Beachgoers back latest theory on brighter sun

Jonathon Leake and Ryan Emery March 27, 2006

THE sun is getting brighter, increasing the pace of climate change and undermining claims that man alone is to blame.

A series of independent studies around the world show a significant rise in the amount of sunshine penetrating the atmosphere to be absorbed by the earth's surface and turned into heat.

Enjoying a fine, 26C day at Perth's popular Cottesloe beach yesterday, volleyball players Ryan Turner, 26, and Nathan Fisher, 17, said they thought a brighter sun might be a possibility.

"I get a tan a lot easier than I used to," Mr Turner said.

Both players remarked on the hotter-than-usual Perth autumn, which followed a remarkably cool, short summer. But carpenter Mark Henderson was sceptical that the sun was brighter.

"I work outdoors all the time," he said.

"If you're talking about sun brightness I wouldn't say I've noticed that."

Mr Henderson said the summers in Perth seemed to be getting shorter and later.

However, during the winter months he had noticed more sunny days.

The research will concern climate researchers, who are already predicting a rapid rise in global temperatures due to man-made emissions of so-called greenhouse gases such as carbon dioxide.

"The enhanced warming we have seen since the 1990s along with phenomena such as the widespread melting of glaciers could well be due to this increased intensity of sunlight compounding the effect of greenhouse gases," said Martin Wild of the Institute of Atmospheric and Climate Science in Zurich, Switzerland.

Researchers will present their findings to the European Geophysical Union conference in Vienna next week.

They reverse a 30-year trend. Measurements of sunshine levels between 1960 and 1990 have shown a decrease in the amount of sunshine reaching the earth, a phenomenon known as global dimming.

This was thought to have been caused by dust, smog and other pollutants, mainly from industrialised Western countries.

The pollutants, known as aerosols, reduced sunshine levels by absorbing and scattering solar radiation and promoting the formation of clouds that reflected radiation back into space.

In the past two decades, however, there have been huge decreases in such pollutants, partly due to industry becoming cleaner but largely because of the collapse of the Soviet Union and much of its heavy industry.

"Sunshine levels had been decreasing by 2 per cent a decade between 1960 and 1980 - a total decline of about 6 per cent. Now they are going up again. Perhaps this is why our Swiss glaciers are melting," Professor Wild said.

Such rises could be disastrous for agriculture, wildlife and human settlements in many regions, especially the tropics.

But scientists warn they may have to revise these calculations sharply upwards if the impact of "global brightening" has to be factored in.

Atsumu Ohmura, of the Swiss Federal Institute of Technology in Zurich, has collated measurements from 400 sites worldwide and found an increase in sunshine at 300 of the sites studied.

The areas under scrutiny were mainly in Eurasia and the polar regions.

Some of the areas studied showed a decline in sunshine since 1990, largely in fast-developing countries such as China and India.

"A widespread brightening has been observed since the 1980s. This may substantially affect surface climate, the water cycle, glaciers and ecosystems," Professor Ohmura said.

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