equivalent to approximately 1 teaspoon; most adults consume around 8-10g of salt (appx 2 teaspoons) daily without ever realising it. As much as 75 per cent of a person's dietary intake of salt comes from processed food such as bread, breakfast cereals and pastry products, and manufacturers have been slow to reduce salt in their products or to make their labelling clear.

For instance, most food labels do not show how much salt is in a product – and most of us don't know how to make sense of the information that is there. When information is provided, it is often listed as 'sodium', which must be multiplied by 2.5 to give the amount of actual salt, although some manufacturers now list the 'salt equivalent' and relate this to guideline daily intakes for adults.

As with everything you put in your body, it is worth being both inquisitive and demanding when it comes to salt choices.

Better choices include mined or rock salt and sea salt – as long as they are unrefined. The labels on salt packaging aren't always clear in this regard. If you look at the ingredients and the only thing on it is sodium chloride, however, then you know that your so-called 'healthy' natural salt is just as refined as regular salt.

Unrefined salt is generally not the pure white colour that most of us are used to; it tends to be off-white, or pink – like the rose-coloured crystals of Himalayan rock salt, for instance – or grey as in Atlantic or Celtic salt (some sea salts also take on unique tints from

the clay pans in which they crystallise). The colours hint at the minerals within. In fact, genuinely unrefined rock salt can contain more than 90 different trace elements.

Unrefined salt without an added anti-caking agent also tends to clump over time as it absorbs moisture from the air – so it can't be put in dainty salt-shaker. It's chemical make-up is far more balanced than that of industrial salt, though, and some nutritionists believe it is as healing for our bodies as table salt is damaging, though there is a frustrating paucity of research to back this up.

## Taken with a pinch

In choosing unrefined salts you may also be supporting smaller businesses and social enterprises, which makes the choice not only healthy but also ethical, especially if you choose locally sourced salts over those that are produced far away. In the UK there are three sources of locally produced salt: Maldon Salt is made from sea water drawn from the river Blackwater in Essex, Cornish Sea Salt is harvested from water drawn straight out of the ocean off the Cornish coast, and the Welsh Halen Môn is made from water drawn from the Menai Straits. Unrefined Celtic sea salt, harvested off the shores of Brittany, is also available in the UK. All claim to retain high levels of trace elements.

The advice for anyone in a salt dilemma is simply this: 'bad' salt is bad for you – and too much of any one thing in the diet can cause serious nutritional and chemical imbalances. So when choosing, opt for an unrefined salt, and use it only occasionally as a seasoning.

If you want to cut down on your salt intake, stop eating preprepared meals and snacks. These are by far and away the greatest source of hidden salt in our diets. Be aware also of what you are eating from day to day. A range of foods, such as smoked meat and fish, are naturally salty, so you don't need to add more. When you cook gradually lower the amount of salt each time you cook, so your palette eventually gets used to less. Eventually you will have weaned yourself off the taste for highly salty foods. You can also pep up a meal's flavour by using herbs and spices (garlic, ginger, lemon grass and so on) creatively. Staple foods like rice and pasta don't need extra salt, especially if you're going to eat your meal with a meat or cheese sauce that will already contain some salt naturally.

**Pat Thomas is the Editor of the *Ecologist* and is the author of several books focussing on health and the environment**

## Resources

- Halen Môn  
[www.seasalt.co.uk](http://www.seasalt.co.uk)
- Maldon Salt  
[www.maldonsalt.co.uk](http://www.maldonsalt.co.uk)
- Cornish Sea Salt  
[www.cornishseasalt.co.uk](http://www.cornishseasalt.co.uk)
- Celtic Sea Salt  
(via The Natural Salt Seller)  
[www.nelsonhealthcare.co.uk](http://www.nelsonhealthcare.co.uk)

**W**hether eating our plants, biting our children or just buzzing around our living rooms, insects can be less than welcome visitors. However, as they are the pollinators, silk producers and recyclers of the Earth, we need insects for our very survival. This is why we should turn to nature's biological controls to repel them, rather than target one sort and risk killing them all, even the most beneficial.

### Mothballs au naturelle

Last year we received an unexpected present with some of our whole foods: a clutch of moth eggs. Once hatched the larvae made short work of our food as they systematically munched through much of our dry goods. Not content with destroying our food they quickly moved on to the bedrooms and tried to make a home in our clothes. Something had to be done before my wardrobe had more holes than the banking system.

In the kitchen we started with a two-pronged attack. First, we made sure that

everything was stored in glass jars with airtight lids. Like all living things, moths need food – no food, no moths. I also cleaned the cupboards with lavender oil, which helps repel them. In order to aid its own survival, lavender (along with some other plants such as eucalyptus and lemon grass) has evolved to emit smells and substances that moths hate.

Next, to protect the bedrooms, I made my own mothballs. For these I cut up an old, moth-eaten (I kid you not) shirt into two 10cm x 10cm squares, sowed them together and filled them with a couple of bay leaves, dried basil leaves, some spearmint, thyme, tansy, rosemary and wormwood. All of these herbs are used to repel moths for the same reason as lavender. This really works, but it can lose some of its potency in time and is therefore best replaced every six months or so.

For added protection you can make a hot infusion from some or all of the above herbs. Simply stuff into a teapot, pour on boiling water, allow to cool, strain, decant into a spray gun and spray as required.

### A quality repell-ant

I stayed on a Spanish island for a while one summer and noticed, when cooking, that if you left any food around you were soon infested with ants. It is a point worth reiterating that, as with all living things: no food, no pests. They can be pretty stubborn, though, and to deter them further there are other methods. Many ants are not too enamoured of some herbs, including sage, peppermint, tansy, catnip and pennyroyal. Either grow these plants by your kitchen door or make an infusion spray as above.

Equally, bicarbonate of soda, coffee grinds, chilli powder or flour are all reported to work. I have had good results on the allotment sowing seed mixed with chilli powder to stop the ants nicking the seed.

Although I tend to work around the ants on my allotment, occasionally I will dig up a nest if it is close to what I need to plant. It can be quite interesting watching them pick up their belongings and move house to somewhere else on your plot.



Insects can be a double-edged sword when it comes to gardening. **Andy Hamilton** reveals the secrets of harmless, low-impact repulsion

# How to... repel insects and pests naturally

## The mosquito's toast

As our country gets wetter and warmer we can expect to see numbers increasing.

With more than a million deaths annually attributed to mosquitoes, they can be more than just an irritation when you're abroad.

Untidy gardening can attract mosquitoes; if I'm not careful my back yard can soon become as full of them as the Everglades are. Less than 30ml of water in an open container is enough for as many as 300 eggs. Prevention is better than cure, so ensure you don't leave out buckets, old plant pots or anything else in which water can collect.

If on holiday you're being troubled by the little blighters then you can repel them with feverfew. Take a few leaves with you and when needed leave them to infuse in hot water, allow to cool then apply to the exposed areas of skin. Crushed garlic blended in water can also be applied but it will pong a little more. One of the most pleasant (and thought to be the most effective) plant-based compounds used for repelling mosquitoes is citronellal, which can be found in lemon balm. To administer, crush a few leaves and rub on to your skin.

You may also notice that you don't get bitten as much as your friends (or vice versa). This could be down to nutrition or immunity. If you don't get bitten that frequently it may be due to your diet – if you're bitten a lot then try to improve your diet. High levels of zinc and vitamin B complex can help keep insects away. When I awoke on holiday, bitten to shreds, I used to put it down to sugar in my system, but many of the vitamin B complex vitamins can be dramatically reduced when drinking alcohol, so it was this that was likely attracting them. Therefore, it should be a consideration to supplement your diet if you intend on having a boozy holiday.

## Bye-bye, greenfly

Bob Flowerdew once said on *Gardeners' Question Time* that jam is a great deterrent for



**Main picture:** Sow seed with chilli powder to keep ants at bay

**Above:** Mosquitoes are attracted to standing water in gardens

**Left:** Rosemary is a tasty addition to food – unless you're a moth

**Below and bottom:** a fruit fly and greenfly – show no mercy



greenfly. As obscure as it might sound, a dollop of jam next to your prize beans will stop the ants harvesting the greenfly for their honeydew excreta. Because ants farm greenfly for their sweet-tasting excreta, when they taste the jam, so the rationale goes, they say to themselves, 'that tastes great – better make sure the greenfly don't eat it'. They then start killing the greenfly to stop it happening, which is nothing short of genius.

## Compost and fruit flies

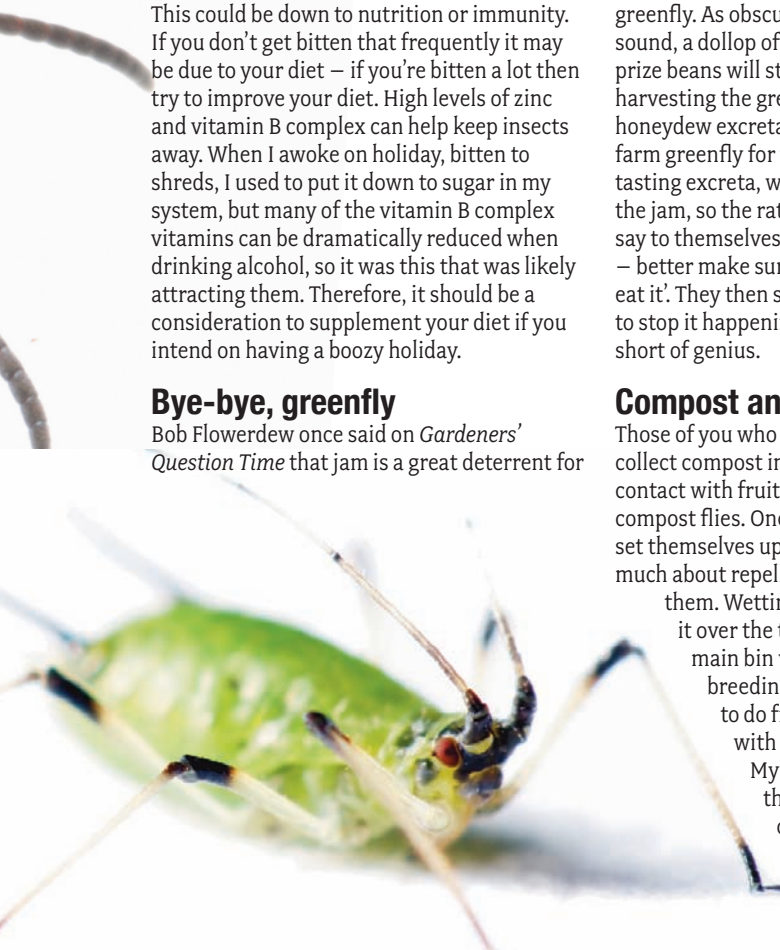
Those of you who have little choice but to collect compost indoors might come into contact with fruit flies and the smaller compost flies. Once these little pests have set themselves up in your house it is not so much about repelling them as eliminating them. Wetting newspaper and putting it over the top of your compost in the main bin will help to stop them from breeding, but this is not something to do frequently as it will interfere with the composting process.

My favourite way of tackling them indoors is with a carnivorous plant, which, as the name suggests, eats the flies.



If you do decide to get yourself a carnivorous plant then it needn't be the freakish-looking *Dionaea muscipula*, also known as the Venus fly-trap. It could be something far more beautiful such as *Nepenthes distillatoria*, known as a pitcher plant. These plants can be bought from many specialist florists. They work wonders in keeping the fly population down but can be a little disturbing when you hear a lone fly slowly decomposing while buzzing its final buzz. Not for the fainthearted!

**Andy Hamilton is co-author of *The Selfsufficient-ish Bible: An eco-living guide for the 21st century* (Hodder & Stoughton, £30)**



**Eifion and Jessie taking a break on the Thames near Marlow**



# GOING WITH THE FLOW

**Financial slowdown? What about a holiday to match? Eifion Rees ditches the nine-to-five in favour of a stress-busting canoe trip down the river Thames**

**T**ime seems to slow, canoeing on the Thames. Slipping on our buoyancy aids and pushing off from the bank at Henley was like signing a contract with the river, an agreement to go with the flow. With 12 lazy miles and a night's camping to go until the town of Bray, our destination, the only sounds that Saturday morning were the plash of paddles, the dripping timpani of soft rain and a ripple of applause from a regatta dying away in the distance. Gliding along, the stress of the working week disappeared like the raindrops in the water. The river curled around to the left and suddenly there was nobody on it but us. It felt like breaking free.

## Living the slow life

From the Tweed to the Tamar, industrial Britain was built on its network of waterways

and canals, though the demands of heavy industry have these days given way to the business of leisure. You can put paddle to water in any number of scenic spots the length and breadth of Britain, and England's longest, most famous river is no exception. Eager to try out what has been described as a low-impact, high-satisfaction holiday, my girlfriend Jessie and I decided to put the Thames to the test. Armed with a canoe, tent, simple instructions from the canoe rental company (aim downstream, avoid weeping willows, don't drink the water) and a willingness to give in to the languid spirit of the venture, we set off.

As weekend breaks go, it isn't too pricey: we hired our cherry-red canoe from Thames Canoes for £65 per day; camping for the night set us back £10. We started from Henley at

8am on Saturday and were to be collected at Bray at 4pm on Sunday, but the company will drop off the canoe wherever suits – from Cricklade in Wiltshire through Oxford and Reading to Teddington, near Richmond – and pick it up at the end, shuttling you back to the local train station.

The canoe business is clearly booming: Thames Canoes is having to double the size of its fleet to keep up with demand. Indeed, as green awareness rises and financial markets fall, an increasing number of holidaymakers are turning their backs on foreign climes. Figures released by VisitBritain suggest that a fifth of the 25 million who went abroad in 2008 will opt for a homegrown holiday this year.

'It's tranquil, environmentally friendly and significantly cheaper than going abroad,' says Hila Coggans, operations director of Thames Canoes. 'It's about seeing the Thames and the landscape from a different perspective. People really buy into that new experience, whether they're here to look at the amazing riverside houses or the abundance of wildlife. It's slow living at its best.'

## Locks and load

The Oxfordshire countryside outside Henley is so beautiful it almost managed to distract us

from the fact it was raining. The reeds and grass verges dripped with moisture, trees were shrouded in mist. A pair of swans passed by like white barques, sedate, professional paddlers. We had floundered in their wake before getting the knack: paddling on opposite sides, steering from the rear.

By the time we reached the first lock on our journey, Hambledon, one of 45 that dot the non-tidal Thames, we were drenched. The heavens had opened like the vast iron sluice gates before us. We hunkered down into our waterproofs, dropping with the water level, waiting for the lock to empty. The lockkeeper took pity on us. 'There's a pub in half a mile,' he said through the rain, pointing downstream. 'Good place to dry off.' Jessie discovered an extra 20mph worth of effort.

At the Flower Pot pub in the village of Aston the locals are stuffed and mounted on the walls: a selection of prize freshwater fish. Anglers flock to this part of the world for bream, carp, perch, roach, tench and the other 20 species of coarse fish that frequent these waters. Our clothes steamed gently as we ate

our guilty cod and chips. Riverside pubs are as numerous as locks, and it's the ideal way to break up the day, especially when it's raining.

After lunch and back on the river it was a different world, the sun out in a blue sky, dragonflies sparkling over the reflections of white clouds. A kingfisher darted obliquely from one bank to the next in front of our canoe. Great crested grebes with their chicks on their backs passed nonchalantly by; mallards and moorhens, bustling coots and stilt-legged herons. This really is the only way to see the river in all its rich diversity, natural and social: paddling under bridges, trailing hands in the water, gazing enviously into cosy houseboats, waving to walkers, swapping pleasantries with the straw-boater brigade phutting downriver for luncheon.

We glided through the parish of Medmenham, its 12th-century Cistercian abbey later home to Francis Dashwood and the Hellfire Club; through Hurley lock and Temple lock; beneath a magnificent iron suspension bridge into historic Marlow, on our way to the Longridge campsite – our accommodation for the night – on the other side of town. Pulling the canoe out of the water, we set up the tent, hung our socks out to dry in the sun and, with slight river legs, set off to sample the delights of the town.

## Canoeing around Britain

### ■ 'MANPOWER NOT AIR-MILES'

**Tipi Adventure**  
01594 861666  
[www.tipiadventure.co.uk](http://www.tipiadventure.co.uk)

A Canadian canoe expedition with overnight accommodation in large, luxury tipi lodges located in remote and exclusive riverside settings along the river Wye.

### ■ 'LEAVE ONLY RIPPLES...'

**Canoe Adventures**  
01803 865301  
[www.canoeadventures.co.uk](http://www.canoeadventures.co.uk)

Eco-friendly paddling aboard guided 12-seater canoes on South Devon's rivers Dart and Yealm. Green Tourism Business Scheme gold-medal-winner.

### ■ 'INSPIRING ADVENTURES'

**Wilderness Scotland, 0131 625 6635**  
[www.wildernessscotland.com](http://www.wildernessscotland.com)

A classic canoe trip down the river Spey, through pine forests and Scotland's most famous whisky country, with plenty of riverbank camping available.

## One wedding and a funeral

The good weather thankfully continued the next day. We unzipped the tent to birdsong and sunlight glinting off the river. After a leisurely breakfast we pushed off to continue

our journey downstream. Paddling along at nature's level seemed by now less like exercise than therapy.

Our final morning on the river was spent marvelling at the mini-castles and mock-Tudor mansions that line the Thames beyond Marlow. The overblown epitome of olde worlde England, all that was missing from the vast lawns sloping down to the water were cucumber sandwiches and croquet. Boats of all shapes and sizes flushed through a succession of sturdy locks – Cookham, Boulter's – manned by a succession of sturdy lockkeepers. Old stone churches with mossy graveyards appeared on either side. A newly married couple in morning suit and white meringue sipped champagne on a speedboat; further along a group of people huddled together on the bank, scattering ashes from an urn.

There is a whole world to see, canoeing the Thames, and the finishing line at Bray seemed at once too close and days away. But then it's not the arriving that matters when you're on the river – it's the journey.

**For more information call 01628 478787 or see [www.thamescanoes.co.uk](http://www.thamescanoes.co.uk)**

**Eifion Rees is a freelance journalist**

**cream o' GALLOWAY**  
SIMPLY NATURAL

CAPPUCCINO  
*organic*  
ICE CREAM

cream o' GALLOWAY  
SIMPLY NATURAL 500ml

**MADE FAIR™**  
ethically made for a  
fairer world

[www.creamogalloway.co.uk](http://www.creamogalloway.co.uk)  
01557 814040

Powering your Internet connection releases Co2 which is linked to global warming. When you use green ISP, we plant a tree for you to help offset this.

broadband from £16.99

- + a tree planted on my behalf
- + solar powered offices
- = peace of mind for the future

up to 24Mb broadband (1\*)

Business broadband, dial-up and hosting available.  
Switch or sign up today at [www.greenisp.net](http://www.greenisp.net) \*

For Web Hosting and Domain Names visit:  
[www.greenwebhost.net](http://www.greenwebhost.net)

(1\*) Dependant on distance from an ADSL2+ enabled telephone exchange and line quality

[www.greenisp.net](http://www.greenisp.net)  
0845 058 0659  
info@greenisp.net

**green ISP**  
environmentally guided internet

\* see [www.greenisp.net](http://www.greenisp.net) for terms  
green ISP is a not for profit company limited by guarantee. No. 04817314

# VEGETARIAN<sup>®</sup> SHOES

## ANIMAL FRIENDLY FOOTWEAR



Over 100 mens & womens styles

Made in England and Europe with quality 'breathable' non-leather materials.

Free mail-order brochure available:

12 Gardner Street,  
Brighton BN1 1UP  
Tel: 01273 691913

info@vegshoes.com

Est. 1990

CASUAL FORMAL SPORT LEISURE WORK HIKING DRESS FASHION SANDALS BELTS ACCESSORIES

ORDER DIRECT AT: [www.vegshoes.com](http://www.vegshoes.com)

## Wild Rose Escapes

Revitalising Highland Holidays



Special offer  
£100 off per person

### Naturally Wild Week

May 23rd-30th

Remote Highland Lodge  
Walking, bird watching, wild cookery,  
optional kayaking

### West Coast

### Relaxation Week

June 27th - July 4th

Revitalise and Relax  
Walking, yoga, massage,  
wild cookery & creative workshops  
*Log fires, home cooking and stunning scenery*



If you are interested in escaping visit

[www.wildrose-escapes.co.uk](http://www.wildrose-escapes.co.uk)

contact: info@wildrose-escapes.co.uk  
or phone 07765 173 029

scottish  
community  
foundation

## READER OFFER... 10% off

### cornishtipiholidays

...break with tradition

Down here in Cornwall the bluebells are dancing in our woods and we're all feeling positive about the year ahead – the sun's due to shine all summer long, and more of us than ever before are set to rediscover the simple pleasures of a UK based holiday.

So, no airports, no Euros, just get in the car with your beach kit and a couple of favourite books and motor down to our hidden valley in the heavenly South West.

Time with us is about old fashioned camping in a beautiful place twinned with an impulse that is very much now – to be more environmentally friendly than just about any other holiday could be.

**So the deal is that as an Ecologist reader you're being offered a fabulous 10% off any short break or week's holiday this Summer or Autumn as long as it's booked and paid for by 31 May.**

Don't forget that the sooner you book, the sooner you make sure that you get the tipi of your choice close to the rushing seas of our wild Atlantic Coast.

Pay a visit to our seriously informative website [www.comishtipiholidays.co.uk](http://www.comishtipiholidays.co.uk) and check out our pictures, or give us a call on 01208 880781 for a copy of our brochure. Just think of those Cornish days ahead...



**How to order:** phone 01208 880781

email [info@cornishtipiholidays.co.uk](mailto:info@cornishtipiholidays.co.uk) or write to...

Cornish Tipi Holidays, Tregear, Pendoggett, St Kew,  
Cornwall PL30 3LW.

Please quote offer code '0509EC'

**Offer ends:** 31<sup>st</sup> May 2009

(remember you can only use this offer by itself, not with any other)

# GREEN SHOPPING GUIDE

**Reader Offers... Home & Garden... Home & Business Services...  
Health & Beauty... Food & Drink... Clothing & Accessories...  
Courses & Events... Holidays... Ethical Finance... Ecotips...**

**Advertising policy** Every advertiser featured in the *Ecologist* has been vetted to ensure its products or services don't damage the environment, the people it employs or the consumer

## READER OFFER

# LUMA

## 20% OFF\*

LUMA offers an unrivalled selection of luxurious organic cotton bed linen, blankets and towels, as well as a growing collection of natural and fairtrade products for the home and body.

Everything is chosen with great care for people and planet. LUMA works directly with fairtrade craft groups to develop its range of hand-embroidered, woven and vintage bedspreads and blankets. Products include hand embroidery from a group originally established by Mother Teresa for destitute ladies; vintage fabric throws and cushions (through LUMA's London shop) that help to support a children's home in Calcutta,

and hand weaving produced by remote communities relying on their traditional skills. You can also find fair trade hand-carved wood letters and decorations, reclaimed teak furniture, natural cleaning products and a host of other stylish ethical buys.

LUMA's own-label organic cotton bedding is offered in seven simple, timeless styles. There is also a charming children's organic bedding collection with detailing that reflects natural themes.



**HOW TO ORDER** Go to [www.lumadirect.com](http://www.lumadirect.com) and type in 'Ecologist' at the online checkout. You can also telephone 020 8748 2264 or visit their shop in Barnes, London SW13 and mention this offer.

**Offer ends: 31/05/09.**

**\*Excludes sale goods and mattresses.**

# Home & Business Services

Looking to green your company by changing suppliers or to use more ethical services in everyday life? From alternative office supplies, and ethical finance to transportation to meetings, this range of companies will help provide you with solutions and show you how...






## veggieprinting?

We haven't yet worked out a way of making paper out of broccoli, but over 65% of the paper we purchase annually is recycled and all of our inks are vegetable oil based.

Severnprint is a leader in environmentally conscious printing and one of the first print companies in the UK to achieve both ISO 14001 and FSC Chain of Custody certification.

**01452 416391**  
www.severnprint.co.uk 



## BELIZE

**510' seafront overlooking Cayes.  
Environmental Covenants.**

<http://www.seafrontsevenhillsbelize.com/>

**\$274,500 USD**

**Less than 4 miles from P.G. Town via  
boat only in Shallow waters.**

## FARMAROUND ORGANIC

Supplies the fruit and vegetables for the staff at the *Ecologist's* office. If you want to enjoy this high-quality produce too, visit the website [www.farmaround.co.uk](http://www.farmaround.co.uk) or call 020 7627 8066 Deliveries nationwide.




  
**08000 ecoigo**  
central London's environmentally conscious executive car service

for every journey you take we will offset double any emissions

**08000 326446**  
www.ecoigo.com info@ecoigo.com

# Health & Beauty

The best way to ensure healthy skin is to maintain a healthy diet, get enough sleep and keep stress levels low. If you do buy products for your face or body, try to make sure they are based on natural ingredients. These companies carry products that have not been tested on animals; they contain no parabens, petrochemicals or synthetic ingredients



**AKAMUTI®**

**Treat your skin to 100% Natural, Organic & Ethical Skincare**

**"Highly Commended for Best Ethical Skincare Range by Lifestyle Magazine"**

[www.akamuti.co.uk](http://www.akamuti.co.uk)  
mail order tel: 0845 4589242

# Home & Garden

From garden tools to bed linen, cleaning products and furniture – simply by changing our household buying habits we can reduce our carbon footprint and the chemical cocktail that makes its way into our homes. So visit the online producers below for ideas on how to green your home

**Solartwin.com**  
Zero carbon solar water heating for washing and bathing

Special discount!  
Quote code  
**ECOLOGIST09**

- ✓ Simple installation
- ✓ 5 year performance warranty
- ✓ No antifreeze chemicals
- ✓ 100% solar electric pump

Call today for your eco-survey discount  
Instant phone quotes  
Request a brochure (24hr)

**0845 1300 137**  
www.solartwin.com  
hi@solartwin.com

DIY kits available  
or  
Fully installed in one day

## eco+ windows



### Make a positive choice

Save energy, enhance your home and reflect your environmental concerns with our award-winning Ecoplus windows, doors and solar spaces.

Hand-crafted in our Yorkshire workshops, Ecoplus combines ultra efficient glazing, responsibly sourced timber, natural paints and boron treatment to offer a naturally beautiful choice for your home.

Log onto our website to see our full range of products – everything from insulation to water-saving WCs.



Innovations for sustainable building

green building store



www.greenbuildingstore.co.uk  
Tel 01484 461705

One place, many ideas

**SOLIDARITY & COOPERATION**

**Working towards social justice:**  
promoting and supporting creative cooperatives and community enterprises ....since 1979.

**onevillage.com**

Shop with us online

01608 818111


# Clothing

The virtual boutiques and retailers featured on these pages stock a range of well-made, stylish and ethical clothes. Precise sizing charts make it easy to find the right size for you – and if something doesn't fit, or you don't like it, simply return it. Being fashionable and being ethical are no longer at odds...

**100% Handfelted Wool Slippers**  
Chemical-free fleeces  
Eco-friendly dyes

The Wet Felting Company  
Claire Packer  
01822 841636  
www.wetfeltingcompany.co.uk

Over 30 colours to choose from ...



**ETHLETIC**  
THE ETHICAL ALTERNATIVE

We are very proud of the story behind our ETHLETIC sneakers, they are the most ethical shoes available:

- Made with Organic Cotton.
- The rubber for the soles is certified by the Forestry Stewardship Council – it has been sourced from responsibly managed forests. The **FSC stamp** is on the sole of every shoe.
- The rubber is also fairly traded, a premium is paid on each kilo of rubber purchased which pays for **welfare schemes** that benefit the rubber tappers.
- The shoes are assembled in Pakistan. A Fair Trade premium is paid for every pair made while workers receive double the minimum wage.
- The Fair Trade premium pays for health and welfare facilities for all workers.

WWW.FAIRDEALTRADING.COM

**AQUILA**  
Children's magazine

A brighter future with the caring, alternative magazine for 8-13 year olds

Inspiration • variety • challenge

**01323 431313**  
[www.aquila.co.uk](http://www.aquila.co.uk)

SERIOUS FUN every month

Organic & Natural Products  
For Baby, For Home & You

**LITTLE GREEN EARTHLETS**

Tel 0845 0724462 [www.earthlets.co.uk](http://www.earthlets.co.uk)

# Parenting

The amount of baby gear we buy – such as nappies, wipes, bottles, car seats, pushchairs, clothes, shoes, toys and other nursery items – is staggering. Given the ongoing costs of raising a child, we as consumers would do well to read and understand the labels and buy fewer but better products

**CHROME FREE!**

**LITTLE SHOES FOR YOUR LITTLE ECO-WARRIOR!**

All handmade in Northamptonshire

Call: 01604 880066

Email: sales@[daisy-roots.com](mailto:sales@daisy-roots.com)

Web: [www.daisy-roots.com](http://www.daisy-roots.com)

*Daisy Roots*

**ETERNAL CREATION**  
Ethical Fashion from the Himalayas

[www.eternalcreation.com](http://www.eternalcreation.com)

**10% OFF:** enter voucher code **GP10**

# HOW CAN YOUR SAVINGS AND INVESTMENTS BE PART OF THE SOLUTION AFTER THE CRISIS?

BUILDING TOMORROW'S RESOURCE-EFFICIENT, socially sustainable economy needs significant investment. However, trust in yesterday's financial services may be seriously damaged. Now is the time to demonstrate demand for green and ethical savings and investments so they are central to the new financial services that emerge.

You can do this by practicing the *Four Rs* of ethical finance: Take *responsibility*, consider both *risk* and financial *return*, and make money from the *real* economy.

Ethical banks and building societies have been one of the success stories of recent months, with as much as 20 per cent more money saved with them in 2008. Generally, they aim to offer decent and reliable returns to attract long-term savers rather than short-term bonus offers that encourage you to keep switching accounts. Importantly, they provide plenty of information about how your money is used. Visit their websites to understand them better.

**Triodos Bank** ([www.triodos.co.uk](http://www.triodos.co.uk)) lends to projects that deliver positive social and environmental value as well as making financial sense. It is covered by the Dutch deposit guarantee scheme – which protects €100,000 of deposits compared with the current UK limit of £50,000.

**The Co-operative Bank** ([www.goodwithmoney.co.uk](http://www.goodwithmoney.co.uk)) has

a customer-led ethical policy and a raft of awards for its social responsibility and sustainability reports. The planned merger of Britannia Building Society with the Co-operative Financial Services will increase its high street presence.

**Ecology Building Society** ([www.ecology.co.uk](http://www.ecology.co.uk)) uses your savings to help fund mortgages for a sustainable future by lending to environmentally responsible buildings and projects.

If you have a conventional pension fund, take responsibility for the impact of its investments by joining with others using the **FairPensions** website ([www.fairpensions.org.uk](http://www.fairpensions.org.uk)) to encourage it to make positive use of its shareholder power.

There are also an increasing number of investment choices beyond the stock market. A new website, Ethical Investments, run by former financial adviser David Vincent shows some of these ([www.ethicalinvestments.co.uk](http://www.ethicalinvestments.co.uk)). Forestry, farming, energy, housing and microfinance are covered. The site provides information but doesn't recommend particular investments or offer financial advice.

Not all of these choices will be suitable for everyone, of course, so do look carefully at the details before taking decisions. And if you are investing a significant sum, always consult an appropriate independent financial adviser.

➤ See **Comments** (page 84) for lively economic debates

**UKSIF**

the sustainable investment and finance association



For more information visit our website at [www.uksif.org](http://www.uksif.org)

## Rathbone Greenbank Investments

### You have values - do your investments?

Our investment team has been managing ethical and responsible portfolios since 1992.

### Ethical investment for private clients, trusts and charities

To ensure your investments reflect your values, please contact:

Tel: 0117 930 3000  
[www.rathbonegreenbank.com](http://www.rathbonegreenbank.com)  
[greenbank@rathbones.com](mailto:greenbank@rathbones.com)

Rathbone Greenbank Investments is a trading name of Rathbone Investment Management Limited, which is authorised and regulated by the Financial Services Authority. Reg. office: Port of Liverpool Building, Pier Head, Liverpool L3 1NW. Registered in England No. 1448919



**RATHBONES**  
 Established 1742

## Investing ethically – the smart thing to do

Independent Financial Advice and ethical investment specialists since 1993. We provide advice to individuals, organisations and charities.



- ISAs
- Pensions
- Protection
- Inheritance tax planning
- Mortgages
- Ethical stockbroking
- Discretionary portfolios

**GÆIA**  
**GÆIV**

For more information visit [www.gaia.co.uk](http://www.gaia.co.uk) or telephone **0161 434 4681**

The Gaia Partnership Ltd, 829 Wilmslow Road, Manchester M20 5WD

Authorised and Regulated by the Financial Services Authority. The value of your investment can fall as well as rise; past performance is not a guide to future returns. Your home may be repossessed if you do not keep up repayments on your mortgage. There may be a fee for mortgage advice.

## RECYCLE - Turn your exhaust fumes into trees!

Insure your car with The Green Insurance Company and not only could you save money but we will **offset 100%** of your car's emissions through our tree planting projects in the UK at no extra cost to you.

Plus we will further donate **5%** of our profits back into environmental projects. So you win, we win and most of all the environment wins.

Extra discounts for low mileage and greener cars. Drive a hybrid? We can guarantee to beat your price\* by 10%



FREE SHOPPING BAG FOR LIFE!



Get a quote today and receive your free shopping bag for life<sup>^</sup>

0845 272 7314

[www.greeninsurancecompany.co.uk/ecologist](http://www.greeninsurancecompany.co.uk/ecologist)

The Green Insurance Company is an insurance intermediary, authorised and regulated by the Financial Services Authority. Registered Office, 1 Masterton Way, Tanochside Business Park, Uddingston, G71 5PU. Registered in Scotland. Company number SC314868. VAT number 380094850. For your protection and ours, calls may be recorded. \* - Terms and conditions apply. ^ - Shopping bag for life is subject to availability and TGIC reserve the right to remove this offer without prior notice. Please allow up to 28 days for delivery. If you do not require one, please let our insurance consultant know.



## Any property can be made more energy efficient...



...you find a property to improve and we'll help you with the finance

[www.ecology.co.uk](http://www.ecology.co.uk) 0845 674 5566

7 Belton Road, Silsden, Keighley, West Yorkshire BD20 0EE



**YOUR HOME MAY BE REPOSSESSED IF YOU DO NOT KEEP UP REPAYMENTS ON YOUR MORTGAGE**  
An early repayment charge is payable if you repay all or part of this mortgage within the first four years

# F&C:

## Almost 40% of all UK ethical investments are made with us.



### F&C Stewardship Range

**F&C:** £3.5 billion out of the total of £8.9 billion UK retail ethically screened fund market is invested in our ethical funds\*.

**F&C:** We have the UK's largest ethical investment team.

**To find out more speak to your Financial Adviser or contact F&C on 0800 085 2752 or visit [www.fandc.com](http://www.fandc.com)**

As a result of market fluctuations, investments and the income from them can fall as well as rise and investors may not get back the amount originally invested.



### Expect excellence



# BARCHESTER GREEN INVESTMENT

Oh, apparently there are green shoots...  
and I know there's been a G20 meeting (whatever that means)...  
But I'm still a bit worried about the financial market because the  
media keeps telling me that we're in ongoing trouble...  
and yes, I want to look after my long-term finances  
but I don't want to damage the environment.

## So what should I do???



Wouldn't it be great if there was somebody in UK who knew all about green money & ethical and socially responsible investment and could help me make money without damaging the environment and who you could talk to without worrying about who they were and whether they knew what they were doing?

### WELL, GUESS WHAT? WE'RE STILL HERE...

Consultants are available across the UK  
– for further information, please call  
Jackie Adams at our Administration Centre

## 01722-331241

### BARCHESTER GREEN INVESTMENT

SERIOUS ABOUT MONEY, SERIOUS ABOUT LIFE ON EARTH

45/49 Catherine Street, Salisbury, Wiltshire SP1 2DH

e-mail: [info@barchestergreen.co.uk](mailto:info@barchestergreen.co.uk)

[www.barchestergreen.co.uk](http://www.barchestergreen.co.uk)

[www.makingfriendswithmoney.co.uk](http://www.makingfriendswithmoney.co.uk)

Independent Financial Advisers

## ETHICAL INVESTORS

ETHICAL FINANCIAL MANAGEMENT

# Is this the future you're investing for?

Time to make the right financial decisions.

## [www.ethicalinvestors.co.uk](http://www.ethicalinvestors.co.uk)

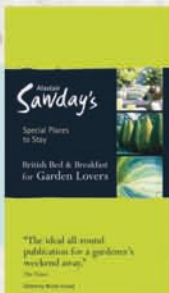
Ethical Investors is regulated by the Financial Services Authority



## Triodos Online Cash ISA The pick of the bunch

The Triodos Online Cash ISA is a secure way to save money with the UK's most actively ethical bank. We only lend to real organisations that are doing good – like green energy company Ecotricity and local, seasonal food campaigners River Cottage. We also publish a full list of all the customers we lend to – so you'll always know exactly how we're making your savings grow. It's a sustainable approach to banking, giving you a completely transparent, secure cash ISA that's easy to open with as little as £10. Open yours today at [www.triodos.co.uk/bunch](http://www.triodos.co.uk/bunch) or for more information call us free on **0500 008 720**

Open the UK's best ethical ISA\* before 31 May with £300 or more to receive a FREE Alastair Sawday's Guide.†



\* The Triodos Cash ISA is rated the best ethical ISA by [www.ethicalconsumer.org/FreeBuyersGuides/money/CashISAs.aspx](http://www.ethicalconsumer.org/FreeBuyersGuides/money/CashISAs.aspx)  
† Book offer conditions apply. See [www.triodos.co.uk/bunch](http://www.triodos.co.uk/bunch) for details.

Triodos Bank NV is incorporated under the laws of The Netherlands with limited liability, registered in England and Wales BR3012. Registered office Brunel House, 11 The Promenade, Bristol BS8 3NN.

**Triodos**  **Bank**  
Know where your money goes

# Books & Courses

Whether it's professional training you're after or a book that can teach you how, ideas that can change the world or practical skills to help with sustainable living, this is the place to find out about courses, books and websites that will equip you with more information on how to help people and planet



**TO ADVERTISE ONLINE AT  
www.theecologist.org**

**CALL VICKY OR SIMON  
020 7422 8100**

**ECOLOGIST**



## BROCKWOOD PARK SCHOOL

Open Morning Saturday 2nd May 10am to 12.30pm

- International co-ed boarding school for 14 - 19 year olds
- Holistic education
- 7:1 students : staff ratio
- Wide range of academic subjects available
- Exceptional attention to pastoral care
- Vegetarian diet

*'A unique school'* - The Good Schools Guide 2008

To find out more visit [www.brockwood.org.uk](http://www.brockwood.org.uk) or contact Vicki Lewin, Brockwood Park School, Bramdean, Hampshire, SO24 0LQ, UK. Tel: 01962 771744, Fax : 01962 771875, Email: [enquiry@brockwood.org.uk](mailto:enquiry@brockwood.org.uk)



Founded in 1969 by J.Krishnamurti. Part of Krishnamurti Foundation Trust Registered Charity No. 312865

## Independent Thinking from Polity

polity

### THE POLITICS OF CLIMATE CHANGE

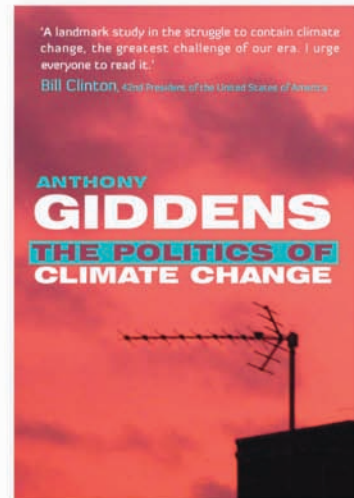
**ANTHONY GIDDENS**

*'A landmark study in the struggle to contain climate change, the greatest challenge of our era. I urge everyone to read it.'*

**Bill Clinton, 42nd President of the United States of America**

Political action and intervention, on local, national and international levels, is going to have a decisive effect on whether or not we can limit global warming, as well as how we adapt to that already occurring. At the moment, however, Anthony Giddens argues controversially, we do not have a systematic politics of climate change. Giddens introduces a range of new concepts and proposals to fill in the gap, and examines in depth the connections between climate change and energy security.

This book is likely to become a classic in the field. It will be of appeal to everyone concerned about how we can cope with what amounts to a crisis for our civilisation.



256 pages • 20th March 2009  
978-0-7456-4693-0 • pb • £12.99

To order, free phone John Wiley & Sons Ltd on 0800 243407 [www.politybooks.com](http://www.politybooks.com)

# The Lancaster Environment Centre

## Masters programmes in ecological and conservation sciences

- NERC studentships and bursaries
- Options for part-time study
- High quality teaching
- State-of-the-art facilities
- Excellent career prospects

Visit [www.lec.lancs.ac.uk/postgraduate](http://www.lec.lancs.ac.uk/postgraduate) or  
email [lec.pg@lancs.ac.uk](mailto:lec.pg@lancs.ac.uk) for details

LANCASTER  
UNIVERSITY



## Cherish the Earth

Thank you for a stimulating article on how we can encourage environmental change ('Abandon hope', March). The 'virtue ethics' approach taken by Michael Nelson and John Vucetich is really important and one I use myself in my own writing and speaking on environmental issues.

I was very struck by their statement that 'Christian hope has nothing to do with the welfare of life on Earth; it refers to "eternal life in heaven"'. It's true this has become the dominant stereotype of what Christians think about the future (think destroyed Earth and souls on clouds playing harps!), particularly among the religious right in the US, which of course is Professor Nelson and Mr Vucetich's context. However, you may be interested to know that there is a widespread movement within Christianity that now recognises that this sort of thinking reflects Greek Platonic thought and actually has nothing to do with Christianity. Jesus was a Jew, and the Jewish people did not believe that people could be divided into body and soul, with the soul going to heaven. Christian thinking that is rooted in Jewish belief rather than Platonism sees that this Earth is good and should be looked after and cherished until the time Jesus returns and transforms everything. This thinking leads to Christian hope that has everything to do with the welfare of life on Earth.

**Ruth Valerio, by email**

## Home educators = rich

I completely agree with Mike Fortune-Lee ('How to... home educate', March): home education appears to be a child-centred and flexible route forward, avoiding the 'robotic children' warnings that have recently been highlighted in various articles.

However, it appears to me that there is one crucial oversight. I am a lone parent of a seven-year-old boy. We are dependent on my income to pay the bills. I am interested in home educating, but all my explorations into the area have led me to the conclusion that home education is only an option if you are either part of a family where there are other people to share the role (and provide the resources) or if you can afford not to work. I come into neither category. I had naively thought that perhaps families with shared interests could share the roles, sharing time, responsibility and specialist knowledge. This appears not to be the case, so my son continues in

## LETTER OF THE MONTH

# Christians see the light

You recently published what I thought an important article on motivation – hope or virtue? ('Abandon hope', March). Its authors claimed: 'Christian hope has nothing to do with the welfare of life on Earth; it refers to "hope in eternal life in heaven"'. Although this may be a popular notion, it is a misconception. Christian hope has about it a physicality that rests not solely on the belief in bodily resurrection, but also on the expectation of a renewed creation.

From God's covenant not just with Noah, but with the whole Earth, to Paul's insistence that there will be a 'liberation' for creation, to the promise of 'a new (i.e. renewed) heaven and Earth', the Bible expresses the conviction that God has purposes yet for the whole of creation.

Does this matter? I believe it does. If there is no hope, no future, no God, no continuing humanity, no Earth as we know it, it is hard to imagine many

finding motivation in acting virtuously. As humans we need hope. Only in the context of hope does virtuous action make complete and logical sense. Christians, like others, have far from always got it right, but various Christian environmental groups and an increasing number of Christians are finding that Christian hope energises rather than detracts from concern for the environment.

**Bill Halling, Wakefield Diocesan Adviser in Environmental Issues**  
by email



mainstream school. I would be more than happy to be proved wrong on this, but so far it seems that home education is an option open only to those who are financially well-off.

**Anna Gillions, Shropshire**

## We are the world

You are right to say 'there is only one crisis; the crisis of transformation' (*Editorial*, April)

Humans have sought the comfort zone of tribes for social, nationalistic and religious reasons out of a perceived sense of security. Psychologically, of course, there is no security; the history of conflict in humanity and the dangers of conditioning prove this.

When we see that the problem is the 'me' and 'self' rather than the 'outside world', we can begin to understand that 'I am the world and the world is me' – and therefore we must take responsibility globally for our actions.

This is explored in the series of talks between J Krishnamurti and Dr David

Bohm entitled *The Transformation of Man*.

We must indeed stand alone when we see the truth of something.

**Michael Jones, Cheshire**

## Assembly point

Congratulations on your article on the Eco-Schools programme ('In a class of their own', March), however the article is incorrect in stating that the Government has refused to adopt Eco-Schools as the delivery mechanism for Wales. The majority of issues relating to education and the environment are devolved to the National Assembly for Wales, and for the past four years the Eco-Schools programme in Wales has received excellent support from the Welsh Assembly Government environmental department, along with two other organisations, the Countryside Council for Wales and Waste Awareness Wales. This has enabled Keep Wales Tidy, which runs the Eco-Schools programme in Wales, to employ a

**Send letters for publication to: Letters, the Ecologist, Unit D102, 116-118 Commercial Street, London E1 6NE.  
Email: letters@theecologist.org. The Ecologist reserves the right to edit letters as necessary.**

team of 10 officers to support a programme. As a result, more than 90 per cent of schools are registered on the programme and more than 500 Green Flags have been awarded.

The article also passed over the fact that the Eco-Schools programme is international. It was initially developed in Denmark and adopted by the Foundation for Environmental Education, and is currently being implemented in 43 countries, involving 27,000 schools, six million students and 400,000 teachers. The programme is delivered across most countries of Europe and in places as diverse as South Africa, Kenya, Tunisia, Kazakhstan and China.

As we face up to major environmental challenges, the Eco-Schools programme presents us with one of the best opportunities to make sure that future generations live in a more sustainable way than past generations.

**Tegryn Jones, Keep Wales Tidy**  
by email

## Harley recommended

I had my dad down at the weekend, who eagerly read your series of articles on transport ('Going nowhere?' March). As a mechanic by trade and lifelong motorcyclist, he was disappointed to find that there was not one mention of motorbikes in the debates. His point was that they are part of the problem and solution, and need to be discussed.

They still run on petrol and are part of an individualistic travelling mentality, but motorbikes take up a lot less space than cars. This means they don't cause traffic jams, and for popping round the city they are ideal (they're the fastest way to get around built-up areas, hence why they are used for emergency blood distribution). They need less parking space (though not all car-park pricings seem to notice this). Making a motorbike electric is a far simpler process, and of course it makes more sense for single-passenger journeys.

The motorcycling industry is by no means ignoring the issues itself. The famous Isle of Man TT race will this year host 'the world's first Clean-Emissions Grand Prix', which, organisers say, 'unlike traditional "green" racing [that] has taken low-speed endurance trials as the goal, will be all about speed'.

**Adele Bates, by email**

## Take the bus

I wholeheartedly agree with William Methven (*Letters*, April). I am rather disappointed the *Ecologist* did not apply its critical

## ECOLOGIST POLL

Go to [www.theecologist.org](http://www.theecologist.org)

**Q: Is it time to revise our belief that full employment is the hallmark of a successful society?**

**49%** believe that being a politician makes you a less effective campaigner for the environment

faculties to the electric car in the way it did to biofuels. I am not so sure, however, that Alan Drever's concerns about his carbon emissions as a bus passenger ('Coached in transport') are as serious as he thinks.

I have recently been able to switch from driving to work to going by bus. While I suspect the CO<sub>2</sub> emissions per passenger on the service I usually use are probably rather high, as it is often lightly loaded, the service would run irrespective of whether I used it or not, so my net emissions are at best minimal. Were I to drive, on the other hand, although my car was the most fuel-efficient petrol car on the market when I bought it, the difference in emissions between driving and not driving is 100 per cent of the CO<sub>2</sub> emitted on my trip.

So keep on using those buses and trains.

**John Boxall, Frome**

## The Co-op is just a bank

I always enjoy Tom Hodgkinson's writing and ordinarily agree with most of what he says, however I have to take point with his uncritical praise of the Co-operative Bank

(*How to be free*, March). While it makes much of its ethical stance, after looking at its policies and practices the *Ethical Consumer Magazine* gave the Co-op a rating of only 6.5 out of 15. There are 11 other banks or building societies providing current accounts with a higher rating, one with a score of 13.5.

In its actual interactions with customers I see no difference to any other bank. In fact, in my personal experience I would say it has been the worst of the three banks I have used. During our time with them we faced a period of financial hardship as we moved from being students to employment. We communicated our situation to the bank, but quickly amassed bank charges of £1,500. Not all of these were overdraft fees; some were for acts such as not writing the year on a cheque! Each time the Co-op fined us I would phone to explain it had just taken the £25 we were hoping to feed ourselves with that weekend, and each time its operators would be rude and arrogant, openly admitting this was a fine for being 'naughty' and bore no relation to any costs incurred by them. This seems far removed from Tom Hodgkinson's description of Co-op being 'staffed by more intelligent, more courteous and more humane people than the capitalist monsters'. The nearly 6,500 posts on the Consumer Action forum regarding the Co-operative Bank's handling of customers and bank charges suggest I am not alone in the way I was treated.

**Name supplied, by email**

## Sheila take a bow

I agree with Sheila's letter questioning man-made climate change and the *Ecologist's* overemphasis on CO<sub>2</sub> emissions ('Cancel my subscription', April). It is possible, I assure you, to be an environmentalist and to have doubts about the climate-change frenzy – especially since the mainstream media, the world governments and even the US have made it their top priority.

That just makes me even more suspicious. Please don't think all your readers have bought into this without question.

I would welcome some more questioning and challenging pieces on the subject.

**Oliver Muller**  
Sussex

[www.theecologist.org/ETV](http://www.theecologist.org/ETV)



**Now playing Fishy Business: the high cost of cheap farmed salmon**



# Island thinking

Overstretching ourselves has harmed the environment and the economy. We could learn a lot from island cultures about living within our means, says **Andrew Simms**

**Uncontrolled growth of financial debt is currently laying waste to large parts of the global economy. An explosion of ecological debt looks set to do the same, but worse, to a biosphere friendly to human civilisation.**

Where climate change, one of many examples of ecological debt, is concerned, NASA scientist James Hansen says we've already gone too far. The atmospheric bank of biocapacity is too far in the red and vulnerable to collapse. 'If humanity wishes to preserve a planet similar to that on which civilisation developed and to which life on Earth is adapted,' he wrote in the *Open Atmospheric Science Journal* in 2008, 'CO<sub>2</sub> will need to be reduced... If the present overshoot... is not brief, there is a possibility of seeding irreversible catastrophic effects.'

Yet somehow we still view our relationship to the natural world through bankers' glasses. We are triumphal, untouchable, indestructible. If there are problems, a fix will be found, no change of direction is necessary. Even though financial credit has virtually collapsed due to reckless over-extension, we seem incapable of extrapolating that this might mean other operating systems are similarly under threat. If only history could give us reassurance.

Two fascinations recently caught me: one for Roman history and the other for our evolution in Africa and subsequent diaspora. The latter is constantly being recalibrated. New research recently pushed back the history of humans in Britain by 200,000 years.

Each gives reason to adjust our priorities. The first concerns the nature of progress: what justifies the name? At what cost is it bought? Can something be 'progress' if it contains the seeds of its own downfall? The second is that progress does not march forward through history in a straight line, like some immortal Roman legion, and can't be taken for granted.

The first hominids are now thought to have arrived in Britain 700,000 years ago, when the climate was warm enough for hippos to lumber around East Anglia, yet there has been continuous settlement only for the past 11,500 years. In response to severe changes in climate, time after time, Britain was emptied of people. Vast periods of time passed, lasting 100,000 years, when you wouldn't have heard

**Andrew Simms is policy director of the New Economics Foundation and the author of *Ecological Debt* (Pluto Press)**



a pebble drop in a pond. There was no-one to drop the pebble, and no-one to hear it plop.

Living in one of the most stable climatic periods of the past half-a-million years has lulled us into a false sense of security. Now, climate change coupled with other shocks such as the peak and decline of oil production (itself no answer to global warming) means that our grip on ordered, reasonably benign societies will be heavily shaken. What should be our guide to help us through?

We live on an isolated island planet with no known neighbours, so perhaps we can learn from small island populations who survived harsh environments for millennia. To tackle the ecological debt crisis, we need to relearn resilience and adaptability, and to move towards a dynamic equilibrium between society and nature while ensuring equity and sufficiency. There are failures to learn from (Easter Island, Nauru), but island communities have generally achieved well above average ecological efficiency at meeting human needs, and score well in NEF's Happy Planet Index. The index compares ecological footprint data with life-expectancy and satisfaction.

The first lesson is deceptively simple: to respect environmental limits. Next, resilient local economies – of necessity based on reciprocity, sharing and co-operation, not unlimited growth, fed by individualistic, beggar-thy-neighbour competition.

We are challenged at a global level to learn in a few years lessons that small communities took millennia to arrive at. In Karl Polanyi's classic *The Great Transformation*, he presents social and economic organisation on islands as evidence against Adam Smith's more sweeping assumptions on the central role of markets.

Complex forms of 'gift exchange,' in which

people meet their needs not solely through markets mediated with cash, but through the giving and receiving of gifts, operated over vast areas. This also helped bond societies. In the face of our rising vulnerabilities, the degree to which different forms of economic organisation enhance or undermine social cohesion must become a basic test of their fitness for purpose. Polanyi codified certain common principles: reciprocity, redistribution and 'householding,' a system that enables needs to be met in a largely self-reliant way. It's from the latter that we derive the root of the word for economics – *oikonomia*.

Boiled down, the potted small-island survival guide for a troubled planet would include these essentials: contact with nature, an awareness of and adaptation to more obvious limits, sharing-based economies that reduce inequality across a community and maintain supportive social relationships, food crops bred for hardiness and grown in mixed, productive plots. Island diets, too, typically follow the balance in most ecosystems, which is the nine-word mantra for a more sustainable food system of food found in Colin Tudge's book *Feeding People is Easy*: 'lots of plants, a little meat and maximum variety'. To which, of course, living on an island, you would add fish.

Similarly, the International Assessment of Agricultural Knowledge, Science and Technology recently concluded that a massive shift of support to small-scale farmers using a diverse range of agro-ecological methods would be an efficient way to build resilience, inoculate against food crises, and insure against increasingly hostile weather patterns.

'Since the Earth itself is developing without growing, it follows that a subsystem of the Earth (the economy) must eventually conform to the same behavioural mode of development without growth,' writes ecological economist Herman Daly in his book *Beyond Growth*. In its place, he says, we need 'a subtle and complex economics of maintenance, qualitative improvements, sharing frugality, and adaptation to natural limits. It is an economics of better, not bigger'. Achieve that, and it's just possible that our ecological debts might not bankrupt a civilisation-friendly biosphere.



**We live on an isolated planet so perhaps we can learn from small island populations who survived**

To buy *Ecological Debt* for the discount price of £12 + UK p&p call 020 8348 2724 or email [pluto@plutobooks.com](mailto:pluto@plutobooks.com). Ref: SIMMS2

An economic stimulus package that creates green jobs will also rescue our environment. Let's kill two birds, not wipe them all out

# An eco injection

**Barack Obama and Ban Ki Moon, Labour and the Conservatives, green groups and trade unionists, Nicholas Stern and even Peter Mandelson – everybody is talking about a 'Green New Deal'. Faced with an economic downturn, climate breakdown and an energy system in need of billions of new investment anyway, the idea is**

**simple and attractive.** You pour billions into efficiency and a smart new energy grid based on clean, renewable technologies, and in doing so stimulate a sustainable economic recovery and millions of new green jobs.

By embracing this sort of 'new energy economy', the thinking goes, we can also secure our power supplies, reduce our dependence on fossil fuel imports, cut our climate change emissions, reduce rates of fuel poverty and shift the country's economic dependence away from an increasingly irrelevant 'financial services' industry. It's no wonder everyone likes the idea. The business secretary himself said, 'This transition to low-carbon is an environmental and economic imperative. It is also inevitable.'

With so many prominent voices talking up this plan, and with so much popular support, you could be mistaken for believing it really is as 'inevitable' as Mandelson suggests. After all, it was our Prime Minister who said, just a few weeks ago, 'I admire what President Obama has announced for America and I think it is true that about 10 per cent of this fiscal stimulus will go to environmentally important technologies and potentially jobs in green industries. I think you will find that the percentage of our expenditure is as high, that we are investing a great deal in environmental technologies'. Oh really? What new and additional investment has actually been promised?

HSBC's Climate Change Centre of Excellence attracted a lot of attention when it published a score-card analysis comparing how different countries' packages matched up from a 'climate-energy' perspective. According to HSBC, Britain has committed just 6.9 per cent of its stimulus to 'sustainability measures', compared with around 38 per cent for China. Take out some of the dodgier numbers HSBC includes, such as money that was already set aside for green spending in 2010 that's simply been brought forward to 2009, and the British figure looks even less impressive.

In fact, according to a new report from the New Economics Foundation (NEF), Labour ministers are committed to spending seven times more on bonuses for failed Royal Bank of Scotland bankers than on green

**Joss Garman is an environmental campaigner and journalist**



projects. One seventh of the RBS bonuses. With this single statistic, you learn all you need to know about Gordon Brown and the prevailing ideology. Labour will spend £775 million of our money on those infamous bonuses, whereas just £100 million of new money will go towards green schemes. It's

unforgivable. Set this against the £11 billion Stern estimates we need, and the more realistic £50 billion green economists such as Larry Elliott and Andrew Simms agree we need, and the gap between Labour's rhetoric and what it is actually doing is stark.

At least half of all the new money being invested should be going into the sustainable industries of the future, not the unsustainable industries of the past. After all, it will be the workers of the future who pay for this spending spree via taxes they have yet to pay. Instead what we see is Big Carbon special interests prevailing. The car industry alone is expected to receive about 20 times as much money as all of the sustainability projects combined.

Consider that Labour has just decided to spend £4 billion on two new aircraft carriers and £5 billion on the controversial new ID card scheme and you begin to see that when Lord Mandelson says 'Low-carbon is not a sector of an economy – it is an

economy', he is lying through his teeth. NEF has calculated that the minuscule sum Labour has dedicated to green projects can only be expected to delay Britain's emissions by about half a day in about three years' time. With just 0.6 per cent of the UK's £20 billion recovery plan being new and additional environmental spending, Labour's stimulus package isn't so much green as a sort of coal-shade of black.

With plans to inject more money into the financial system in coming months, the opportunity and potential remains for a transformation of our economy into something that would simultaneously rescue millions of people from unemployment and millions of species from extinction; something that would leave behind cleaner air, a more stable climate and smaller energy bills. We can't afford for that opportunity to be squandered from a lack of imagination or for the sake of Big Carbon.



**Labour is committed to spending seven times more on bonuses for failed RBS bankers than on green projects**

# The winning argument

When it comes to direct action, says **Sarah Lewis**, there's a fine line between publicising an issue, protesting a cause and offending your audience

**When a Victorian tea party took over Heathrow's Terminal 1 earlier this year, it was a clear sign that environmental campaigning had taken a large step away from time-worn methods of protesting.**

Today, marching from one place to another waving placards and banners seems as outmoded as a cassette tape, and direct action is the frontline of many big campaigns.

Marina Pepper of Climate Rush, organisers of the Heathrow tea party [see *Local Hero*, page 44], observes that if marching worked we wouldn't be where we are today. 'We marched against the war in Iraq,' she says. 'We marched against climate change. Around 10,000 people marched before Christmas and it didn't make a difference – we still got the third runway go-ahead in January.'

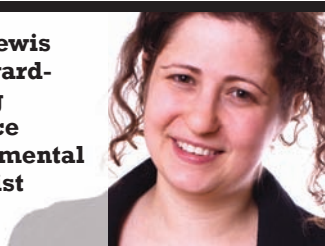
Linda Butcher is the chief executive of the Sheila McKechnie Foundation, a charity that supports campaigners and the right to campaign. She says: 'Many social and environmental advances have been brought about through protest, including the use of direct action, and it can be highly effective, especially when used in conjunction with things like lobbying and research.'

Historically, the value of direct action is undeniable – women can vote (generally agreed to be a good thing) as a consequence – but continued negative stereotyping and a perceived inaccessibility for everyday folk means that today, the feminist movement is floundering.

'It's true that first-wave feminism gained huge ground from direct action, despite press attempts to cast the Suffragettes as both insane and amoral,' says feminist author Nicky Falkof of the London Consortium. 'That said, much feminist action from the 1970s and 80s has been co-opted to foster feminism's current tarnished image, in which many young women refuse to self-identify with the movement for fear of being cast as humourless, man-hating harpies.'

So what can environmentalism learn from this? The danger with a sustained campaign of environmental direct action is that while it may serve to change policy, the general public become

**Sarah Lewis is an award-winning freelance environmental journalist**



tired and alienated, and important cultural change risks being left behind.

Much as today's idea of female empowerment gets bound up in the 'right' to be a pole dancer, through the inaccessibility of the green movement the commodification of environmentalism is looming large on the horizon: want to be green but don't want to squat a runway? Buy an energy A-rated fridge!

This public apathy is already happening. In Brighton in early February a handful of Plane Stupid activists took over an open meeting just as energy and climate change minister Ed Miliband was about to speak. Unexpectedly, the audience began chanting for the protesters to sit down. They were booed off stage and eventually out of the meeting. 'Of course they have a right to protest, but they have picked their stage badly,' one audience member said. 'We are here to listen to what Ed Miliband has to say and ask our own questions. We've seen their protest enough times.'

Plane Stupid's Liz Snook defends the protesters, pointing out that while there may have been a cost to the public face of the campaign, Miliband now knows that campaigners are not only on to him, but also will be following him every step of the way.

Marina Pepper agrees, saying that public ire with campaigners is misplaced: 'When are they going to lose sympathy with business-as-usual, banking bail-outs and absolutely nothing being done about climate change? Direct action isn't trying to get people's votes – that's what politicians do. We are

looking for politicians to exercise their duty of care to ensure the safety and wellbeing of the people, socially, environmentally and economically.'

Both Snook and Pepper are keen to point out that when planning a protest, the needs and inconveniences of everyone else are taken into account, but that sometimes the need for action wins out. 'I do understand that some forms of direct action may cause the most inconvenience to the people who least need it,' Pepper says, 'but we are in an unprecedented situation and the politicians are doing nothing about it.'

The easy win of direct action is the near certainty of media coverage. Most editors would find it hard to ignore the promise of Homer Simpson scaling the cooling tower of a power station. But, says Falkof,

campaigners would do well to remember their interest is rarely out of empathy: 'One of the issues with direct action is that it feeds far too easily into the mass media portrayal of campaigners as the "loony left". It plays very

strongly on the "them and us" dialectic, painting campaigners as antisocial and threatening to the established social order, following their own extreme agendas rather than thinking globally and ethically.'

The Peter Mandelson custard incident in March was a case in point. The business secretary being covered in green custard by a protester gained him uncountable column inches and even a spattering of public sympathy, while the circus surrounding the stunt meant the story it was supposed to highlight – that Mandelson had been engaged in a sustained and rather dubious tête-à-tête with BAA lobbyist Roland Rudd in the run-up to the Heathrow third runway decision – was lost.

Linda Butcher also suggests that direct action is something of a double-edged sword. 'At its worst, it can potentially alienate people,' she says. 'And rather than opening up a dialogue with those you seek to influence, direct action can sometimes close doors. But at its best, it can raise the profile and status of your issue, bring more people to the cause, and help create change.'



**The circus surrounding the Peter Mandelson custard incident meant the story it was supposed to highlight was lost**



**The danger with a sustained campaign of environmental direct action is that the general public become alienated**

Borrowing got us into this financial mess, fossil fuels facilitated it. A just financial system is the first step in restoring order to the planet

## Life and debt

**This is budget season, and so a short perambulation around the vexed question of the national debt seems in order. As a nation we've been living with debt for more than 300 years now, since 1694 to be precise, when Scottish privateer William Paterson persuaded the government of the time that creating £1.2 million of IOUs would get them out of their spending difficulties.**

His next scam was the so-called Darien venture of selling worthless shares of the Panamanian isthmus, which bankrupted Scotland and forced the Act of Union. A role model for Sir Fred Goodwin, perhaps?

Although an individual who spent their life in debt would be written off by society as a waster, for nation-states this is apparently a quite respectable state of affairs. There are two questions that should be asked from the perspective of green economics: is it fair, and is it sustainable?

On the question of justice one could do worse than consult Percy Bysshe Shelley, our foremost radical poet, who considered the national debt to be a means of transferring wealth from the poor to the rich. Those with spare capital can afford to buy government bonds (promises to pay them back with interest at some future date), allowing a government to spend money now. When the bonds fall due it is the working people who generate cash to repay them. Hence Shelley's conclusion that the national debt is a system 'to augment indefinitely the proportion of those who enjoy the profit of the labour of others as compared with those who exercise this labour'.

Our national debt is now reaching such spectacular proportions that the chief executive of the Audit Commission, Steve Bundred, recently felt bound to go beyond his remit of monitoring the spending activities of

**Molly Scott Cato is a reader in green economics at the Cardiff School of Management**



local authorities to warn it was 'reckless'. Both he and Frank Field MP, who recently called the levels of government borrowing 'chilling', alert us to the ferocious political struggles that such fiscal excess will lead to as spending on public services and those employed by them is squeezed.

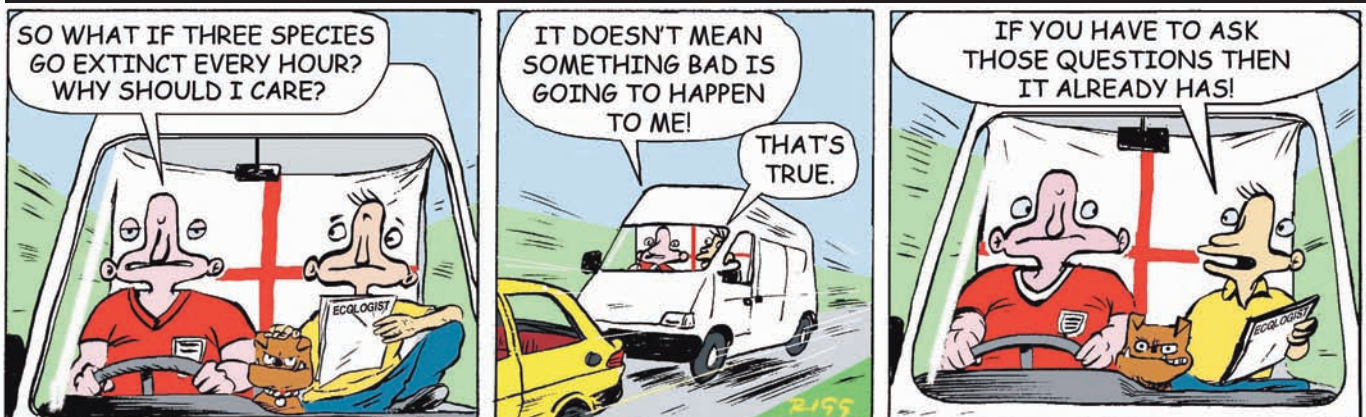
The consequences for the planet of borrowing, public or private, are equally grim. Creating money is easy – banks persuade someone to borrow it; governments borrow from citizens' futures – but once it exists it has a right to make a claim on real stuff: the goods and services that require sweat, resources and energy to produce. This is the explanation for economic growth and the reason why, when growth stops, the pyramid selling scheme falls apart.

The ballooning of money, debt and economic activity over the past 100 years or so has been fuelled by the exploitation of fossil fuels. As Richard Heinberg's idea of the 'energy slave' makes clear, such economic growth would be impossible within the confines of the human capacity for sweated labour. Oil especially has allowed us to defy this natural balance at the price of disrupting the carbon cycle that is the fundamental support system of life on Earth. This is the link between fiscal irrectitude and climate change – when our greed outstrips our capacity for work we just allow Mother Nature to pay the price.

The strategy of creating money now, stimulating economic activity and putting off the problem into the future has run its course. A stable and just money system is vital to develop a democratic global society: it would go a long way towards restoring a rightful relationship with our precious planet and other nations, and is the real answer for any politician pledging to end boom-and-bust cycles.

### GOOD BUY WORLD

PETER RIGG



# Let the water speak

With the oil and gas industry spoiling groundwater in the US, **Reverend Billy** pledges to restore New York's once-prominent natural springs to former glory

**The Church of Life After Shopping – the singers and I – were the performers that afternoon. People came to see us. On the other hand, all of us watched the water, the clouds and waves. We were listening, guests of the water for an hour on that pier out over the Hudson river.**

World Water Day, 22 March, was the original mover of our 'Blessing of the Water Picnic'. It was also an early outing in my candidacy for mayor of New York City. But what got the crowd there was 'fracking', the process by which a chemical cocktail is injected into underground shale to drive natural gas toward Halliburton's suction, shipment and storage. This process poisons the water around it, as the citizens with the falling-out hair and flammable tap-water have noted...

The choir donned their blue robes; my preacher's suit was blue too, but the two blues did not match as well as the blues in the river and sky. The Christopher Street pier is a long one, with real grass but with over-designed concrete and shiny metal filagree. The sun was warm at the start of our water picnic and many families were unfurling blankets on the ground. The Green Party people handed out placards for crayoning the name of your part of town, in line with our campaign's endearing slogan, 'The Rise of the Fabulous 500 Neighborhoods!'

In the crowd were veterans of the battles against chain stores and gentrification, eminent domain [compulsory purchase] and rent-hikes. These are our friends, and we could tell they wanted a respite now from the onslaught of the predator economy. This was a Sunday to relax. The sun shone on the water, and the Hudson river, with the gigantic green woman with her torch at the mouth of it, looked grand. 'It's time to go to church!' I got shouts of 'Aqualujah! Aqualujah!' from my congregation on the grass. And in Spanish, please? That would be 'Agualujah!'

We decided to face the evil straight away. The water activists were handed the bullhorn. The mendacity of the gas-drillers left us dazzled. Like an unstoppable ghoulish rising

**Reverend Billy of the Church of Stop Shopping is the Green Party candidate for mayor of New York**



from the slab of the Bush administration, Dick Cheney's old company is skulking around the countryside buying off broke townships and putting in place a cancer-causing, endocrine-disrupting extraction beast that somehow evades all the Environmental Protection Agency safeguards. In particular, an activist named Josh Fox scared us – and scared us well. In an era when evil is relativised and dissolved into special

effects, Josh raised the flag.

Laura Newman and the choir lit into our new song, *Fabulous Bad Weather*, with fatalistic lyrics that could have been authored by an Earth Firster, but with the confessions of ecocide delivered in a bouncy rhythm, an unlikely pop tune:

*Fabulous bad weather!  
Climate change – change our laws!  
Cast a spell on our nature!  
We obey – you're the boss!*

*Katrina – killed New Orleans!  
While we dream – of getting rich!  
Stimulate – stimulate our assets!  
We're programmed just like this!*

*What are we doing in the sky?  
Where's our next End of Time?  
Humans need to live or die!  
Go ahead, leave us behind!*

*Life on Earth what will you do?  
Life on Earth what will you do?  
What will you do?  
Go ahead, leave us behind...*

A cold, rainy wind came down the river and across the pier. The temperature plunged 20 degrees with bellying clouds. The sky

seemed to be singing *Fabulous Bad Weather* with us! The wind whipped the blue robes and collapsed my Elvis 'do and whirled a neighbourhood sign like a frisbee into the old river.

I preached then, into that wind, with the crowd of shivering environmentalists hugging their children. Here are the talking points I found in my blue jacket two days after:

- Water is the best teacher – there are famous translators like Al Gore, RK Pachauri, Bill McKibben – they only translate the rise of the sea, the death of the coral, the century storms...
- Water is the authentic preacher – Alvin Ailey's dancers and *Wade in the Water* from *Revelations* – water speaks from the genocides and slavery – indigenous whispers in the natural springs – rivers – this arguing Hudson under our feet today – the hundreds of natural springs that gushed and seeped all over this land that became our city...
- One spring comes to mind – at 165th Street in Harlem – the Audubon Ballroom was built there – with the mermaid sculpture over the front door – the ballroom was eminent, dominated by the city and Columbia University to build a bio-tech lab – the neighbourhood feared the contamination but couldn't stop the construction – Malcolm X come back! We need you today!

*Aqualujah! Agualujah!*  
Judging from YouTube, the sermon came out differently on that windy Sunday ([www.youtube.com/watch?v=6aVm\\_LpHqeU](http://www.youtube.com/watch?v=6aVm_LpHqeU)).

My water policy is this: as New York's mayor I will find the hundreds of natural springs in the five boroughs that were paved over as land values rose and cars and trucks overran the boroughs. Let's give the water eminent domain. My administration will break the pavement open and let the water rise the way it wants to. The water never stopped singing its message.

Water is our leader! The water will rise up and be protected in community gardens, in pump-houses, in the lobbies of buildings. Our children will touch the water and listen! Let the water speak!

**Reverend Billy will be touring the UK 19 May-1 June. For more information, see [www.revilly.com](http://www.revilly.com)**



**Halliburton's 'fracking' process poisons the water, as the citizens with the falling-out hair have noted**

Since we don't have enough land for the renewable technologies we need let's go stratospheric instead, with a high-altitude solution...

# Go fly a kite

**Naming a sane technology to replace fossil fuels can feel like an exercise in futility. Leaving aside the need to scale back energy use generally, grasping at non-fossil options throws up problems galore: solar cells can be too inefficient, hydro schemes produce methane, ethanol causes hunger, and so on. As those same energy technologies apply hi-tech adjustments to fix their blemishes ('clean coal', 'nano-solar', 'cellulosic biofuels') each tech upgrade brings yet further problems.**

For a sharp dose of reality about this energy-tech quagmire I would recommend a natty little presentation called 'Climate Change Recalculated' by inventor Saul Griffith. Griffith counts land – the land required actually to erect all those wind turbines, nano-solar panels and vats of GM algae now being hyped in the press. In doing so he comes up with an aggregate land area for deployment, which he dubs Renewistan. Depending on how much fossil fuel you think we can still safely burn, Renewistan would need to be at least as large as Australia – maybe something more like the size of China – and that is assuming society is prepared to accept nuclear power, genetically modified biofuels and nanotech solar cells.

It's a dispiriting prospect and it leaves me deeply wanting to believe that Griffith's day job might offer a lift out of this impasse. Saul Griffith builds kites: specifically huge, fixed-wing kites attached to electric generation

**Jim Thomas is a research programme manager and writer with ETC group ([www.etcgroup.org](http://www.etcgroup.org))**



field known as 'high altitude windpower', and maybe, just maybe, these kitesurfer dudes are on to something good.

I say that 'maybe' very carefully. There are only a handful of high-altitude wind developers and they have formidable engineering challenges to surmount. Some propose kites whose movement

would drive electricity generators on the ground. Others aim to put actual turbines into the sky. So far such outfits report only a few kilowatts of power, but are aiming for megawatt production within the decade. At least one researcher, Mario Milanese at the Polytechnic University of Turin, Italy, envisages kite systems producing a gigawatt of power at one location. That's the same as a new nuclear plant, which also takes 10 years to commission. Nukes or kites? I know which I'd prefer.

This big talk of gigawatt-scale kite-power is based on a real promise. If you have ever felt the sadness of seeing an entire wind farm motionless, take heart that at one kilometre above the Earth the wind blows an average of eight times stronger and much more constantly. Kite farms, unlike windmills, depend on airspace, so theoretically they don't compete for land.

There are problems: getting all that electricity back to Earth with a very long string has consequences – 'just ask Benjamin Franklin!' explains atmospheric scientist James McCanney, referencing the legendary experiment where the American founding father almost electrocuted himself flying a

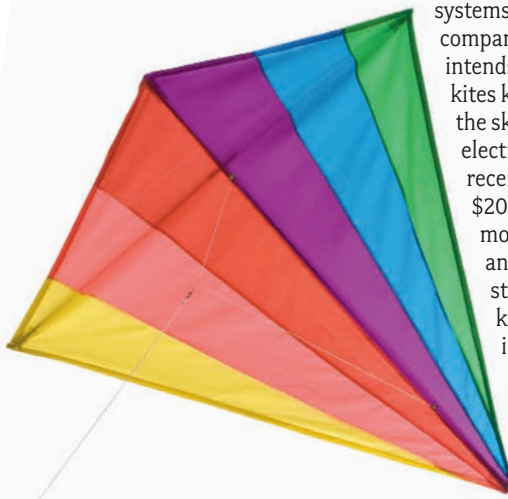
kite in a storm. McCanney holds that high-altitude tethers will invite frequent and dangerous electrical discharges. Developers counter that some areas of the world are less likely to encounter electrical storms, so they will fly their kites there. What else? Birders might reasonably ask whether avian migration routes will be affected. Social justice advocates point out that if these systems are patented (which some are) and centralised (which some might be) they may prove as inequitable as any other private technology.

Maybe it's just the aesthetics of a kite bobbing in the wind that gives me hope – because we know kites; because they are a people's technology. Through the centuries these everyday constructions of cloth and string have been used for communications, art, ceremony, warfare, transport and more. Like bicycles or water wheels, it is not hard to grasp how they work and can be controlled on a human level. A proprietary multimillion-dollar energy kite might prove a different beast, but for now I'm crossing my fingers and hoping this particular technology can fly.



**One researcher envisages kite systems producing a gigawatt of power. That's the same as a nuclear plant. Nukes or kites? I know which I'd prefer**

systems. His Californian company, Makani Power, intends to deploy these kites kilometres up in the sky to produce electricity. He has received approximately \$20 million in funding, mostly from Google, and employs 30 staff, many of them kitesurfers. Makani is the leader in a new



# We have to let you go

Why are we clinging to the outmoded employment aspirations of an ailing system? You're not redundant, you're job-free, says **Tom Hodgkinson**

**If there's one absurd thing about the recent protests in the street, it has been the wimpish cry for 'jobs'. Just as businesses have been nagging the Government and the banks to give them more debt, when it was surely the excess of debt that got us into trouble in the first place, so now the so-called anti-capitalist campaigners cry for 'more jobs', failing to see that the 'job' as we know it is one of the more unpleasant inventions of the capitalistic set-up.**

It is precisely the job system that we must transcend if we are to find liberty. Having a job is the same as being a slave. The corporation is your master and you must identify your interests with those of the corporation – that is if you are to keep your salary. Jobs are a leading cause of depression and mental breakdowns. Getting a new job will not help: after the initial pleasure of an apparently better working life vanishes, you will be back in the same old mire of office politics, stupid bosses and smug, lordly overpaid board members.

I'm heartily fed up with the wet, liberal hand-wringers who say to me, 'but people are losing their jobs', when I point to the liberating potential of the credit crunch. That is just resentful whingeing, often done simply in order to make you appear to be a compassionate person to anyone who might be looking. No: don't moan about things – change them. I've been exploring other ways of doing things for more than 20 years. We urgently need to reinvent work. Instead of going out into the streets and limply asking some unnamed, vague authority to give you a job, you should be getting out there and creating your own new ways of working and trading.

Maybe some people like their jobs. According to the Work Foundation, about a third of people actually enjoy theirs – or at least they say they do (ask them if they would rather get £25,000 a year for doing nothing and see what they say). Even if that figure were true, that still leaves two-thirds of us who are not happy in our jobs. We do them for the money.

Use your eyes: when you look at individual

cases, rather than summoning up an abstract fear in your mind, people in actual fact feel liberated when they are made redundant. I can think of 10 friends and acquaintances who have been made redundant and all without exception are grabbing hold of the opportunity with open arms. Some are going travelling. Others are finally pursuing the projects that they used to dream about. 'I wish I'd done this 10 years ago,' said one

friend. I propose that we introduce a new term for the unemployed: job-free. Make the negative into a positive.

It won't always be easy. The job-free have to stand on your own two feet. You have to be self-employed and earn your own crust, rather than just turning up every day and having someone else send you your monthly salary. You will have to learn about tax returns and you will have to be thrifty.

One comfort is that you will save a lot of money now you are job-free. It is not commonly realised that your job is actually your biggest annual cost. Jobs are very expensive. Take a £25,000 annual salary.

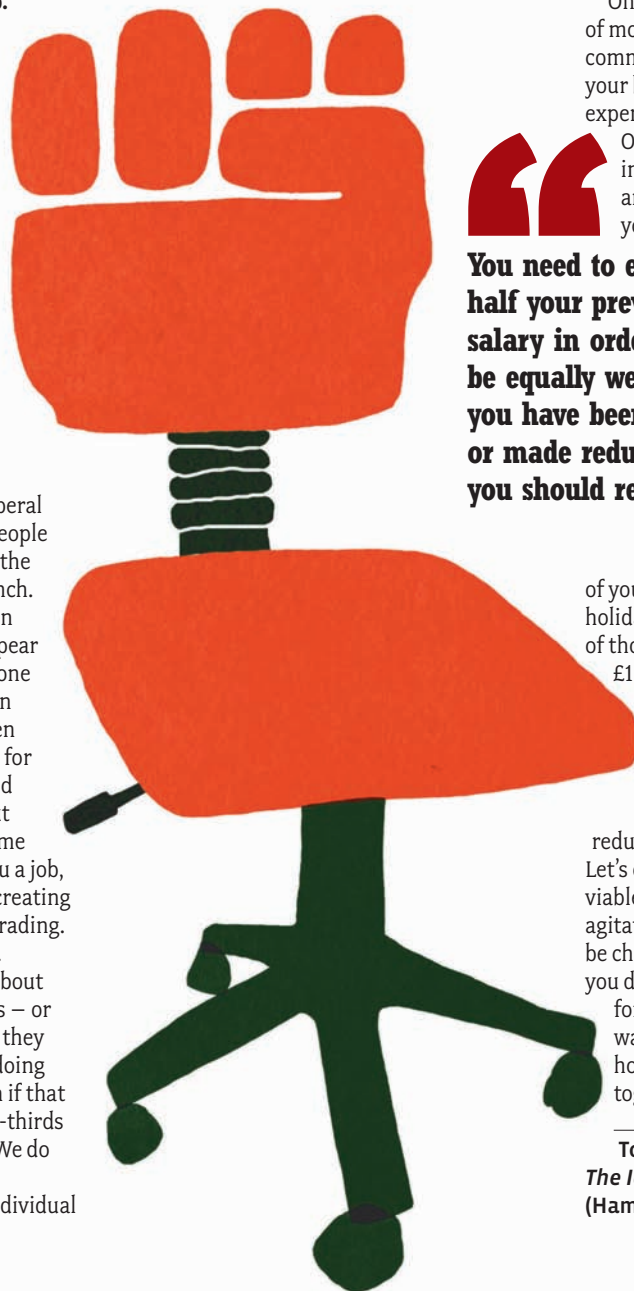
Of this, £5,942.40 is immediately lost in tax and national insurance. Then there are the costs of working – the costs that you undergo in connection with your job.

These include commuting costs, clothing, drinks after work, sandwiches at lunchtime, coffees and snacks, all those impulse purchases to cheer yourself up... A very modest estimate would put these costs at £100 a week, or £5,000 a year. Then there is the cost

of your annual holiday. The job-free are on holiday all the time, so you won't need one of those. Again, I will put that at a modest £1,000 a year. So already, we have saved ourselves £12,000 year by not having a job. This means you will need to earn only around half of your previous salary in order to be equally well-off.

So if you have been sacked or made redundant you should rejoice. Life starts now. Let's overthrow capitalism and establish some viable alternatives, but for heaven's sake don't agitate for jobs. The captains of industry will be chuckling into their claret when they see you doing that. The more desperate you are for a job, the easier it is for them to lower wages, worsen conditions and lengthen hours. Jobs are a mug's game. So let's work together for a job-free Britain!

Tom Hodgkinson is the editor of *The Idler* and author of *How to be Free* (Hamish Hamilton, £14.99)



**You need to earn only half your previous salary in order to be equally well-off. If you have been sacked or made redundant you should rejoice**

# Ethical shopping can save you money

Did you know.....

You could bulk buy healthy food:

- for your family
- together with your friends
- as part as a community group

**We offer high quality organic, wholefoods & household goods - at wholesale prices**

Delivered to your door by an ethically driven workers' cooperative

**Take the Suma Challenge . . . Start saving time, energy and money**

Contact us now and discover the affordable ethical alternative to supermarket shopping



Call 01422 313861 or email [newbusiness@suma.coop](mailto:newbusiness@suma.coop) quoting 'The Ecologist'

At Suma we have been supplying a network of independent retailers across the country for many years. As part of our ethical commitment we therefore prefer to supply Food Groups that are not within easy reach of these outlets. [www.suma.coop](http://www.suma.coop)



# FIGHT CLIMATE CHANGE WITH YOUR ELECTRICITY BILL!

Ecotricity is dedicated to changing the way electricity is made. For every £1 our customers spend on their electricity bills with us, we spent £1 building new windmills. In fact we spend more per customer each year than ALL the other electricity companies in the UK put together. And we price match the Big Six<sup>†</sup>.

**Start turning your bills into windmills!**

**Switch to Ecotricity**

<sup>†</sup> Ecotricity's New Energy tariff matches the standard rate of the local supplier in each of the 14 regions in the UK mainland.

To switch now or for more information call **FREE**

**08000 302 302**

or visit **ecotricity.co.uk**



**ecotricity**