



ANNOUNCEMENTS

Weeks of Friday, May 30th through June 20th 2014

Check out the chapter on Facebook at:

<https://www.facebook.com/pages/The-Wildlife-Society-New-Mexico-Chapter/122478411098284>

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1. Welcoming the Newly Discovered

By NICHOLAS BAKALAR MAY 26, 2014

Amid the discouraging headlines about the extinction of wildlife species around the world, there is this bright spot: So many new species of animals and plants are discovered every year that no one knows the number.

Last week the International Institute for Species Exploration, a scientific group, issued its annual top-10 list of new species and estimated that as many as 18,000 are discovered annually, about half of them insects or arachnids.

The figure has been questioned. Camilo Mora, an assistant professor of geography at the University of Hawaii who has published widely on the subject, said that 18,000 was probably too high.

“All of those species are not necessarily new,” he said. “They can be corrections of names of species that have two different names, errors like misspellings, and so on. After these are accounted for, there are usually about 8,000 a year that turn out to be valid.”

But species are fast disappearing, too.

“Loss of habitat is happening on a massive scale,” Dr. Mora said. “Deforestation, climate change, overexploitation, invasive species — add them together and a number like 20,000 extinctions a year could turn out to be an underestimate.”

With thousands of species being identified every year and thousands more going extinct, it might seem that scientists will eventually run out of species to discover. Not so.

In a study published in 2011, Dr. Mora calculated that there were 7.4 million to 10 million unnamed plants and animals, not including bacteria and viruses. In other words, 86 percent of land species and 91 percent of marine species are still out there waiting for names. At the present rate, it would take more than 1,000 years to catalog them all.

In releasing the top-10 list of newly discovered species, the exploration institute’s director, Quentin D. Wheeler, acknowledged that it was not a scientific project, but added that its purpose was serious.

“We want to achieve awareness of the biodiversity crisis,” said Dr. Wheeler, an entomologist who is president of the State University of New York College of Environmental Science and Forestry, in Syracuse. “If we don’t know where species are, we can’t detect invasive species or measure rates of extinction. If we don’t know what’s there to begin with, we can’t make the right calls.”

The institute issues the list on May 23, the birthday of Carl Linnaeus, the 18th-century botanist who created the naming system still in use today.

One is a previously unknown mammal species that lives in the Andean cloud forests of Ecuador and Colombia: the olinguito, an omnivorous, and highly photogenic, member of the raccoon family. The furry brown adult weighs about four and a half pounds, and its tiny ears and flat face make it look like a cross between a beaver and a Persian kitten.

One plant made the list: *Dracaena kaweesakii*, a new species of dragon tree that grows in Thailand. It is so big — 40 feet tall — that it is hard to understand why no one noticed it before.

A group of scientists working in Antarctica found a sea anemone named *Edwardsiella andrillae*, the only anemone known to live in ice. And two Australian biologists tracked down a new leaf-tailed gecko, *Saltuarius eximius*, in the rain forests of eastern Australia.

The list includes an orange fungus found hiding in the soil in Tunisia, a giant amoeba living in the Mediterranean and a transparent shrimp that swims near Catalina Island, off Southern California. There is also a tiny Costa Rican fairyfly (*Tinkerbella nana*), its length about one-third the thickness of a credit card, and a little snail with a pale shell and no eyes, creeping very slowly in a cave in Croatia.

There is one microbe among the top 10 — a bacterium called *Tersicoccus phoenicis* — and it offers evidence that new species are hiding everywhere. It was found in a sterilized room in Florida where NASA prepares spacecraft for launching.

Article link: <http://www.nytimes.com/2014/05/27/science/welcoming-the-newly-discovered.html?ref=earth&r=0>

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2. Scientists discover effective way to screen bats in hibernation for white-nose syndrome

Published on May 30, 2014 at 5:26 AM

Scientists working to understand the devastating bat disease known as white-nose syndrome (WNS) now have a new, non-lethal tool to identify bats with WNS lesions -ultraviolet, or UV, light.

If long-wave UV light is directed at the wings of bats with white-nose syndrome, it produces a distinctive orange-yellow fluorescence. This orange-yellow glow corresponds directly with microscopic skin lesions that are the current "gold standard" for diagnosing white-nose syndrome in bats.

"When we first saw this fluorescence of a bat wing in a cave, we knew we were on to something," said Greg Turner from Pennsylvania Game Commission, who has been using this technique since 2010. "It was difficult to have to euthanize bats to diagnose WNS when the disease itself was killing so many. This was a way to get a good indication of which bats were infected and take a small biopsy for testing rather than sacrifice the whole bat."

Millions of bats in the United States have died from the fungal disease called White nose syndrome which is caused by the fungus *Pseudogymnoascus* (*Geomyces*) *destructans*. White-nose syndrome was first seen in New York during the winter of 2006. Since then, the disease has spread to 25 U.S. states and 5 Canadian provinces.

A significant problem in studying WNS has been the unreliability of visual onsite inspection when checking for WNS in bats during hibernation; the only way to

confirm presence of disease was to euthanize the bats and send them back to a laboratory for testing.

"Ultraviolet light was first used in 1925 to look for ringworm fungal infections in humans," said Carol Meteyer, USGS scientist and one of the lead authors on the paper. "The fact that this technique could be transferred to bats and have such remarkable precision for indicating lesions positive for WNS invasion is very exciting."

To test the UV light's effectiveness, bats with and without white-nose syndrome in North America were tested by the U.S. Geological Survey's National Wildlife Health Center, first using UV light, then using traditional histological techniques to verify the UV light's accuracy.

In the USGS lab testing, 98.8 percent of bats with the orange-yellow fluorescence tested positive for white-nose syndrome, whereas 100 percent of those that did not fluoresce tested negative for the disease. Targeted biopsies showed that pinpoint areas of fluorescence coincided with the microscopic wing lesions that are characteristic for WNS.

Researchers in the Czech Republic then tested the UV light-assisted biopsy technique in the field, using it to collect small samples from areas of bat wing that fluoresced under UV light. In this study, 95.5 percent of wing biopsies that targeted areas of fluorescence were positive for WNS lesions, while again 100 percent of bats that did not fluoresce were negative for WNS.

Combining research from two continents demonstrates that UV diagnostics might be applicable worldwide with great sensitivity and specificity in detecting WNS.

"Moreover, the technique hurts the animal minimally and bats fly away after providing data for research," said Natalia Martinkova from the Academy of Sciences of the Czech Republic. "This makes UV fluorescence an ideal tool for studying endangered species."

Article link: <http://www.news-medical.net/news/20140530/Scientists-discover-effective-way-to-screen-bats-in-hibernation-for-white-nose-syndrome.aspx>

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3.Obama Administration Unveils Notable Climate Change Plan

June 04, 2014 By Cassie Martin

On Monday, June 2, the Environmental Protection Agency announced a new proposal that would cut carbon emissions from existing power plants — something that has never been done before.

Power plants are the leading source of greenhouse gas emissions in the U.S., responsible for 32 percent of total emissions. The newly proposed Clean Power Plan — which proposes new rules under the Clean Air Act and is part of the Obama Administration's Climate Action Plan — aims to cut carbon emissions from existing power plants nationwide by 30 percent from 2005 levels. Other pollutants such as particulate matter, nitrogen oxides, and sulfur dioxides would be cut by more than 25 percent as well. Nearly 1,600 power plants could be affected by the rule.

Under the proposal, the EPA will assess each state and provide it with individual reduction targets based on energy source, usage, and economic impact. For example, the rule calls on coal-dependent states like Kentucky and West Virginia to cut emissions by 19 and 21 percent, respectively. But in states like Washington, which have only one coal-burning power plant and rely heavily on hydro-electric power, an 85 percent reduction would be required, according to a Georgetown University Climate Center analysis of the proposed rule.

States would have until June 30, 2016 to submit strategies that comply with the mandated goals of the new rule. Furthermore, the proposal gives states a bevy of options to choose from including shutting down coal plants, switching from burning coal to burning natural gas, developing renewable energy technology such as wind and solar power, joining California and northeastern cap-and-trade markets, and even enacting state-level taxes on carbon pollution. The U.S. is already a third of the way to meeting the proposal's 30 percent goal, and some states have already exceeded that standard by cutting emissions by 40 percent or more.

One benefit of curbing pollution is improving human health. The EPA estimates that cutting emissions could prevent as many as 6,600 premature deaths, 150,000 childhood asthma attacks, and 490,000 missed work or school days in 2030.

"Climate change, fueled by carbon pollution, supercharges risks to our health, our economy, and our way of life," said EPA Administrator Gina McCarthy in a statement. "By leveraging cleaner energy sources and cutting energy waste, this

plan will clean the air we breathe while helping slow climate change so we can leave a safe and healthy future for our kids.”

When it comes to protecting wildlife species, however, the new plan places the responsibility on individual states. “The precise steps States choose to take in that regard cannot be determined or ordered by this federal action, and they are not sufficiently certain to be attributable to this proposed rule for ESA purposes,” the proposal states. “Consequently, for this additional reason, the EPA does not believe that this proposed rule (if enacted) would have effects on listed species.” Still, the EPA recognizes that questions exist over the effects some mitigation strategies such as wind and solar power technology might have on wildlife. In fact, it is estimated that wind farms kill more than 573,000 birds annually, according to a 2013 study published in the peer-reviewed Wildlife Society Bulletin.

In a position statement released in 2011, The Wildlife Society outlined the effects of climate change on wildlife and habitat — such as an increase in invasive species and habitat shifts — and called for measures to address the issue. These measures include mitigating atmospheric greenhouse gases in various ways, such as moving toward carbon-neutral forms of energy and through carbon sequestration achieved by increased natural resource management activities including sustainable forest management.

Article link: <http://news.wildlife.org/featured/obama-administration-unveils-notable-climate-change-plan/>

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4. Share with Wildlife Accepting Project Proposals – Deadline August 1st, 2014

Share with Wildlife is now accepting proposals for project ideas that it will consider for funding during the 2014-2015 fiscal year. Share with Wildlife funds projects that benefit New Mexico wildlife through habitat improvement, biological surveys and monitoring, conservation education, and wildlife rehabilitation. Project proposals will be accepted through August 1, 2014.

Proposals will be considered for projects that begin from January-June 2015, and run for 12 months (or less). Multi-year projects may be implemented through annual re-submission to the Share with Wildlife call for proposals. No matching funds are required, but additional consideration is given to those entities that can provide 35% of total project costs through non-federal funds.

Please see the .pdf available on the New Mexico Department of Game and Fish website

(http://www.wildlife.state.nm.us/conservation/share_with_wildlife/documents/Share-with-Wildlife-Call-for-Proposal-2014-Fnl.pdf) for details on the types of projects that are eligible for Share with Wildlife funding, and how to apply.

If you have any questions about Share with Wildlife, please contact Chuck Hayes at chuck.hayes@state.nm.us or 505-476-8111.

For more information please visit:

http://www.wildlife.state.nm.us/conservation/share_with_wildlife/index.htm

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5. Experts Discuss New Climate Change Report

By Michael M. Schofield June 11, 2014

Last week, key authors of the recently released National Climate Assessment (NCA) discussed the impacts of climate change on the United States and its wildlife. The discussion was part of the Safeguarding Wildlife from Climate Change Web Conference Series, a product of a partnership between the National Wildlife Federation (NWF) and the U.S. Fish and Wildlife Service.

The NCA reports detail current and future impacts of climate change and guide more sustainable plans for the country's future. This most-recent report — released last month — was the third since Congress began requiring regular assessments in 1990. Over 300 experts compiled the report, and it underwent extensive peer review. Unlike previous reports, the third NCA highlights the immediacy of climate change impacts and discusses how people can begin to respond to those impacts. "Climate change — which we once considered an issue for the distant future is firmly in the present," said Emily Cloyd, Public Participation and Engagement Coordinator for the U.S. Global Change Research Program at last week's web conference. "We see the impacts in every region in every sector across our nation." According to Cloyd, however, "There is still time to act, to limit the amount of change and the extent of damaging impacts."

Below are some impacts of climate change that experts touched on during the web conference:

Altering Ecosystems

Ecosystems are composed of all the interacting living things in a particular area along with the surrounding environment. A single ecosystem can provide a wide variety of habitats to wildlife along with important resources for people — like

crops, lumber, or fresh water. However, climate change is altering ecosystems in a number of ways:

1. Water. Climate change is impacting an ecosystem's ability to improve water quality and regulate water flows. In some areas, this can mean less water for people as well as for animal habitats. The NCA report predicts that as much as 47 percent of trout habitat in the interior West could be lost by 2080.

2. Extreme Events. Climate change makes ecosystems more susceptible to fires, floods, and storms. For example, higher temperatures and less rainfall in the some parts of the U.S. are resulting in devastating forest fires. In 2011, wildfires consumed more than 8 million acres, killing 15 people and altering wildlife habitats.

3. Plants and Animals. Entire landscapes are changing, and the NCA report details how some plant and animal species may be unable to keep up. Increased forest fires, extreme weather conditions, and the decline of sea ice threaten some habitats and species. The National Oceanic and Atmospheric Administration identified four ringed seal (*Phoca hispida*) subspecies as threatened or endangered in 2012 primarily due to climate change.

4. Seasonal Patterns. The report shows a long-term trend toward shorter, milder winters and earlier spring thaws. The shift is upsetting the timing of spring blooms along with animal migration and hibernation. For example, warmer springs have helped plants appear earlier in Alaska. When caribou breed later in the spring, fewer plants are available for food, reducing the chances of newborn calf survival.

Disturbing the Nation's Forests

Forests provide valuable habitats to many wildlife species throughout the U.S. and even help reduce the effects of climate change.

"What we see as the single biggest issue for forests of the nation are accelerating forest disturbances," said Steve Running, a professor at the University of Montana and a contributing author to the NCA report. He said that these disturbances could come in different forms. In the West, warming temperatures and less precipitation put forests in greater risk of wildfire and insect infestations. In the Southeast hurricane damage and logging threaten forests.

These disturbances also negatively impact the ability of forests to act as carbon sinks. Consuming electricity, traveling, and even breathing produce carbon dioxide, and the nation's forests absorb about 16 percent of these carbon emissions. Experts believe that climate change will only continue causing forest disturbances, shrinking the nation's carbon sink. Running even warned that

forests could turn into a source of carbon instead of a sink if people aren't careful. Excessively harvesting forests for industrial uses or for biofuel production could end up generating more carbon dioxide than the forests absorb.

Adapting to Impacts

For the first time, the NCA report includes a section on how people can prepare for and adjust to the impacts of climate change. Federal, state, and local governments along with many private organizations are already beginning to implement action plans. Examples of adaption efforts include removing dams that block fish migration and installing green roofs to help modulate extreme temperatures or waterflows.

These action plans are not universal and often need to be tailored to the environments and resources of individual regions. For example, regions in the western U.S. may need to consider how to combat drought or wildfire while coastal regions may have to assess how to respond to rising sea levels.

“The success of adaption efforts — specifically in the mid- to long-term — is going to be intimately tied to the degree to which we can reduce greenhouse gas emissions,” said Bruce Stein, Director of Climate Adaption at the NWF. “I like to refer to these as dual approaches not dueling approaches.” Experts at conference agreed that the EPA’s recent announcement to reduce power plant emissions is a huge step in the right direction, but more work needs to be done to prepare and adapt to future impacts of climate change.

However, the EPA mandate may have another hidden benefit. “I think this EPA announcement has really launched [climate change] into the front of the news cycle in a way that it hasn’t been for a long time,” Running said. The announcement and timely release of the NCA report helps initiate meaningful dialog that could bring us one step closer to minimizing the effects of climate change.

Article link: <http://news.wildlife.org/featured/experts-discuss-new-climate-change-report/>

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6.Senators want bison declared national mammal

June 12, 2014 5:30 am • By DIRK LAMMERS The Associated Press

SIOUX FALLS, S.D. — Senators from the Dakotas are among those making another attempt to have the bison declared the national mammal, citing the animal's historical significance and importance to Native Americans.

South Dakota's Democratic Sen. Tim Johnson said the goal is to recognize its cultural, ecological and economic impact.

"The bison has played an important role in our nation's history, holds spiritual significance to Native American cultures and remains one of our most iconic and enduring symbols," Johnson said in a statement.

Johnson, Sen. John Thune, R-S.D., Sen. John Hoeven, R-N.D., and Sen. Heidi Heitkamp, D-N.D., are among the co-sponsors of the National Bison Legacy Act, introduced Wednesday.

The bill is backed by the Rapid City-based Intertribal Buffalo Council, which includes 57 tribes, and the National Bison Association.

If passed, the largely ceremonial designation would give the animal more recognition but not any added protection. Similar legislation introduced in 2012 stalled in Congress.

Tens of millions of bison once populated most of North America, but overhunting reduced the population to about 1,000 animals by the turn of the 20th century.

Conservationists, including President Theodore Roosevelt, created the American Bison Society in 1905 to save the species from extinction, re-establishing herds in Oklahoma, Montana and South Dakota.

About 400,000 bison now roam pastures and rangelands across North America. Johnson also noted that bison production has become an important agricultural endeavor as demand for the meat rises.

Keith Aune, bison program director at the Wildlife Conservation Society, said buffalo helped shape the vegetation and landscape when they dominated the prairie grasslands.

Bison were also important to many American Indian tribes, which killed the animals for food and materials to make clothing and shelter.

"They were a force of nature," Aune said. "They weren't animals just wandering around eating grass. Bison are woven into the fabric of our society in many, many ways."

Hoeven said North Dakota's history is closely associated with the bison, largely because of Roosevelt's influence.

"His efforts to protect these majestic animals helped to retrieve them from the brink of extinction and established them as one of the most powerful and inspiring symbols of the American spirit, for Native Americans and settlers alike," Hoeven said in a statement.

A resolution co-sponsored by Johnson designating Nov. 2, 2013, as National Bison Day passed the Senate last year.

Article link: http://trib.com/news/state-and-regional/senators-want-bison-declared-national-mammal/article_4d813d91-2d84-5e37-ab0f-0ef3a7d4e7a6.html

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7. Bird conservancy group sues U.S. over 30-year permits to legally kill eagles

By Laura Zuckerman 7:13 p.m. CDT, June 19, 2014

(Reuters) - A bird advocacy group sued the U.S. government on Thursday over rules it says loosen protections for eagles killed by wind turbines, arguing they threaten decades of protection that saved the bald eagle, America's national emblem, from extinction.

The American Bird Conservancy filed suit in federal court in California to challenge the authorization of 30-year permits to renewable energy developers to accidentally kill protected bald and golden eagles, which may die as a result of collisions with towering wind turbines.

"Eagles are among our nation's most iconic and cherished birds. They do not have to be sacrificed for the next 30 years for the sake of unconstrained wind energy," Michael Hutchins, coordinator of a wind energy panel with the American Bird Conservancy, said in a statement.

Federal laws like the Bald and Golden Eagle Protection Act ban the killing of eagles without special permits, once issued for such restricted purposes as scientific research.

But U.S. wildlife managers expanded the permits in 2009 to include activities like renewable energy development, a top priority of the Obama administration, and lengthened them in December to 30 years from five.

The alternative energy industry had sought the changes to demonstrate to investors that developments like wind farms “many on or planned for public lands in the U.S. West” would not face the uncertainty that came with applying for new permits every five years.

The American Bird Conservancy argued in the lawsuit that by imposing the looser rules, the U.S. Interior Department and the Fish and Wildlife Service were in violation of landmark conservation laws designed to protect bald eagles, a bird stamped on the U.S. national seal, and for declining populations of golden eagles.

The American Wind Energy Association said in a statement on Thursday the permit program “appropriately balances wildlife conservation with the realities of the private sector.”

Conservationists accused the Obama administration of recklessly giving wind companies “a 30-year pass” to kill eagles without assessing the impact on the birds’ populations.

Fish and Wildlife Service spokeswoman Laury Parramore said the agency would not comment on pending or ongoing litigation.

The number of eagles killed by wind farms each year is disputed. The Fish and Wildlife Service estimates 85 of the raptors have died that way since 1997, but the American Bird Conservancy says the wind industry has killed more than 2,000 eagles in three decades.

(Reporting by Laura Zuckerman in Salmon, Idaho; Editing by Cynthia Johnston and Peter Cooney)

For more information please visit: <http://www.chicagotribune.com/business/sns-rt-us-usa-eagles-20140619,0,540404.story>

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