

Concerned Scientists' Weekly News Bulletin

[February 22, 2021]



Our weekly bulletin collects and digests news of the past week.

Contributions welcome.

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NEWS ITEMS AND ARTICLES

Science: [“Touchdown confirmed!” Perseverance landing marks new dawn for Mars science](#)

The rover has already started sending back images as it begins its mission, which aims to have it travel across the surface of Mars to retrieve at least 20 rock samples over the next two years that will then be studied for clues into Mars' past warm, wet climate and possible signs of life. This marks NASA's 9th successful Mars landing, out of 10 attempts. The rover Perseverance also has an attached helicopter called Ingenuity that will be the first rotor-powered vehicle to fly on another planet.

UN News: [UN offers science-based blueprint to tackle climate crisis, biodiversity loss and pollution](#)

A new UN Environment Programme (UNEP) report, “Making Peace with Nature,” points to climate disruption, biodiversity loss, and pollution, which “threaten our viability as a species” and presents a strong case to integrate nature's value into policies, decisions, and economic systems that, among other things, foster innovative sustainable technologies. “The bottom line is that we need to transform how we view and value nature”, said the Secretary-General Guterres.

Politico: [Texas and California built different power grids, but neither stood up to climate change](#)

Over the past couple of decades, California has increased their use of solar and wind energy and Texas has created its own independent power system supplied by coal, gas, nuclear, and wind power. Both systems dealt with major power outages and failures resulting from extreme weather—one from fires, the other from ice storms. Over 4 million people were recently left in Texas without power or clean water. Experts suggest that increasing power connectivity across the US could help prevent future blackouts when certain systems fail.

Reuters: [Cost of flood damage to U.S. homes will increase by 61% in 30 years](#)

Rising sea levels and extreme weather could cause \$20 billion of flood damage to at-risk U.S. homes this year, rising to \$32 billion by 2051, according to research from New York-based flood research non-profit First Street Foundation

Nature: [Can COVID vaccines stop transmission? Scientists race to find answers](#)

There is uncertainty whether vaccination prevents asymptomatic infection from the disease, or whether it sufficiently decreases the viral load if infected so that a vaccinated person cannot pass the virus along to another person. Early trials of the Moderna and Oxford-AstraZeneca vaccine showed significant drops in asymptomatic infections in those who had been vaccinated compared to those who had not, but more research is needed.

New York Times: [Scientists call on CDC to set air standards for workplaces, now](#)

The CDC does not currently require or endorse high-quality respirators, such as N95s, for workplaces with poor ventilation such as meatpacking plants, prisons, or grocery stores, and has seemed to downplay the role of airborne viral transmission over the past year. Though the Biden administration has called on the Occupational Safety and Health Administration to create temporary requirements involving proper ventilation and mask-use, officials say the OSHA will not make these changes without CDC guidance.

Science: [Unprotected African health workers die as rich countries buy up COVID-19 vaccines](#)

Over 175 million vaccination shots have been given to citizens in Asia, Europe, and the Americas since December, but South Africa marks the only sub-Saharan African country to start immunizations, and only was able to do so starting last week. The great risk the pandemic poses to health care workers is worsened by the already low doctor to population ratio in many of these countries. ¾ of all vaccination so far have occurred in 10 countries, with many wealthy countries buying more doses than their population sizes and constraining global supplies.

National Geographic: [A black-footed ferret has been cloned, a first for a U.S. endangered species](#)

Elizabeth Ann is the first cloned endangered species native to the US. She was made from preserved cells originating from a ferret that died 30 years ago and has no living descendants. All 400-500 current black-footed ferrets are closely related following a breeding program with the remaining 18 surviving ferrets in the 1970s. Scientists hope that Elizabeth Ann can increase the genetic diversity of the black-footed ferret population and open the door for other cloning-conservation projects.

Guardian: [Indigenous peoples face rise in rights abuses during pandemic, report finds](#)

Recent research by the Forest Peoples Programme, Yale Law School, and School of Law at Middlesex University London has found that Brazil, Colombia, Peru, Indonesia, and the Democratic Republic of the Congo are planning new infrastructural and agricultural projects on land occupied by indigenous communities to help their economies recover from the pandemic. Increased violence and deforestation have occurred as domestic and international laws protecting these communities have gone unenforced.

REGIONAL NEWS

IndyStar: [50 economists from Indiana, “a coal state,” call on Congress to act on climate change](#)

More than 50 professors in economics and related fields from Indiana University, Purdue University, and the University of Notre Dame have written a letter calling on something to be done about the world’s changing climate and suggesting a few economic levers that can be pulled to make that happen. The letter, addressed to Indiana’s congressional delegation, originated in discussions between retired IU scientist Jeff White and U.S. Rep. Trey Hollingsworth (R-IND).

Indiana Environmental Reporter: [Environmental groups, local citizens concerned about Mid-States Corridor project](#)

A proposed new four-lane highway from northwest Kentucky through southwest Indiana could cause irreparable harm to natural areas and the animals that inhabit them, according to the Indiana Forest Alliance. The preferred passage for the controversial Mid-States Corridor will be identified in the fall, according to a press release from the project’s office at Vincennes University Jasper.

The Indiana Lawyer: [Draining protection: Deregulation bill sends conservationists scrambling to save Indiana wetlands](#)

Along with the Indiana Department of Environmental Management, the Indiana Department of Natural Resources, and numerous environmental advocates, hunting and sporting groups oppose the bill. But farmers and land developers support the legislation, arguing the state’s regulation of wetlands just adds to the complex web of hoops they must jump through to work the land.

OPINION AND ANALYSIS

New Scientist: [Our impact on Earth’s ecosystems and biodiversity—in graphics](#)

There are various ways of auditing biodiversity and humanity’s impact on it, from extinctions and species richness to land use and how much of the planet is set aside for nature. Almost all of them paint a worrying picture, but perhaps the most eye-catching metric of humanity’s impact is in our acceleration of the rate of extinctions.

Earth.com: [Chemical pollution is a global threat that needs to be monitored](#)

An international group of scientists is calling for global action to inform policymakers and the public about the widespread threat of chemical pollution. In a study from the Green Science Policy Institute, the researchers explain how a lack of science-policy interactions on chemicals and waste has contributed to health and environmental problems worldwide.

Harvard Political Review: [Three pandemic priorities](#)

Many of the problems we are facing in 2021 will require us to find synergy between systems and perspectives that often clash, including between the public and private sectors, the individual and the greater population, and federal and state governments. Understanding these three sets of dynamics will ensure a better approach toward accelerating pandemic mitigation and recovery.

Modern Diplomacy: [Can big data help protect the planet?](#)

The Third Global Session of the UN Science-Policy-Business Forum held during the UN Environment Assembly delved into the role of big data and frontier tech in the transition to a sustainable future. Making the right technology available to developing countries not only presents a financing challenge but also underlines the profound need for accessible, open-source technology.

UCS: [President Biden's science policies are...good, actually. And that's worth celebrating](#)
Effective advocacy requires a carrot and stick model, criticizing problems while praising progress, and all too often in our fear we forget the latter part of this. We also shouldn't forget that these good executive orders can be undone by another President just as easily as President Biden undid bad executive orders from his predecessor.

Scientific American: [The U.S. needs a federal Department of Science and Technology](#)
The failure of the CDC to produce reliable COVID testing kits in a timely fashion, the slow and ineffective rollout of the COVID vaccine, and the Russian cyberattack on government agencies (despite multiple reports warning of the risks of just such an attack) reflect the central failure of federal, science-focused agencies to meet the challenges of the 21st century.

Scientific American: [The dark side of CRISPR](#)
The far-reaching, fraught promise of CRISPR technology—one about which scientists seem at once excited and cautious—lies in its ability to eliminate from the gene pool what medical science identifies as faulty or abnormal genes that cause difference in individual people.

TAKE ACTION AND RESOURCES FOR ACTIVISTS

UCS: [President Biden pledges to listen to scientists—make sure he hears from you](#)
Add your name today to tell President Biden and his administration that you support his efforts. The Union of Concerned Scientists will be using this message in our ongoing work with the incoming administration to show that scientists and science advocates want to ensure the federal government is doing all it can to address climate change and help ensure the public is benefiting from the best independent science.

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Our CSIU news bulletin is intended to provide a brief update on recent news, editorials, as well as action items related to science integrity and science policy. Note that editorial pieces and action items are assembled from a variety of sources and organizations; they do not necessarily reflect the opinions or policy priorities of Concerned Scientists @ IU. This week's news bulletin was compiled by ASIU and IU biology major Emma Hand and CSIU member Christoph Irmscher of IU's Department of English. We're looking for volunteers! If you'd like to volunteer—or if you have additional links you'd like to share for future bulletins, send them to Christoph at cirmsche@indiana.edu.

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