



News

US could cut emissions more than one-fifth through 'natural climate solutions' like reforestation

More than one-fifth of current greenhouse gas emissions in the United States could be kept out of the atmosphere and stored in the land, according to new research. A study led by Joseph E. Fargione, director of science at The Nature Conservancy, looks at the natural solutions that could help the US do its part to keep global warming below 2 degrees Celsius (approximately 3.6 degrees Fahrenheit), the goal adopted by the 195 countries who signed the Paris Climate Agreement in December 2015. Fargione and team examined 21 natural climate solutions that increase carbon storage and help avoid the release of greenhouse gases into the atmosphere, including conservation and restoration initiatives as well as improved management of forests, grasslands, farmlands, and wetlands. According to a study.....[Read more...](#)

Date: November 21, 2018

Source: News.Mongabay

Rain Gardens: A Lovely Way to Protect the Planet

"Each time it rains, pollutants such as nitrogen, phosphorus, zinc, and even lead flow directly into our sewers and waterways," laments horticulturist Karyn Smith of Stanards ville. Since much of the water in our area is drawn from the Rivanna River watershed which encompasses Charlottesville, all of Albemarle County and parts of Fluvanna and Greene Counties, it's critical to protect our water sources. Some of our local storm water even makes its way to the Chesapeake Bay where pollution can affect wildlife from birds to fish and even oysters. Each little oyster can filter 50 gallons of water every day so it's particularly important to protect them. Smith observes that humans have covered all too much land with buildings, roads, parking lots, tennis courts and other impermeable surfaces.....[Read more...](#)

Date: November 21, 2018

Source: C-Ville

Indoor gardening with a purpose — improving air quality in the home

With the outdoor growing season now officially ended in our area, you can still continue your gardening hobby by switching to growing indoor plants. It is a great way to keep your green thumb active. But did you know that in addition to room decorating, indoor plantings can also be utilized to help control indoor pollution either in your home or office?

HOW HOUSEPLANTS CAN IMPROVE INDOOR AIR QUALITY

Very simply, plants can produce fresher air by absorbing carbon dioxide and releasing oxygen. This process is called photosynthesis and is made possible by the plants absorbing gases through pores on the surfaces of their leaves. In the 1980s, scientists at NASA, led by[Read more...](#)

Date: November 26, 2018

Source: The Daily News

Fossil algae reveal 500 million years of climate change

As CO₂ increases today, it's vital to understand what impact these changes will have. To better predict the future, we must understand long-term changes in CO₂ over geologic history. Direct measurements of past CO₂ are available, e.g. bubbles in ice cores containing ancient gases. However, ice cores have a limited time span of one million years. To go farther back in time, earth scientists have developed various indirect measurements of CO₂ from proxies e.g. from algae, leaves, ancient soils and chemicals stored in ancient sediments to reconstruct past environmental conditions. A new proxy, using a degradation product of chlorophyll, allows geochemists to infer a continuous record of historic CO₂-levels in deep time. Scientists at NIOZ have recently developed phytane as a promising[Read more...](#)

Date: November 28, 2018

Source: Science Daily

Historical climate important for soil responses to future climate change

According to the study, microorganisms that have been subjected to long-term drought find it easier than other microbes to recover when moisture in the soil increases again. "Our results show that the historical climate will affect how microorganisms respond and contribute to climate change in the future. Bacteria adapted to drought could slow the rate of carbon loss from soils," explains Lettice Hicks, biologist at Lund University. In the study, she and her colleagues examined soil that had been subjected to long-term drought -- in this case 18 years of experimental summer drought. The aim was to study how the microorganisms cope and how they recover. When the soil is moist, the bacteria are active, breaking down organic material. This process provides essential nutrients for plants, and, while.....[Read more...](#)

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