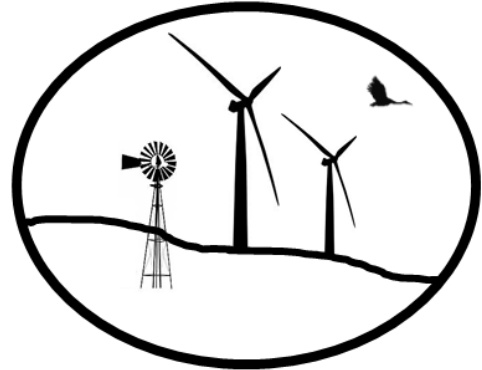


## Wind Energy and Wildlife News

October 8, 2015



### Around Nebraska...

**[Case against tax credit subsidies for wind power.](#)** During the 2015 legislative session, I helped derail an attempt to give \$75 million in tax credits to wind farm developers. The issue will be back next year. Tax credits are not tax abatement, where a developer creates wealth and jobs and they receive an income or sales tax break, but instead it is a transfer of your hard earned tax dollars to profit others. More to the point, at this time, there is an absence of need for more wind power in Nebraska.

**[Wind energy company says rules may force it to nix plans.](#)** An attorney representing an energy company that has plans for a wind farm in Lancaster and Gage counties said proposed wind regulations being considered by both counties may prevent the company from building in either.

**[Opinions differ on legality of wind turbine regulations.](#)** Over the past two weeks, voters in six Butler County townships overwhelmingly approved regulations for wind energy development, but whether the restrictions will stand remains to be seen. Drawn up by the Bohemian Alps Wind Watchers, a group of citizens concerned about proposed wind development projects, the regulations were presented as safety measures. The restrictions would ban high-voltage power lines under township roads, prevent turbines from being erected within 1,640 feet of roads or properties not participating in the wind farm project and establish noise limits.

**[Butler County tells townships to void wind turbine regulations.](#)** The county board voted 6-1, with Supervisor Greg Janak voting no, to send letters to board members of the county's 17 townships informing them of the opinion. The regulations were passed in September by six townships — Franklin, Savannah, Linwood, Skull Creek, Oak Creek and Richardson.

**[Nebraska Wind And Solar Conference Right Around The Corner.](#)** Organizers of the eighth annual Nebraska Wind and Solar Conference and Exhibition announced a new feature, a Consumer Energy Showcase to be held Tuesday evening, Nov. 3, in advance of the regular conference that will be held Nov. 4-5. Both events will be held at the Hilton Omaha at 1001 Cass Street.

**[Poll: Rural Nebraskans ready to act on climate change.](#)** Many rural Nebraskans are concerned about potential weather problems in their area and most believe the state should develop a plan for adapting to climate change to reduce its impact on agriculture, communities and natural resources, the Nebraska Rural Poll shows. Rural Nebraskans are also very supportive of renewable energy sources. Eighty percent agree that more should be done to develop solar or wind energy in Nebraska and about three-quarters believe the state should invest more in both wind and solar energy.

[\*Climate and Energy: Opinions of Nonmetropolitan Nebraskans\*](#). Vogt et al. 2015. Nebraska Rural Poll Research Report 15-3, September 2015. This report details 1,991 responses to the 2015 Nebraska Rural Poll. Respondents were asked a series of questions about their climate change and energy sources. Comparisons are made among different respondent subgroups, that is, comparisons by age, occupation, region, etc.

[\*8th Annual Nebraska Wind and Solar Conference and Exhibition\*](#). November 4-5, 2015. Omaha, NE. Since 2008, volunteers from farmer and rancher organizations, state agencies, public power utilities and higher education professionals have shaped this educational networking conference and exhibition to advance the wind and solar industry of Nebraska. The conference has included top quality speakers and timely presentations.

## **Around the Nation & World...**

### ***Wind and Wildlife***

[\*Avian collision risk models for wind energy impact assessments\*](#), Masden and Cook 2016, Environmental Impact Assessment Review. We highlighted ten models available to assess avian collision risk. Only 4 of the models included variability or uncertainty. Collision risk models have limitations and can be 'data hungry'. It is vital that the most appropriate model is used for a given task.

[\*BOEM: Wind farm leases offshore North Carolina would have no 'significant' impact\*](#). Issuing leases for wind farms offshore North Carolina would have no "significant" negative environmental or socioeconomic impacts, the U.S. Bureau of Ocean Energy Management said.

[\*Ecosystem-Based Management and Refining Governance Of Wind Energy in the Massachusetts Coastal Zone: A Case Study Approach\*](#), Kumin 2015, Antioch University PhD Dissertation. I conclude that evolving collaborative processes must underlie science and policy in our approach to complex environmental and wind energy projects; indeed, collaborative process is fundamental to the successful governance of such projects, including any iv that may involve development of wind energy in the Massachusetts coastal zone or beyond. Three supplemental files of coded data accompany this dissertation.

[\*A refinement of the Band spreadsheet for wind turbine collision risk allowing for oblique entry\*](#), Christie and Urganhart 2015. A new spreadsheet is presented, to be used as part of the Band model for estimating potential avian mortality due to wind turbine strike. The spreadsheet extends the Band collision risk spreadsheet by allowing for oblique approach angles and wind speed.

[\*"A Big Deal... A Big Move": the U.S. Wind Industry's New Plan for Protecting Bats\*](#). The agreement, [announced today](#) by the American Wind Energy Association (AWEA), includes 17 wind companies responsible for almost 90% of U.S. wind energy generation. The new voluntary industry guidelines involve wind project operators operating their wind turbines differently when they're not generating power during peak bat migration time.

## Policy

**Federal Court: Intent Matters in Migratory-Bird Deaths.** Companies accused of causing migratory bird deaths may be harder to successfully prosecute after a federal appeals court recently ruled that a century-old wildlife protection law only applies if the killing is intentional.

**Migratory Bird Treaty Act: Question Of Unintentional "Take" Primed For Potential Fifth Circuit En Banc Or Supreme Court Review.** Recently, industry won a major legal victory regarding liability—or lack thereof—for unintentional and indirect bird deaths under the Migratory Bird Treaty Act (MBTA). Unfortunately, that victory could be short lived, depending on the results of the rehearing and appeals process.

**Wind, Birds And Bats: Recent Legal Migrations.** Wind energy has rapidly migrated from a small to significant source of energy generation, resulting in increased attention to and regulation of wind energy's impact on birds and bats. Given the recent activity in environmental law, now is a good time to review all of the recent developments pertaining to wind power and wildlife protection.

## Wildlife & Habitats

**Oklahoma Ecological System Mapping.** State wildlife biologists and other natural resource professionals have recognized the need for accurate current vegetation maps to facilitate conservation planning and management for decades. The Oklahoma Ecological Systems classification and mapping project was launched in 2012 with initial funding from the ODWC and LCCs, and was finished by the summer of 2015.

**ESA alert: U.S. Fish and Wildlife Service initiates 12-month review for listing.** Last week, the U.S. Fish and Wildlife Service ("Service") announced its 90-day findings on various petitions under the federal Endangered Species Act. The Service found that 23 petitions presented substantial scientific or commercial information that listing the species as endangered or threatened may be warranted.

## Sage Grouse

**Greater sage grouse does not require endangered species act protection.** Thanks to the largest land conservation effort in US history, the greater sage grouse does not need protection under the Endangered Species Act. Here's why it's a huge [#WildlifeWin](#).

**The Endangered Species Act's biggest experiment.** Will an unprecedented collaborative effort and lots of tax dollars be enough to finally save sage grouse?

**Statement: Sage Grouse Management Plans And 'Not Warranted' Finding For ESA Protection.** The American Bird Conservancy applauds the major conservation effort initiated by a range of stakeholders to support grouse recovery. These efforts, under the Natural Resources Conservation Service's Sage Grouse Initiative, have made significant progress to improve grouse habitat on private working lands, which are critical to the conservation of this and many other at-risk species.

**Top 5 Things You Should Know About the Sage Grouse.** The greater sage grouse -- a charismatic rangeland bird found in western states -- is making big headlines all over the country. Here are the top five things you should know about the sage grouse (and why you should care): 1. The greater sage grouse does not require Endangered Species Act protection; 2. Largest land conservation effort in U.S. history; 3. What's good for the bird is good for the herd; 4. Sagebrush equals world-class recreation; 5. The sage grouse knows how to dance.

## Bats

### [\*Movement Ecology and Conservation of the Migratory Bats \*Lasiurus cinereus\* and \*Lasionycteris noctivagans\*\*](#),

Baerwald 2015, University of Calgary PhD Thesis. I tested whether the time between when individual bats were killed at a wind energy facility was influenced by their degree of relatedness and found that bats do not appear to be learning migratory routes or behaviours from closely related individuals. This suggests that bats may rely on endogenous genetic programs for migration and that migration may be a heritable trait.

[\*Interagency Special Status / Sensitive Species Program \(ISSSP\): Bat Grid Monitoring – Oregon and Washington\*](#). The study objective was to map species-specific baselines within Oregon and Washington of predicted occurrence probabilities, accounting for imperfect detection and annual turnover, against which future declines can be evaluated, models updated, and trends communicated through maps. These maps reflect an 8-year (2003-2010) monitoring effort from the Bat Grid Program.

[\*Hibernating bats mount a partial immune response against white nose fungus\*](#). The researchers conclude that "hibernation does not prevent a host response to infection and a better understanding of the differences between host and pathogen responses in bats susceptible to WNS and those resistant may lead to ways for increasing survival". Specifically, they suggest that "[bats](#) could be protected from WNS if the missing responses could be established prior to hibernation or if treatments could block the virulence factors expressed by the Pd pathogen".

## Wind

[\*Multi-region optimal deployment of renewable energy considering different interregional transmission scenarios\*](#). Plan the optimal deployment of intermittent renewable energy in multiple regions. A multi-region dynamic optimization model was developed. The impacts of natural conditions and interregional transmission are studied. The government's support for transmission is vital important for renewable energy. Nuclear and renewable can complement rather than replace each other.

[\*Wind turbine system recycles 'spillage' to improve energy efficiency\*](#). A new prototype from the University of Nebraska-Lincoln's Jie Cheng could give a second wind to turbines that currently waste Mother Nature's strongest breaths.

[\*Kettering University researchers explore optimizing wind turbines with new propeller design\*](#). The students' idea: improve the efficiency by which energy is created by wind turbines by modifying their physical design.

[\*Midwest wind energy to get projected lift from climate change, study says\*](#). Mother Nature will be delivering a future gift of 2 percent more wind energy in the Midwest if regional climate models are correct, according to research from Wake Forest University.

[\*On-site inspection of potential defects in wind turbine rotor blades with thermography\*](#), Doroshtnasir et al. 2015, Wind Energy. The proposed thermographic technique enables the detection of potential subsurface defects within rotating rotor blades from greater distances – such as from the ground, air crafts or vessels.

[\*Secretary Moniz Unveils Roadmap to Double U.S. Energy Productivity by 2030\*](#). In support of the President's goal to double U.S. energy productivity by 2030, Secretary Moniz unveiled a strategic plan today laying out a path businesses, state and local governments, consumers and other stakeholders can use to achieve this goal. The

report, [Accelerate Energy Productivity 2030: A Strategic Roadmap for American Energy Innovation, Economic Growth, and Competitiveness](#), identifies proven and effective strategies and actions to advance energy efficiency.

[\*\*\*Comparison of multiobjective harmony search, cuckoo search and bat-inspired algorithms for renewable distributed generation placement\*\*\*](#), Candelo et al. 2015, This paper evaluates the performance of the cuckoo search (CS), harmony search (HS), and bat-inspired (BA) algorithms for the location and size of renewable distributed generation (RDG) in radial distribution networks using a multiobjective function defined as minimizing the energy losses and the RDG costs.

[\*\*\*Drones Soar As Energy's Inspector Gadget At Pipelines, Windmills\*\*\*](#). That buzzing around town may not be a teen's high-tech toy. Soon, it might be a commercial drone checking power lines.

## Other

[\*\*\*Energy Department Announces \\$102 Million to Tackle Solar Challenges, Expand Access to Clean Electricity\*\*\*](#). Building on President Obama's Climate Action Plan to cut climate-changing carbon pollution and continue building a clean energy economy in the United States, the Energy Department today announced more than \$102 million in new projects and available funding to support American leadership in clean energy innovation.

[\*\*\*Ice as a Novel Material for Solar Panels in Cold Climates: Potential for Adoption and Usage\*\*\*](#), Helman 2015, ECPR General Conference Proceedings. The possibility exists for creating solar panels from ice very cheaply, i.e. for the cost of the tray, wires and tensioners to hold the wires down. These would only be workable in locales wherein the ambient air temperature is cold, but the low cost makes them attractive and suggests future wide adoption.

[\*\*\*FACT SHEET: White House Summit on Offshore Wind\*\*\*](#). The White House is committed to promoting the development of all forms of renewable energy, including offshore wind. Today, the White House is hosting the Summit on Offshore Wind, a gathering of leading federal, state and industry stakeholders committed to the long-term and sustainable development of offshore wind in the United States.

[\*\*\*Bat Week 2015 Bat House Building Challenge\*\*\*](#). On October 31, 2015 join us in our goal to build a record of 5,000 bat houses in the USA and Canada all in one day! Sign up as a host site. Contact Danielle Todd, Organization for Bat Conservation, at [dtodd@batconservation.org](mailto:dtodd@batconservation.org).

## Tools

[\*\*\*New Mapping Tool Shows Woody Encroachment in LEPC Habitat\*\*\*](#). A new woody encroachment data layer — available through the Southern Great Plains Crucial Habitat Assessment Tool (CHAT) web map — provides a broad-scale planning tool for resource managers to more effectively target Lesser Prairie-Chicken (LEPC) habitat improvement strategies.

[\*\*\*Free Learning Sources for GIS and Geospatial Analysis\*\*\*](#). Here is a list of FREE learning sources, including GIS software training courses and tutorials, applied learning materials, workshops and webinars related to GIS and/or Geospatial analysis, etc. All of them are Free of Cost .

## ***Upcoming Conferences & Trainings & Webinars***

**[Federal Eagle Act Compliance Webinar](#)**, December 2, 2015. This webinar will discuss the changing landscape of compliance with the Federal Bald and Golden Eagle Protection Act, also known as the "Eagle Act", which protects bald and golden eagles across the country.

### **[Maine Ocean & Wind Industry Initiative Webinar Recordings](#)**.

**[8th Annual Nebraska Wind and Solar Conference and Exhibition](#)**. November 4-5, 2015. Omaha, NE. Since 2008, volunteers from farmer and rancher organizations, state agencies, public power utilities and higher education professionals have shaped this educational networking conference and exhibition to advance the wind and solar industry of Nebraska. The conference has included top quality speakers and timely presentations.

**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](http://www.linkedin.com/groups?gid=4433729&trk=my_groups-b-grp-v), click Join.

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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In the Message Field (NOT Subject): UNSUBSCRIBE wind\_wildlife