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1. **November NM TWS Newsletter**

The November Newsletter for the NM Chapter is now available (see attached). The Newsletter has a lot of good information about the AZ/NM Joint Annual Meeting in 2015, including a reminder to submit abstracts and nominations for the Outstanding Student and Wildlife Professional Awards by December 15th and descriptions of several events at the JAM that you can register for on the JAM registration website (http://www.eventzilla.net/web/event?eventid=2139036783) including a breakfast that will be hosted by the Southwest Section on February 6th. There is also a recap from the National TWS meeting in Pittsburgh.

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2. NM TWS Board Elections – Vote by January 16th, 2015

It is time to elect the chapter officers and members of the NM TWS board for 2015. Please fill out the ballot on-line (https://docs.google.com/forms/d/1G8SxdJnuYF0nc-NCvDHPkkH8CGVLMJzj7iS0UrPRREM/viewform) or submit the attached ballot electronically or by mail by January 16th, 2015.

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3. Reptile Enforcement and Law Enforcement
   Use of Social Media workshops to be held at the JAM – February 5th, 2015

There will be two law enforcement related workshops at the 2015 AZ/NM JAM on February 5th (see attached flyer for more details). Both workshops are being taught by representatives of Game and Fish departments in either Arizona or New Mexico. The morning workshop (Law Enforcement Use of Social Media) is open only to current law enforcement officers. The afternoon session (Reptile Enforcement) is open to everyone and will include the use of live reptiles. All participants need to register for the workshops (http://www.eventzilla.net/web/event?eventid=2139036783) but current law enforcement officers do not need to register for the rest of the conference if they are only planning on attending one or both workshops.

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4. Conservation Affairs Network Newsletter Available

The fourth issue of the Conservation Affairs Network newsletter is available (see attached document). The newsletter has information on wildlife-related legislation and other issues related to wildlife policy.

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Please submit your proposals for workshops, symposia, panel discussions, and special poster sessions for The Wildlife Society’s national meeting in Winnipeg in October, 2015. Proposals due February 6th, 2015. See attached flyer for more details.

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6. Feds find struggling Western bird needs 3-mile buffer from drilling, impacting energy industry

By: Matthew Brown, The Associated Press


BILLINGS, Mont. - A government report with significant implications for the U.S. energy industry says a struggling bird species needs a 3-mile buffer between its breeding grounds and oil and gas drilling, wind farms and solar projects.

The study comes as the Obama administration weighs new protections for the greater sage grouse. The ground-dwelling, chicken-sized birds range across 11 western states and two Canadian provinces.

A 3-mile buffer for the birds represents a much larger area than the no-occupancy zones where drilling and other activity is prohibited under some state and federal land management plans.

However, those plans also contain more nuanced provisions, which backers say will protect sage grouse, such as seasonal restrictions on drilling or other activity and limits on the number of oil and gas wells within key sage grouse habitat.

Some wildlife advocates say too much energy development is being allowed, undermining efforts to help grouse. Such opposition could be bolstered by Friday’s U.S. Geological Survey report.

The USGS made no management recommendations, and agency scientists said the buffer distances were for guidance only.
Greater sage grouse populations dropped sharply in recent decades due to
disease, pressure from the energy industry, wildfires and other factors.

Now state and federal officials are scrambling to come up with conservation
measures to protect the grouse ahead of a court-ordered September 2015
decision on protections.

A related bird, the Gunnison sage grouse of Utah and Colorado, received federal
protection as a threatened species on Nov. 12. An adviser for Colorado Gov.
John Hickenlooper said Friday that the state plans to challenge the decision in
court.

The USGS report on the more-common greater sage grouse represents a
compilation of scientific studies aimed at seeing what it takes to protect the bird.

It was requested by the U.S. Department of Interior's Bureau of Land
Management, which oversees millions of acres of sage grouse habitat and
regulates the energy industry across much of the West.

BLM spokesman Jeff Krauss said the agency will use the new information as it
works on changes to land use plans that include new sage grouse conservation
measures.

The report said a minimum buffer extending to a 3.1-mile radius around sage
grouse breeding sites would provide considerable protections for the bird. That
radius would equal a circle around the leks covering 30 square miles.

The report suggests a maximum buffer of 5 miles.

By comparison, Montana and Wyoming have adopted management plans for the
bird that call for a no-surface occupancy zone of six-tenths of a mile around
breeding sites, or leks, in key sage grouse habitat. That's an area of slightly more
than one square mile.

The state plans also limit human activity within a larger area around breeding and
nesting seasons. And they take into account cumulative impacts, such as a
restriction in Wyoming that limits oil companies to one well pad per square mile in
key habitat. That keeps sage grouse habitat intact, Wyoming Petroleum
Association Vice-President Esther Wagner said.

"That reduces (habitat) fragmentation, which is what it all comes down to,"
Wagner said. "It's working here."
But Steve Holmer, a senior policy adviser for the American Bird Conservancy, said larger no occupancy areas around leks are needed if sage grouse populations are to survive.

"There really needs to be a hard and fast rule about no occupancy," he said. "When it comes to oil and gas, those have been found to immediately drive out leks if they're too close."

The U.S. Fish and Wildlife has determined that Wyoming's sage grouse plan — used as a template for Montana's — is protective of the bird, agency spokesman Theodore Stein said.

Krauss, the BLM spokesman, pointed out that the report offered a range of buffer distances. "There is no single number for an appropriate buffer distance for any particular type of disturbance," he said.

Land managers also need to take into consideration local conditions across the grouse's sprawling, 257,000-square-mile habitat, USGS senior science adviser Carol Schuler said. Friday's buffer recommendation was meant to offer a reference point as more localized decisions are made, she said.


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7. Animal diseases intensified by climate change

Date 25.11.2014 Author Rachel Stern

From Bluetongue disease in sheep to Rift Valley Fever in camels, researchers say that animal diseases are sparked and spread by climate change. What causes them, and what can people do to prevent them from spreading?

Sheep with swollen, bright blue tongues: it is a surreal sight only recently spotted in Germany.

Aptly dubbed Bluetongue, the deadly disease causing the coloration was previously well known in veterinary medicine as a virus specific to Africa, says Heribert Hofer, the director of the Leibniz Institute for Zoo and Wildlife Research and a professor at Free University of Berlin. It particularly occurs in sheep, cattle and goats.
Yet over the past 10 years, several cases have been reported throughout Western Europe due to an increase of the warm and wet temperatures where the disease thrives. To date, it’s killed more than 1.5 million sheep in Europe.

"Climate change makes it easier for the pathogen to spread beyond its normal places," says Hofer. "In places where it exists already, it might become more severe."

Bluetongue is one of a number of climate-affected diseases impacting the health of animals. Scientists such as Hofer say they will become more prevalent due to rising temperatures.

Animal diseases are a "canary in a coalmine", or an early-warning indicator of a greater problem at hand, says Matthew Baylis, head of Liverpool University’s Climate and Infectious Diseases of Animals (LUCINDA) group. Two-thirds of human diseases originate in animals, about half of which are farm animals.

Bluetongue is transmitted by Cullicoides immitus, a tiny biting midge, similar to the way that malaria is spread by mosquitoes.

**Changing the rules of the game for pests**

Pests such as the biting midges, mosquitoes and flies used to be fenced into a specific geographic range or habitat type by climatic factors. Many of them thrive the warmer it gets, but then can no longer persist at higher altitudes. That’s quickly changing, though, says Richard S. Ostfeld, a senior scientist at the Cary Institute of Ecosystem Studies in Millbrook, New York.

"The concern is that, as there are places on the planet where conditions are currently too cold for the vectors to occur," says Ostfeld. "As the climate warms, the vectors will spread into those new areas and there will be a net increase in their geographic ranges."

Warming temperatures are giving these insects a competitive advantage, according to a 2011 article by Harvard University health researchers Samuel S. Myers and Aaron Bernstein. It is not only speeding up the rates of reproduction, development, survival and biting of blood-feeding pests, but is also shortening the parasite development time inside these disease-transmitters.

"Even though the actual change in temperature has not been very large, from our perspective, from the perspective of an insect, a pathogen in an insect is quite substantial because they’re so much more sensitive to climate," says Baylis. "All insects are affected by temperature and rainfall."

Take Rift Valley Fever, a virus transmitted by mosquitoes that has recently spread throughout Africa and the Middle East due to rainfall increases of up to
three times their average annual rate. It has caused mass fatalities in camels, cattle, goats and sheep, and impacted the livelihoods of the farmers that depend on them.

Climate change also prompts behavioral changes of animals that make them more susceptible to disease, says Baylis. For example, during periods of drought animals will cluster together more at waterholes. The close proximity will allow diseases to spread more – and the animals, often in worse physical condition, will be unable to resist them.

Yet it’s not just warming, but climate fluctuations as a whole, which are sparking the spread of disease. There are a number of species of fungi, a couple of which serve as wildlife pathogens, which bode better under colder conditions.

Take the so-called Bd, a recently identified chytrid fungus deadly to European salamanders and newts, as well as frogs and toads worldwide. The lethal skin disease threatens more than 200 amphibian species around the world.

"Bd has been shown to not spread as rapidly or proliferate as rapidly under warm conditions," says Ostfeld, pointing out that higher temperatures are also known to reduce the ability of some amphibians to fight off infection. "So the fungus is actually assisted by cooler conditions."

Like most species, these amphibians evolve to adapt to changes in their environment -- but sometimes the change is too fast for them to keep up with. Thus, animal populations and their geographic ranges will shrink due to disease.

**Impacting biodiversity**

Infectious diseases in animals will have a more profound impact on biodiversity than has previously been realized, says Hofer.

"We recognize that infectious disease pathogens are a major force shaping not only the ecology of natural ecosystems, but also the evolution of species, their ability to handle challenges, and the development of new species," he says.

Combating these issues requires massive investment, training, and development of vaccines, says Ostfeld.

Species do move, and they can shift their positions in response to changing conditions, he adds. Yet the rate of climate change "is so fast right now", that in many cases neither evolutionary change nor behavioral change is sufficient to keep up.

"Whatever we can do to slow things down," says Ostfeld, "we're going to give untold numbers of species a fighting chance to adapt rather than disappear."
How U.S.-Mexico border policy is devastating wildlife

By: Jaymi Heimbuch
Thu, Dec 04, 2014 at 04:37 PM

As a wall goes up dividing the 2 countries, serious environmental concerns are surfacing, including possible extinction of species. Conservation photographer Krista Schlyer documents the impact.

In her work as a journalist and conservation photographer, Krista Schlyer has come across an issue few are talking about, despite the fact that everyone is talking about it.

The U.S.-Mexico border is arguably the most controversial topic in immigration politics, and every day there's a new angle, including the massive project to build a wall between the two countries. While everyone is busy discussing the human aspects, few people are bringing attention to the impact it has on wildlife. A wall spanning thousands of miles east to west across the continent has significant impacts on countless species. A portion of the wall has already been constructed, and biologists and researchers are seeing the disastrous consequences, including species separated from their food and water sources, others cut off from migration routes, and habitats destroyed. In an effort to push the construction of the wall forward, environmental laws have been waived.

Thankfully Schlyer is working to document and bring attention to the many problems the wall is creating. She spoke with us about her project as well as what it's like to be a conservation photojournalist focusing on issues that are so daunting.

MNN: Your biggest project right now is Borderlands, exploring the impact of the wall being built between the U.S. and Mexico on wildlife. What was the catalyst that got you working on this project?

Krista Schlyer: I had an assignment from Wildlife Conservation magazine in 2006 that sent me to Chihuahua, Mexico, to meet with a scientist studying a herd of wild bison that traveled back and forth across the U.S.-Mexico border. The scientist, Rurik List, and I got up in the air in a Cessna to look for the herd and we
spotted them just as they were crossing the U.S.-Mexico border, which at the time was a broken-down barbed-wire fence (broken by the bison themselves).

When we got to the ground, we visited the ranches on either side of the border to learn what we could about the bison’s movements and habits. The rancher on the Mexican side of the border said the bison visited a pond on his land almost every day because it was the only year-round water source anywhere nearby. The rancher on the American side said they came to a certain pasture on his land, where there was a special kind of native grass.

This was right around the time when the U.S. government was making plans to build a border wall — and it suddenly hit me hard what this would mean for the bison, and all the other wildlife of the region whose scarce food and water resources were often split by the border. This moment was most definitely the catalyst for my work in the borderlands.

**How are animals being impacted by the walls? Is there no way for them to get over or under them?**

Different animals are impacted in different ways, not just by walls, but by the road infrastructure and habitat destruction that accompanies wall construction, as well as the destruction caused by other border militarization activities like off-road vehicles driven by border patrol agents, and bright lights installed in dark places that shy wildlife need to travel through. For many large mammals it is the walls themselves that divide them from food and water resources like the bison I saw, and it’s what keeps them from migrating as droughts increase in the Southwest due to climate change.

Some sections of wall are 18 feet high and solid steel, so no terrestrial animals (except humans) can pass. Other walls are high but not solid, so small reptiles can get through. Still others are low vehicle barriers, but because of the way they were constructed — without input from wildlife scientists — they are impassable to bison, pronghorn and even deer.

Walls can also divide populations, disrupting population genetics. For example, one herd of pronghorn in Arizona started to disappear a few years after a segment of wall was built there. Scientists began watching the herd and learned that when the border barrier was built, all of the males but one were trapped on the Mexico side of the border. The only male on the U.S. side was an old non-breeding male. So suddenly the herd had no way to reproduce.

In South Texas, most of the impact has been habitat destruction and fragmentation. In this area less than 5 percent of the native habitat remains — largely due to government programs in the 1980s that paid farmers to slash and burn the native thorn scrub habitat. Border wall construction has been destroying habitat in the national wildlife refuges there that were created to provide a last
refuge of habitat for native species. It's an important place because it is a nexus of the tropical and temperate zones, so there are all these species that exist here that don't appear anywhere else in the United States.

We need to be restoring the damage we have already done there, not destroying more of this rare habitat.

**In trying to grasp the scale of this, how can we put this wall's construction into perspective with its impact on species diversity or, in the worst case, extinction?**

Well, on the U.S.-Mexico border we are taking about a 2,000-mile region that runs east to west. Wildlife almost always migrate north to south when climates change, in order to find cooler/wetter climates, or warmer/drier climates depending on the climate shift. In an era of global climate warming — particularly in the U.S. Southwest where temperatures are rising and droughts increasing already — blocking off the entirety of the northerly route for migrating wild species will devastate their ability to move, adapt and survive.

This is a huge ecological problem that if it continues will likely cause extinctions for some species that are endemic to the region or already imperiled, and localized extinctions for others, which will throw ecosystem dynamics out of balance all along the border.

In the case of cat species, we have already begun to reduce their chances for survival. Five of North America's six cat species live in the borderlands, three of those don't live anywhere else in the U.S. The jaguar, ocelot and jaguarundi are all critically endangered in the U.S. due to habitat loss and historical hunting. Their only hope for real recovery here is an ability for cats to migrate here from Mexico. We are closing off their only pathways for doing that, and dooming the recovery of these beautiful felines.

Beyond the on-the-ground impact, there is an even larger issue. The damage on the border has mainly been possible due to the dismissal of environmental law all along the borderlands. In 2005, the RealID Act authorized the Department of Homeland Security to waive all laws on the border to expedite construction of the border barrier — ALL laws. So far 37 laws have been waived permanently on the border, including the Endangered Species Act, the Clean Air Act, the Clean Water Act, the American Eagle Protection Act, and the list goes on.

This dismissal of environmental law not only endangered vulnerable wild species like jaguars, wolves, and Sonoran pronghorn, it also sets a terrible precedent that it's okay for our government to ignore environmental laws and destroy the natural world.
Are there any solutions, politically speaking, that can alleviate the damage to wildlife so far, and prevent it during further construction?

We need people to speak out. To tell their members of Congress and the White House that they don't want walls and further militarization and that they want the Endangered Species Act and all other environmental laws restored on the border. Now is an especially important time for members of Congress to hear that their constituents care about wildlife and natural places. The borderlands is in a very precarious position. There has been much talk of immigration reform, but the Democrats in the Senate devised a plan that would drastically worsen the situation for wildlife on the border — more walls, more militarization, more dismissal of environmental law. The bill that passed the Senate a year ago had some good immigration policy reforms but it included destructive border security provisions. Immigration reform needs to be separated from border policy.

Congress and the White House know that walls don't stop people, and they know that spending billions of dollars ($20-$40 billion and counting) on border militarization and walls has not reduced the number of people coming here for work. People come because they need jobs to feed their families, and because we have industry that need them to work and will pay them. It is economics and labor that drive immigration, not border policy. But for the past 20 years we've had border policy instead of immigration policy. It doesn't work, but it can win elections.

In your work, especially with Borderlands, how do you balance being an objective journalist and a passionate conservationist?

It's a tricky balance. First off, I work really hard to stay informed. The more I know, the better I can convey what is really happening, rather than just my feelings about what is happening. I was trained as a journalist, so journalism is my framework. But much of what I work on is personally heartbreaking to me. When I do slideshows and talks with my book "Continental Divide: Wildlife, People and the Border Wall," I often get emotional, on the verge of tears sometimes. I have spent time — quiet, important time — with the wild species I'm talking about. And I know that their futures, in some cases the future of their species, depends on what we humans do. We have a huge responsibility as a civilization, that I think many people in our society have never thought about.

The future of wild things depends on us, and I think now is a time that journalism, especially conservation and environmental journalism, needs quite a lot more passion.
What other conservation projects have captured your interest since beginning photojournalism?

I have worked for many years to document the Anacostia River in Washington, D.C., and the wildlife and people that live in the watershed. Urban watersheds and urban biodiversity are a big interest of mine. Part of this project includes working on an awesome initiative started by a friend of mine, Clay Bolt, and Scottish photographer Niall Benvie, called Meet Your Neighbours. It is aimed at helping people get to know the wildlife that lives all around them. I love it!

Most recently I worked on a project with Defenders of Wildlife to document some of the California desert wildlife and wild lands that are threatened by poorly sited solar and wind development. I have a deep love and respect for the desert and its creatures, so this was a fantastic opportunity to work with a really great wildlife organization on a very pressing issue. We have the chance to evolve our relationship with energy, to reduce the impact of our energy consumption on the natural world, but only if we are thoughtful about it.

What is your outlook on the ability of conservation photography to engage and inspire people to act on environmental issues?

The potential for conservation photography is boundless, especially in an era of social media. The borderlands project and this recent desert project I did with Defenders of Wildlife give me great hope for what we can accomplish — not to mention all the amazing and inspiring work my colleagues are doing.

But we are really at the beginning of this experiment of combining photography and conservation activism. The potential for innovation, collaboration and communication on conservation issues is far beyond what we have reached. It is a really exciting time. But also difficult as a profession. Many conservation groups have not seized this idea yet, and are reluctant to fund this work. And the true potential cannot be reached without some investment by the conservation community.

Have you ever had a moment of despair in your work, when it feels like the tasks ahead are impossible to accomplish, that the conservation work necessary to make a difference is too much too late? How have you gotten through it?

Oh, so many times.

I raised money last year to give a copy of my book to members of Congress and President Obama’s administration. I have personally delivered more than 200 copies and had discussions with congressional staff, members of border patrol, and many others. Many of those discussions were memorable for this repeated phrase: I had no idea the environment was even an issue on the border.
When I started on the borderlands project, the border wall had not been built. Several conservation groups were fighting hard against it in the courts and on Capital Hill. Environmental law still existed in the borderlands. Since then about 650 miles of border barrier have been built (about 300 of that is solid wall, the rest is a less damaging low barrier). Environmental law has been dismissed over much of the border, and many of the environmental groups have given up, fearing that without environmental law they have no legal legs to stand on. And the Senate Democrats created and passed a bill that would add 700 more miles of wall, double the border patrol, and expand the waiver of environmental law.

When each of these things happened I fought hard not to be overcome with despair. And lost. For days I would wallow in my failure to stop what had happened, and I would battle with feelings of inadequacy and helplessness. But what kept me going was that each time I gave a talk about the borderlands, whether it was in Utah or Maryland, people would come up to me afterward and say, often with tears in their eyes, "What can I do to help, I had no idea this was happening!"

People care, people love wildlife and are connected to nature on a very fundamental level. But they don't know what's happening, so I, and the awesome folks that I work with on this issue, just have to keep trying. And that is true for every conservation issue out there. We will lose many battles, sink into despair and lose faith. But we have to get back up and keep trying and know that every little thing we do for the wild world will help.

It helps a lot to be collaborating with a committed team of conservationists. I have worked side-by-side with the Sierra Club Borderlands Team and the International League of Conservation Photographers on many projects. When I get discouraged, I just look at the work my friends and colleagues are doing, that is often all the encouragement I need.

**What keeps you passionate about conservation photography itself?**

Two things. It is those special moments in the field when I watch prairie dog pups tumble out of their burrows first thing in the morning, or watch a kit fox caught in the golden light of the setting sun, or watch rain clouds gather over the desert and then inhale the sweet smell of creosote that fills the air. But it's also this sense of responsibility to see those things endure. Not for the future of humanity — although I do believe that our ability to survive and thrive is tied to our will to conserve the natural world — but more importantly, I want the kit fox, prairie dog and creosote to be able to live and thrive just for them, just because they are beings that give beauty to the world.


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