NEWSBULLETIN

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The Environmental Information System at Eco-Auditing Laboratory, National Botanical Research Institute is focussed on "Plants & Pollution". This is the E-mail Publication that Feature News, Information and Events Related to Plants & Pollution.

The Focus of ENVIS has been on Providing Environmental Information to Decision Makers, Policy Planners, Scientists and Engineers, Research Workers, etc. all over the World.

Eco-Auditing Group is Involved in R & D on Eco-Monitoring, Environmental Impact Assessment, Eco-Friendly Models that are Technologically and Economically Feasible for Phytoremedia--tion of Polluted Lands and Polluted Waters etc.

News

Almond orchard recycling a climate-smart strategy

Whole orchard recycling is when old orchard trees are ground, chipped and turned back into the soil before new almond trees are planted. The study, published in the journal PLOS ONE, suggests that whole orchard recycling can help almond orchards be more sustainable and resilient to drought while also increasing carbon storage in the soil. "To me what was really impressive was the water piece," said corresponding author Amelia Gaudin, an associate professor of agro ecology in the UC Davis Department of Plant Sciences. "Water is central to how we think about agriculture in California. This is a clear example of capitalizing on soil health. Here we see some real benefits for water conservation and for growers." Drought and high almond prices have encouraged higher rates of orchard turnover in recent years. The previous practice of burning trees that are no longer productive is now restricted under air quality regulations, so whole orchard recycling presents an alternative. But how sustainable and effective is it for the environment and for farmers? For the study, scientists measured soil health and tree productivity of an almond orchard that turned previous Prunus woody biomass back into the soil through whole orchard recycling and compared it with an orchard that burned its old trees nine years prior. .....**Read more...**

Date: April 01, 2020
Source: Science Daily

Long-living tropical trees play outsized role in carbon storage

"People have been arguing about whether these long-lived pioneers contribute much to carbon storage over the long term," said Caroline Farrior, an assistant professor of integrative biology at The University of Texas at Austin and a primary investigator on the study. "We were surprised to find that they do." It is unclear the extent to which tropical rainforests can help soak up excess carbon dioxide in the atmosphere produced by burning fossil fuels. Nonetheless, the new study provides insights about the role of different species of trees in carbon storage. Using more than 30 years' worth of data collected from a tropical rainforest in Panama, the team has uncovered some key traits of trees that, when integrated into computer models related to climate change, will improve the models' accuracy. With the team's improved model, the scientists plan to begin answering questions about what drives forest composition over time and what factors affect carbon storage. Most existing Earth system models used to forecast global climate decades from now, including those used by the Intergovernmental Panel on Climate Change, represent the trees in a forest as all basically the same. "This analysis shows that that is not good enough for tropical forests and provides a way forward," Farrior said. "We show that the variation in tropical forest species's growth, survival and reproduction is important for predicting forest carbon storage." .....**Read more...**

Date: April 09, 2020
Source: Science Daily

Data shows 30 percent drop in air pollution over northeast U.S.

Over the past several weeks, NASA satellite measurements have revealed significant reductions in air pollution over the major metropolitan areas of the Northeast United States. Similar reductions have been observed in other regions of the world. These recent improvements in air quality have come at a high cost, as communities grapple with widespread lockdowns and shelter-in-place orders as a result of the spread of COVID-19. Nitrogen dioxide, primarily emitted from burning fossil fuels for transportation and electricity generation, can be used as an indicator of changes in human activity. The images below show average concentrations of atmospheric nitrogen dioxide as measured by the Ozone Monitoring Instrument (OMI) on NASA's Aura satellite, as processed by a team at NASA's Goddard Space Flight Center, Greenbelt, Maryland. The left image in the slider shows the average concentration in March of 2015-19, while the right image in the slider shows the average concentration measured in March of this year. Though variations in weather from year to year cause variations in the monthly means for individual years, March 2020 shows the lowest monthly atmospheric nitrogen dioxide levels of any March during the OMI data record, which spans 2005 to the present. In fact, the data indicate that .....**Read more...**

Date: April 10, 2020
Source: Phys.org

The deadly link between COVID-19 and air pollution

As the coronavirus pandemic impacts millions across the world and brings economies to a grinding halt, there is a lot of talk about how emissions from fossil fuel combustion have dropped radically in many countries. Yet this is no solution to air pollution and climate change. For while eerily empty cities may be bathed in blue skies, millions are suddenly out of work and wondering how they are going to care for their families. The poor and most vulnerable will suffer most from both the health impacts and the economic crisis. Cleaner air for a few months may be a tiny silver lining to COVID-19's dark clouds, but will do little in the long run to solve the problem of outdoor air pollution that kills more than four million people every year. For that we need to kick our habit of burning coal, oil and gas. .....**Read more...**

Date: April 15, 2020
Source: World Economic Forum

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