



News

Floating parks made from plastic waste could unite communities to tackle pollution

The Recycled Island Foundation and the WHIM Architecture firm launched the Recycled Park Project in 2014 with the aim of catching plastic waste in Rotterdam's New Meuse river before it enters the North Sea. Three floating litter traps with nets attached collect litter in the water while volunteers sweep the riverbank. The retrieved plastic is converted into hexagonal building blocks which have been used to build a floating island park in the river itself. The park is open to the community and filled with plants and benches, giving people a new green habitat to enjoy in the heart of the city.....[Read more...](#)

Date: January 03, 2019

Source: Phys.org

Plant hedges to combat near-road pollution exposure

In a paper published in Atmospheric Environment, researchers from the Global Centre for Clean Air Research (GCARE) looked at how three types of road-side green infrastructure -- trees, hedges, and a combination of trees with hedges and shrubs -- affected the concentration levels of air pollution. The study used six roadside locations in Guildford, UK, as test sites where the green infrastructure was between one to two metres away from the road. The researchers found that roadsides that only had hedges were the most effective at reducing pollution exposure, cutting black carbon by up to 63 percent. Ultrafine and sub-micron particles followed this reduction trend, with fine particles (less than 2.5 micrometres in diameter) showing the least reduction among all the measured pollutants. The maximum reduction in concentrations was observed when the winds were parallel to the road due to a sweeping effect, followed by winds across the road. The elemental composition of particles indicated.....[Read more...](#)

Date: January 04, 2019

Source: Science Daily

Scientists Are Using Bacteria To Remove Harmful Contaminants From Our Water.

The Coates lab is growing many different kinds of bacteria, multiplying in petri dishes at mind-boggling rates. But these bacteria aren't out to harm people or animals. In fact, quite the opposite — they're hard at work breaking down a dangerous chemical that pollutes waterways across the United States. The chemical, called perchlorate, comes from rocket fuel, munitions and fireworks. It's dangerous to humans because it can impair thyroid function. It can also affect the thyroid in freshwater animals like fish and amphibians, even altering gonad development in some animals. But certain bacteria, including several species of Dechloromonas and Azospira, have evolved to use perchlorate to make energy-storing molecules. In the process, they turn it into harmless chloride and oxygen.....[Read more...](#)

Date: January 08, 2019

Source: Ensia

New policy design needed to tackle global environmental threat

A team of international researchers, including experts from the Land, Environment, Economics and Policy (LEEP) Institute at the University of Exeter, has examined how politicians and legislators can develop a new way to tackle the growing threat of climate change. The perspective piece, which is published as the cover article in Nature Sustainability, comes in response to advice from leading scientists, suggesting that the human impact on the environment are already tipping the world into a new geologically significant era. Called the Anthropocene, this new era is defined by the effect human-kind has already caused on Earth, from mass extinctions of plant and animal species, polluted oceans and altered atmosphere. In the new report, the scientists argue that while policies are available, there also needs to be a new way to tackle the geographical, boundary, spatial, ecological and socio-political complexities of the issue; and that will require working together across disciplines.[Read more...](#)

Date: January 11, 2019

Source: Science Daily

New conservation practice could reduce nitrogen pollution in agricultural drainage water

"It might not sound like much, given that agricultural drainage only represents a portion of the nitrogen getting into the Mississippi. But 5 to 10 percent is pretty good for an inexpensive, passive system that farmers can put in and forget about," says Reid Christianson, research assistant professor in the Department of Crop Sciences at U of I and co-author of the study, published in Agricultural and Environmental Letters. Saturated buffers are vegetated strips of land -- as little as 30 feet across -- between tile-drained agricultural fields and waterways. Ordinarily, tile pipes carrying drainage water from the fields empty directly into ditches or streams. With a saturated buffer, the water is re-routed to a perforated pipe running below the surface and parallel to the stream. Water then flows through the soil of the saturated buffer into the stream. Along the way, soil microbes naturally remove up to 44 percent of the nitrogen. "Saturated buffers don't take a lot of land out of production, and are[Read more...](#)

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Source: Science Daily

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