

Conservation in the News: November 2018



Natural Creshe made of collected driftwood from my parents and a past Weeder's Christmas sale. I see the far left as an Angel with long robe. Next to that I see Mary, Joseph, shepherds and three Wise Men. Christ is a candle. The wood in the front is a lovely Sperm Whale, complete with a two flippered tale that doesn't photograph well when emphasis is on the Nativity scene. But lovely, nonetheless, IMHO. :-)



Photo of cloud formation over Midwest taken from airplane



We are trying to present the newsletter on the Weeders Website. Presenting it by [topic](#) makes for a great looking conservation page, and it simplifies the presentation enormously.

In the past, I have posted chronologically. Unfortunately, When I post by topic, I do not have the time to cover as many topics, nor is the posting as accurate. Most importantly, “topics” infer a degree of editorializing, which I prefer to leave to the reader. As we try to resolve this dilemma, I hope you find the stories interesting.

If you read the information off the Weeder’s page, I encourage you to skim topics which may not appeal to you. They may hold your interest when you see the actual article. For instance: Once, I was told that

Penicillin was discovered by doctors in ancient Egypt who were treating wounds with bread that developed mold. The science was lost in the Dark Ages to be rediscovered in the mid-twentieth century.* I find such history to be to be fascinating, giving us hope and strength in these challenging times. I could discuss this story as one about a form of **moldy bread**, or as a **technology**, and how I approach the subject could prevent you from reading the article or excite you and reveal a new undiscovered solution. Einstein's cosmic mathematical ideas were suggested to him by simple observation of commonplace occurrences: how water moves around a boat. We may not be remotely able to contribute what he did, but if we're excited by an idea and mention it to a future Einstein who knows what solutions might be found! In the roulette wheel of ideas you could be mightier than you realize!

This month there are articles which could be listed by the color coding for **plastics**. But they might also concern **oceans**, protecting **endangered species**, **technology** that **recycles plastic trash** into new resources, and **fashion** ! Suddenly **fossil fuels** are by their sheer volume not on only **recycled**, but considered by some to be a **renewable** resource since the **trash** from existing **landfills** and **ocean dumps** is so great.

There is also a TED talk by a **youngster** who has, in science class, discovered a way to **recycle styrofoam** (heretofore **unrecyclable pollution**)) into **carbon filters**.

Equally surprising, this month there is also an article about **professors** of **poetry and photography** addressing **fracking** in Pennsylvania. I have bought a copy of "Shale Play" if you are interested. To quote the **teachers**: **Photographs** can be : "A catalyst for change" and the **poet** said she tried : "As much as possible to stay open and curious and get lost in trying to understand the stories and places."

There are as many ways to approach and answer questions as there are thinkers and solutions. Using colorful (certainly beautiful) lettering that appears to have commonality carries with it a challenge. It can limit the imagination. And, sometimes you run out of distinct colors! OMG! The Newsletter continues below in the attachment as follows:

* <https://www.acs.org/content/acs/en/education/whatischemistry/landmarks/flemingpenicillin.html>

Recycleables:

<https://www.theguardian.com/fashion/2018/nov/23/catwalk-brands-trawl-ocean-plastic-waste-for-sustainable-fashion>

Trawling for trash: the brands turning plastic pollution into fashion



Stella McCartney, Gucci and Adidas among companies inspired by 'Blue Planet effect'

Fishing nets and discarded plastic are finding their way into wardrobes around the world thanks to a rise in the number of fashion designers using materials made from recycled ocean waste.

Brands including Gucci, Stella McCartney and Adidas are increasingly partnering with organizations such as Parley for the Oceans – which raises awareness of the destructive effect of ocean plastics – and sourcing materials regenerated from companies such as Aquafil, the textile manufacturer that transforms ocean waste into sustainable materials such as Econyl... (Nonetheless). “The only real way to prevent ocean plastic from becoming a massive ecological catastrophe is to massively reduce plastic production, which, unless we act, is set to quadruple over the next few decades.”

<https://www.econyl.com/about-us/>

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Life

A Hog Waste Agreement Lacked Teeth, and Some North Carolinians Say They're Left to Suffer

https://www.propublica.org/article/a-hog-waste-agreement-lacked-teeth-and-some-north-carolinians-say-left-to-suffer?utm_source=pardot&utm_medium=email&utm_campaign=dailynewsletter

Amazing Octopus - Most Intelligent Animal on Earth? 1080p



shutterstock.com • 291282713

An incredible exploration of one of the ocean's most complex and enigmatic creatures, and a reminder why these beautiful animals should be protected and studied, not served at Sushi restaurants.

https://www.youtube.com/watch?v=_G6eH1KDI0s

Supreme Court limits ability to designate endangered species habitat

In 2001, the U.S. Fish and Wildlife Service listed the dusky gopher frog as federally endangered after a lawsuit by Tucson-based Center for Biological Diversity. (Photo courtesy U.S. Fish and Wildlife Service)

by

Cronkite News

Nov 28

Environmental groups criticized the unanimous decision; conservatives say ruling protects private land ownership

Brendan Campbell

Cronkite News

WASHINGTON – The Supreme Court made it harder Tuesday for the government to designate critical habitat for endangered species, in a ruling that business and property rights groups said co

But environmental groups criticized the **unanimous decision** that they said “doesn’t do any damage to the Endangered Species Act” itself, but opens the door for major setbacks in lower courts.

“Wildlife has been pushed further and further to the fringes. If endangered species are going to survive, we need to restore their habitat,” Rebecca Riley, legal director for the Nature Program of the Natural Resources Defense Council said in an email. “The Supreme Court just made that much harder to do.”

The case concerns the Fish and Wildlife Service’s decision to designate a 1,544-acre tract in Louisiana as critical habitat for dusky gopher frogs – even though no frogs lived there and it would not have been ideal habitat at the time it was designated.

The small burrowing frog was once found from coastal Louisiana to Alabama, but it was down to about 100 animals in a single Mississippi pond when it was **declared endangered** in 2001. Its decline was blamed on a sharp reduction in habitat it needs to survive – seasonal ponds in open-canopy pine forests.

In 2010, the government identified four Mississippi sites where the frog was living or had been re-established, but added a tract 50 miles away in St. Tammany Parish, Louisiana, to protect against a local Mississippi disaster. The Louisiana site, called Unit 1, had once been home to the frogs, but they had not been seen there since the 1960s.

As part of its review, the government determined that the habitat designation could cost the landowners up to \$33.9 million in potential lost development. But the service determined the cost was reasonable and that Unit 1 – now a closed-canopy tree plantation – could be restored to suitable frog habitat with “reasonable effort.”

The Weyerhaeuser Co. and a group of family landowners sued, **challenging** the government’s determination that the cost was reasonable and claiming that Unit 1 could hardly be called critical habitat if it was unable to sustain the frogs.

Lower courts agreed with the government, but the Supreme Court on Tuesday reversed.

Chief Justice John Roberts wrote that the **Endangered Species** Act does not authorize the Interior secretary “to designate the area as critical habitat unless it is also habitat for the species.” He said lower courts need to determine if Unit 1, unoccupied and currently unsuitable for the frog, meets the definition of habitat.

The ruling also said lower courts were wrong to say they could not consider the cost analysis in the case.

A spokesman for Weyerhaeuser Co. said the company “strongly supports species conservation and the Endangered Species Act,” but it applauded the ruling that “in order for land to be deemed critical habitat, it must first be a habitat.”

The Fish and Wildlife Service declined to comment on the ruling.

But others said it would have an important impact.

“This was an important decision for property rights and for judicial oversight of agency action,” said Roger Pilon, vice president for legal affairs at the Cato institute, a libertarian think tank. “Not only was it not critical habitat, it wasn’t even habitat for the frog. It hadn’t lived there for over 50 years.

“If that rationale were allowed to stand, then there is no parcel of land in the United States that could not, with sufficient improvement, be made habitable for virtually any species. It would put the whole of the United States under the jurisdiction of the Interior Department ... which is absolutely absurd,” Pilon said.

That was echoed by Rep. Paul Gosar, R-Prescott, who said the court’s ruling confirms that the “federal government has no authority to lock up private land for species that don’t inhabit the land.”

But Rep. Raul Grijalva, D-Tucson, and incoming chairman of the House Natural Resources Committee, said courts “should continue to recognize the importance of the Endangered Species Act and protect the land in question.”

“The dusky gopher frog is one of the world’s most endangered species and only occupies a small fraction of its historic range,” Grijalva said in an email. “If we ever want to change that, the species will need a place to live.”

The case could affect the outcome of another court case on the critical habitat designation for jaguars in New Mexico, which also extends across several counties in Arizona.

While discouraged by the ruling, environmentalists still hold out hope for when the dusky gopher frog case returns to the 5th U.S. Circuit Court of Appeals.

“We did win before the 5th Circuit previously and the record in the case is very strong,” said Collette Adkins, senior attorney for the Center for Biological Diversity, whose 2010 lawsuit forced the Fish and Wildlife Service to designate the frog habitat.

“The ultimate question ... is what does it mean to be habitats?” she said. “We’ll argue for a broad definition that would include areas that would require some habitat restoration and we think that’s consistent with the conservation purposes of the act.”

But Mark Miller, who represented the family landowners in the case, said that while “the fat lady hasn’t sung yet ... this is an excellent step in the right direction.”

“Once the lower court can review it, we think that the court’s going to agree with us, that this was an arbitrary decision and that our clients shouldn’t be basically

frozen by this critical habitat designation because it doesn't protect the frog," said Miller, senior attorney for the Pacific Legal Foundation.

For more stories from Cronkite News, visit cronkitenews.azpbs.org.

In a unanimous decision with immediate repercussions for the administration of the Endangered Species Act (ESA), the U.S. Supreme Court held that an area is eligible for designation as critical habitat under the ESA only if it is also "habitat" for the species within the meaning of the statute. And federal courts can review the decision not to exclude areas from critical habitat based on economic impacts and other factors. [*Weyerhaeuser Co. v. U.S. Fish and Wildlife Service*](#), No. 17-71 (Nov. 27, 2018). This decision nonetheless leaves significant merits claims as well as a question of statutory interpretation to the appeals court on remand...The Supreme Court's decision comes on the heels of several recent agency-level attempts to limit the scope and regulatory burden of the ESA. In April, the Service issued a [guidance memorandum](#) that narrowed the circumstances under which the Service would consider an incidental take permit for habitat modification appropriate. And in July, the Service proposed [significant revisions to its ESA regulations](#) that would, among other things, limit the Service's ability to designate unoccupied areas as critical habitat.

<https://newsmaven.io/indiancountrytoday/news/supreme-court-limits-ability-to-designate-endangered-species-habitat-m3nYeQCFt0Gy4J5GPeKdVw/>

Lake Louise fined \$2.1 million for cutting down endangered trees

The Lake Louise Ski Resort has been fined \$21 million for cutting down an endangered species of tree...In December 2017, the resort pleaded guilty to cutting down a number of whitebark pine trees back in 2013 without the appropriate permit and was convicted of two charges under the Species at Risk Act and the Canada National Parks Act, according to a release from Parks Canada..“Obviously we were disappointed with the decision today, not only with the amount of the fine, especially considering precedents for similar incidents for species at risk in the national park, but we were exceptionally disappointed with the reasoning the judge presented,” Markhan said following the decision..The whitebark pine was designated as an endangered species by the Committee on the status of Endangered Wildlife in Canada in 2010, and was added to the list of Schedule 1 endangered species under the Species at Risk Act by the federal government in 2012...The release from Parks Canada states that an inspection in 2014 found that of the 39 of the 140 trees cut down at the resort had been whitebark pines...“Canada’s network of protected areas protect and restore healthy, resilient ecosystems and contribute to the recovery of species at risk,” the release states...“Parks Canada is a recognized leader in conservation and takes the protection of the resources under its care, and the enforcement of legislation very seriously.

<http://dailyhive.com/calgary/lake-louise-fined-cutting-endangered-trees>

The language of the act is ill-suited to dealing with broad threats. For instance, the ESA says that animals should be protected if they face extinction in the “foreseeable future.” Does that cover the loss of habitat due to ice sheets at the North Pole that are expected to disappear by 2050? The FWS apparently thought so when it listed the polar bear in 2008. (The FWS, along with the National Oceanic and Atmospheric Administration Fisheries, maintains the list.) But the agency subsequently rejected the northern walrus, even though it is threatened by the same loss of polar habitat. It also denied protection to the wolverine, which



requires mountaintop snow all year round, and the pika, a high alpine mammal threatened by warming temperatures.

Why Environmentalists and Hunters are United in Saying The Endangered Species Act

is Failing and Needs to Be Fixed



The Guam broadbill, a small, iridescent black flycatcher with a brown chest and a fluffy head, once flourished in the secluded limestone ravines on the Pacific island of Guam, a territory that belongs to the United States. By 1973, development had destroyed two-thirds of its habitat and introduced a snake that preyed on the bird's young...That same year, President Richard Nixon signed the Endangered Species Act (ESA) into law. The act, which sets restrictions on the destruction of

specific animal species and their habitat, seemed purpose-built for Guam's broadbill. But conservation rarely moves at the speed of destruction. It took Guam's governor six years to petition to have the bird protected. Studies took another five. By the time the broadbill made the endangered species list, in the summer of 1984, it was nearly gone—the last sighting occurred a few weeks later, on a golf course...Between 1990 and 2010, just 8 percent of species improved their well-being, while 52 percent declined. A massive backlog of animals—many of them, like the broadbill, facing loss of habitat or assaults from invasive species—are also waiting to get on the list, but their cases are mired in the courts or red tape.

It's become increasingly clear that the act's one-species-at-a-time method of conservation is too slow and cumbersome to deal with relatively recent threats like climate change and invasive species, which can throw entire ecosystems into turmoil. And even though the act is hugely popular—its favorable rating hovers around 80 percent in polls—it has an uncanny way of making enemies of ranchers, farmers and developers, whose support is essential for protecting species from harm...More than half of the roughly 1,600 species on the endangered species list are plants, and extending payment schemes to protect them would help plug a big conservation gap. But scant money is available, and rules are often flouted. For instance, it is legal to kill listed plants “by accident.” Just a few million dollars could save scores of endangered Hawaiian plants, or the whitebark pine, a western tree that was denied a listing due solely to lack of funds, says Li.

The final step is to do a better job of enforcing compliance with the ESA by bringing monitoring into the information age. Regulators currently rely too much on visual inspections and other low-tech methods that are easily circumvented or blocked. When Li worked at Defenders of Wildlife, an environmental watchdog group, he used images from Landsat and Google Earth to catch oil drillers in west Texas working illegally on the protected habitat of the dunes sagebrush lizard.

Tim Male is one of a handful of environmentalists who believe that talking about the ESA's shortcomings is essential to saving it. Its biggest

problem, he says, is political: It alienates rural landowners. Lack of communication and outreach in the places where many endangered - animals live have led to a perception that listing is arbitrary. This gives people who pay an economic price for protected species—mainly the ranchers, farmers and developers—reason to distrust the system and resist the designations.

<https://www.newsweek.com/2018/12/07/environmentalists-hunters-farmers-endangered-species-act-failing-climate-1239759.html>

Trump administration allows “incidental” injury to endangered whales in seismic blast zones



Right whales are on the brink of extinction, pushed closer by a rash of recent and unprecedented deaths.

WASHINGTON, D.C. November 30, 2018 – Today the Trump administration will authorize companies to injure, harass, disrupt or even kill marine mammals in the course of surveying the Atlantic Ocean seafloor to detect oil and gas reserves. These seismic airgun surveys, a precursor to offshore oil and gas drilling, will affect marine wildlife across 200,000 square miles of ocean waters, from Delaware to Florida. The airguns used in these surveys emit continuous

blasts, permeating the ocean environment with intense industrial noise, so loud that it can deafen whales, dolphins and other ocean creatures... Since the planning process for this offshore leasing expansion got underway, more than 1.45 million Americans have demonstrated intense opposition with rallies, marches and comments submitted to the Department of Interior agency responsible for crafting the plan.

Earthjustice, working on behalf of the Surfrider Foundation and the Sierra Club and in partnership with multiple conservation organizations, will use every tool available to prevent

seismic airgun blasting and the harm it would cause.

“Seismic airgun surveys pose a dual threat to the biologically rich waters off the Atlantic coast,” said **Steve Mashuda, Managing Attorney for Oceans at Earthjustice**. “Their continuous blasts can injure and deafen whales, dolphins and other marine life, and they are the sonic harbingers of even greater risks associated with eventual offshore oil and gas drilling. We are looking at all available tools to fight this unlawful action.”...The authorizations would allow this “take” to affect even those species federally protected under the Endangered Species Act. Contractors aim to conduct seismic surveys in ocean territories inhabited by critically endangered North Atlantic right whales and five other federally endangered whale species, among other marine life.

<https://earthjustice.org/news/press/2018/trump-administration-allows-incident-injury-to-enda>

Land good for game birds also is good for songbirds

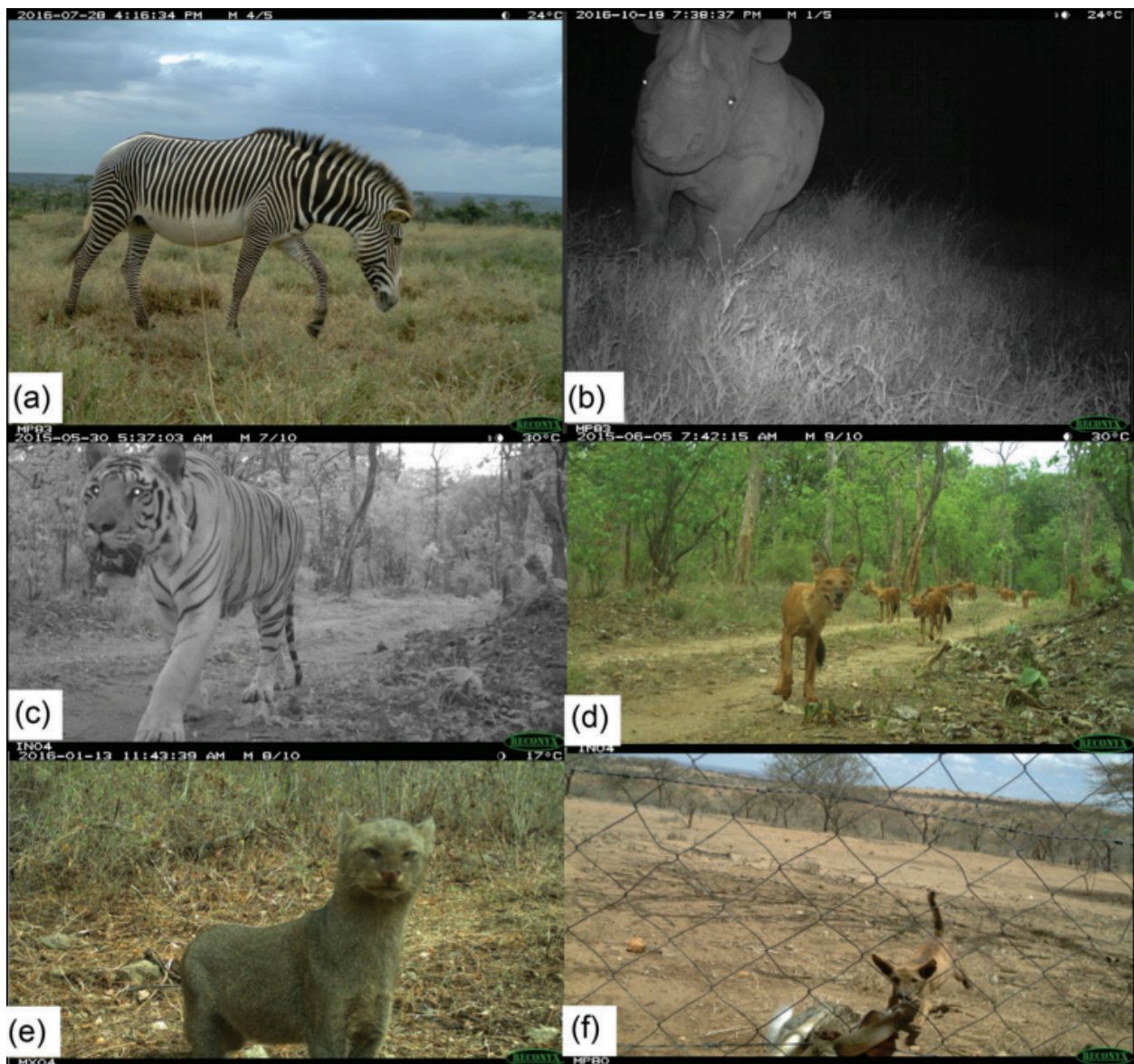
TEXT

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A new place to look for birds, at least one I didn't know about (there are many of those), is highlighted in the Fall edition of the Ruffed Grouse Society magazine. The story is not intended for birders, but for hunters. However, this land-restoration project has a lot to do with songbirds....This illustrates why I belong to four hunting organizations even though I stopped hunting decades ago. The duck and pheasant and grouse people put significant amounts of energy and money into creation and maintenance of wildlife habitat. That's how they spend my membership dues... This is a valuable supplement to the excellent work our DNR does...It the land is good for game birds, it's also good for songbirds. Conservation doesn't discriminate.

<http://www.startribune.com/land-good-for-game-birds-also-is-good-for-songbirds/501708111/>

Kid Scientists Capture Rare Footage of Endangered Animals on Camera Traps





A Bengal tiger caught on camera by students at a school in India.

Image: eMammal

It's not every day that school projects get to live on forever at the Smithsonian Institution. But that's exactly what happened when students around the world created a network of wildlife camera traps—at times capturing more photos of rare and endangered species, such as Bengal tigers, than researchers in dedicated preserves...Children from 28 schools in the US, Mexico, India, and Kenya were recently part of an experimental push to transform students into citizen scientists...Outfitted with camera traps and a bit of help from professionals, the

students collected 13,710 detections of 83 native mammal species, including six endangered animals such as the black rhinoceros, Bengal tiger, and the newly endangered beisa oryx...The expansive effort started in North Carolina where select teachers in five counties were trained on camera trap protocols. The team also showed educators how to use eMammal, a software built by the Smithsonian Institution that lets people upload and identify camera trap photos...“The most important thing is set [the traps] at knee height on a tree,” Schuttler explained, “making sure they’re low enough to capture little animals on the ground as well as big animals.”...Each school was provided with motion-activated cameras that were placed around the campus according to protocol. For the most part, Schuttler said, the children were as adept at setting up their traps as adult citizen scientists. There was some concern about theft—for example, “issues with drug cartels” in Mexico—but not enough to deter the project, Schuttler said...The students’ findings were then reviewed by experts and stored for perpetuity at a Smithsonian Data Repository...“Yes, they see cool animal photos but ownership of data is important and so is contributing to real scientific study,”

Schuttler said...“Scientists hundreds of years from now might even be looking at your photos so they really have purpose and meaning.”

https://motherboard.vice.com/en_us/article/3k94ej/kid-scientists-capture-rare-footage-of-endangered-animals-on-camera-traps

A Hog Waste Agreement Lacked Teeth, and Some North Carolinians Say They're Left to Suffer

Today, many farmers continue to store the waste in open pits despite the millions of dollars in private investment spent and years of research and political promises. The

practice grows more hazardous with each hurricane that pounds the state.



Hog farms can often be identified by the lagoons next to the long hog houses. Waste is flushed from the houses into the lagoon, where it is broken down by bacteria before being used as fertilizer. (Jeremy Lange, special to ProPublica)

Nearly 20 years ago, North Carolina faced a reckoning. Hurricane Floyd inundated the state, flooding the open pits

where farmers store hog waste. The nation looked on in horror as pink sludge from the lagoons mingled with rising floodwaters to force stranded animals atop hog houses and drowned thousands of pigs.

State officials vowed change and in 2000 delivered a plan. The centerpiece was an agreement with Smithfield Foods, the world's leading pork producer and one of North Carolina's biggest businesses. Smithfield agreed to finance research into alternatives to the lagoons and to install within three years whatever system emerged as environmentally effective and economically viable. In place of open-air lagoons would be a newer, safer system that put North Carolina on the cutting edge of commercial agriculture.

Today, many North Carolina hog farmers continue to store hog waste in open pits despite the millions of dollars in private investment spent and years of research and political promises. Little has changed, storms are intensifying and the clock is ticking on the Smithfield agreement, which expires in 2025.

The state has yet to come up a viable replacement system, and the momentum — and money — behind the research ran out years ago, leaving in place a crude practice that grows more hazardous with each hurricane that pounds North Carolina.

In September, it was Florence, which dumped record-breaking rains on the state — 8 trillion gallons over four days — and swelled the Cape Fear River, which winds through this region. Thirty-three lagoons overflowed, the pink slurry again mixing wi

Now, nearly 20 years on, it's not hard to see how the agreement was doomed.

It sought transformative change, but lacked teeth. The all-or-nothing strategy meant that unless a perfect system was developed, nothing would change. The deal required the “substantial” elimination of odors, ammonia emissions, bacteria, soil and groundwater contamination, and waste discharges, yet it did not state what that threshold was or what costs the industry was obliged to absorb. The deal also was mum on the odors, pests and other nuisances that people who live near the lagoons continue to endure.

The division between farmer and neighbor is palpable here — and falls along racial lines in a state where agriculture has its roots in the plantation system, and where Confederate monuments still stand on the Capitol’s grounds.

Growth of Hogs, and Negotiating the Agreement

Before it was hog country, eastern North Carolina was the home of Big Tobacco. But as the industry buckled under the weight of lawsuit settlements in the 1990s, pork supplanted cigarettes as the region’s economic engine. According to the USDA Census of Agriculture, in 1987, there were 6,921 hog farms and just about 2.5 million pigs in North Carolina. By 1997, there were fewer farms but more than 9.6 million pigs...Today, there are about 10 million people in North Carolina and still about 9 million hogs, each producing, on average, 11 pounds of waste a day. Operations became more concentrated as farms began standardizing diets and creating what are called “concentrated animal feeding operations.”

The agricultural industry as a whole has contributed \$16.6 million to political candidates and campaigns since 2000, according to data from the National Institute on Money in

Politics. The livestock and meat processing sectors have contributed more than \$2 million within that same time period. Among all donors since 1996, the North Carolina Farm Bureau (\$1,684,880), North Carolina Pork Council (\$957,175) and Smithfield Foods (\$406,600) are the leading contributors.

Testing the Technologies

From the beginning, the 2000 agreement allowed those in power to sidestep tighter regulation of the hog industry. Instead, the onus was on academia, and in particular C. Mike Williams.

He'd grown up on a tobacco farm in Zebulon, studied poultry science and eventually earned his doctorate in nutrition at NC State. After a stint at an animal waste remediation company, Williams returned to NC State to lead the Animal and Poultry Waste Management Center in 1993.

There, he was tapped to oversee the testing of technologies developed as potential alternatives to the lagoon system. The task was herculean: find environmentally sound technology that was also cheap to implement.

"It was always going to be true that a lagoon is cheaper than anything that's not a lagoon," said Ryke Longest, a state lawyer who served as a liaison for the Smithfield agreement and is now a law professor at Duke University. "If you're doing something other than digging a hole in the ground and lining it ... every time you add a capital expenditure, cost comes along with that." ... There has to be a better system," Williams said. "There has to be."

<https://www.propublica.org/article/a-hog-waste-agreement-lacked-teeth-and-some-north-carolinians-say-left-to-suffer>

Pesticide affects social behavior of bees

Bees are critically important to agricultural crop production and to the reproduction of most flowering plant species on the planet (1). Yet, these essential ecosystem service providers are in decline around the world (1, 2). Widespread pesticide use associated with increasingly intensive agriculture is one of several, likely interacting, factors that contribute to these concerning pollinator declines (2). Although insecticide applications are targeted at controlling pests, their use can have unintended impacts on beneficial insects, including bees. As the most widely used class of insecticides in the world, neonicotinoids have come under considerable scrutiny following concerns around their nontarget impacts on bees (3). On page 683 of this issue, Crall *et al.* (4) identify how exposure to these neurotoxic insecticides can adversely affect individual bumblebees and social dynamics within their colony.

<http://science.sciencemag.org/content/362/6415/643>

Pesticide Exposure Alters Bumblebees' Behavior in Their Nests

Studies examining how nicotinoids might negatively affect bee colonies have largely focused on the insects' foraging behaviors—visiting flowers, gathering pollen, and so on. But these activities are only half the story, says

entomologist and ecologist [Dara Stanley](#) of University College Dublin who was not part of the research team. Inside the nest, bees also work to ensure that resources reach the growing larvae, the nest is maintained and cleaned, and temperatures are kept constant. All these things, as well as social interactions, are thought to promote the health of the colony as a whole.



<https://www.the-scientist.com/news-opinion/pesticide-exposure-alters-bumblebee-behavior-in-their-nests-65054>

Scientists Discover A Rare Bird That's A Hybrid Of Three Different Species

Brewster's warbler got its name in 1874 after it was described by William Brewster, who discovered it in Massachusetts. Initially thought to be a new species, the bird was given the scientific name *Vermivora leucobronchialis*, but Brewster's warbler is now known to be a hybrid between blue-winged and golden-winged warblers; *Vermivora cyanoptera* X *Vermivora chrysoptera*. Brewster's warblers typically feature genetically dominant plumage characters and patterns -- for example, the black line through its eye and the distinctively separated wingbars come from the blue-winged warbler, whereas the creamy yellow underparts and yellow wing bars come from the golden-winged warbler.

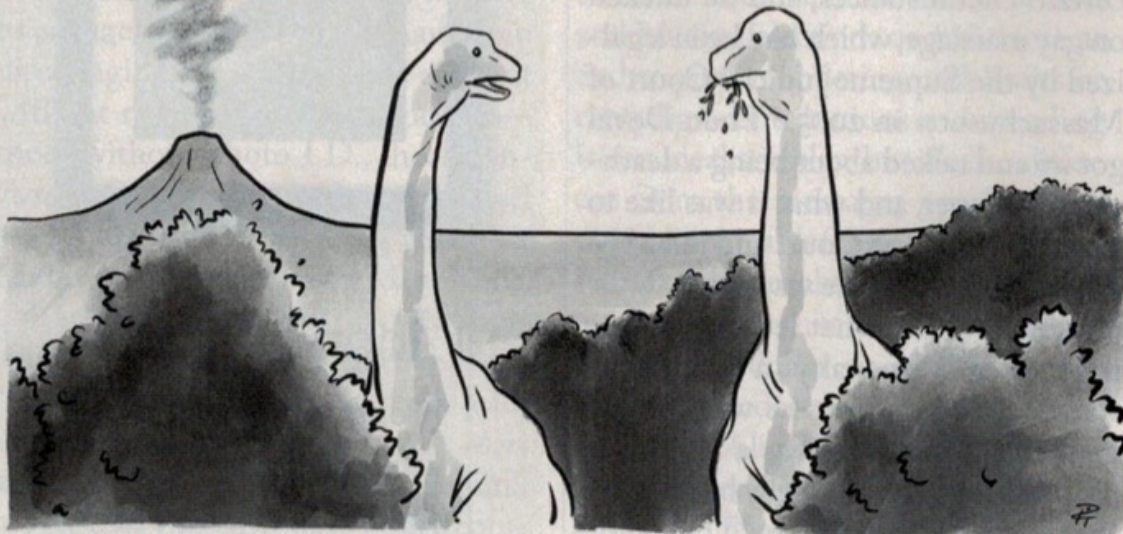
<https://www.forbes.com/sites/grrlscientist/2018/11/09/rare-three-species-hybrid-bird-discovered/#716926227889>

FDA Approves First Waste-Gas-Reduction Drug for Cattle

.The FDA this week sent its official approval of a drug called Experior, the first approved drug tasked with reducing gas produced by waste. According to studies conducted by both Elanco, the company that makes Experior, and others, Experior has no known health effects on cattle, with treated cattle showing about the same growth patterns and ailments as non-treated cattle... There are, of course, other solutions to the ammonia problem. Experior reduces ammonia production by 14 to 18 percent, according to its FDA filing. Great! But other studies have been done in which farmers simply feed their cattle less nitrogen-containing protein—primarily soy—and those studies have shown that simply a better diet can reduce ammonia by up to 40

percent. Exterior seems good! But feeding cattle appropriate diets—like grass—might also be good. Or better.

https://www.ecowatch.com/fda-approves-first-waste-gas-reduction-drug-for-cattle-2618890785.html?utm_source=EcoWatch+List&utm_campaign=01fc1676ac-EMAIL_CAMPAIGN_COPY_01&utm_medium=email&utm_term=0_49c7d43dc9-01fc1676ac-85327165



*"I had that dream again where the small hairy creatures
were selling my body for three dollars a gallon."*

THE NEW YORKER, NOVEMBER 19, 2018

Oceans :

<https://www.youtube.com/watch?v=du5d5PUrHoI>

Boyan Slat: How we will rid the oceans of plastic (May 2017)

<https://www.youtube.com/watch?v=du5d5PUrHoI>

578,013 views

7.8K169SHARESAVE



[The Ocean Cleanup](#)

Published on May 14, 2017

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On May 11th 2017, Boyan Slat, Founder and CEO of The Ocean Cleanup, the Dutch foundation developing advanced technologies to rid the oceans of plastic, announced a design breakthrough allowing for the

Conservation:

Two adults, two kids, zero waste | Bea Johnson | TEDxFoggyBottom

Do you have an excess of stuff? Do you take the trash out on a regular basis? Bea Johnson started a global movement advocating for a zero waste lifestyle. Here, she reveals how she and her family produce less than one quart of waste per year, and how living simply has changed her life for the better.

Since 2008, Bea Johnson and her family are dedicated to living a zero waste lifestyle; they generate a mere quart size jar of waste per year. Through her blog and her book Zero Waste Home,* Bea launched a global movement and continues to inspire a growing community to take a stance against needless waste with the application of the 5R's: Refuse, Reduce, Reuse, Recycle, and Rot. She shatters misconceptions, proving that zero waste can not only be "stylish," but also lead to significant health benefits, and time and money savings.

<https://www.youtube.com/watch?v=CSUmo-40pqA>

*https://smile.amazon.com/Zero-Waste-Home-Ultimate-Simplifying-ebook/dp/B00A6CT012/ref=sr_1_1?s=books&ie=UTF8&qid=1543088289&sr=1-1&keywords=zero+waste

<https://www.youtube.com/watch?v=hilcwt88o94>

Nature is everywhere -- we just need to learn to see it | Emma Marris

Tidal power trial shows promise for new wave of renewable energy development



Key points:

- Predictability of tidal flow offers great potential for power generation, researchers say
- Gladstone Ports Corporation planning to install multiple tidal turbines
- Researchers say tidal energy could be perfect for powering remote communities

"We know exactly what velocity of water is going to be moving through the port and that means we know how much electricity is going to be produced.

"So unlike some other renewables, where the clouds may come over and interrupt solar or the wind may drop off, every day of the year we can predict exactly how much power this type of renewable energy produces, and that allows a lot of planning, to integrate with other power sources as it can get a full range of dispatchable power."

Mr O'Sullivan said the 2-metre turbine generated enough power to run about one household per day, and could be attached to existing infrastructure for a low cost.

Dr Irene Penesis from the Australian Maritime College at the University of Tasmania, said 1 megawatt turbine could power 600 to 800 homes and as an industry add about 3.2 gigawatts into the renewable energy mix.

No negative impacts detected so far

The Gladstone trial is being closely monitored for environmental impacts..."So far there's been no evidence that suggests there is any negative impact on the marine life or sites where we've seen tidal turbines being deployed at," Dr Penesis said...She said while there were still challenges facing commercialisation of tidal turbines, the technology was more advanced than wave generation research..."We need to understand the characteristics of these sites, to try and reduce some of the costs," she said.

<https://www.abc.net.au/news/2018-11-23/tidal-power-new-wave-renewable-energy-development-queensland/10544862>

Congress needs champions of common-sense conservation

One of our nation's most successful and common-sense conservation programs has expired after 54 years — a tragic mistake that must be corrected immediately. As one of the most unsung yet important programs in our country, the Land and Water Conservation Fund has quietly transformed local communities by funding important outdoor recreation projects in nearly every county across America....Please

phone your members of Congress ([you can find them here](#)) and ask them to actively work to save the Land and Water Conservation Fund now! It's time for this Congress to move past the partisan divide and move America forward by accomplishing a common-sense, bipartisan solution that will benefit the Northwest's natural heritage and the millions of people who enjoy it, now and into the future.



The contours of Mount Rainier are visible under a partly cloudy sky as viewed from Fort Steilacoom Park in Lakewood. (AP Photo / Ted S. Warren)

<https://www.seattletimes.com/opinion/congress-needs-champions-of-common-sense-conservation/>

Let conservation begin with you if it has not already

In Summary

- When you who knows creates systems that encourage positive environmental behaviours in people and persist in doing them, they will begin, albeit slowly, to imitate them.
- Our country's laws and policies may not fully support behaviours like waste segregation and recycling.

...Because the environment is communal, we forget that we are individually responsible for the condition of our immediate environment and that a single individual can influence hundreds, if not thousands, in the right direction.

First, conduct a self evaluation.

What are your thoughts about the environment? What is their basis? The more you understand your foundation, the more you can change.



A man plants a tree at the reclaimed Kachok dumpsite in Kisumu. Conservation requires a level of selflessness and the ability to choose a simple lifestyle that supports the environment. PHOTO | FILE | NATION MEDIA GROUP

Second, decide on a SMART eco-friendly goal and accompanying simple activities. You can start by having a water bottle instead of buying bottled water, eating in instead of packing your meal, reusing to cut down waste production, switching off electricity when you're not using it, using energy-saving bulbs and binning your trash...Third, understand that conservation requires a level of selflessness and the ability to choose a simple lifestyle that supports the environment...It must be a sober commitment. The key to doing this is being intentional. Daily. In case you're thinking it is impossible, we thought we would not survive the plastic bag ban! We did...Our country's laws and policies may not fully support behaviours like waste segregation and recycling but if we create demand for such infrastructure, the leadership will have no other option but to provide it.

Finally, there are two categories of individuals: Those who believe in personal responsibility, and those who don't. Choose who of the two you will be in 2019 and beyond.

*Ms Wanjohi is the founder of Mazingira Safi Initiative.
purity- wanjohi@msi.or.ke*

Natural Lands Announces New President



(Oliver) Bass has worked at Natural Lands for 21 years, the last seven as vice president of communications and engagement, a position created to bring greater emphasis to the organization's evolving efforts to connect more people to the outdoors through its regional network of nature preserves. Bass took an entrepreneurial approach to his role: establishing a new department, greatly expanding participation in public programs and volunteerism, elevating the organization's public profile, and launching a new initiative to improve equitable access to green spaces in underserved communities of our region's suburbs. As a result, visitation to preserves has grown by 220% to 120,000 people a year;

more than 100 programs each year are attracting 5,000 participants; the Force of Nature® program has graduated 200 volunteers; and overall volunteer participation has doubled to more than 5,000 hours annually...Natural Lands is dedicated to preserving and nurturing nature's wonders while creating opportunities for joy and discovery in the outdoors for everyone. As the Greater Philadelphia region's oldest and largest land conservation organization, Natural Lands has preserved more than 125,000 acres, including 44 nature preserves totaling more than 23,000 acres. Some 2.5 million people live within five miles of land under the organization's protection. Land for life, nature for all.

<https://natlands.org/news/natural-lands-announces-new-president/?bblinkid=127046678&bbemailid=9998190&bbejrid=822084772>

Dear Zone V Presidents and Club Conservation/NAL Committee Chairmen,

Thanks to all of you who contacted your Senators and Representatives about the LWCF. Just to remind you now that it is after the holidays, our new Call to Action is now up on the NAL landing page under Legislative Action and under Latest News (<https://www.gcamerica.org/members:publications/details/id/34>). This Call to Action was also sent to

all members who signed up for direct mailing of Calls to Action. Please remind your members that if they want to sign up for direct delivery of all Calls to Action they have to go "My Profile" and then under "Edit Publication Notifications" on the GCA website.

GCA does not want members using the PDF that I emailed you on November 19th as an attachment - everyone needs to go to the GCA website to get this Call to Action.

Now is the perfect time to send an email and/or make a phone call to your Senators and Representative for this Call to Action. Congress is set to vote on the Land and Water Conservation Fund (LWCF) and deferred parks maintenance during this lame duck session so that means sometime between now and before Christmas. *If you would like to incorporate specifics on how the LWCF affects Pennsylvania in your email/phone call please see the document attached to this email.*

Please disseminate this Call to Action to your members so that they, too, can communicate with their Congressmen/women, if they so wish.

Please don't hesitate to contact me with any questions and do let me know if you hear back from your Congressmen/women. We would love to be able to track any movement or communication.

Thank you

Lindsay Leisenring
Zone V Conservation/NAL Rep

<https://www.lwcfcoalition.com/>

More than 200 outdoors groups call on Congress to revive Land and Water Conservation Fund

Pexels More than 200 outdoors groups call on Congress to revive Land and Water Conservation Fund

On the heels of the midterm elections, 204 hunting, fishing and wildlife conservation organizations and businesses from 33 states, including Minnesota and North Dakota, are urging federal lawmakers to reauthorize the Land and Water Conservation Fund with full, dedicated annual funding.

In a letter to congressional leadership, the groups — whose members, customers, and leaders represent a sizeable segment of America's 40 million hunters and anglers — emphasize the LWCF's 50-year track record of conserving habitat and expanding recreational access to America's public lands.

<http://grandforksherald.com/sports/outdoors/4526508-more-200-outdoors-groups-call-congress-revive-land-and-water-conservation>

EcoWatch's Favorite Green Gifts for the Holidays

Among others:

Best Green Gift: A Zero-Waste Notebook

A very thoughtful friend gave me a binder full of ideas to encourage a trash-free lifestyle. The pages were filled with creative ways to use up food scraps, beauty and hygiene DIYs, as well as natural household cleaning tips and recipes.

On My Wish List: Who Gives a Crap's Premium Bamboo Toilet Paper

I wouldn't write a review about toilet paper unless it's actually that good, but I requested my family get me [this fancy, three-ply TP for Christmas](#). It's soft, durable and doesn't contribute to [deforestation](#) because it's made of bamboo. The best part? Fifty percent of the company's profits go to help build new toilets in countries where they are needed.

On My Wish List: Bambaw's Bamboo Safety Razor

The zero-waste lifestyle has inspired me to wish for [this bamboo and stainless steel safety razor](#). The company strives to reduce waste while offering affordable, quality and zero-waste solutions.

https://www.ecowatch.com/eco-friendly-gifts-2623409941.html?utm_source=EcoWatch%2BList&utm_campaign=a6581d3d58-EMAIL_CAMPAIGN_COPY_01&utm_medium=email&utm_term=0_49c7d43dc9-a6581d3d58-85327165

Climate Change:

NEW CLIMATE REPORT WARNS OF INCREASINGLY DIRE RISKS TO U.S.

The Trump administration released a major new [climate science report](#) on Black Friday, warning of "hundreds of billions of dollars" in annual losses to some economic sectors without scaled up actions to adapt to current changes and slash emissions to avoid future warming.

Why it matters: The report by scientists from 13 federal agencies constitutes the second volume of the Fourth National Climate Assessment, which is a congressionally mandated report. Its conclusion: Lives and property are already at risk in the U.S. due to climate change.

- The release date, on the Friday after Thanksgiving, which is traditionally the busiest shopping day of the year, is likely to bury the news coverage of its findings.
- The authors warn that neither climate adaptation or the pace of emissions cuts are keeping up with the severity and swiftness of the challenge.
- The report release comes as the death toll from historic California wildfires continue to rise, and it finds that climate change is expected to bring more frequent wildfires and poor air quality.
- The report finds that under a worst-case climate change scenario, in which emissions continue to climb at current rates, extreme heat would cause labor-related losses of an estimated \$155 billion per year by 2090. At the same time, coastal property damage in the U.S. from sea level rise and storm surge flooding could reach nearly \$120 billion per year.....
- The backstory: The new report builds off of findings from the first volume of the National Climate Assessment, [which was released](#) by the Trump administration in November 2017.



An American flag hangs at a burned out mobile home park in Paradise, California on Nov. 18. Photo: Josh Edelson/AFP/Getty Images

An American flag hangs at a burned out mobile home park
in Paradise, Califo

nia on Nov. 18. Photo: Josh Edelson/AFP/Getty Images

https://www.axios.com/major-new-climate-report-warns-billions-losses-climate-change-159ba78c-41bd-462b-aa60-578f64878a85.html?utm_source=facebook&utm_medium=social&utm_campaign=organic

**DONALD TRUMP'S CLIMATE CHANGE TWEET
LAMBASTED BY SCIENTISTS: 'HE'S A DANGEROUS
CLOWN'**



Donald J. Trump

✓@realDonaldTrump

· Nov 21, 2018

Brutal and Extended Cold Blast could shatter ALL RECORDS -
Whatever happened to Global Warming?



BILL MCKIBBEN

✓@BILLMCKIBBEN

I know you're Mr. America-is-all-that-matters, but climate is actually a global phenomenon. Here's today's global weather map (oh, and red=hot.) As a whole, Earth is about 1.2 degrees above preindustrial temps today pic.twitter.com/kRaGd7cZF3

[1,826](#)

[7:40 PM - Nov 21, 2018](#)

[Twitter Ads info and privacy](#)

alifornia on Nov. 18. Photo: Josh Edelson/AFP/Getty Images

An American flag hangs at a burned out mobile home park
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DONALD TRUMP'S CLIMATE CHANGE TWEET LAMBASTED BY SCIENTISTS: 'HE'S A DANGEROUS CLOWN'



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· Nov 21, 2018

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Bill McKibben

✓@billmckibben

I know you're Mr. America-is-all-that-matters, but climate is actually a global phenomenon. Here's today's global weather map (oh, and red=hot.) As a whole, Earth is about 1.2 degrees above preindustrial temps today pic.twitter.com/kRaGd7cZF3

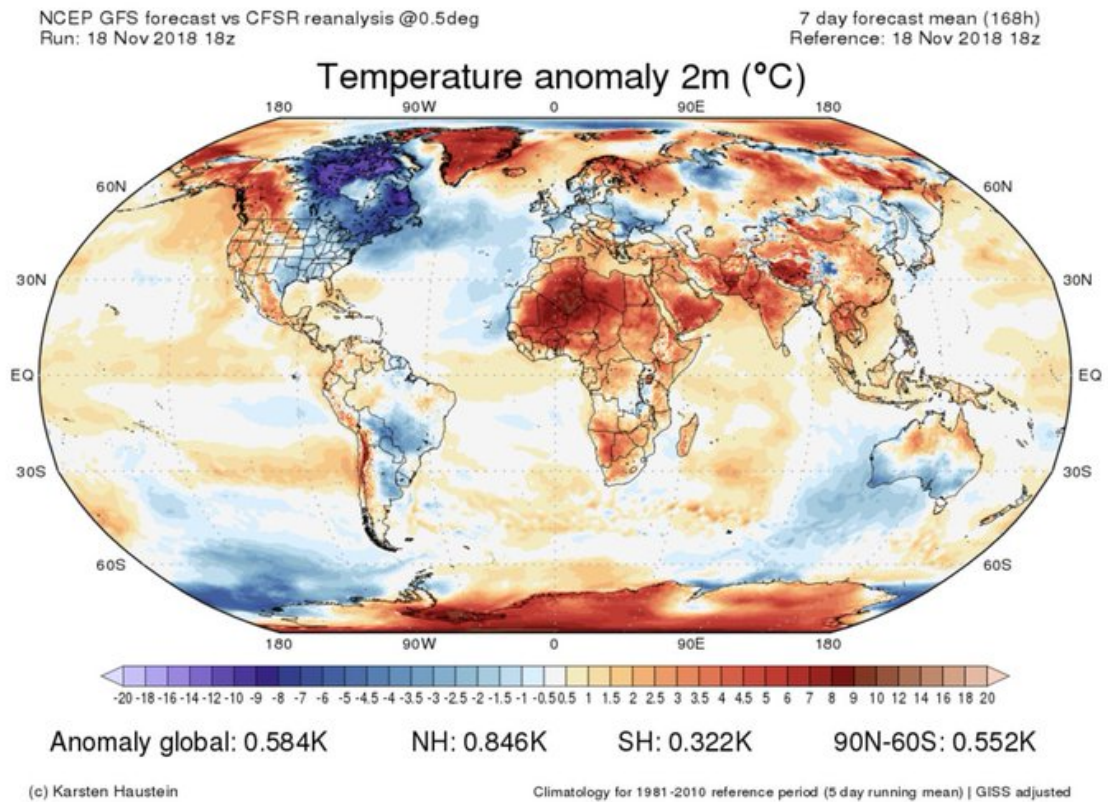
1,826

7:40 PM - Nov 21, 2018

[Twitter Ads info and privacy](#)

Dr. Michael Mann, professor of atmospheric science at Pennsylvania State University, told Huffington Post “[the tweet] demonstrates once again that Donald Trump is not an individual to be taken seriously on any topic, let alone matters as serious as climate change....” “He is a clown — a dangerous clown,” he

said.



https://www.newsweek.com/donald-trumps-climate-change-tweet-lambasted-scientists-hes-dangerous-clown-1227310?fbclid=IwAR2H0jz_v6lfnGZ_T-vCJofDgcU6ux1l0TxPaCZfBPuYUfWjuQZfybW3pvs

Fourth National Climate Assessment

<https://nca2018.globalchange.gov/chapter/1/>

California on Nov. 18. Photo: Josh Edelson/AFP/Getty Images

An American flag hangs at a burned out mobile home park in Paradise, California

California on Nov. 18. Photo: Josh Edelson/AFP/Getty Images

https://www.axios.com/major-new-climate-report-warns-billions-losses-climate-change-159ba78c-41bd-462b-aa60-578f64878a85.html?utm_source=facebook&utm_medium=social&utm_campaign=organic

Renewable Energy : Conservation in the News
November 2018

Pipeline opponent wins Chester County seat in state House

Danielle Friel Otten says a pipeline being built yards from her back door motivated her to run

<https://stateimpact.npr.org/pennsylvania/2018/11/07/pipeline-opponent-wins-chester-county-seat-in-state-house/>

<https://www.theguardian.com/fashion/2018/nov/23/catwalk-brands-trawl-ocean-plastic-waste-for-sustainable-fashion>

Trawling for trash:
the brands turning plastic pollution into fashion

Stella McCartney, Gucci and Adidas among companies inspired by 'Blue Planet



Fishing nets and discarded plastic are finding their way into wardrobes around the world thanks to a rise in the number of fashion designers using materials made from recycled ocean waste.

Brands including Gucci, Stella McCartney and Adidas are increasingly partnering with organisations such as Parley for the Oceans – which raises awareness of the destructive effect of ocean plastics – and sourcing materials regenerated from companies such as Aquafil, the textile manufacturer that transforms ocean waste into sustainable materials such as Econyl... (Nonetheless). “The only real way to prevent ocean plastic from becoming a massive ecological catastrophe is to massively reduce plastic production, which, unless we act, is set to quadruple over the next few decades.”

<https://www.econyl.com/about-us/>



ECONYL® Brand

223 subscribers

SUBSCRIBE 223

THE FUTURE IS CIRCULAR

ECONYL® regenerated nylon is a product that can help you close the loop. Made from waste, it's infinitely recyclable and can unleash infinite possibilities for makers, creators and consumers. It's all part of the ECONYL® brand vision to make the world a better place by pioneering closed loop regeneration processes and delivering sustainable products.

““When I see a landfill, I see a goldmine.”

Giulio Bonazzi, Aquafil's president and CEO, is a relentless innovator. And ECONYL® regenerated nylon is his dream that became a reality after four years of tireless research and development.

<https://www.youtube.com/watch?v=MbKG3GQ2qzk>

It's now cheaper to build a new wind farm than to keep a coal plant running

Inflation dictates that the cost of living will continue to rise — except, it seems, when it comes to renewable energy. The cost of building a new utility-scale solar or wind farm has now dropped below the cost of operating an existing coal plant, according to an analysis by the investment bank Lazard. Accounting for government tax credits and other energy incentives would bring the cost even lower.

<https://www.cbsnews.com/news/its-now-cheaper-to-build-a-new-wind-farm-than-to-keep-a-coal-plant-running/>

Clean Energy Is a Winner in Several States as More Governors, Legislatures Go Blue

Seven Republican-led states voted for Democratic governors this week in an election that could shift the landscape for climate and clean energy policies, especially in the increasing number of states where Democrats will also dominate the legislature

/Plastic: Conservation in the News November 2018



Tons of plastic piling up in Illinois nearly a year after China's ban

Keep Northern Illinois Beautiful has more than 7 tons of plastic stored in its recycling center and no place to send it nearly a year after China

began to refuse shipments of recyclable plastics from the West...Hundreds of drivers line up each week to drop off recyclables, including plastics marked with a "1" or "2" at the nonprofit Keep Northern Illinois Beautiful's center on Hydraulic Drive in Rockford. The recyclable plastic bottles are accepted by volunteers, collected in huge bins and later compressed by a machine into 350-pound bales. The bales are stacked floor to ceiling in a storage area...With the world's largest destination for recyclable plastics suddenly eliminated, people are scrambling to figure out what to do with all the plastic that's piling up, said Beverly Ashley Broyles, director of development and communication for Keep Northern Illinois Beautiful...The nonprofit's recycling center has space to stockpile more plastic for months to come in hopes an affordable solution is identified..."Our promise to the public as a nonprofit organization is to keep this out of the landfill," Broyles said. "We don't want to break that promise. Because of the ban in China, there are a lot of recycling agencies that are having to resort to taking it to a landfill. We are trying to do everything we can for that never to happen."

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<https://www.saukvalley.com/2018/11/23/tons-of-plastic-piling-up-in-illinois-nearly-a-year-after-chinas-ban/afs9l7u/>

A new plastic recycling technology converts a liability into an asset

Chemical recycling process turns plastic waste into fuels, waxes, and new plastics that can be recycled again and again

“Of course, everyone is concerned about plastic waste, but the reality is, they also need to use plastic,” says Professor Maschmeyer from the [University of Sydney Nano Institute](https://sydney.edu.au/research/research-impact/a-new-plastic-recycling-technology-converts-liability-into-asset.html). “Our recycling method reconciles those two ideas.”...Professor Maschmeyer created a chemical process where plastic waste can be turned into fuel, or used to make new plastic again, and again. It can also handle any kind of plastic, including the contaminated plastic that China recently stopped importing as it moves away from being the world’s largest waste recycler...Using water at high pressure and high temperature, Cat-HTR breaks plastics down to their smaller chemical components. The water prevents unwanted chemical reactions, then catalysts are used to make the components rearrange themselves into new forms: Solids, like industrial waxes for the food and coatings industry. Heavy liquids, like oils/greases for lubrication purposes...Light liquids, like solvents and fuels such as diesel or petrol...Reactive gases, like ethylene, which can be used to make new plastics....The process takes about 20 minutes with low energy usage and minimal greenhouse gas emissions...As it converts plastic waste into usable products, the Cat-HTR process will also change peoples’ perceptions. “It monetises plastic waste,” says Professor Thomas Maschmeyer. “So it will be treated as a resource to be used rather than a liability to ignore.”...The good news is that this transformative advance has already moved well beyond the lab. In fact, the first Cat-HTR plant is currently being built in the north of England and will soon be converting up to 20,000 tonnes of waste plastic annually.

<https://sydney.edu.au/research/research-impact/a-new-plastic-recycling-technology-converts-liability-into-asset.html>

Professors Use Poetry and Photography to Analyze Impact of Fracking

<https://cornellsun.com/2018/11/13/professors-use-poetry-and-photography-to-analyze-impact-of-fracking/>



More than 35 students filled into a packed Rockefeller Hall classroom on Monday to learn more about the notorious F-Word: fracking...Prof. Julia Kasdorf, English and women's, gender and sexuality studies, Penn State University, and Prof. Steven Rubin, photography, Penn State University, spoke about their new book exploring the effects of fracking.

Kasdorf, a poet, and Rubin, a former photojournalist and documentary photographer, explored various parts of Pennsylvania to speak with people affected by fracking, and then compiled a collection of poetry and photography called *Shale Play**...The combination of poems and photographs created a narrative about fracking that humanizes the controversy surrounding fracking by presenting a more personal perspective to the widely debated issue, according to an audience member...Rubin called photography "a catalyst for change."...Rubin shared an array of photographs that offered a glimpse into fracking regions of Pennsylvania...Kasdorf said that during the process of writing poetry for *Shale Play*, she tried "as much as possible to stay open and curious and to get lost in trying to understand the stories and the places."

*Shale Play: https://smile.amazon.com/Shale-Play-Photographs-Fracking-Keystone/dp/0271080930/ref=sr_1_1?ie=UTF8&qid=1543083943&sr=8-1&keywords=shale+play+kasdorf

Federal Judge Blocks Construction Of Keystone XL Pipeline

WASHINGTON — As the Trump administration has moved aggressively to roll back environmental protections and speed up oil and coal projects, it has repeatedly been blocked by courts finding that the administration did not follow longstanding rules in making its sweeping changes.

Now, a federal judge has issued a repudiation of one of President Trump's first acts as president, his decision to allow the disputed Keystone XL oil pipeline to proceed, saying that the administration failed to present a "reasoned explanation" for the move and "simply discarded" the effect the project would have on climate change.

<https://www.nytimes.com/2018/11/09/climate/judge-blocks-keystone-pipeline.html>

"HOW ABOUT NEVER IS NEVER GOOD FOR YOU? My Life in Cartoons

Back Jacket:



Bob Mankoff Cartoon Editor for the New Yorker, copyright 2014

‘We Were Engulfed in Flames’: Rapid Wildfire Devastates Entire Town of Paradise, CA

The fire was fueled by "red flag" conditions combining high wind and low humidity, which are expected to persist in the area till Friday evening, the Associated Press reported. But longer-term [climate change](#) is also to blame, as [drought](#) makes ground-level vegetation more likely to catch fire..."Basically, we haven't had rain since last May or before that," Butte County CalFire Chief Darren Read told the Associated Press. "Everything is a very receptive fuel bed. It's a rapid rate of spread."



The Camp Fire engulfs the Paradise Inn hotel in Paradise in Northern California.

JOSH EDELSON / AFP / Getty Images

Large, destructive wildfires have become increasingly common in California, and are expected to become 50 percent more likely by 2100 if nothing is done to limit greenhouse gas emissions, California's most recent [Climate Change Assessment](#) found...The San Francisco Chronicle summed up the context surrounding the Camp Fire:

The intensity of the Camp Fire's surge through Paradise drew immediate comparisons to the [Tubbs Fire](#), which wiped out whole neighborhoods in and around Santa Rosa, and the [Carr Fire](#), which blitzed Redding this year. Gov. Brown and others have raised alarm about the nearly year-round danger in the state, but no broad solutions have surfaced. Twice in the past two years, fires have set the state record for size.

In a testament to the tragic normalcy of these events, several fires also broke out in Southern California. Among them were the Hill Fire and Woolsey Fire, which both ignited in Ventura County Thursday afternoon and could be further fueled by the Santa Ana winds, [AccuWeather reported](#).

https://www.ecowatch.com/california-wildfire-paradise-camp-fire-2618852054.html?utm_source=EcoWatch+List&utm_campaign=a6581d3d58-EMAIL_CAMPAIGN_COPY_01&utm_medium=email&utm_term=0_49c7d43dc9-a6581d3d58-85327165

**More than 90% of the world's
children breathe toxic air every
day**

Every day around 93% of the world's children under the age of 15 years (1.8 billion children) breathe air that is so polluted it puts their health and development at serious risk. Tragically, many of them die: WHO estimates that in 2016, 600,000 children died from acute lower respiratory infections caused by polluted air... "WHO is supporting implementation of health-wise policy measures like accelerating the switch to clean cooking and heating fuels and technologies, promoting the use of cleaner transport, energy-efficient housing and urban planning. We are preparing the ground for low emission power generation, cleaner, safer industrial technologies and better municipal waste management,"

[Flickr/](#)



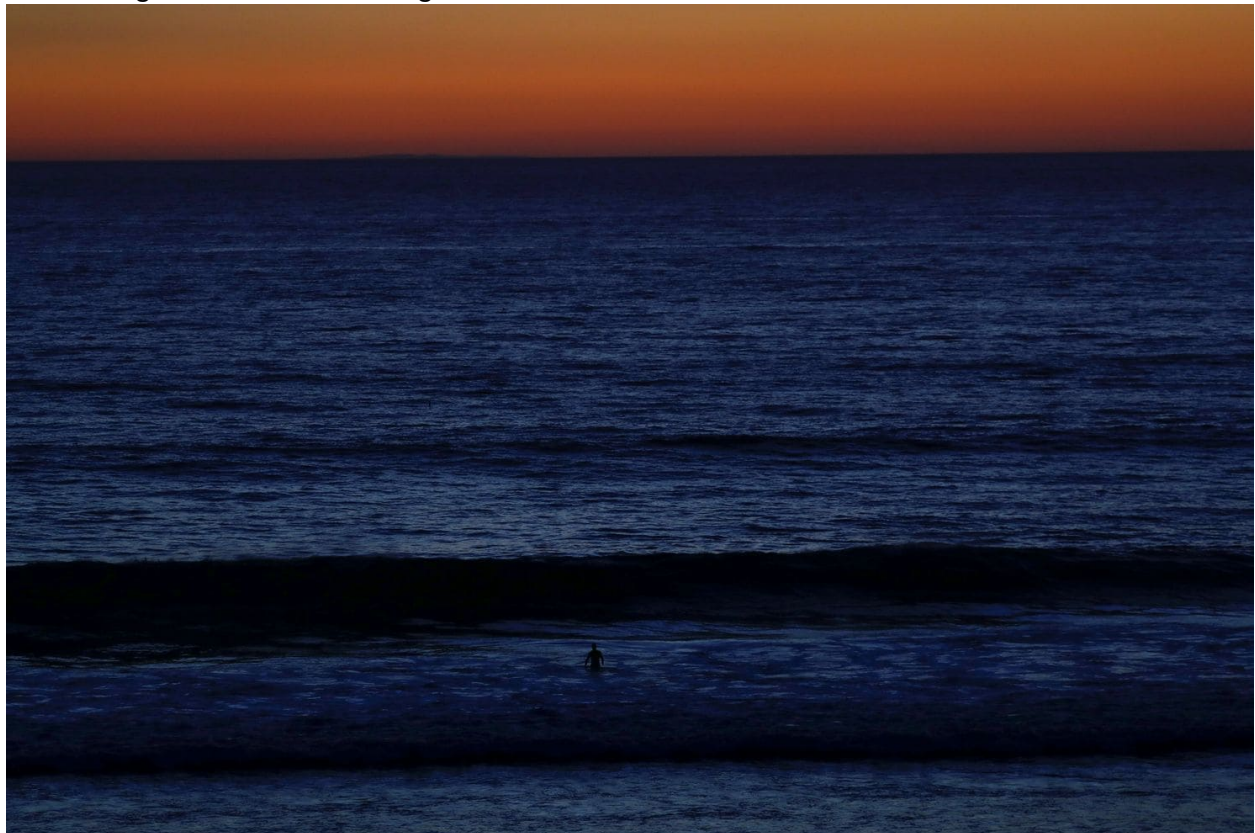


<http://www.witf.org/news/2018/11/pipeline-opponent-wins-chester-county-seat-in-state-house.php>

https://www.washingtonpost.com/energy-environment/2018/10/31/startling-new-research-finds-large-buildup-heat-oceans-suggesting-faster-rate-global-warming/?noredirect=on&utm_campaign=ca857d652f-EMAIL_CAMPAIGN_2018_11_01_04_42&utm_medium=email&utm_source=Our%20Daily%20Planet%20Subscribers&utm_term=.442fa31fc1c2

Startling new research finds large buildup of heat in the oceans, suggesting a faster rate of global warming

The findings mean the world might have less time to curb carbon emissions.



A post-sunset swimmer at Moonlight Beach in Encinitas, Calif., this month.
(Mike Blake/Reuters) (MIKE BLAKE/Reuters)

The world's oceans have been soaking up far more excess heat in recent decades than scientists realized, suggesting that Earth could be set to warm even faster than predicted in the years ahead, according to new research published Wednesday. Over the past quarter-century, Earth's oceans have retained 60 percent more heat each year than scientists previously had thought, said Laure Resplandy, a geoscientist at Princeton University who led [the startling study published Wednesday](#) in the journal Nature. The difference represents an enormous amount of additional energy, originating from the sun and trapped by Earth's atmosphere — the yearly amount representing more than eight times the world's annual energy consumption.

<https://www.bostonglobe.com/metro/globelocal/2018/11/08/should-composting-mandatory-massachusetts/BKAckEx7qcEyqQislwMXDP/story.html>

Should composting be mandatory in Massachusetts?

The US Environmental Protection Agency found that food waste, or organics, accounts for 22 percent of municipal solid waste. Currently, only 5 percent is diverted nationally into composting. Sounds like low-hanging fruit!

<https://insideclimatenews.org/news/08112018/election-2018-governor-states-renewable-clean-energy-solar-wind-winner-legislature-trifecta>

Clean Energy Is a Winner in Several States as More Governors, Legislatures Go Blue

Seven Republican-led states voted for Democratic governors this week in [an election that could shift the landscape for climate and clean energy policies](#), especially in the increasing number of states where Democrats will also dominate the legislature.



Illinois, Kansas, Michigan, New Mexico, Nevada, Maine and Wisconsin are all switching from Republican to Democratic governors.

In 14 states, Democrats will have a "trifecta" of the governor's office and control of both houses of the legislatures, with Colorado, Illinois, New Mexico, Nevada, Maine and New York joining eight others.

That broadens the list of states where ambitious clean energy standards, carbon-reduction initiatives and other climate policies are likely more politically viable than before, environmental advocates say. It also is likely to strengthen state-level opposition to the Trump administration's moves to weaken pollution controls

