



News

Plantwatch: Wildflowers lose out twice from nitrogen pollution

Nitrogen pollution in the air is devastating for many sensitive wild plants, which is why so much of the countryside is becoming a vast carpet of nettles, hogweed, hemlock and other rampant vegetation that feasts on nitrogen. In many places, these are running out of control. Much has been written about the damage to human health from nitrogen oxides given off by traffic, but the damage to sensitive plants has gone largely unnoticed. Excessive nitrogen also comes from ammonia from fertilizers and manures, with much of the countryside awash with nitrates running off farmland. More than a third of Britain's wild flowering plants need low levels of nutrients in the soil, and they are suffering from too much nitrogen raining down from the atmosphere. That onslaught is having a[Read more...](#)

Date: 17 December 2017**Source:** <https://www.theguardian.com>**Life on the edge prepares plants for climate change**

The researchers focused on mustard cress which grows across Europe, Asia and northwest Africa. Surprisingly, Scandinavian plants can cope with extreme drought as well as those from Mediterranean countries. This could be because water in the Scandinavian soil is frozen for many months, making it inaccessible to plants and effectively creating drought conditions. The researchers planted mustard cress seeds collected from over two hundred locations as diverse as North Africa, Spain, central Europe and northern Sweden. After they had germinated under optimal conditions, the plants were challenged with severe drought, and their ability to survive this stress was recorded. Using large-scale genome sequencing information, specific genetic variants could be linked to the plants'.....[Read more...](#)

Date: 19 December 2017**Source:** <https://www.sciencedaily.com>**Climate change may favor large plant eaters over small competitors**

Scientists have generally expected animals to get smaller as the planet warms, as research on the interactions in food webs has focused mainly on the effects of temperature. But the new study accounts for more climate variables, not just temperature, that could come into play, including atmospheric carbon dioxide levels and rainfall patterns. In the study published in the journal American Naturalist, researchers developed a model based on food web interactions among plants, grasshoppers, and spiders exposed to multiple changing climate variables. The variables interact and influence plant nutritional quality, which in turn affects the herbivorous grasshoppers and the shared.....[Read more...](#)

Date: 19 December 2017**Source:** <https://www.sciencedaily.com>**Agroforestry boosts rice and biodiversity in India**

For the tough, weather-beaten farmers in the rural heartland of West Bengal, agroforestry is an age-old tradition that even finds mention in their folklore. In the remote village of Bhattadighi, a group of women farmers observes a unique ritual, known as Paakh Pakhali or "welcoming birds," in which they fill an earthen urn with water and top it with mango leaves and green coconut. Placed under a freshly planted neem tree sapling, it symbolizes the goddess of farming, Bhumi Lakshmi, whose mythical mount is a barn owl. The holy site is adorned with facsimiles of owls, painted storks, herons, egrets and other birds, all painted on white terracotta plates. "Our paddy plants are set to bloom within the next few days. We pray to the Goddess not just for a bountiful harvest, but also to send many owls and birds to our fields, to eat away the insects and rats," says Malati Burman.....[Read more...](#)

Date: 22 December 2017**Source:** <http://www.downtoearth.org.in>**Trees' spring awakening is becoming less and less sensitive to altitude differences**

In the Swiss Alps, the time lag between leafing of trees at high and low altitudes has shortened dramatically since the 1960s due to climate warming. This was the finding of a study conducted by the Swiss Federal Institute for Forest, Snow and Landscape Research (WSL) and the University of Neuchâtel in collaboration with the Swiss Federal Institute of Technology Lausanne (EPFL) and the universities of Antwerp and Beijing. The study was published in the journal PNAS (Proceedings of the National Academy of Sciences). Led by biologist Yann Vitasse, three researchers analysed more than 20,000 observations recorded in Switzerland since 1960 by volunteers and collected by MeteoSwiss. The records in question covered the dates on which leaves or needles.....[Read more...](#)

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