

New Mexico Chapter of  
**The Wildlife Society**



*Excellence in Wildlife Stewardship Through Science and Education*

**ANNOUNCEMENTS**

*Weeks of Friday, April 18<sup>th</sup> through May 23<sup>rd</sup> 2014*

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

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##

## 1. Household rat poison linked to death and disease in wildlife

By MARTHA GROVES April 16<sup>th</sup>, 2014, 9:33PM

The mountain lion known as P-22 looked majestic just a few months ago, in a trail-camera photo shot against the backdrop of the Hollywood sign.

But when a remote camera in Griffith Park captured an image of the puma more recently, it showed a thinner and mangy animal. Scientists sedated him and drew blood samples. They found evidence of exposure to rat poisons.

Now, researchers say they suspect a link between the poisons and the mange, a parasitic skin disease that causes crusting and skin lesions and has contributed to the deaths of scores of bobcats and coyotes. A National Park Service biologist applied a topical treatment for mange and injected Vitamin K to offset the effects of poisoning.

The condition of California's famous cougar is likely to intensify the debate over the use of rat poisons in areas of the state where urban living collides with nature.

Nearly 20 municipalities throughout California, including San Francisco, Calabasas and Malibu, have passed resolutions urging residents not to purchase and businesses not to sell "second-generation" anticoagulant rodenticides, said Jonathan Evans, a staff attorney with the Center for Biological Diversity, a nonprofit group based in San Francisco. P-22 was afflicted by two older "first-generation" rat poisons, which he probably ingested by eating other wildlife.

The maker of d-CON, a leading rat poison, is fighting efforts to ban sales of its product to consumers, arguing that it is safe when properly used. The company contends that by eliminating consumer access to one type of effective, affordable rodent control, California runs the risk of increasing the use of alternative products that contain powerful — and potentially more harmful — neurotoxins.

During nearly two decades of research in and around the Santa Monica Mountains National Recreation Area, park service scientists have documented widespread exposure in carnivores to common household poisons. Of 140 bobcats, coyotes and mountain lions evaluated, 88% tested positive for one or more anticoagulant compounds. Scores of animals are known to have died from internal bleeding, researchers said.

The poisons also affect protected or endangered species including golden eagles, northern spotted owls and San Joaquin kit foxes.

In wide use in parks, schools and homes, rat poisons are designed to kill rodents by thinning the blood and preventing clotting. Many people who set bait traps do not realize the poisons work their way up the food chain, researchers say.

Los Angeles Councilmen Paul Koretz and Tom LaBonge have asked the city's Department of Recreation and Parks to report on the use of poisons to control rodents.

In Malibu, activists Kian and Joel Schulman of the Malibu Agricultural Society pushed for the local resolution and have used photos of distressed and dead animals to successfully lobby store managers and restaurateurs to stop selling or using rat poisons.

Kian Schulman routinely prowls the perimeters of shopping centers in search of broken bait boxes near trash bins filled with food waste. At her urging, Pepperdine University phased out the use of all rodenticides on its Malibu campus. It uses live traps and will consider installing raptor perches to encourage natural rodent control, said Rhiannon Bailard, with the school's Center for Sustainability, Governmental and Regulatory Affairs.

The California Coastal Commission last week approved new planning guidelines for the Santa Monica Mountains that include a call for stopping the use of rodenticides. The plan also immediately bans in unincorporated areas the use of anticoagulant poisons that are the most harmful to bobcats, coyotes and mountain lions.

The most sweeping action to date was taken in March, when the state Department of Pesticide Regulation signaled plans to halt retail sales of second-generation anticoagulant rodenticides to consumers. Under the rules, slated to take effect July 1, only licensed specialists could purchase and use them.

Reckitt Benckiser Group, which makes d-CON, is seeking a preliminary injunction against the rules. The company said the "new regulation will unnecessarily put Californians at an increased public health risk from rodent infestation and place a greater financial burden on families and individuals who cannot afford professional pest control services."

Second-generation rodenticides are dangerous even when animals ingest them in sublethal doses. The anticoagulant makes them lethargic, wildlife experts say, so they are more likely to die from exposure or be hit by cars.

The activism and regulation have centered around second-generation poisons, but older first-generation poisons also remain of concern. Those poisons were commonly used decades ago until many rodents developed an immunity. But first-generation poison can still be harmful to wildlife.

Mange is caused by a microscopic mite that burrows into the skin and causes itchiness and skin lesions. The afflicted animal loses fluids and nutrients through the skin. Complications including infection, starvation and hypothermia eventually lead to death.

The connection between exposure to anticoagulant rodenticide and mange is not fully understood, said Seth Riley, a wildlife ecologist with the Santa Monica Mountains National Recreation Area.

Mange in wild cats is rare. A decade ago, researchers documented two mountain lion deaths in the Simi Hills that they blamed on poisoning by anticoagulant rodenticides. Both had mange.

Scientists said P-22's condition does not appear to pose a safety threat to human beings. He continues to spend most of his time in the park's most remote areas, said Jeff Sikich, a National Park Service biologist who has tracked P-22's activity. Shortly before he was recaptured, P-22 had killed an adult buck.

Not long ago, however, he was caught on video padding through a Hollywood Hills neighborhood. Sikich said such behavior is typical of younger male mountain lions testing their boundaries.

As for P-22's future, "the worst outcome would be that the treatment might not work and he could continue to get sicker with the mange and eventually die from it," Riley said. The cougar could also die directly from the anticoagulant poisoning.

And if those don't get him? At age 4 1/2 or so, P-22 will sooner or later want to mate, and that will mean venturing out of the park.

"He'll have a dangerous time trying to cross roads or freeways or might end up in someone's garage or backyard," Riley said. "Fortunately, knock on wood, he's never behaved aggressively toward people at all. [But] you just never know in those situations."

Article link: <http://www.latimes.com/local/la-me-rat-poison-20140418-story.html#axzz2zFHNOYOH&page=1>

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## 2. Interior Announces New Mitigation Strategy

April 24, 2014 By Kate Bissell

Secretary of the Interior Sally Jewell recently announced the release of a new landscape-scale mitigation strategy formulated by the Department of the Interior's (DOI) Energy and Climate Change Task Force. The strategy aims to take a broader approach to mitigation on federal lands, rather than focusing on a narrower project-by-project approach, as is current practice.

The mitigation strategy emphasizes collaboration and problem solving among agencies and stakeholders and is designed to allow DOI to assess mitigation strategies for landscape-scale areas that share similar ecological characteristics. For example, as part of the new strategy, DOI can use hydrogeologic information to understand where wetlands form in the landscape, and how potential loss of wetlands will affect the entire landscape. The hope is that federal and state land managers will be able to better coordinate their land management and mitigation procedures.

In the strategy, DOI specifically recognizes and builds upon mitigation initiatives already in place across the country that aim to avoid development conflicts and improve conservation outcomes. One example is the Western Governors' Association's Crucial Habitat Assessment Tool (CHAT), which takes a landscape-level overview of important wildlife habitat in 16 western states and allows development project proponents to better plan future projects. The desired results are a decrease in costs, conflicts, and surprises, such as an unexpected change in a species conservation status, during development and to ensure that the needs of wildlife are incorporated into decision-making processes.

Sources: DOI Mitigation Report (accessed April, 2014), DOI announcement (accessed April, 2014), Greenwire (April 10, 2014)

Article link: <http://news.wildlife.org/featured/interior-announces-new-mitigation-strategy/>

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### 3. BLM Proposes Plan to Slow Spread of WNS to Colorado

May 01, 2014 By Kate Bissell

The Bureau of Land Management's (BLM) Colorado office has proposed an adaptive management strategy and preliminary Environmental Assessment designed to slow the spread of white-nose syndrome (WNS) to bats in Colorado. The fungus has not been detected in Colorado, but has recently been reported as far west as northwest Oklahoma and BLM predicts a continued spread of the disease to the south and west (see map of current distribution). In addition, the strategy outlines steps to be taken if WNS is detected within 100 miles of any BLM-managed lands in Colorado.

WNS, a fungal disease of bats first detected in the U.S. in 2006, has killed almost six million bats in the eastern third of the country and continues to spread westward. While studies have shown that WNS is typically spread from bat to bat or from cave surfaces to bat, some evidence suggests that fungal spores have been transported by humans from infected to uninfected caves on clothing and caving gear. In their strategy, BLM proposes to keep caves open to the public, but ban the use of clothing and caving gear from states where WNS has been detected. Further, they recommend using a previously described U.S. Fish and Wildlife Service decontamination protocol for all gear used in caves. The BLM strategy also recommends the temporary closure of caves and mines deemed biologically important to bats within 100 miles of any future detection site of the disease.

Comments on the Adaptive Management Strategy and Environmental Assessment are being accepted until May 22, 2014. Written comments must be submitted to Bruce Rittenhouse, BLM Colorado State Office, 2850 Youngfield Street, Lakewood, CO 80215. Comments may be submitted in person at the above address from 9 a.m. to 4 p.m., Monday through Friday, excluding holidays. Comments may also be sent via email to [blm\\_co\\_wnscolorado@blm.gov](mailto:blm_co_wnscolorado@blm.gov).

Sources: BLM news release (April 21, 2014), BLM WNS (accessed April, 2014), BLM Adaptive Management Strategy and EA (accessed April, 2014), Greenwire (April 23, 2014)

Article link: <http://news.wildlife.org/featured/blm-proposes-plan-to-slow-spread-of-wns-to-colorado/>

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## 4. Foundation to Protect New Mexico Wildlife Reaches Agreement with Navajo Nation to Protect Horse

Posted: 2:14 pm, May 1, 2014 by Posted by Habitat for Horses  
Contact: Alarie Ray-Garcia (505) 225-3605

SANTA FE-The Foundation to Protect New Mexico Wildlife today announced it has formalized an agreement with the Navajo Nation to develop a comprehensive and humane program to manage the thousands of free-roaming horses on the reservation. The ultimate goal of the agreement is to develop alternatives to transporting the horses to slaughter facilities.

Former New Mexico Governor and Foundation co-founder Bill Richardson negotiated the agreement with Navajo President Ben Shelly.

“This historic agreement is a great first step in our efforts to not only protect these horses, but to find humane and long-term solutions that are in the best interest of the Navajo people and their land,” Governor Richardson said. “I commend President Shelly for his commitment to this issue, and we look forward to getting right to work.”

“Working together to resolve challenges is our approach as we work with Governor Richardson and his Foundation. They will give us funding and find more resources to reverse the population of feral horses,” President Shelly said. “We will continue to treat these animals humanely and implement the best solutions to our rangeland issues. “We thank Governor Richardson and the Foundation for working with the Navajo Nation in this most important effort.”

The two men have initialed the agreement, allowing work to begin, and hope to hold a formal signing ceremony with all involved parties in the near future.

“I also want to thank the country’s top animal protection groups that have agreed to partner with us on this important project,” Governor Richardson added. “Their dedication and expertise will be critical to the success of our efforts.”

Those partners include: Return to Freedom Wild Horse Preservation, ASPCA, Humane Society of United States, Animal Welfare Institute, and Animal Protection of New Mexico.

The Foundation and its partners are currently working with representatives of the Navajo Nation on developing the first phase of the equine management program, which may eventually include adoptions, triages, veterinarian services and sanctuaries. They are also working to identify possible funding sources for these activities.

Meanwhile, the Navajo Nation has agreed to immediately make every effort to only deal with those horse buyers that offer humane alternatives to the transportation of horses to slaughter facilities.

“Return to Freedom salutes Governor Richardson for his leadership and applauds Navajo President Shelley for his commitment to collaborate on alternatives to horse slaughter while we work together on long-term solutions for horses on Navajo lands,” said Neda DeMayo President of Return to Freedom, a wild horse preservation and education organization. “Since 1999, Return to Freedom has pioneered educational programs and minimally invasive wild horse management solutions that have been applied both on sanctuaries and on western rangelands. We stand ready to help.”

“The ASPCA applauds former Governor Richardson and Navajo President Shelly for their joint efforts to protect the free-roaming horses on Navajo land from being sent to slaughter,” said Jacque Schultz, senior director of the ASPCA Equine Fund. “Horses have been central to the ASPCA’s mission since our founding in 1866. Through our experience providing funding and training sources to equine rescues and sanctuaries around the country, we look forward to lending our support at this critical juncture to those ready and willing to offer a humane alternative to slaughter.”

“The HSUS welcomes the opportunity to work with The Foundation to Protect New Mexico Wildlife and the Navajo Nation to implement long-term, humane and sustainable solutions for managing the Navajo Nation’s horse population,” said Stephanie Boyles Griffin, The HSUS’ senior director of Innovative Wildlife Management. “The HSUS is a leader in the research and development of non-lethal wildlife management technologies and is currently conducting wild horse fertility control research projects, including one in the Jarita Mesa Wild Horse

Territory in New Mexico. The Navajo Nation's efforts to create humane horse management programs will serve as a model for other tribes and will be a source of pride for the entire tribe for years to come."

"We are grateful for the opportunity to join with Governor Richardson in working with the Navajo Nation and the Navajo people on what will be an unprecedented endeavor to save wild horses from being removed from their habitat and slaughtered," said Chris Heyde, deputy director of Government and Legal Affairs for the Animal Welfare Institute. "The horse is central to the culture of the Dine' and we know the people have great reverence for their wellbeing and conservation. With time and cooperation, this project will succeed and be an example for the proper management of all wild and free-roaming horses throughout the West."

"Horses help to remind us of the things all New Mexicans care about: our land, our people, and all the animals that enrich our lives and make our state unique and wonderful. We're grateful for the opportunity to work with the Navajo people to help preserve this honorable heritage," said Lisa Jennings, Executive Director of Animal Protection of New Mexico.

About the Foundation to Protect NM Wildlife:

Governor Richardson and actor, director and conservationist Robert Redford founded the Foundation to Protect New Mexico Wildlife in 2013. Since its inception, the Foundation has worked to stop the slaughter of horses and seek out alternative and humane solutions to deal with the country's wild horse population.

Article link: <http://www.habitatforhorses.org/foundation-to-protect-new-mexico-wildlife-reaches-agreement-with-navajo-nation-to-protect-horse/>

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## 5. HATCHERY VISITORS HELP SUPPORT FUTURE WILDLIFE MANAGERS

MAY 5, 2014 New Mexico Department of Game and Fish  
Media contact: Rachel Shockley, (505) 476-8071; cell: (505) 470-6832;  
rachel.shockley@state.nm.us

Public contact: (888) 248-6866

LAS CRUCES – The New Mexico Department of Game and Fish announced five New Mexico State University students as recipients of its annual department scholarships. The department gives the awards to promote and encourage future

wildlife managers in New Mexico. Students must be enrolled in the department of Fish, Wildlife and Conservation Ecology at New Mexico State University to be eligible.

“The department continues to fulfill its mission to conserve, regulate and protect the state’s wildlife for generations to come by continuing to grow these endowed scholarships and awarding them to deserving students,” Interim Director R.J. Kirkpatrick said.

Every year visitors to the department’s hatcheries help increase the endowed scholarships by buying fish feed pellets for the hatchery fish. The 25-cent handfuls of feed sold from vending machines add up. Hatchery guests contribute an average of \$3,000 every year toward educating future wildlife managers.

Sophomore Travis Day of Truth or Consequence and sophomore Justin Hebert of Las Cruces are recipients of the prestigious William A. “Bill” Humphries Memorial Scholarship. The department awards the yearly scholarship to a freshman or sophomore in memory of Humphries, who moved up the ranks from a department officer to the assistant director over his 27-year career at the department.

Junior Rachel Bean of Albuquerque and senior Jacob Naranjo of Santa Fe are recipients of the Ocie Gray Memorial Wildlife Scholarship. The scholarship honors Gray, a New Mexico State University graduate who died in a plane crash while working for the department. Employees and friends established the scholarship in 1965 to be awarded annually to a deserving junior or senior.

Graduate student Krysten Zummo of Patchogue, N.Y., is the recipient of the Ladd S. Gordon Memorial Scholarship established in 1992. Gordon worked for the department for 26 years and served as director for more than 10 years. He was instrumental in the re-introduction of wild sheep and elk in the state and he helped secure funding to purchase wildlife habitat and construct fish hatcheries. For more than 10 years the department has annually awarded a New Mexico State University graduate student the scholarship.

New Mexico State University Department of Fish, Wildlife and Conservation Ecology recognized the 2014 scholarship recipients during its 54th Annual Awards Banquet April 17 at the Las Cruces Convention Center. Interested students may apply for next year’s awards through the New Mexico State University online scholarship form. The deadline is March 1 every year.

To help support a department scholarship and for more information, contact Terra Winter, Director of Development for the New Mexico State University College of Consumer and Environmental Science, at (575) 646-5787.

Article link:

[http://www.wildlife.state.nm.us/publications/press\\_releases/documents/2014/050514-Hatchery-visitors-support-future-wildlife-managers.html](http://www.wildlife.state.nm.us/publications/press_releases/documents/2014/050514-Hatchery-visitors-support-future-wildlife-managers.html)

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## 6. Poachers Use Tourists' Geotagged Safari Photos to Find Endangered Animals

Adam Pasick, Quartz May 06, 2014 11:00 am

The provenance of the photo above, which made the rounds on Twitter this weekend, is unclear. (Update: The photo was posted on May 4 by Eleni de Wet, the owner of a Johannesburg, South Africa branding and advertising company.) But it's not the first suggestion that tourist photos of endangered animals contain information that can betray their whereabouts to tech-savvy poachers.

"The method is to send a young couple on safari with a GPS-enabled smartphone, which they use to take a photo of the rhino. The exact co-ordinates are attached to the picture, allowing poachers to come in after dark and track the animal," said Marc Reading, whose marketing and communications company represents South Africa's national parks, in a 2012 interview with the Sunday Times (paywall).

Broadcasting an animal's coordinates could also be done accidentally—many smartphones and GPS-enabled digital cameras automatically embed geotagged data, which lists the physical coordinates where a photo was taken, in the EXIF data that is part of image files. If the picture is uploaded to a social media site with the geotags intact, it could leave the animals vulnerable.

For example, here's a geotagged image of a rhino taken on safari in Lewa, Kenya (don't worry—the photo is from 2011).

As Quartz has reported, the poaching of rhinos is driven by demand from Asia, where their horns have rumored (but wholly disproven) medicinal powers. More than 1,000 were killed in South Africa alone last year, a 42% increase from 2012.

Read More Why wildlife protection in Zimbabwe relies on the growth of safari tourism

The technological arms race between poachers and anti-poachers has also taken the form of hackers trying to gain access to the encrypted GPS data of a Bengal tiger, according to a report by National Geographic.

Incidentally, it's not just poachers who can use the geotagging trick: Insurgents in Iraq used it to destroy four US Army helicopters in 2007, after soldiers posted geotagged photos on social media.

Article link: <http://skift.com/2014/05/06/poachers-use-tourists-geotagged-safari-photos-to-find-endangered-animals/>

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## 7. When Predators Vanish, So Does the Ecosystem

MAY 15, 2014 Carl Zimmer

Mark D. Bertness, an ecologist at Brown University, began studying the salt marshes of New England in 1981. Twenty-six years later, in 2007, he started to watch them die. In one marsh after another, lush stretches of cordgrass disappeared, replaced by bare ground. The die-offs were wiping out salt marshes in just a few years.

"It's unbelievable how quickly it's moved in," Dr. Bertness said.

Scientists have been witnessing a similar transformation in a number of plant species along coastlines in the United States and in other countries. And in many cases, it's been hard to pinpoint the cause of the die-off, with fungal outbreaks, pollution, choking sediments stirred up by boats, and rising sea levels proposed as killers.

There is much at stake in the hunt for the culprit, because salt marshes are hugely important. They shield coasts from flooding, pull pollutants from water and are nurseries for many fish species.

"Acre for acre, they're among the most valuable ecosystems on the planet," Dr. Bertness said.

In the journal *Ecology Letters*, Dr. Bertness and his colleagues have now published an experiment that may help solve the mystery. The evidence, they say, points to recreational fishing and crabbing. A fisherman idly dangling a line off a dock may not appear to be an agent of ecological collapse. But fishing removes the top predators from salt marshes, and the effects may be devastating.

Once New England salt marshes started dying off, Dr. Bertness and his colleagues embarked on a broad survey. Quickly they noticed a difference between healthy marshes and sick ones. The dying marshes tended to be near

docks, marinas or buoys where boats could anchor, or where there were other signs of fishing.

“It wasn’t a brilliant thing we thought of sitting around the lab,” Dr. Bertness said. “By the time we got to 10 marshes, we realized there was this huge disparity.”

Dr. Bertness and his colleagues wondered how fishing and crabbing were affecting the food webs of the salt marshes. If people pull out striped bass and blue crabs and other predators from a salt marsh, the animals’ prey species — including those that feed on plants, like marsh crabs — are left to thrive. A growing population of marsh crabs might wipe out the cordgrass in a marsh. Without the roots of the cordgrass to anchor the soil, the marsh would erode, making it harder for new plants to grow.

To test this idea, Dr. Bertness and his colleagues surveyed salt marshes in Narragansett Bay in Rhode Island, comparing marshes that were healthy with ones that were almost entirely dead. The scientists found that in dying marshes, the plants had more signs of being fed on by crabs. And when they looked for other proposed causes of marsh die-off, such as pollution, they didn’t find a correlation. They published their results in March in the journal PLOS One.

Next, the scientists took a step beyond simply observing the die-offs: They tried to cause them. If the predator hypothesis was right, then creating a predator-free salt marsh habitat should lead to the disappearance of cordgrass.

In May 2013, the scientists installed cages in a healthy salt marsh on Cape Cod. Each cage was three feet on a side, with mesh walls and an open bottom. Marsh crabs could feed on the cordgrass inside the cages by burrowing up through the mud, and the wire mesh walls protected them from predators like fish and blue crabs.

The experiment quickly yielded results. In a matter of weeks, the cages were crowded with marsh crabs, and much of the cordgrass inside the cages was dying off. “We were planning on it being a two- or three-year experiment,” Dr. Bertness said. “But by the beginning of July, I thought, ‘My God, this is really going fast.’”

William J. Ripple, an ecologist at Oregon State University who was not involved in the research, said, “This is an important new scientific discovery for salt-marsh systems, and more generally for ecology.” Scientists like Dr. Ripple have argued that predators are important to the ecological health of other ecosystems. But it’s been difficult to test the hypothesis directly the way Dr. Bertness has.

Merryl Alber of the University of Georgia agreed that the experiment showed that removing predators could decrease salt marsh grass. But she was reluctant to

draw big lessons from the study. “It is still a leap to connect dieback to recreational overfishing,” she said.

Wade Elmer, a plant pathologist at the Connecticut Agricultural Experiment Station in New Haven, thinks that the full story of the salt marshes’ decline is more complex than just fishing. Dr. Elmer has identified a new species of fungus that attacks cordgrass in New England salt marshes. He has suggested that the fungus may weaken the plants in a way that prevents them from making chemical defenses to ward off the marsh crabs.

“I think we all have our pet theories that explain what we see in our backyard,” said Dr. Elmer, “but these theories often fail as soon as we look elsewhere.”

Dr. Bertness doesn’t rule out the possibility that other factors are at play in the die-off of marshes. But he argues that fishing is having an enormous impact.

“The implications of these findings for the conservation of salt marshes are huge,” he said. “We need to maintain healthy predator populations.”

For more information please visit:

<http://www.nytimes.com/2014/05/15/science/when-predators-vanish-so-does-the-ecosystem.html?ref=earth>

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## 8. Administration Releases Climate Assessment

May 20, 2014 By Kate Bissell

The White House released its National Climate Assessment report last week, summarizing the current and expected effects of climate change and actions that are or could be taken to combat the problem. This is the third report to be released since Congress authorized the National Climate Assessment in 1990, and more strongly emphasizes the link between human activities and warming and the immediacy of climate change effects than previous reports.

The report was compiled by scientists, underwent extensive peer review, and focuses on educating the public regarding the effects of climate change that are already occurring. One of the goals of the assessment is to concentrate on regional impacts and actions to instill a sense of urgency in citizens and spur them to take action to mitigate and build resilience within their own communities. TWS’ Executive Director, Ken Williams, was a lead author of the chapter on decision support, which aims to bridge the often present gap between science and decision-making. The chapter provides suggestions for decision-making frameworks to consider when making choices regarding adaptation and mitigation, including ‘boundary processes’ where interactions among technical

experts, decision-makers, and members of the public are facilitated. Williams feels the assessment is important in that it communicates the current state of knowledge regarding climate change and the immediacy of its effects, but “there is much more we need to know about regional impacts and strategies for mitigation and adaptation. Science will play a critical role in reducing climate uncertainties, informing our knowledge of impacts, and managing for long-term resilience and sustainability.”

The assessment highlights climate change impacts and responses for 13 sectors including water, energy, transportation, agriculture, land use, and ecosystems and biodiversity. Within each sector, key messages for the public are outlined. For example, within the ecosystems and biodiversity sector, the assessment lists 16 key messages such as ‘Adaptation’, ‘Seasonal Patterns’, and ‘Extreme Events.’ The seasonal patterns message reads, “Timing of critical biological events, such as spring bud burst, emergence from overwintering, and the start of migrations, has shifted, leading to important impacts on species and habitats.”

One example cited in the ‘seasonal patterns’ key message is a study conducted in Minnesota over the past 40 years tracking the migratory arrival and departure dates of various migratory birds. The results showed many species’ spring arrivals are significantly earlier now than they were 40 years ago, especially short-distance migrants. This may indicate that some species are capable of responding to increasing winter temperatures better than others.

In addition to highlighting impacts of climate change, the assessment outlines response strategies including mitigation (efforts to decrease future changes in climate such as limiting the amount of carbon dioxide emissions), adaptation (efforts to decrease the vulnerability of society to climate change impacts including provisions to protect infrastructure and ecosystems), research needs, and decision support. The report calls for a combination of mitigation and adaptation measures since adaptation alone will be more difficult, costly, and less likely to succeed if significant mitigation actions are not simultaneously taken.

Sources: National Climate Assessment (accessed May, 2014), Greenwire (May 6, 2014)

Article link: <http://news.wildlife.org/featured/administration-releases-climate-change-assessment/>

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## 9. An Army base's artillery range provides one of the last bastions for endangered butterfly

May 23, 2014 By PHUONG LE, Associated Press.

JOINT BASE LEWIS-MCCHORD, Wash. (AP) — An undeveloped stretch of native prairie in south Puget Sound offers one of the few habitats in the world where a two-inch colorful checkered butterfly thrives. It also happens to be the main artillery impact range for Joint Base Lewis-McChord.

The Army's Stryker combat brigade and other troops regularly practice military maneuvers and live-fire training on acres of scenic, open grassland where a small population of Taylor's checkerspot butterfly feed on nectar of native blooms, mate and lay eggs.

The butterfly's listing as a federal endangered species last fall "has the potential to cause major restrictions on training," said Jeffrey Foster, an ecologist at the military installation.

That has the Army working to boost the numbers of butterflies, once found at more than 70 sites in Puget Sound, Oregon and British Columbia but are now reduced to 14 sites. The effort mirrors others by the Army at installations around the country.

From Maryland to Louisiana to Colorado, the Army has been conserving buffer areas around bases to limit urban development, while also preserving and restoring habitat for rare species such as the red-cockaded woodpecker and the golden-cheeked warbler.

So far, the program has preserved over 200,000 acres of land.

At JBLM, 44 miles south of Seattle, the program is helping not only the Taylor's checkerspot butterfly but also the streaked horned lark and Mazama pocket gopher.

Last October, the U.S. Fish & Wildlife Service concluded the Taylor's checkerspot was in danger of becoming extinct and designated nearly 2,000 acres in Clallam County, Puget Sound and Oregon's Willamette Valley as critical habitat for the creature.

The agency said it considered "military training under present conditions a threat to the short-term and long-term conservation of the Taylor's checkerspot." The eight-wheeled, armored Stryker vehicle and soldier foot traffic can crush larvae and damage plants the butterflies rely on.

The Army has been working with the state, the Center for Natural Lands Management and others to preserve and restore habitat, both on and off the military installation, so that the butterflies could be re-introduced.

The military and its partners have committed about \$35 million and protected about several thousand acres of land in and around JBLM for multiple species. It will likely take years to increase the butterfly's numbers, but those working on the effort are already seeing some success.

Taylor's checkerspot butterflies are establishing at two of three sites at JBLM and on two other sites near Olympia where they have been re-introduced.

"We're in a much better position now than were five years ago," said Mary Linders, a conservation biologist with the Washington Department of Fish and Wildlife.

The Army is working with the Center for Natural Lands Management, a non-profit group that manages lands that are purchased, works with partners who raise the butterflies in captivity, propagates native prairie plants and prepares sites where the checkerspots can be re-introduced.

Hannah Anderson, rare species program manager at CNLM, said the military's program helped "protect lands off the base, restore them to high quality and bring the animals there so we could protect these animals but also the military's ability to train."

On a recent day, Linders and others walked a section of prairie at the artillery impact area to count adult butterflies and monitor the timing of the flight season.

It's prime season for the butterflies to mate, and their orange and white checkered wings flutter as they move from one plant to another. They fly in groups and dip into the center of Puget balsamroot, bright sunflower-like plants that are in full bloom.

Nearby, pock-marked bunkers bear evidence of artillery fire. White stakes mark areas where vehicles must stay on the road and where soldiers and others are prohibited from digging or camping. Linders points out a cluster of eggs at the base of a red harsh paintbrush.

"You can see lots and lots of them as we're walking through here," she said. "It's the largest population left in the checkerspot's range."

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Article link:

<http://www.usnews.com/news/science/news/articles/2014/05/23/military-base-among-last-habitat-for-butterflies>

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## 10. Grant Opportunity: USDA/NRCS Regional Conservation Partnership Program – Applications due July 14<sup>th</sup>, 2014

EXECUTIVE SUMMARY: NRCS is the Department of Agriculture's (USDA) conservation agency working with farmers, ranchers, and private forest landowners nationwide to identify and address natural resource objectives and implement conservation practices and activities to deliver environmental benefits locally, regionally, and nationally. Through the new Farm Bill, NRCS has been given the authority to enhance regional cooperation to more effectively implement and maintain conservation activities, thereby promoting the restoration and sustainable use of soil, water, wildlife, and related natural resources on regional or watershed scales. Through the Regional Conservation Partnership Program (RCPP), NRCS will co-invest in mobilizing creative and workable solutions to agricultural production and resource management challenges. These solutions will benefit not only individual farming, ranching, and forest operations, but also local economies and the communities and resource users in a watershed or other geographic area that depend on the quality of the natural resources. Through RCPP, NRCS will increase the opportunity for partners to bring innovative ideas and resources to accelerate conservation on private lands. RCPP partners will have the opportunity to join in this mission by developing project applications, as described in this notice, to address specific natural resource objectives in a proposed area or region. Partners will commit to activities to promote, implement, and evaluate the outcomes of conservation. RCPP combines the authorities of four former conservation programs – the Agricultural Water Enhancement Program, Chesapeake Bay Watershed Program, Cooperative Conservation Partnership Initiative (CCPI), and Great Lakes Basin Program. Assistance is delivered in accordance with the rules of the Environmental Quality Incentives Program (EQIP), Conservation Stewardship Program (CSP), Agricultural Conservation Easement Program (ACEP), and Healthy Forests Reserve Program (HFRP), and in certain areas, the Watershed Operations and Flood Prevention Program. The purpose of this notice is to announce the availability of nearly \$400 million in CCC funding for RCPP and to solicit applications from potential partners who seek to enter into partnership agreements with NRCS under RCPP. Partners will work with producers and landowners to promote the restoration and sustainable use of natural resources on regional or watershed scales. Applications will be accepted from all 50 States, the Caribbean Area (Puerto Rico and U.S. Virgin Islands), and U.S. territories in

the Pacific Island Areas (Guam, American Samoa, Republic of Palau, Federated States of Micronesia, Republic of Marshall Islands, and the Commonwealth of the Northern Mariana Islands). CFDA number 10.930

To learn more about this funding opportunity visit  
<http://www.grants.gov/web/grants/view-opportunity.html?opId=256049>

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