



From the President

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VALLEY WATCH INC

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Creating a sustainable future

Extreme weather and climate change

The recent devastating floods in Queensland and New South Wales and the chaos in England and Europe before Christmas have been extreme weather events, but are they evidence of climate change? If the globe is warming, why, people might ask, was there such heavy snow in England?

Below is an edited version of an article in *The Independent* which might help explain at least some of the extreme weather.

Expect more extreme winters thanks to global warming

Scientists have established a link between the cold, snowy winters in Britain and melting sea ice in the Arctic and have warned that long periods of freezing weather are likely to become more frequent in years to come.

An analysis of the ice-free regions of the Arctic Ocean has found that higher temperatures there caused by global warming, which have melted the sea ice in the summer months, have paradoxically increased the chances of colder winters in Britain and the rest of northern Europe.

2011 Subs due

Your Valley Watch membership is now due - \$15 per person, \$30 for two adults at the same household, and \$5 for any additional person.

A membership renewal form is attached for your convenience.

Some climate scientists believe that the dramatic retreat of the Arctic sea ice over the past 30 years has begun to change the wind patterns over much of the northern hemisphere, causing cold, Arctic air to be funnelled over Britain during winter, replacing the mild westerly airstream that normally dominates the UK's weather.

The researchers used computer models to assess the impact of the disappearing Arctic sea ice and found that the disappearance of the ice cap over the ocean allowed the heat of the relatively warm seawater to escape into the much colder atmosphere above, creating an area of high pressure surrounded by clockwise-moving winds that sweep down from the polar region over Europe and the British Isles. Arctic sea ice has been in retreat over recent decades, with record lows recorded in September 2007.

Stefan Rahmstorf, Professor of Physics of the Oceans at the Potsdam Institute, said the floating sea ice in winter insulates the relatively warm seawater from the bitterly cold temperatures of the air above it, which can be around -20C or -30C.

"The Arctic sea ice is shrinking and at the moment it is at a record low for mid-to-late December, which provides a big heat source for the atmosphere," he said.

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"The open ocean actually heats the atmosphere above because the ocean in the Arctic is about 0°C, and that's much warmer than the atmosphere above it. This is a massive change compared with an ice-covered ocean, where the ice operates like a lid. You don't get that heating from below."

"The model simulations show that, when you don't get ice on the Barents and Kara seas, that promotes the formation of a high-pressure system there, and, because the airflow is clockwise around the high, it brings cold, polar air right into Europe, which leads to cold conditions here while it is unusually warm elsewhere, especially in the Arctic," he explained.

The Independent, December 24, 2010

You can read the complete article at:

<http://www.independent.co.uk/news/science/expect-more-extreme-winters-thanks-to-global-warming-say-scientists-2168418.html>

We're on the Web! Visit us at clarencevalleywatch.com



What's Layne Beachley got in common with an aluminium can?

In Australia, the aluminium can was born in the 1970s, just like former world surfing champion Layne Beachley.

Since then, Australians have recycled a massive 38 billion cans and, because aluminium is able to be used again and again, parts of an aluminium can could be the same age as Layne.

The more lives you give your cans the more resources and carbon emissions you save.

Research from the Royal Melbourne Institute of Technology (RMIT) has shown that, by recycling six aluminium cans, you can offset a 25 kilometre train journey, a 17 kilometre bus ride or ten kilometre trip in an average size car.

The RMIT research also shows that, when they are recycled, aluminium cans are the most sustainable drink container available. They are endlessly recyclable because aluminium doesn't degrade during the recycling process.

Cans are light and easily crushed which makes it really easy to take them home with you if you're out and about and can't find recycling facilities.

Aluminium metal is extracted from bauxite through a complex and energy-intensive process. Making aluminium cans from recycled materials uses **95%** less energy than producing them from raw materials. For every tonne of aluminium recycled, five tonnes of bauxite are conserved.

So be sure to recycle all your aluminium cans.



Valley Watch 20th Anniversary

Valley Watch will this year celebrate twenty years of advocacy for the environment on **Saturday April 9** at the Yamba Bowling Club. (Please note the earlier date.)

As previously noted in the December newsletter, our guest speaker will be Ian Cohen who, by that stage, will be a former member of the NSW Upper House.



Ian has been an environmental and social justice activist since 1980, working at local, state and national levels. He has organised and participated in most major environmental campaigns in Eastern Australia during the 1980s including the Nightcap rainforests in Northern NSW, Franklin River, Daintree, South East forests NSW, North Washpool and Chaelundi.

Mark the date on your calendar - it will certainly be a celebration to remember.

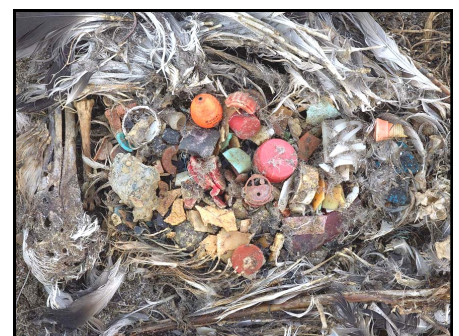
There's nothing fantastic about plastic

Can you believe this amazing photograph? It is of an albatross chick on remote Midway Island near the middle of the North Pacific Ocean



The parents of these chicks scour the ocean collecting what looks like food to them to bring back to their fledgling young. On this diet of human trash, every year tens of thousands of albatross chicks die on Midway from starvation, toxicity, and choking.

These photos show the untouched stomach contents of baby birds in one of the world's most remote marine sanctuaries, more than 3500 kilometres from the nearest continent.



What a throwaway society we have become! These photos are stark reminders of why we need to reduce, as far as humanly possible, our use of plastic.

Makes you think, doesn't it?

Gary