



## News

**Forest darkness helps stave off effects of nitrogen pollution – but this is set to change**

Europe's forests are sitting on a pollution timebomb which could rewrite their ecology when it explodes, say researchers. Delicate forest floor plants such as wood sorrel or violet, and the balance among the tree species that tower above them, are all threatened by decades of accumulated nitrogen pollution. A study has found that the darkness of the forest has subdued the effects of nitrogen. But forests are destined to let in more light in the future as trees succumb to drought and disease. Forests cover 40% of the European Union's land area and are expanding in some countries, mostly because of active restoration or the abandonment of agricultural land. Forests provide services such as controlling erosion and cycling water but they are also increasingly threatened by droughts and diseases such as ash dieback. ....[Read more...](#)

Date: October 01, 2020

Source: phys.org

**Flowers Are Changing Colour To Save Pollen From Global Warming, Ozone Depletion**

Just like the animal kingdom, plants adapt to the changing climate of the Earth. A new research shows the latest way in which they do so - by altering ultraviolet (UV) pigments in their petals. This means that the plants are essentially changing their colours in response to the climate change. The study, now published in journal Current Biology, examined a total of 1238 flowers from 42 different species, dating back to 1941. These species were collected from across North America, Europe, and Australia. The researchers found that over the past 75 years, flowers have evolved to alter the ultraviolet (UV) pigments in their petals in response to the rising temperatures as well as the declining ozone layer of the Earth. "Flowers' UV pigments are invisible to the human eye, but they attract pollinators and serve as a kind of sunscreen for plants," explained Matthew Koski as per a ScienceMag report, ....[Read more...](#)

Date: October 04, 2020

Source: India Times

**CRISPRing trees for a climate-friendly economy**

Today's fossil-based economy results in a net increase of CO<sub>2</sub> in the Earth's atmosphere and is a major cause of global climate change. To counter this, a shift towards a circular and bio-based economy is essential. Woody biomass can play a crucial role in such a bio-based economy by serving as a renewable and carbon-neutral resource for the production of many chemicals. Unfortunately, the presence of lignin hinders the processing of wood into bio-based products. Prof. Wout Boerjan (VIB-UGent): "A few years ago, we performed a field trial with poplars that were engineered to make wood containing less lignin. Most plants showed large improvements in processing efficiency for many possible applications. The downside, however, was that the reduction in lignin accomplished with the technology we used then -- RNA interference -- was unstable and the trees grew less tall." ....[Read more...](#)

Date: October 06, 2020

Source: Science Daily

**The relationship between plant traits and ecosystem function**

In a longitudinal study, an international research team led by Leipzig University has investigated the consequences of changes in plant biodiversity for the functioning of ecosystems. The scientists found that the relationships between plant traits and ecosystem functions change from year to year. This makes predicting the long-term consequences of biodiversity change extremely difficult, they write in Nature Ecology & Evolution. "We found that—over the longer term—the links between plant traits and ecosystem functions were indeed very weak, as we could only explain about 12 per cent of the variance in ecosystem functioning," said the paper's lead author, Dr. Fons van der Plas from the Institute of Biology at Leipzig University. Together with colleagues from the German Centre for Integrative Biodiversity Research (iDiv) and other research institutions in Germany and abroad, ....[Read more...](#)

Date: October 07, 2020

Source: phys.org

**Explained: From humble fungi, the promise of cleaner air in New Delhi this winter**

Paddy stubble-burning season is here, and satellite remote sensing data from the Indian Agriculture Research Institute (IARI) show a five-fold increase in the number of farm fires in Punjab, Haryana, and Uttar Pradesh during the first six days of October compared to the corresponding dates in 2019. While this initial spike might flatten in the coming days, the SAFAR-India short-range forecast on Thursday (October 8) said the overall AQI in Delhi was in the "higher end moderate category", and was forecast "at the higher end of moderate to the poor category" for October 9. The burning of paddy stubble left in the fields after harvest has been a cause of concern for the past several years as it contributes to air pollution in the northern Gangetic plains and its already polluted cities like Delhi. ....[Read more...](#)

Date: October 10, 2020

Source: The Indian Express

## NEWSBULLETIN COMMITTEE

**Executive Editor**

Dr. Pankaj Kumar Srivastava

pankajk@nbri.res.in

**Compiled By**

Mr. Sunil Tripathi, Mr. Diwakar Saini, Ms. Karishma Srivastava, Mr. Akash Tiwari

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