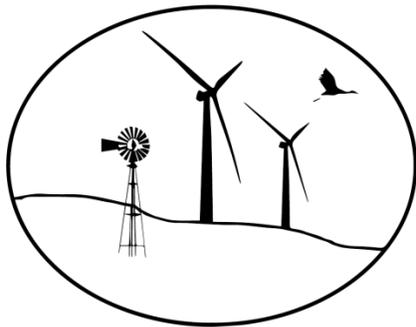


Wind Energy and Wildlife News

November 2, 2015



Around Nebraska...



Greater prairie-chicken demographics, behavior, and movements in the context of a wind energy facility in Nebraska – [Dr. Larkin Powell](#)

Professor of Conservation Biology/Animal Ecology at the University of Nebraska's School of Natural Resources and the Director of the Great Plains Cooperative

Ecosystem Studies Unit, will be presenting the results of his research team's study at the Ainsworth Wind Energy Facility in north central Nebraska at the upcoming [Nebraska Wind and Solar Conference](#) on **Wednesday, November 4th at 3:15 p.m.** The goal of the research was to allow Nebraskans to optimize wind energy development in areas of concern for prairie grouse, while aiding investors, planners, and policy makers to identify ideal locations for future wind energy projects. Dr. Powell and his team took an ecosystem-based approach to gather data on the potential impact. Dr. Powell has the ability to convey complex ecological message to broad audiences has interests that expand beyond wind-wildlife to the prairies of Nebraska and the world.

For the past several years, the Nebraska Wind and Solar Conference has included a session on wind energy and wildlife. This year, I are happy to announce that Dr. Powell will be presenting in the ballroom to the entire conference audience. The continued inclusion of wildlife in the wind conference illustrates the collaborative spirit of Nebraskans and the dedication of many to make wind energy siting and operation a win for wildlife and biodiversity of today and the future.

Once again, I will have an information booth with Nebraska wind-wildlife updates including our NEW "Nebraska's Biodiversity and Wind Energy Siting and Mitigation Map" and NEW "Guidelines for Avoiding, Minimizing, and Mitigating Impacts of Wind Energy on Biodiversity in Nebraska." I look forward to seeing you at the conference!

[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.

[Loup board updated on wind, hydro projects](#). The Loup Public Power District Board of Directors met Tuesday morning to discuss contracts and ongoing projects. President and CEO Neal Suess also provided updates on the

Creston Ridge Wind Farm and hydroelectric relicensing process. The Creston Ridge Wind Farm is expected to be ready for commercial operation by Nov. 19. Omaha-based Bluestem Energy Solutions, the project's developer, asked Sues to approach the board about adding three more turbines to the site near Creston. One advantage to acting now is the project would qualify for federal clean-energy tax incentives. Board members said they would be interested in hearing a proposal.

[*Neighbors on the fence about wind farm project.*](#) The Creston Ridge project consists of four turbines, each able to generate 1.7 megawatts of electricity. Herink is quick to point out the benefits of the project for the community. Bluestem, an Omaha-based company, will pay property taxes on the lot, they've hired some local residents for the construction project, and the wind farm's energy will be sold to Loup Public Power District for local consumption, as opposed to wind farms that sell energy across state lines. Herink believes this model — smaller sites, fewer turbines and locally consumed energy — will become more prevalent. But Creston Ridge's neighbors have mixed feelings on the project.

[*Citing health concerns, Lancaster County readies new rules on wind turbines.*](#) It was probably just a matter of time before NIMBY, "not in my backyard," crept into the state debate over wind energy. Some rural residents in Nebraska are starting to question whether they want a wind farm in their backyard. In Lancaster County, the County Board will meet on Nov. 10 to decide whether to enact new, stricter wind farm regulations. "This just adds to the feeling in the industry that Nebraska isn't open to business for wind development. And that's not helpful," said David Levy, an attorney and lobbyist who represents Volkswind USA Inc., the company seeking to build the wind farm in southern Lancaster and northern Gage Counties.

Around the Nation & World...

Wind and Wildlife

[*Developing an automated risk management tool to minimize bird and bat mortality at wind facilities.*](#) Willmott et al. 2015, *Ambio*. A scarcity of baseline data is a significant barrier to understanding and mitigating potential impacts of offshore development on birds and bats. Difficult and sometimes unpredictable conditions coupled with high expense make gathering such data a challenge. The Acoustic and Thermographic Offshore Monitoring (ATOM) system combines thermal imaging with acoustic and ultrasound sensors to continuously monitor bird and bat abundance, flight height, direction, and speed.

[*Dim ultraviolet light as a means of deterring activity by the Hawaiian hoary bat *Lasiurus cinereus semotus*.*](#) Gorresen et al. 2015, *Endangered Species Research*. Results indicate that dim UV reduces bat activity despite an increase in insect numbers. Experimental treatment did not completely inhibit bat activity near trees, nor did all measures of bat activity show statistically significant differences due to high variance in bat activity among sites. However, the observed decreases in bat activity with dim UV illumination justify further testing of this method as a means to reduce bat fatalities at wind turbines.

[*Estimating flight height and flight speed of breeding Piping Plovers.*](#) Stantial and Cohen 2015, *Journal of Field Ornithology*. We measured flight heights of a nesting shorebird, the federally threatened Piping Plover (*Charadrius melodus*), using optical range finding and measured flight speed using videography. Several single-turbine wind projects have been proposed for the Atlantic coast of the United States where they may pose a potential threat to these plovers. Our techniques provide comparatively inexpensive, replicable procedures for estimating turbine collision-risk parameters where the focus is on discrete nesting areas of specific species where birds follow predictable flight paths.

[*FWS Responds To Request For Eagle Take Permit At SoCal Wind Farm.*](#) The U.S. Fish and Wildlife Service (FWS) has released a draft environmental assessment (DEA) in response to a request by Alta X Wind LLC for a five-year programmatic take permit for golden eagles at its Alta East Wind Project in Kern County, Calif.

[Wind farm works to reduce eagle deaths from old turbines](#). PBS News Hour special on Altamont Pass.

[Wind Energy vs. Golden Eagles](#). The wind energy company that received a controversial extension in March to continue operating hundreds of old wind turbines in the Altamont Pass is now planning to shut them down, according to an email KQED has obtained. The company might also be replacing them with fewer new turbines, a move that would make its operation safer for birds.

[BRI publishes US marine study](#). The Biodiversity Research Institute has announced the results of a three year project on the location and numbers of wildlife along the eastern seaboard in the US. The multi-state project aims to increase ecological data on birds, marine mammals and sea turtle distributions and movements along the Atlantic coast. The results will be used to inform future sustainable offshore development in the mid-atlantic from Delaware to Virginia. They will be used to help regulators and developers choose the right locations and help conservation in future projects.

[Using the Ecopath approach for environmental impact assessment—A case study analysis](#), Fretzer 2015. Ecopath approach is the ideal tool for the Natura 2000 impact assessment procedure. Industrial areas can have positive effects on the environment. Negative impacts of roads can be effectively compensated by overpasses. Collisions with a wind turbine were not the main reason for bird decline in the model. Ecospace can improve the Natura 2000 management in Germany.

Wildlife & Habitats

[A generalizable energetics-based model of avian migration to facilitate continental-scale waterbird conservation](#), Lonsdorf et al. 2015, Ecological Applications. We present an integrated approach using a spatially explicit energetic-based mechanistic bird migration model useful to conservation decision-making across disparate scales and locations. This model moves a mallard-like bird (*Anas platyrhynchos*), through spring and fall migration as a function of caloric gains and losses across a continental-scale energy landscape.

[Big effort to better understand bats takes wing in 31 states](#). An effort spanning 31 states and 10 Canadian provinces has been working to better understand the ecological role that bats play, and the threats they face from climate change, habitat loss and wind energy development. The North American Bat Monitoring Program involves acoustic surveys to detect the high-pitched frequencies emitted by the flying mammals as they capture bugs and navigate in the dark.

Wind

[Congested spaces, contested scales – A review of spatial planning for wind energy in Ireland](#), Gonzalez et al. 2016, Landscape and Urban Planning. Achievement of wind energy targets poses strategic spatial planning challenges. Scale is used to crystallise key governmental political strategies. A review of Irish wind energy strategies reveals inconsistent policy and methods. Rescaling local assessment criteria can facilitate a coordinated national framework. Systematic spatial assessment can enhance strategic renewable planning.

Other

[Solar Towers Don't Seem to Be the Bird Destroyers Once Thought](#). Solar power towers have had a reputation as alleged avian vaporizers since preliminary reports emerged in 2014 of birds being burned in mid-air as they flew through the intense photonic flux at California's Ivanpah solar thermal plant. But, upsetting as any killing of birds is, avian mortality is a downside common to many modern human creations—including buildings, highways, and powerlines. The best data on bird mortality at Ivanpah, macabre as it might be, shows the death rate to be small and likely of little ecological significance.

[**Solar energy development impacts on land cover change and protected areas**](#), Hernandez et al. 2015, PNAS. Utility scale solar energy (USSE) [i.e., ≥ 1 megawatt (MW)] development requires large quantities of space and land; however, studies quantifying the effect of USSE on land cover change and protected areas are limited. We assessed siting impacts of >160 USSE installations by technology type [photovoltaic (PV) vs. concentrating solar power (CSP)], area (in square kilometers), and capacity (in MW) within the global solar hot spot of the state of California (United States).

[**Using kernel density estimation to explore habitat use by seabirds at a marine renewable wave energy test facility**](#), Lees et al. 2016, Marine Policy. Assessed the interactions between seabirds and a wave energy converter (WEC). Substantial variation existed in baseline years prior to WEC deployment. KDEs were closer to the moorings in the presence of a WEC in at least one season. KDEs areas were larger in the presence of a WEC in at least one season. A density increase for some species close to the moorings of a deployed WEC.

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

[**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, 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>.

To unsubscribe to this listserv:

Send an e-mail message to: LISTSERV@UNL.EDU

In the Message Field (NOT Subject): UNSUBSCRIBE wind_wildlife