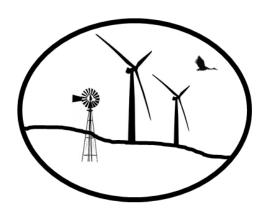
Wind Energy and Wildlife News

July 21, 2015



Around Nebraska...

<u>Jocelyn Oleny Harrison to defend master's thesis</u>, "Assessment of disturbance effects of an existing wind energy facility on greater prairie-chicken (*Tympanuchus cupido pinnatus*) breeding season ecology



in the Sandhills of Nebraska." **Friday, June 24, 2015, 1 p.m.**, Hardin Hall (UNL East Campus), Room 901. Her complete abstract is available at: http://newsroom.unl.edu/announce/snr/4419/25149.

Glossy Ibis nesting – a Nebraska first. The population increase and range expansion of the Glossy Ibis is one of the more interesting avian stories of the last quarter century. Nebraska claimed it first documented record not that long ago in 1999. In less than two decades since, Glossy Ibis have essentially become regular (annual) in occurrence in our state. It is not unusual nowadays for multiple birds to be reported in a single season.

<u>Use of opportunistic sightings and expert knowledge to predict and compare Whooping Crane stopover habitat</u>. Hefley et al.

2015. Conservation Biology. We developed a species distribution model (SDM) that could be used to inform habitat management actions for Whooping Cranes within the state of Nebraska (U.S.A.). Our expert-informed modeling approach could be applied to opportunistic presence-only data when sampling bias is a concern and expert knowledge is available.

Presence and movement of swift fox (Vulpes velox) and other wildlife along the heartland expressway corridor in western Nebraska. Sara Elaine Ray, M.S. University of Nebraska at Kearney, 2015, 192 pages. The swift fox (Vulpes velox) is a small canid classified as endangered within the state of Nebraska. Future construction of the Heartland Expressway Corridor (HEC), a 300 km road expansion project in the panhandle of the state, may impact the resident swift fox population.

Overwintering Biology and Tests of Trap and Relocate as a Conservation Measure for Burying Beetles. Hoback and Conley. 2015. NDOR Research Project. Overwintering biology and trap and relocation were studied to determine how this beetle survives freezing temperatures and to find whether trap and relocation could be a suitable conservation management measure.

<u>White House names Morrow 'Champion of Change'</u>. The White House has recognized Kim Morrow, climate change resource specialist in UNL's School of Natural Resources, and 11 others as "Champions of Change" for their efforts in protecting the environment and communities from the effects of climate change.

Final Upper Great Plains Wind Energy PEIS is now available. Western Area Power Administration and the U.S. Fish and Wildlife Service have prepared a PEIS to evaluate the impacts of wind energy development in Western's Upper Great Plains Region (all or parts of Iowa, Minnesota, Montana, Nebraska, North Dakota, and South Dakota), and on the Service's grassland and wetland easements in North Dakota, South Dakota, and Montana. The PEIS identifies mitigation strategies, best management practices, and comprehensive environmental review procedures for evaluating future wind energy projects.

Around the Nation & World...

Wind and Wildlife

Power of Prediction: Avian Fatalities at Wind Facilities. The U.S. Geological Survey, in collaboration with the U.S. Fish and Wildlife Service, has released a study that will enable ecologists, managers, policy makers, and industry to predict the bird fatalities at a wind facility prior to it being constructed. The study examined golden eagles as a case study because they are susceptible to collisions with wind turbines in part because of their soaring and hunting behavior.

<u>A Collision Risk Model to Predict Avian Fatalities at Wind Facilities: An Example Using Golden Eagles, Aguila chrysaetos</u>. Leslie New et al. 2015. PLOS ONE.

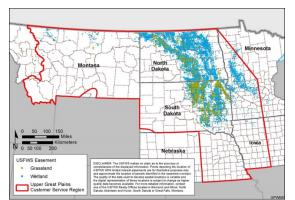
<u>Statistical guidelines for assessing marine avian hotspots and coldspots: A case study on wind energy development in the U.S. Atlantic Ocean</u>. Zipkin et al. 2015. Biological Conservation. We developed a power analysis approach to identify seabird hotspots/coldspots in marine environments.

<u>ACME: A Partially Periodic Estimator of Avian & Chiropteran Mortality at Wind Turbines</u>. Wolbert 2015. Estimating the mortality of birds and bats at wind turbines based on periodic carcass counts is challenging because carcasses may be removed by scavengers or may be missed in investigators' searches, leading to undercounting. Existing mortality estimators intended to correct for this offer wildly different estimates when search intervals are short.

<u>Curtailment of Renewable Energy in California and Beyond</u>. Golden and Paulos 2015. The Electricity Journal. Curtailment is an easy response, but it is wasteful and undermines the investor confidence needed to transition the California power system. A host of supply-side and demand-side measures can keep curtailment to minimal levels, but policy reforms also are needed to make curtailment a viable tool.

<u>Feds seek public input on Midwest bat protection plan</u>. The U.S. Fish and Wildlife Service is seeking the public's suggestions for an environmental impact statement for an eight-state Midwestern plan designed to help conserve the habitats of several species of animals, including bats that can be harmed by wind turbines.

<u>Meeting To Focus On Endangered Species Conservation Plan</u>. In an effort to conserve the bat population in the Midwest, the U.S. Fish and Wildlife Service is holding public meetings to develop a



broad conservation plan aimed at wind energy companies. The Wind Energy Multi Species Habitat Conservation Plan looks at ways to lower the instances of endangered species deaths, including the Indiana bat, from wind turbines.

<u>Wind Turbines Threaten Bats Here</u>. Study shows they kill about 1 million per year and Wisconsin has some of region's largest bat hibernation sites. The U.S. Fish and Wildlife Service is considering requests from the wind energy industry to exempt wind turbines in Wisconsin and nationwide from new rules to protect threatened bats, even as a fungal disease <u>has killed millions of the creatures</u>. Because of the disease, white-nose syndrome, the federal agency listed the northern long-eared bat as threatened. The temporary rule to list the bat as threatened exempted some activities, but not wind energy generation. The agency is now considering a final rule, including potential exemptions for wind turbines.

<u>The Nature Conservancy Installs Bird Safe Wind Power</u>. The Nature Conservancy has completed its first phase of installation of SheerWind's INVELOX funnel-based wind power technology. Because Palmyra is home to a national wildlife refuge and more than a million nesting seabirds, conventional wind turbines were not an option due to the risk of bird strikes. What's more, the low wind speeds on the island would provide little to no energy production with traditional turbines.

<u>Controversial Highlands wind farm plan rejected</u>. A controversial wind farm proposed for the Flow Country in the Highlands – a vast expanse of "globally important" peatland – has been rejected by the Scottish Government.

<u>Trump shows mussels to win battle against wind farm</u>. US billionaire <u>Donald Trump</u> has finally won his battle against plans for a giant wind farm near his Doonbeg golf course – thanks to a little-known fresh water pearl mussel.

Policy

<u>Senate panel set to consider 2-year renewables PTC extension</u>. The renewable electricity production tax credit would be extended through the end of 2016 under a broad tax incentives bill slated to be considered by the Republican-led Senate Finance Committee on July 21. The tax credit, the core incentive responsible for development of the wind industry, last expired in 2014 after it was briefly reinstated at the very end of that year. Only projects that can show they started construction, or met a financial safe harbor, by that date are currently eligible for the incentive.

<u>Senate panel advances \$95B tax break package</u>. Senate tax writers cleared a hodgepodge of expired tax breaks on Tuesday, as lawmakers insisted they don't want to wait until year's end to restore a group of incentives that historically have had bipartisan support. The Finance Committee voted to extend the \$95.2 billion collection of tax breaks, known as "extenders" in Washington-speak, through 2016 by a 23-3 vote, in the latest example of Congress's stop-and-start approach to the preferences.

Migratory Bird Permits; Programmatic Environmental Impact Statement. We, the U.S. Fish and Wildlife Service (Service, us, or we), intend to prepare a programmatic environmental impact statement (PEIS) pursuant to the National Environmental Policy Act to evaluate the potential environmental impacts of a proposal to authorize incidental take of migratory birds under the Migratory Bird Treaty Act. To ensure consideration of written comments, they must be submitted on or before July 27, 2015.

BirdRegs.org. An open, public conversation about the incidental take of migratory birds.

Wildlife & Habitats

Observation of Sandhill Cranes' (Grus canadensis) Flight Behavior in Heavy Fog. Kirsch et al. 2015 The Wilson Journal of Ornithology. The observed behavior of cranes circling and lingering in an area while flying in poor visibility conditions suggests that such situations may increase chances of colliding with natural or anthropogenic obstacles in the vicinity.

<u>Citizen science reveals trends in bat populations: The National Bat Monitoring Programme in</u>
<u>Great Britain</u>. Barlow et al. 2015. Biological Conservation. We model population trends of bats in Great Britain from volunteer survey data. Trained citizen scientists can be successfully used to monitor bats. Ten species or groups show stable or increasing trends from at least one survey.

Is part-night lighting an effective measure to limit the impacts of artificial lighting on bats? Azam et al. 2015. Global Change Biology. Overall, no significant difference in activity between part- and full-night lighting sites were observed in 5 of the 8 species studied, suggesting that current part-night lighting schemes fail to encompass the range of activity of most bat species. We recommend that such schemes start earlier at night to effectively mitigate the adverse effects of artificial lighting on light-sensitive species, particularly along ecological corridors that are especially important to the persistence of biodiversity in urban landscapes.

The ecological impact of city lighting scenarios: exploring gap crossing thresholds for urban bats. Hale et al. 2015. Global Change Biology. We believe that this is the first study to demonstrate how lighting may create resistance to species movement throughout an entire city. That connectivity in urban areas is being disrupted for a relatively common species raises questions about the impacts on less tolerant groups and the resilience of bat communities in urban centres. However, this mechanistic approach raises the possibility that some ecological function could be restored in these areas through the strategic dimming of lighting and narrowing of gaps.

<u>Coyotes Ensure Cat-free Refuges for Birds</u>. In old cartoons, coyotes and roadrunners are archenemies. But in present-day ecosystems, a coyote may be a bird's best friend, carving out areas of habitat where birds can sing in safety because pussy cats fear to tread.

<u>UPDATE: Migratory Bird Treaty Act Safe For Now.</u> Congressman Jeff Duncan (R, SC) had the opportunity to include his amendment during floor debate on an Interior Department Appropriations Bill and he did not do so. This means that the appropriations bills move forward without the Duncan amendment concerning the MBTA. For now, that amendment appears to be dead.

Wind

<u>Strategic energy planning for large-scale energy systems: A modelling framework to aid decision-making</u>. Girones et al. 2015. Energy. Presentation of a new large-scale energy system modelling approach for public decision-making support. Assessment of advantages and drawbacks of a sequential model structure. Focus on monthly resolution to highlight seasonality issues of the energy system. Detailed description of sub-models to allow reproducibility.

<u>"Abnormal" New Wind Farm System Chops Months Off Timeline</u>. A team of researchers at MIT has come up with an out-of-the-ordinary method for accurately predicting wind speeds for proposed wind farms. The new system uses only 3 months of data, compared to the 8- to12-month period typically required to select a site for new wind farms. That's a huge deal in the wind industry.

<u>Working in wind power: a day in the life of an environmental scientist</u>. The UK renewable industry is a growth sector that is both "rewarding" and "sociable" to work in, says Rosie Vetter, a senior environmental scientist at AECOM. Vetter shares her experiences project managing environmental assessments for UK wind farms and tells us why she wants to encourage more people to join the sector.

Other

<u>New coal plants 'most urgent' threat to the planet, warns OECD head</u>. Governments urged to rethink plans for new coal-fired power plants as study estimates they will release more than 500bn tonnes of carbon dioxide by 2050.

Announcements

Service Protects Northern Long-eared Bat as
Threatened Species under Endangered Species
Act with Interim 4(d) Rule. The listing becomes
effective on May 4, 2015, 30 days after publication of
the final listing determination in the Federal Register.

<u>USFWS Approved Automated Acoustic Bat ID</u>
<u>Software Programs</u>. Specified versions of the programs identified below are approved by the Service for use in 2015 and beyond for presence/probable absence surveys for Indiana bats (Myotis sodalis). These programs have been

Northern Long-Eared Bat Interim 4(d) Rule
White-Nose Syndrome Buffer Zone Around WNS/Pd Positive Counties/Districts

Map Created March 31, 2015

Map Created March 31, 201

independently tested by USGS researchers and passed the Service's standardized test/validation process.

- 1. BCID Program (version 2.7b or newer)
- 2. EchoClass (version 3.0 or newer)
- 3. Kaleidoscope® Pro (version 2.2.2 or newer)

Upcoming Conferences & Trainings

Northern Long-Eared Bats & the Potential Impacts on Wind Energy Projects in New England. Webinar presented by the Maine Ocean & Wind Industry Initiative (MOWII). July 29, 2015, 10:00 a.m. ET. Register for free.

<u>The Effects of Noise on Aquatic Life</u>. The fourth International Conference on "The Effects of Noise on Aquatic Life" will take place in Dublin, Ireland, July 10-16, 2016.

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.

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