

Nature Environment and Pollution Technology

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Website: <http://www.wessex.ac.uk/16-conferences/design-and-nature-2016.html>

Contact person: Irene Moreno Millan

ASIA 2016: Water Resources and Hydropower Development in Asia

1st to 4th March 2016

National Convention Centre, Road 13, Vientiane, Lao Peoples Democratic Republic

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Water Pollution 2016

27th to 29th June 2016, Venice, Italy

Website: <http://www.wessex.ac.uk/16-conferences/water-pollution-2016.html>

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The International Society for Ecological Modelling Global Conference 2016

8th to 12th May 2016

Baltimore, MD, United States of America

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Bali, Indonesia

Website: <http://www.iicbe.org/2015/11/19/67>

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International Conference on the Constructed Environment - A Common Ground Conference

1st to 3rd April 2016

Tucson, Arizona, United States of America

Website: <http://constructedenvironment.com/the-conference>

Contact person: Common Ground Publishing

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Penang, Malaysia

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8th International Congress of Environmental Research

27th to 28th July 2016

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Website: <http://www.icer16.jerad.org/index.php>

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Valencia, Spain

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ENVIRONMENTAL NEWS

Power plant CO₂ emissions at 27 year low

Most of the environmental news we hear today is disheartening information about the consequences we'll soon be facing thanks to climate change. Let's take a momentary break from that sadness to focus on some good news: U.S. power plants are currently releasing the lowest amount of carbon emissions in 27 years. It seems like we might be making some progress!

The low mark occurred in April of this year, when U.S. power plants generated just 141 million tons of carbon dioxide, a figure we haven't seen since April of 1988. Because power plants produce roughly one-third of the country's emissions, this measurement is one of the biggest indicators we have to see how we're doing at tackling global warming.

While some of this carbon success can be attributed to a rise in renewable resources, experts admit that a lot of the shift is a decreased reliance on coal. Considered dirty energy, burning coal releases more carbon dioxide than other forms of fuel. Instead, more power companies have turned to burning natural gas, which – though still harmful to the environment – creates less carbon emissions. The reason for this shift is not only that power companies are becoming more conscious of their eco-footprint, but also that the price of natural gas has decreased nearly 40 percent in the past twelve months alone making it a much more affordable option.

Though it's likely that April's number will rebound a little over the summer months since the heat prompts a surge in air conditioning use, the trend is encouraging overall. Though the amount of carbon emissions have been dropping (fairly) steadily since 2008, the initial drop was attributed mainly to the economic crash and a decline in manufacturing that necessitates power. While the economy has since rebounded and, in turn, required more power, a change in what power plants are burning has kept carbon emissions trending in a downward trajectory anyway.

A 27-year low in power plant emissions is worth celebrating, but it's still not time to coast on this success. Though burning natural gas is better than coal, switching to wind and solar power on a large scale will be the real victory. To protect the planet, carbon emissions from power plants will eventually need to hover around zero.

August 11, 2015, Environmental News Network

Hazardous haze shrouds Kuala Lumpur

Malaysia's leader declared an emergency in two regions Thursday, closing workplaces and calling on mosques to hold special prayers for rain to rid the country of hazardous haze drifting from forest fires in neighboring Indonesia. The haze has shrouded Kuala Lumpur and surrounding areas for more than a week in a pall of noxious fumes, smelling of ash and coal, in the country's worst environmental crisis since 1997.

The source of the haze is Indonesia's Sumatra Island, where farmers, plantation owners and miners have set hundreds of fires in the forests to clear land during dry weather. Winds blow most of the fumes across the narrow Strait of Malacca to Malaysia, although parts of Indonesia are also affected.

The fires are an annual occurrence, and Malaysian officials have expressed frustration over Indonesia's failure to tackle the problem. Indonesia's forestry minister, Malam Sambat Kaban, countered Thursday that 10 Malaysian firms clearing land in Indonesia had contributed to the fires.

August 11, 2015 NBCNEWS.com

ENVIRONMENTAL NEWS

New frog species discovered in Goa

A group of city scientists has discovered a new leaping frog species on the edge of the Netravali wildlife sanctuary in Goa.

“The Netravali Leaping Frog (*Indirana salelkari*) is the 12th species in the *Indirana* genus, an interesting genus because it is entirely endemic to the Western Ghats. In fact, the family this genus belongs to is endemic to the Western Ghats,” said Neelesh Dahanukar, one of the scientists.

This genus of frogs is mainly found in the streams and rock surfaces of Western Ghats. A distinctive feature of these frogs is the presence of small pads on their toes and fingers. The pads help them climb rocks, said Dahanukar, who is a fellow at the Indian Institute of Science Education and Research (IISER), Pune.

This particular species is distinct from the others in the genus on the basis of the mouth structure. Frogs have what are called vomerine teeth on the roof of their mouths. They are not used for chewing food, but to grip onto their prey. Their teeth structure is different from that of others in the genus, he added.

Molecular studies and DNA analysis have also established the Netravali Leaping Frog as a distinct species.

“We chanced upon the frog on a farm that is on the edge of the Netravali wildlife sanctuary. It looked different. We also carried out molecular studies and were able to identify it as a genetically separate species. This is an integrated taxonomic approach,” said Dahanukar.

The discovery of this species is important from conservation point of view for two reasons. “Firstly, it demonstrates that there are so many species out there that we don’t even know about. This is the second frog species discovered in this genus in the last two years. Will some of these species fade away before we even knew they were there,” asked Dahanukar.

Last year, another species in the *Indirana* genus was discovered from Amboli Ghat in Maharashtra.

Dahanukar also pointed out that this endemic group of frogs faces several threats. “Many of the locals are involved in illegal trade of exotic species such as newts. These invasive species can severely damage local habitats and can also bring in diseases like Chytrid. For a group of frogs that is endemic this can be devastating, because once they are lost they will be gone forever,” he added.

12 August 2015, Times of India

ENVIRONMENTAL NEWS

Melting glaciers feed Antarctic food chain

Nutrient-rich water from melting Antarctic glaciers nourishes the ocean food chain, creating feeding “hot spots” in large gaps in the sea ice, according to a new study. New research finds that iron stored in the region’s glaciers is being shuttled by melting water to open areas of the ocean, called polynyas, where it stimulates growth of phytoplankton, ocean algae that form the base of the marine food chain. Krill and fish thrive on phytoplankton, and these smaller animals support penguins, seals and whales that feed and breed in the polynyas that ring the Antarctic coast, according to new research. Increased melting of Antarctic glaciers in the coming decades, which scientists say could occur as a result of climate change, could cause a spike in the amount of iron in the polynyas, according to the new study. The increased iron could boost phytoplankton in these open areas, potentially providing more food for the entire food chain, suggests the new study accepted for publication in *Journal of Geophysical Research: Oceans*, an American Geophysical Union journal.

“These coastal polynyas are sensitive to inputs from adjacent glaciers, and these glaciers are probably going to accelerate their melting in the future, which is certainly going to have implications for these polynyas,” said Kevin Arrigo, a biological oceanographer with the Department of Earth System Science at Stanford University in California, and lead author of the new study.

“Coastal Antarctica is likely to become a more productive place in the future,” Arrigo said.

Polynyas are created during the summer when winds whip off the Antarctic Ice Sheet, pushing floating sea ice away from the shore. These open areas of water, which range from the size of San Diego to an area equal to the Great Lakes, are hot spots for phytoplankton and, in turn, the entire ocean food chain, according to Arrigo.

“When you look at satellite images of ocean color, these areas just light up [green] compared to the [blue] waters around them,” he said. The new research by Arrigo and his team suggests that the amount of water leaving melting Antarctic glaciers is the largest driver behind the abundance of phytoplankton in the polynyas, not sunlight or temperature as scientists had previously thought. Larger amounts of water coming off the glaciers carry more iron into the polynyas, which should simulate more phytoplankton growth, according to the new study.

This new information about phytoplankton growth in polynyas, based on satellite data, gives scientists greater insight into how the Antarctic marine food web works and how it could be affected by climate change, according to the study’s authors. Arrigo noted that although climate change could increase the amount of iron in the polynyas, any positive effects of the additional iron may be offset by other climate change-driven environmental shifts. He added that most marine organisms will be negatively affected by global increases in ocean temperatures and acidification that are expected to happen as a result of climate change.

The new research could also shed light on how carbon is stored in the ocean, Arrigo said. The new study suggests that phytoplankton in the polynyas could be responsible for pulling in large amounts of carbon dioxide from the atmosphere through photosynthesis. The polynyas could be acting as storage sites for carbon released into the atmosphere by fossil fuel burning, according to the new study.

“These polynyas appear to be disproportionately important, for their size, as sinks of carbon. And the reality is that they really are not included in anyone’s carbon budget,” said Arrigo.

11 August 2015, Science Daily

DID YOU KNOW

1. Only 1% of the world's water supply is usable, 97% are the oceans and 2% is frozen (for now).
2. Recycling one aluminum can saves enough energy to run a TV for three hours
3. The amount of wood and paper we throw away each year is enough to heat 50,000,000 homes for 20 years.
4. Plastic bags and other plastic garbage thrown into the ocean kill as many as 1,000,000 sea creatures every year.
5. Rainforests are being cut down at the rate of 100 acres per minute.
6. Of 1.5 million known species, 16,118 species are in danger of disappearing.
7. Each year, mankind consumes 40 percent more resources than nature can restore.
8. A million tons of paper is used worldwide in a single day.
9. On the average, there are 27 oil spills per day in the world's oceans.
10. China, The United States and India produce about half of the world's carbon dioxide emissions.
11. The trails left by airplanes make up almost half of the greenhouse warming caused by the airline industry.
12. Plankton are tiny creatures that serve as food for many sea animals. In sections of the Pacific there are six times more particles of plastic than plankton.
13. About 4 million pounds of trash are currently in space orbiting the earth debris from satellites that have gone offline.
14. Worldwide levels of plankton organisms have dropped 40 percent since the 1950s. The drop has been linked to rising ocean temperatures.
15. More than 8,000 people die a day from breathing polluted air, mainly from coal particles in their lungs.
16. Almost all the plastic ever made still exists today. A plastic milk jug, for example, takes a million years to decompose.