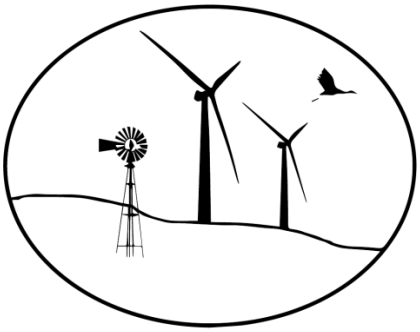
Wind Energy and Wildlife News

March 8, 2016



Around Nebraska…

Nebraska Legislative Bills (*Updates are in red*).

LB736 - *Change provisions relating to electric utilities and electric suppliers under the Rural Community-Based Energy Development Act*. Introduced by Senator Friesen on 1/6/16; Referred to Natural Resources Committee on 1/7/16; Notice of Hearing for 2/4/16; Natural Resources AM2074 filed and Placed on General File with AM2074 on 2/18/16.

LB824 - *Exempt privately developed renewable energy generation facilities from regulation as prescribed*. Introduced by Senator McCollister on 1/8/16; Referred to Natural Resource Committee on 1/11/16; Notice of Hearing for 1/27/16; Natural Resources Hearing Transcripts available; Natural Resources priority bill on 2/19/16.

LB863 - *Adopt the Wind Energy Expansion Act*. Introduced by Senator Schilz on 1/11/16; Referred to the Natural Resources Committee on 1/12/16; Notice of Hearing for 2/4/16.

LB881 - *Change provisions relating to energy financing contracts*. Introduced by Senator Schilz on 1/11/16; Referred to the Natural Resources Committee on 1/12/16; Notice of Hearing for 1/28/16; Placed on General File on 2/19/16.

LB1012 - *Adopt the Property Assessed Clean Energy Act*. Introduced by Senator Mello on 1/15/16; Referred to Urban Affairs Committee on 1/20/16. Notice of Hearing for 2/9/16; Haar priority bill on 2/19/16; Urban Affairs AM2253 filed and Placed on General File on 2/24/16.

LB1047 - *Change sales tax exemption provisions relating to purchases of energy and fuel*. Introduced by Senator Harr on 1/20/16; Referred to Revenue Committee on 1/22/16. Notice of Hearing for 2/19/2016.

LB1069 - *Provide duties for the state investment officer relating to investment in energy-related companies or funds*. Introduced by Senator Haar on 1/20/16; Referred to Nebraska Retirement Systems Committee on 1/22/16. Notice of Hearing for 2/9/2016; Indefinitely postponed on 2/17/16.

LB1071 - *Adopt the Solar Energy Economic Development Act*. Introduced by Senator Haar on 1/20/16; Referred to Natural Resources Committee on 1/22/16. Notice of Hearing for 2/11/2016.

LB1085 - *Change a renewable energy tax credit*. Introduced by Senator Davis on 1/20/16; Referred to Revenue Committee on 1/22/16; Notice of Hearing for 2/25/16.

News

Coalition seeks loosened wind energy regulations. A coalition of business, labor and civic leaders braved a windy morning Friday to call on Lancaster County leaders to approve policies that will allow wind energy development. The group has begun collecting signatures for a petition that expresses support for “balanced policies that allow wind development" in Lancaster County.

Wind turbine petition campaign kicks off. Friday morning, a group kicked off its “Say Yes to Wind Energy in Lancaster County” campaign. It's an online petition campaign. Nebraska is looking towards some economic gains this year. New wind farms around the state are expected to generate more power, bring with it new annual incomes for farmers, tax revenue, and around 130 new jobs. They are gains that some think Lancaster County may not see. And now, leaders within the County are petitioning to have everyone's voice heard in the matter.

Midlands Voices: Nebraska should embrace EPA’s Clean Power Plan. The University of Nebraska, U.S. Department of Agriculture, National Academy of Sciences and many others have highlighted the threats that climate change poses to Nebraska. Our state’s economy, built largely on agriculture and natural resources, faces disruption in weather patterns and water supplies if we fail to take action to reduce carbon pollution and prevent the worst impacts of climate change. The Clean Power Plan sets a very achievable goal for Nebraska: reduce carbon pollution from power plants by about 2 percent per year over the next 15 years. States can choose the best recipes to achieve their goals, using strategies such as energy conservation, new wind and solar farms, better building codes and shifts from dirty coal to cleaner fuels.

SPRING IN NEBRASKA IS A GREAT TIME TO SEE SOME OF THE WORLD’S MOST SPECTACULAR WILDLIFE MIGRATIONS & BEHAVIORS

These posters, and others, are available from The Great Plains Ecotourism Coalition.

Crane Trust 2016 Wild About Nebraska Speaker Series. Events throughout early April. All events and presentations are open to the public and will be held at the Crane Trust Nature & Visitor Center near Wood River in south central Nebraska, I-80 Alda Exit 305.

Audubon's Nebraska Crane Festival, March 17-20, 2016, Kearney, NE. We are already anticipating with great excitement the internationally celebrated migration of 500,000 Sandhill Cranes through central Nebraska. Thousands of people from all over the world come to witness this amazing, life-changing wildlife event. We hope this year you will choose to be part of this experience.

Nebraska Prairie Chicken Festival, April 8-10, 2016, Burwell, NE. The Nebraska Prairie Chicken Festival aims to celebrate prairie grouse species, the grasslands they inhabit and the culture that surrounds them.

Around the Nation & World…

Wind and Wildlife

Geographic origins and population genetics of bats killed at wind-energy facilities, Pylant et al. 2016, Ecological Applications. An unanticipated impact of wind-energy development has been large-scale mortality of insectivorous bats. In eastern North America, where mortality rates are among the highest in the world, the hoary bat (Lasiurus cinereus) and the eastern red bat (L. borealis) comprise the majority of turbine-associated bat mortality. Both species are migratory tree bats with widespread distributions; however, little is known regarding the geographic origins of bats killed at wind-energy facilities or the diversity and population structure of affected species. We addressed these unknowns by measuring stable hydrogen isotope ratios (δ2H) and conducting population genetic analyses of bats killed at wind-energy facilities in the central Appalachian Mountains (USA) to determine the summering origins, effective size, structure, and temporal stability of populations.

Habitat use of migratory bats killed during autumn at wind turbines, Voigt et al. 2016, Ecological Applications. Even though avoidance and mitigation measures could benefit from a better knowledge of the species' migratory habits, we lack basic information about what habitats and corridors bats use during migration. Here, we studied the isotopic niche dimensions of three bat species that are frequently killed at wind turbines in Germany: non-migratory Pipistrellus pipistrellus, mid-distance migratory *Nyctalus noctula*, and long-distance migratory *Pipistrellus nathusii*.

BWEC e-Newsletter v. 15 February 2016. Information on Pre- and Post-Construction Studies, Impact Reduction Research, Behavioral Studies, Information Exchange, and Upcoming Events.

Expected Effects of Offshore Wind Farms on Mediterranean Marine Life, Bray et al. 2016, Journal of Marine Science and Engineering. Current climate policy and issues of energy security mean wind farms are being built at an increasing rate to meet energy demand. As wind farm development is very likely in the Mediterranean Sea, we provide an assessment of the offshore wind potential and identify expected biological effects of such developments in the region. We break new ground here by identifying potential offshore wind farm (OWF) "hotspots" in the Mediterranean. Using lessons learned in Northern Europe, and small-scale experiments in the Mediterranean, we identify sensitive species and habitats that will likely be influenced by OWFs in both these hotspot areas and at a basin level. This information will be valuable to guide policy governing OWF development and will inform the industry as and when environmental impact assessments are required for the Mediterranean Sea.

Role of benthic habitat distribution data in coastal water wind turbine site selection, Sahla et al. 2016, Ocean & Coastal Management. Coastal zone management and marine spatial planning should minimize the risk of damaging sensitive benthic habitats. We compare how different kind of datasets might affect the selection of suitable sites for shallow water wind turbine placement. We found that data from airborne LIDAR consequently helps coastal planners to avoid the risk of unnecessary benthic habitat destruction.

Wildlife

Deriving habitat models for northern bats (Myotis septentrionalis) from historical detection data: A case study using the Fernow Experimental Forest, Ford et al. 2016, Journal of Fish and Wildlife Management. To date, there has been little evaluation of how effective historical bat presence data, such as data derived from mist-net captures, acoustic detection, and day-roost locations, may be in developing habitat models, nor is it clear how models created using different data sources may differ. We explored this issue by creating presence probability

models for the northern long-eared bat on the Fernow Experimental Forest in the central Appalachian Mountains of West Virginia using a historical, presence-only dataset.

Spatial and temporal distribution of bats (Chiroptera) in bright summer nights, T. Michaelsen 20146, Animal Biology. Most bat species show plasticity in their choice of habitat and landscape. This study focuses on the distribution and activity of bats along the hillsides and onto the shores of a low salinity marine Norwegian fiord at 62°N. Ultrasound was recorded using D500 detectors in June and July at 42 different sites from the shoreline and up the hillsides to around 200 m. Detectors were placed in well-preserved woodlands.

The use of automated identification of bat echolocation calls in acoustic monitoring: A cautionary note for a sound analysis, Russo and Voight 2016, Ecological Applications. Acoustic identification allows echolocating bats to be surveyed non-invasively. Automated classifiers of bat calls promise high identification performances. Use of classifiers is spreading yet they have not been tested enough in the field. Misidentification may ultimately lead to wrong management and serious conservation issues. Thorough field tests are needed to assess limitations and strengths of these tools.

LONG-TERM EFFORTS TO STUDY INDIANA BAT MATERNITY COLONIES. Since the late 1990s, the Center for Bat Research, Outreach, and Conservation at Indiana State University (ISU) has monitored the status of a population of the Indiana bat near the Indianapolis International Airport in central Indiana. In compliance with the Endangered Species Act, the Indianapolis Airport Authority and US Fish and Wildlife Service implemented a series of proactive conservation measures during two major periods of airport expansion.

Monitoring continent-wide aerial patterns of bird movements using weather radars, Alves et al. 2016, BOU Proceedings. Here, we present the first outcomes of this collaborative research, and provide details on the visualization of a case study of mass migration of birds tracked using several national weather radars in the Netherlands and Belgium simultaneously. Finally we will also discuss the opportunities that a large sensor network can provide for movement ecology research at the continental scale.

Assessing range-wide habitat suitability for the Lesser Prairie-Chicken, Jarnevich et al. 2016, Avian Conservation & Ecology. Population declines of many wildlife species have been linked to habitat loss incurred through land-use change. Incorporation of conservation planning into development planning may mitigate these impacts. The threatened Lesser Prairie-Chicken (Tympanuchus pallidicinctus) is experiencing loss of native habitat and high levels of energy development across its multijurisdictional range. Our goal was to explore relationships of the species occurrence with landscape characteristics and anthropogenic effects influencing its distribution through evaluation of habitat suitability associated with one particular habitat usage, lekking.

Bird-Smart Glass: Stop Birds Hitting Windows! Up to 988 million birds are killed each year in the United States when they hit windows, making this threat one of the most costly to bird populations. Migratory birds and backyard birds are among the most common victims. Now, after six years of research, our Glass Collisions Program presents a comprehensive resource to help stop birds hitting windows: Proven products for existing and new windows, for every size and shape imaginable, and for every budget. Each of these products has been shown to significantly reduce bird collisions.

Wind

Can renewable energy power the future? Moriarty & Honnery 2016, Energy Policy. Published estimates for renewable energy (RE) technical potential vary 100-fold. Intermittent wind and solar energy dominate total RE potential. We argue it is unlikely that RE can meet existing global energy use. The need to maintain ecosystem services will reduce global RE potential. The need for storage of intermittent RE will further reduce net RE potential.

Impacts of Federal Tax Credit Extensions on Renewable Deployment and Power Sector Emissions, Mai et al. 2016, National Renewable Energy Laboratory Technical Report NREL/TP-6A20-65571. d. This report explores two specific questions: (1) How might RE deployment in the contiguous United States change with these recent federal tax credit extensions? (2) How might this change in RE deployment impact carbon dioxide (CO2) emissions in the power sector? We use a scenario analysis approach to estimate the impacts of the tax credit extensions under two distinct natural gas price futures.

Policy

Secretary Jewell, Mexican Environment and Energy Secretaries Announce Binational Energy, Conservation Agreements. At the third round of the U.S.-Mexico High-level Economic Dialogue (HLED), U.S. Interior Secretary Sally Jewell today signed agreements with her Mexican counterparts to strengthen ongoing cooperative activities on energy development, conservation and preparation for the impacts of climate change on the two countries' shared natural resources.

Other

A preliminary assessment of avian mortality at utility-scale solar energy facilities in the United States, Walston Jr. et al. 2016, Renewable Energy. First assessment of avian mortality at USSE facilities compared to other forms of avian mortality. Project-specific monitoring reports were reviewed to estimate avian mortality at USSE facilities. Estimated USSE-related avian mortality rates were similar to those estimated for the wind energy sector. Estimated total annual mortality at USSE facilities was orders of magnitude lower than other forms of mortality.

Optimal scheduling of renewable micro-grids considering plug-in hybrid electric vehicle charging demand, Kamankesh et al. 2016, Energy. Modeling PHEV charging demand in MG. Suggesting a stochastic framework to see uncertainties of problem. Using SOS algorithm for solving MG operation problem. Proposing a modification method for SOS algorithm.

Entergy Considers Sierra Club Proposal To Meet Rule On Emissions In Wildlife Areas. The rule by the Environmental Protection Agency is known as the Regional Haze Rule. The environmental group is proposing Entergy phase out the use of coal at the White Bluff power plant over the next nine years and at the Independence plant in Newark over the next eleven.

Webinars

Species Conservation & ESA Initiative Webinar: The Role of Conflict and Litigation in the ESA, February 25, 10:30-noon MST. The webinar will examine how litigation shapes the implementation of the Endangered Species Act and affects species conservation efforts. Panelists representing a diverse range of interests will participate in a moderated discussion, as well as a question and answer session. Register here.

WINDExchange Webinar: Wind Permitting Toolkit and Model Zoning Ordinance, March 16, 2016, 3 p.m. ET. The permitting process for wind energy projects can vary greatly from county to county, and this lack of uniformity often leads to inefficiencies for permitting agencies and their constituents. Mia Devine, project manager at Northwest SEED, will present the Wind Permitting Toolkit. Dana Peck, executive director at the Greater Goldendale Chamber of Commerce, will share a rural county's experience on creating a programmatic environmental impact statement and related planning changes to shape renewable energy project permitting and the subsequent development of 1.2 gigawatts of wind projects, which doubled the county tax base and underpinned many ranching families financial viability. The webinar is free but registration is required.

Webinars on the Latest Wind-Wildlife Research and Tools – recordings available.

Webinar: Monitoring Bat Activity Offshore – recording and pdfs of presentations available.

Species Conservation & ESA Initiative Webinar: Voluntary Species Conservation Incentives and Collaboration – recording available.

How to Prioritize Key Areas for Conservation Efforts in a Changing Climate: A Look at "Climate Refugia" webinar - recording available.

Upcoming Conferences, Trainings & Events

Nebraska Chapter of the Wildlife Society Annual Meeting, March 8-10, 2016, Kearney, NE. The theme for the meeting is "50 Years of Wildlife Conservation and Management ". The meeting will include a student-professional workshop, oral presentations, a student poster competition, our regular business meeting, banquet, auction, and a Student-Professional Quiz Bowl.

Nebraska Planning and Zoning Association Conference, March 9-11, 2016, Kearney, NE. NPZA Celebrates 50 years as an organization supporting local planning in Nebraska!

Audubon's Nebraska Crane Festival, March 17-20, 2016, Kearney, NE. We are already anticipating with great excitement the internationally celebrated migration of 500,000 Sandhill Cranes through central Nebraska. Thousands of people from all over the world come to witness this amazing, life-changing wildlife event. We hope this year you will choose to be part of this experience.

AWEA Wind Project Siting and Environmental Compliance Conference, March 22-23, 2016, Charleston, SC. where leaders from the wind industry, environmental permitting and compliance sector, the scientific community and regulatory officials come together for a robust discussion about the current state of siting and environmental compliance, and network.

Nebraska Prairie Chicken Festival, April 8-10, 2016, Burwell, NE. The Nebraska Prairie Chicken Festival aims to celebrate prairie grouse species, the grasslands they inhabit and the culture that surrounds them.

Electric Transmission 101 Workshop, April 26-28, 2016, Duke Energy Environmental Center, Huntersville, NC. Contact: Kathy Boydston (512)389-8522. The workshop, organized by the Association of Fish & Wildlife Agencies, is designed to train state fish and wildlife agency and federal agency personnel who are involved in the review and permitting of electric transmission line projects. The workshop provides the opportunity for state and federal agency staff to meet members of the electric utility industry and gain an understanding of the planning and design process for electric transmission.

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.
