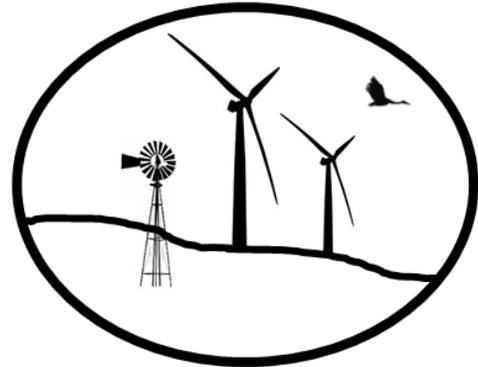


Nebraska Wind Energy and Wildlife News

October 2, 2014



Around Nebraska...

Wildlife Session Presenters for the Nebraska Wind & Solar Conference Announced!



Jennifer A. Smith, Ph.D.

Post-Doctoral Associate, School of Natural Resources, University of Nebraska–Lincoln

Presentation Title: Indirect impacts of a wind farm on predation risk and survival of Greater Prairie-chickens



Daniel R. Howard, Ph.D.

Assistant Professor, Augustana College, Integrative Animal Behavior

Presentation Title: The effect of sensory pollution on animal reproductive behavior; wind turbine seismic environment influences burial latency in the American burying beetle



Brian B. Boroski, Ph.D.

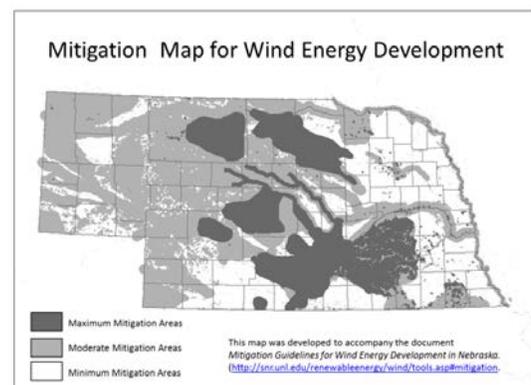
Vice President & Principal, Wildlife Ecology, H.T. Harvey & Associates /Ecological Consultants

Presentation Title: Utility-scale Solar Development: Achieving Sustainability and Conservation through Collaboration and Teamwork

For more information on each of the presenters, check out the attached handout. Please contact windwildlife@unl.edu with questions.

COMMENTS REQUESTED: [MITIGATION GUIDELINES FOR WIND ENERGY DEVELOPMENT IN NEBRASKA](#)

The [Mitigation Guidelines for Wind Energy Development in Nebraska](#) were developed to standardize the mitigation process.



Wind energy developers will be provided a better idea of what mitigation, if any, will likely be recommended for wind energy facilities developed in different parts of the state. The Guidelines were developed by representatives from a variety of stakeholder groups and now, we want your input.

The document is currently in working draft format. All comments submitted to windwildlife@unl.edu in the next six months will be compiled. Updates will be made in April 2015.

Questions? Contact Caroline Jezierski @ 402-472-8188 or windwildlife@unl.edu.

<http://snr.unl.edu/renewableenergy/wind/tools.asp#mitigation>

[Developer plans 11,000-acre Nebraska wind farm](#). An international company has applied for permits to build a wind farm with 54 turbines in southern Lancaster and northern Gage counties. Volkswind USA Inc., through its Nebraska subsidiaries Hallam Wind LLC and Hallam Wind Two LLC, wants to build the wind farm on 7,000 acres of land in Lancaster County and 4,000 acres in Gage County, near Hallam and Cortland. (http://journalstar.com/news/local/developer-plans--acre-nebraska-wind-farm/article_818e9d7f-48d4-5ab8-99da-46108304a4ed.html).

[7th Annual Nebraska Wind & Solar Conference & Exhibition: Turning Challenges into Nebraska Opportunities](#) will be on **October 29th and 30th** in LaVista, Nebraska. There are sponsor and exhibitor opportunities at varying price levels. If you have presentation ideas, you can submit them to: admin@nebraskawindconference.com. (<http://nebraskawindandsolarconference.com/>).

[Nebraska Power Review Board Meeting, October 10, 2014, 9:00 a.m.](#) The application filed by the Nebraska Public Power District requesting authorization to construct approximately 220 miles of 345 kilovolt (kV) transmission line in Antelope, Blaine, Garfield, Holt, Lincoln, Logan, Loup, McPherson, Rock, Thomas and Wheeler Counties will be considered. The project will include upgrading a substation near Thedford and constructing a new 345 kV substation in eastern Wheeler county. (<http://www.powerreviewboard.nebraska.gov/agenda.html>).

Around the Nation & World...

Wind and Wildlife

[Wind Turbine or Tree? Certain Bats Might Not Know](#). Certain bats may be approaching wind turbines after mistaking them for trees, according to a study, and that could be leading to disaster. The study, led by U.S. Geological Survey scientist Paul Cryan, was the first to use video surveillance cameras to watch bats for several months flying at night near experimentally manipulated wind turbines and led to the discovery that tree-roosting bats, or "tree bats," may approach and interact with wind turbines in consistent and predictable ways. (<http://www.usgs.gov/newsroom/article.asp?ID=4016#.VC2v7vIr6-0>).

[Behavior of bats at wind turbines](#), Paul M. Cryan et al 2014, PNAS. Bats are dying in unprecedented numbers at wind turbines, but causes of their susceptibility are unknown. Fatalities peak during low-wind conditions in late summer and autumn and primarily involve species that evolved to roost in trees. Common behaviors of "tree bats" might put them at risk, yet the difficulty of observing high-flying nocturnal animals has limited our understanding of their behaviors around tall structures. We used thermal surveillance cameras for, to our knowledge, the first time to observe behaviors of bats at experimentally manipulated wind turbines over several months. We discovered previously undescribed patterns in the ways bats approach and interact with turbines, suggesting behaviors that evolved at tall trees might be the reason why many bats die at wind turbines. (<http://www.pnas.org/content/early/2014/09/24/1406672111.abstract>).

[Colorado birds receive protection against wind turbines.](http://www.wildlifeextra.com/go/news/colorado-birds-wind-turbines-445.html#cr) The US' first wind energy legislation to protect birds against wind energy and other renewable energy has been passed. The Bird Protection Act will come into force in January 2015, requiring energy producers to ensure that their facilities protect birds and other wildlife. (<http://www.wildlifeextra.com/go/news/colorado-birds-wind-turbines-445.html#cr>).

[Proposed wind farm will change locations.](http://www.newspressnow.com/news/local_news/article_44c6634e-902a-5b12-a6ba-4b16b42aaedb.html) Element Power has announced it will change the location of what was proposed to be Missouri's largest wind farm after five years of planning because it is not financially feasible. Scott Zeimetz, project manager for the developer, said they had planned to build between 84 and 118 wind turbines in Holt County that would produce 200 megawatts of electricity. The company also had leased 30,000 acres of private land between Squaw Creek National Wildlife Refuge and seven conservation areas for the project since 2010. However, the proposed location of the wind farm faced criticism by the Missouri Department of Conservation and birding groups due to concerns the project could impact birds and bats in the area. (http://www.newspressnow.com/news/local_news/article_44c6634e-902a-5b12-a6ba-4b16b42aaedb.html).

[Renewable Energy Plan for California Desert Must Balance Need for Clean Energy With Protecting Wildlife, Landscapes.](http://www.biologicaldiversity.org/news/press_releases/2014/desert-renewable-energy-09-22-2014.html) The Obama administration's draft plan for renewable energy development in the California deserts, set for release this week, will include a suite of alternatives that attempt to balance preservation of the state's rich natural heritage with additional development of large-scale solar, wind and geothermal projects. Interior Secretary Sally Jewell is expected in Palm Springs to unveil a draft "Desert Renewable Energy Conservation Plan," an ambitious plan to identify and conserve lands important for wildlife, wilderness and other values and also identify the most appropriate areas for renewable energy development in the California deserts. (http://www.biologicaldiversity.org/news/press_releases/2014/desert-renewable-energy-09-22-2014.html).

[Wind turbine study: Adjusting wind power production during migration season saves bats.](http://www.udel.edu/udaily/2015/sep/wind-turbine-study-091614.html) Adjusting wind turbine operations during the migration season at the University of Delaware's Hugh R. Sharp Campus in Lewes has resulted in a significant decrease in deaths among bats, according to researchers. The ability to modify operations has been aided by the "bat shield," a new technology developed by UD's partner, Gamesa Technology Corp., and tested at the wind turbine. (<http://www.udel.edu/udaily/2015/sep/wind-turbine-study-091614.html>).

[ISSUE BRIEF: Prairie Grouse and Wind Energy.](http://awwi.org/wp-content/uploads/2014/09/Prairie-Grouse-Issue-Brief-September-2014.pdf) Need a concise summary of the issues surrounding prairie-chicken, sage-grouse, and wind energy? Look no further than the latest AWWI Issue Brief, which focuses on the current status of prairie grouse species in the Great Plains region of the US. The Brief describes research (both ongoing and planned) and conservation strategies being employed to protect these sensitive species. (<http://awwi.org/wp-content/uploads/2014/09/Prairie-Grouse-Issue-Brief-September-2014.pdf>).

[Quest for Safer Skies: Modeling Golden Eagles and Wind Energy to Reduce Turbine Risk.](http://news.wildlife.org/twp/quest-for-safer-skies/) To assess risk of collisions with wind turbines in the central Appalachians, in 2005 our team began a large project to track golden eagles in the region, hoping to understand how their flight behavior might expose them to risk from turbines. We used telemetry to track eagle flight behavior, and modeled the birds' movements with respect to topography and updraft potential. We then compared modeled output to potential siting of wind energy turbines. (<http://news.wildlife.org/twp/quest-for-safer-skies/>).

[Lawsuit challenges BIA's approval of Calif. project, citing harm to eagles.](http://www.governorswindenergycoalition.org/?p=10379) A conservation group and two private landowners are suing the Interior Department and the agency's Bureau of Indian Affairs for approving the expansion of a California wind farm in alleged violation of environmental laws and despite objections from federal and state wildlife officials who warned of significant impacts to eagles. (<http://www.governorswindenergycoalition.org/?p=10379>).

[Wind energy study clears state House.](#) State representatives are on a fact-finding mission to determine the impacts of a federal push toward alternative energy, and namely the projected growth of

Pennsylvania's wind turbine industry, as the technology's long-held reputation as a clean energy source gets a little dirtier. (http://www.bradfordera.com/news/article_08951e66-3ee1-11e4-8d06-2f7dfe362379.html).

[Guest Blog: Offshore Wind power: Critically Needed Clean Energy for Wildlife](#). Our treasured wildlife and wild places are sending powerful signals that now is the moment to act on climate change. Shifting migration patterns of waterfowl, declining populations of freshwater fish, and rapid erosion degrading coastal habitats sound the alarm of its effects – here and now. We face dual tasks: to brace for the now inescapable impacts of a warming world, and to chart a new clean and responsible energy course for the future. (<http://aweablog.org/blog/post/guest-blog-offshore-wind-power-critically-needed-clean-energy-for-wildlife>).

Wildlife

[America's Pronghorn Migration Faces Human Obstacles](#). A lesser-known epic migration taking place through the American Midwest. While the monarchs are flapping their way across the continent eating up all the milkweed they can find, the pronghorn move through Montana, Idaho, and Wyoming. The Greater Yellowstone Ecosystem's "Path of the Pronghorn" is one of the last of America's terrestrial migrations, but it's being threatened by natural gas-related development, along with the familiar problems of fencing and roads. (<http://conservationmagazine.org/2014/10/americas-pronghorn-migration-faces-human-obstacles/>).

[Identifying Impediments to Long-Distance Mammal Migrations](#), Renee G. Seidler et al 2014, Conservation Biology (<http://onlinelibrary.wiley.com/doi/10.1111/cobi.12376/abstract;jsessionid=C85A7AACD05C4778D0754A12B7E94F82.f04t04>).

[Paradise Created for Interior Least Terns](#). The Interior Least Tern, once thought to be rare, is now one of the most abundant birds on the Lower Mississippi River. ABC's John Nielsen visited the Mississippi to learn more about this remarkable success story with the U.S. Army Corps of Engineers, the U.S. Fish and Wildlife Service, and ABC at its center. (<http://www.abcbirds.org/results/terns.html>).

For information on Interior Least Terns in Nebraska (endangered), check out the **[Tern and Plover Conservation Partnership](#)** (<http://ternandplover.unl.edu/>).

[Is That A Lark I Hear? A Nightingale? Surprise! It's A Bat](#). Bats produce "pings" or "clicks," right? They make these high-pitched sounds, too high for us to hear, but when their cries ricochet off distant objects, the echoes tell them there's a house over there, a tree in front of them, a moth flying over on the left. And so they "see" by **[echolocation](#)**. That's their thing. They are famously good at it. We all know this. But now, I want to tell you something you may not know. It turns out bats (some bats anyway) sing — sing uncannily, spookily, like songbirds, with the trilling, the chirping, as if they were nightingales. (<http://www.npr.org/blogs/krulwich/2014/10/01/352586936/is-that-a-lark-i-hear-a-nightingale-surprise-its-a-bat>).

[When the bat sings](#), Virginia Morell, June 2014, Science (<http://www.sciencemag.org/content/344/6190/1334.full>).

Wind

[Secretary Jewell Announces Competitive Leasing Policy to Encourage Solar and Wind Energy Development on Public Lands, Create Greater Certainty for Developers](#). As part of President Obama's comprehensive **[Climate Action Plan](#)** to create American jobs, develop domestic clean energy resources and cut carbon pollution, Secretary of the Interior Sally Jewell today announced a new competitive leasing process by the Bureau of Land Management (BLM) to help spur solar and wind energy development on public lands in the West. (<http://www.doi.gov/news/pressreleases/secretary->

[jewell-announces-competitive-leasing-policy-to-encourage-solar-and-wind-energy-development-on-public-lands-create-greater-certainty-for-developers.cfm](#)).

[Study of Eastern U.S. Shows Wind Energy Could Stabilize the Grid](#). Last month, General Electric (GE) consulting [presented](#) the results of a U.S. National Renewable Energy Laboratory (NREL) sponsored [study](#) testing if wind turbines can be controlled to manage the stability of the electric grid. The authors found that wind turbines might actually be a valuable tool for controlling and stabilizing the grid in the future, disputing the conventional notion that wind energy doesn't play well with the grid. (http://blogs.scientificamerican.com/plugged-in/2014/09/16/study-of-eastern-u-s-shows-wind-energy-could-stabilize-the-grid/?_scoop_post=75e9c180-3e35-11e4-d5b0-842b2b775358&_scoop_topic=338194#_scoop_post=75e9c180-3e35-11e4-d5b0-842b2b775358&_scoop_topic=338194).

[NREL software tool a boon for wind industry](#). Wind energy is blowing away skeptics—it's so close to achieving cost parity with fossil fuels that just a little extra efficiency is all that is likely needed to push it into the mainstream and past the Energy Department's goal of 20% wind energy by 2030. That extra efficiency may be realized with the help of a software tool built by the Energy Department's National Renewable Energy Laboratory (NREL). It's called Simulator for Wind Farm Applications (SOWFA), and it can calculate how undulating ground, whipping blades, surface temperatures, and other variables alter the air flow and [energy production](#) at [wind](#) farms. (<http://phys.org/news/2014-09-nrel-software-tool-boon-industry.html>).

[UW Receives \\$4.25 Million DOE Grant to Explore Wind Energy](#). The University of Wyoming has received a \$4.25 million Department of Energy-EPSCoR grant to research wind farm modeling, transmission grid monitoring and the economics derived from wind-generated power. The three-year federally competitive grant began Aug. 15 and will involve six UW departments --mechanical engineering, electrical and computer engineering, atmospheric science, economics and finance, statistics, and agriculture and applied economics. (<http://www.uwyo.edu/uw/news/2014/09/uw-receives-4.25-million-doe-grant-to-explore-wind-energy.html>).

[DOE Supports Taller Wind Turbine Tower Development](#). The U.S. Department of Energy (DOE) has awarded \$2 million to support the development of technologies to harness stronger winds available at higher heights. The goal is to increase the amount of wind energy produced. The projects will take place in Iowa and Massachusetts and are aimed at reducing the cost of wind energy as well as expand the areas where wind energy can be successfully harnessed. ([http://domesticfuel.com/2014/09/24/doe-supports-taller-wind-turbine-tower-development/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+DomesticFuel+\(Domestic+Fuel\)](http://domesticfuel.com/2014/09/24/doe-supports-taller-wind-turbine-tower-development/?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+DomesticFuel+(Domestic+Fuel))).

[Announcements](#)

[BLM Seeks Comments on Competitive Offering Lands Processes for Solar and Wind Energy Development Regulations](#). Please submit comments on or before December 1, 2014 . The Bureau of Land Management (BLM) proposes to amend existing regulations to facilitate responsible solar and wind energy development and to receive fair market value for such development. The proposed rule would promote the use of preferred areas for solar and wind energy development and establish competitive processes, terms, and conditions (including rental and bonding requirements) for solar and wind energy development rights-of-way both inside and outside these preferred areas. (<http://www.renewablesbiz.com/article/14/10/blm-seeks-comments-competitive-offering-lands-processes-solar-and-wind-energy-development-regulations>).

Tools

[Soaring Bird Sensitivity Map: A planning tool for wind energy and other sectors.](#) The Soaring Bird [Sensitivity Map tool](#) has been designed to provide developers, planning authorities and other interested stakeholders access to information on the distribution of soaring bird species along the Rift Valley / Red Sea flyway. This information can help to inform decisions on the safe siting of new developments, such as wind farms, ensuring that negative impacts on this important migration route are minimised. (<http://migratorysoaringbirds.undp.birdlife.org/en/sensitivity-map>).

[Energy Department, NREL Release State and Local Energy Data Tool.](#) DOE and the National Renewable Energy Laboratory (NREL) recently released [SLED, the State and Local Energy Data online tool](#) that provides state and local decision makers easy access to energy data specific to their location. The resources and data provided can be used to support strategic energy planning processes and deployment of clean energy projects. By entering a city and state or ZIP code into the SLED tool, users can see how their current electricity prices compare to the state and national averages, learn about applicable policies and incentives that could affect clean energy projects in their state, find available renewable energy resources, get details on alternative transportation fuel costs, and more. (<http://apps1.eere.energy.gov/sled/#/>).

[WINDEXchange](#) is the U.S. Department of Energy (DOE) Wind Program's hub of stakeholder engagement and outreach activities. The purpose of WINDEXchange is to help communities weigh the benefits and costs of wind energy, understand the deployment process, and make wind development decisions supported by the best available science and other fact-based information. (<http://energy.gov/eere/wind/windexchange>).

[National Assessment of Ecosystem Carbon Sequestration and Greenhouse Gas Fluxes.](#) View and download the primary data that has been developed by the USGS team in a variety of formats using the [LandCarbon Data Tool](#). Visualize data products, view and interact with maps, charts, and statistics that summarize the results of the USGS assessment. (http://www.usgs.gov/climate_landuse/land_carbon/Data.asp). **NOTE: Data on carbon sequestration for the ecoregions in Nebraska are not yet available. Other information is available to view at this time.

[EISPC EZ Mapping Tool.](#) The EISPC Energy Zones Mapping Tool is a free online mapping tool to identify potential clean energy resource areas within the Eastern Transmission Interconnection. (<https://eispc tools.anl.gov/>).

[National Climate Change Viewer.](#) The new tool gives citizens and resource managers the opportunity to look at climate-driven impacts on watersheds and map projected changes at the local, regional, state and watershed levels. (http://www.usgs.gov/climate_landuse/clu_rd/nccv.asp).

[National Wetlands Database, interactive mapping tool completed.](#) To coincide with American Wetlands Month, which begins May 1, the U.S. Fish and Wildlife Service is announcing the completion of the most comprehensive and detailed U.S. wetland data set ever produced, capping a 35-year effort by the Service to map the extent of the nation's wetlands. The Wetlands Inventory Mapper (<http://www.fws.gov/wetlands/Data/Mapper.html>) has digitally mapped and made publically available wetlands in the lower 48 states, Hawaii and dependent territories, as well as 35 % of Alaska. (<http://www.agprofessional.com/news/National-Wetlands-Database-interactive-mapping-tool-completed--257553181.html>).

[National Wind Coordinating Collaborative \(NWCC\) Webinars on the Latest Wind-Wildlife Research and Tools](#)

NWCC/AWWI hosts quarterly webinars on the latest research and tools related to the interactions of wind energy, wildlife, and wildlife habitat. The webinars include time for questions after each presentation. To receive the access information for upcoming webinars, please sign up. If you are interested in sharing your work on a webinar, please contact [Ian Evans](#). (<http://nationalwind.org/research/webinars/>).

[USGS Interactive Windfarm Mapper](#). The USGS created this publicly available [national dataset](#) and [interactive mapping application](#) of wind turbines. This dataset is built with publicly available data, as well as searching for and identifying individual wind turbines using satellite imagery. The locations of all wind turbines, including the publicly available datasets, were visually verified with high-resolution remote imagery to within plus or minus 10 meters. (<http://eerscmap.usgs.gov/windfarm/>).

[Developing a Research Framework for Increasing Understanding of Interactions between Eagles and Wind Energy](#). In this document, we outline a framework for a national, hypothesis-driven research program on eagles and wind energy. The principal goals of this framework are to guide research that improves our ability to predict and estimate take of eagles at wind energy facilities, to develop measures intended to avoid and minimize the take of eagles at operating wind energy facilities, and to compensate for, or offset, remaining eagle take. (http://awwi.org/wp-content/uploads/2014/01/AWWI-Eagle-Research-Framework_Final-01-23-14.pdf).

[Land-Based Wind Energy Guidelines Webinar Series](#). The USFWS has offered a number of webinars related to the Land-Based Wind Energy Guidelines. Recordings of the webinars, presentations, and transcripts are available at: http://www.fws.gov/windenergy/wind_training/wind_training.html.

The Wildlife Society Renewable Energy Working Group – LinkedIn. Connect with other resource professionals involved in renewable energy – wildlife work. To join, go to: http://www.linkedin.com/groups?gid=4433729&trk=my_groups-b-grp-v, click Join.

Upcoming Conferences

[Symposium on Wind Energy and Wildlife](#). October 19, 2:00 PM, Independence Civic Center 6800 Brecksville Rd, Independence, OH. Join the Sierra Club at the Western Cuyahoga Audubon Society, the Audubon Society of Greater Cleveland and the Kirtland Bird Club October Symposium on Wind Energy and Wildlife. (<http://www.neosierragroup.org/2014/10/oct-19-symposium-on-wind-energy-and-wildlife-independence/>).

[The Wildlife Society Annual Conference](#) will be in Pittsburgh, PA **October 25-30, 2014**. The [Renewable Energy Working Group](#) will be offering a [field visit](#) to the Casselman Wind Farm on October 25, 2014. For basic information about the field visit, go to: <http://wildlifesociety.org/learn/field-trips/>. For more detailed information, go to: <http://news.wildlife.org/the-wildlifer-2014-june/news-from-subunits-10/> and search for Renewable Energy Working Group updates.

Wind Wildlife Research Meeting X will be in Broomfield, CO, week of December 1, 2014. Dates TBD. The biennial Wind Wildlife Research Meeting provides an internationally recognized forum for researchers and wind-wildlife stakeholders to hear contributed papers, view research posters, and listen to panels that synthesize the most recent wind power-related wildlife research.

(<http://nationalwind.org/save-the-date-wind-wildlife-research-meeting-x/>).

Conference on Wind energy and Wildlife impacts will be in Berlin, Germany, March 10-12, 2015.
(<http://www.cww2015.tu-berlin.de/>).

Check out the **Nebraska Wind Energy and Wildlife Project website** at:
<http://snr.unl.edu/renewableenergy/wind/> and **Wind Energy and Wildlife news** at:
<http://www.scoop.it/t/wind-energy-and-wildlife>.

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