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In this issue:

- 1- New Window into Ancient Ozone Holes**
- 2- Enviros Call on Florida Tomato Industry to Protect Children by Eliminating Use of Ozone Layer Destroying Pesticide**
- 3- Skin Cancer Cases Triple among those Under 40**
- 4- Concern over Ozone Layer Protection (Kuwait)**
- 5- Trane Presents Free-Cooling as RTAD Range's Coolest thing**
- 6- EC Takes Further Action against France for Lack of Protection of the Ozone Layer**

GLOBAL

1- New Window into Ancient Ozone Holes

British researchers have hit on a clever way to search for ancient ozone holes and their relationship to mass extinctions: measure the remains of ultraviolet-B absorbing pigments ancient plants left in their fossilized spores and pollen.

To develop the approach, researcher Barry Lomax and his colleagues at the University of Sheffield and other leading UK institutions analyzed spores held in the British Antarctic Survey's collection from South Georgia Island, a UK territory in the far southwestern corner of the Atlantic Ocean. They discovered that since the 1960s, spores from living land plants have shown a three-fold increase in the concentration of UV-B absorbing pigments to protect themselves against a 14 percent decrease in stratospheric ozone, says Lomax.

"We have initially been investigating whether plants of palaeobotanical significance are capable of adapting to changes in UV-B radiation," said Lomax. In particular, they studied the UV-B response of the club moss *Lycopodium magellanicum*, a native of South Georgia Island.

"Now that this has been established, we are investigating possible changes in terrestrial UV-B flux during the Permian-Triassic boundary (251 million years ago)," said Lomax. That boundary marks the largest mass extinction in the Earth's history and also coincides with the largest known eruption of lava and potentially ozone-destroying gases - the Siberian Traps.

The latest results from the ongoing work will be presented by Lomax on Wednesday, 10 August, at Earth System Processes 2, a meeting co-convened by the Geological Society and Geological Association of Canada this week in Calgary, Alberta, Canada.

The modern increase in UV-B at South Georgia is the direct result of high latitude springtime ozone destruction in the stratosphere caused by decades of releases of human-made chlorofluorocarbons (CFCs). The situation may have been the same a quarter billion years ago, except that the earlier ozone-destroying chemicals came from the Earth itself.

"Volcanic eruptions can emit gases such as chlorine and bromine that are capable of destroying ozone," said Lomax. The heating of rocks near volcanic flows of the Siberian Traps may also release a wide range of organohalogen thought to be harmful to ozone, he said.

The next step is to search for the chemical remains of the plant pigments in fossilized spores and pollen. "The pigments break down to form compounds that are stable over geological time," said Lomax, "so providing samples have not been subjected to large amounts of heat, the signature should be preserved."

The research is funded by the UK's Natural Environment Research Council, with the specific aim of finding a way to measure ancient UV-B levels by combining experimental and palaeobotanical investigations.

The Siberian Traps, Stratospheric Ozone, UV-B Flux, and Mutagenesis, 10 August, Abstract may be viewed at http://gsa.confex.com/gsa/2005ESP/finalprogram/abstract_88582.htm

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Source: Geological Society of America, Public release No. 05-26, 9 August 2005
<http://www.geosociety.org/news/pr/05-26.htm>

NORTH AMERICA

2- Enviros Call on Florida Tomato Industry to Protect Children by Eliminating Use of Ozone Layer Destroying Pesticide

Washington, DC, August 4, 2005: The Environmental Investigation Agency (EIA) today called on the Florida Fruit & Vegetable Association to halt the use of the potent ozone layer-destroying pesticide, methyl bromide, within the year.

"U.S. skin cancer rates are increasing each year and melanoma incidence in children has more than doubled in the last two decades, yet the Florida tomato industry continues to use a chemical that destroys the Earth's protective ozone layer," stated EIA Assistant Campaigner, Danielle Grabel. In June, authorities in the Czech Republic were forced to issue health warnings as the ultraviolet radiation index reached an all-time high due to an ozone hole over the region. This past April, the ozone layer over the northern hemisphere thinned to its lowest level in recorded history, stunning the international scientific community.

Under the treaty to protect the ozone layer, all agricultural use of methyl bromide in the developed world should have stopped as of January 2005. "Despite having had 13 years to prepare to quit using methyl bromide, the Florida Fruit & Vegetable Association has instead chosen to lobby the U.S. government for special exemptions to keep using millions of pounds of this toxic chemical," Grabel said.

There are a number of effective and affordable ozone-safe alternatives to methyl bromide. "We are confident that the Florida Fruit & Vegetable Association will agree that the health of the ozone layer and the protection of our children are of paramount concern. We are urging the Florida tomato industry to set an example for the rest of the agriculture industry by halting its methyl bromide use within the year," stated Grabel.

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Source: Environmental Investigation Agency (EIA), 4 August 2005,
http://www.eia-international.org/index_shocked.shtml

3-Skin Cancer Cases Triple among those Under 40

There has been a dramatic increase in two types of non-melanoma skin cancer in people under 40 according to researchers at the Mayo Clinic. The most likely causes: the fact that young people still seek tans and the depletion of the earth's ozone layer. The results of the study were published in the most recent edition of the 'Journal of the American Medical Association.'

The two types of skin cancer in question are basal and squamous cell carcinomas. They are usually prevalent in people over the age of 50 but now doctors say there have even been cases in teenagers and pre-teens.

'This has been evolving over time, and it has just gotten to the point where it has hit our radar screen,' said Dr. Leslie Christenson, a dermatologic surgeon at the Mayo Clinic and the leader of the study.

'Parents are good about putting sunscreen on children, but as children reach their adolescent years, parents are no longer allowed to do that.'

The study examined the health records of 500 people living in Olmstead County, Minnesota. The population there is mostly white and according to Dr. Christenson, is representative of white populations throughout the country.

These two types of skin cancer are most common in people with blond or red hair. They do not spread quickly like melanoma but if they are left untreated for a long period of time, they could metastasize and cause significant problems.

All told, 800,000 new cases of basal carcinoma and 200,000 of squamous cell cancer are reported annually in the U.S. But the analysis found an alarming trend. In 2003, there were 32 cases of the cancers per 100,000 people under age 40 compared with 13 per 100,000 in the late 1970s. More than 56 percent of the cancers were in women.

Tanning salons and ozone depletion are seen as the top reasons for the problem. The fact that young people are still seeking to get tans despite all of the warnings about skin cancer is another major contributing factor.

It is recommended that even young people have their skin checked for cancerous growths when they go in for their annual checkup.

Source: Elites TV, 10 August 2005, By: Gregory Richter,
<http://www.elitestv.com/pub/2005/Aug/EEN42fa0645d589b.html>

WEST ASIA**4- Concern over Ozone Layer Protection (Kuwait)**

Dr Saud Al-Rashied, Chairman of the National Ozone Committee, said Kuwait has reacted positively to international measures aimed at protecting the environment, especially the ozone layer. Kuwait places great concern on the environment where it has signed the Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer. Kuwait has also replaced ozone-depleting technologies with those that are ozone-friendly, he added. The National Ozone Committee is working on eliminating ozone depletion substances found in imported goods by companies in Kuwait. He noted that any importer in Kuwait cannot get a letter of credit from the bank on any materials and substance unless they receive an approval by the National Ozone Committee.

The committee has trained 300 custom officers to locate substances that are harmful to the ozone layer. The committee also carries out ozone awareness programmes that includes, periodical seminars aimed at informing the public on the importance of the ozone layer and means to protect it. The committee celebrates the International Ozone day on Sept 16 and publishes brochures and posters on this matter.

The National Ozone Committee groups the Environment Public Authority (EPA), the Public Department of Customs, the Fire Department, Defence Ministry, Kuwait University, Kuwait Institute for Scientific research (KISR), Ministry of Energy and Oil and The Public Authority for Industry.

Source: Kuwait Times, 1 August 2005 <http://www.kuwaittimes.net/today/index.php>

EUROPE

5- Trane Presents Free-Cooling as RTAD Range's Coolest Thing

Golbey, France - Trane is making available to its customers a new 'free-cooling' option on its RTAD, air-cooled liquid chiller range. The free-cooling option has many advantages, especially from the environmental standpoint.

Trane offers a wide portfolio of environmentally responsible and fully integrated HVAC products, systems and services that enable Trane customers to create and develop sustainable buildings for now and for the future. As part of this, the specialist company has launched the free-cooling option on its RTAD chiller range.

Environmental concerns at the heart of Trane's strategy. Owing to this option, which enables energy to be recovered via the ambient cold and the use of the refrigerant fluid R 134a (ODP = 0, GWP = low), Trane complies with current environmental requirements with regard to confining refrigerants to industrial and tertiary-sector buildings, and also with regard to contributing to the worldwide reduction in the greenhouse effect.

Considerable savings made possible by free-cooling option. The machine, fitted with the free-cooling option, is adaptable since it offers the possibility of switching from compressor mode to free-cooling mode via a built-in, three-way control valve. In this way, when the outside temperature is sufficiently low, it enables the ambient cold to be used to cool the heat transfer fluid and to limit the compressor mode so as to reduce the user's energy bill. It is thus possible to save up to 34% of normal energy consumption, depending on the cooling load required and the number of hours during which ambient temperatures are relatively low.

This machine is especially suited to industrial processes as well as to those applications requiring a year-round cooling load. Indeed, using the free-cooling mode is especially recommended for the markets of northern Europe, due to the sizeable number of hours at low ambient temperature.

This option, built in as early as the machine's design phase, makes it possible to obtain a unit which remains compact - accessibility to the coils as well as maintenance are greatly simplified. As is the case with Trane's Series RTM chillers and owing to its Trane helical-rotary compressors - direct drive, low speed and semi-hermetic - this machine also has the highest reliability rate on the market.

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Source: InfoTech France, 29 July 2005 <http://www.infotechfrance.com/london/>

6- EC Takes Further Action against France for Lack of Protection of the Ozone Layer

The European Commission has decided to pursue infringements against France in ten cases involving breaches of EU environmental laws... France received a Final warning before Court action for Lack of protection of the ozone layer.

France has been sent another final written warning because it has not met its reporting obligations with regard to the quarantine and pre-shipment (QPS) use of methyl bromide, a highly ozone-depleting pesticide that is being phased out. Methyl bromide depletes the Earth's ozone layer which protects humans, animals and plants from the sun's dangerous ultraviolet radiation.

Its use for QPS treatments is still allowed to ensure that traded crops are pest-free since alternatives for this specific use are only slowly developed.

The EU's Regulation on substances that deplete the ozone layer [5] envisages the eventual cessation of all uses of ozone-depleting substances, including methyl bromide. Contrary to the Regulation, France has failed to provide complete reports for 2001, 2002 and 2003. Correct reporting is important for the Commission to keep track of the EU's use of methyl bromide – and to meet international obligations.

Further final warnings before Court action

Alongside several other Member States, France has been sent final warnings for failing to notify to the Commission its national implementing legislation for EU laws on noise[6] (see IP/05/894), on public access to environmental information[7] (see IP/05/892) and on waste electrical and electronic equipment[8] and hazardous materials in such equipment[9] (see IP/05/895). Similar action is being taken against several other Member States.

Source: [European Commission, Press Releases Rapid, 15 July 2005](#)

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