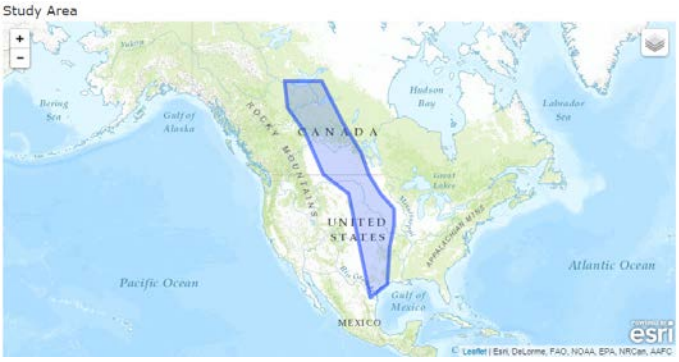
Wind Energy and Wildlife News

December 15, 2015

Around Nebraska…



Whooping crane stopover site use intensity within the Great Plains, Pearse et al. 2015, USGS Open-File Report 2015-1166. This assessment resulted in four categories of stopover site use: unoccupied, low intensity, core intensity, and extended-use core intensity. Although provisional, this evaluation of stopover site use intensity offers the U.S. Fish and Wildlife Service and partners a tool to identify landscapes that may be of greater conservation significance to migrating whooping cranes. Initially, the tool will be used by the U.S. Fish and Wildlife Service and other interested parties in evaluating the Great Plains Wind Energy Habitat Conservation Plan.

Small wind farm to get a little bigger by Creston. More turbines will be added to Creston Ridge Wind Farm. At its recent meeting, the Loup Power District board of directors approved and signed an additional contract for 6.9 megawatts of wind energy from Bluestem Energy Solutions.

Around the Nation & World…

Wind and Wildlife

Impacts of Wind Energy Development on Bats: A Global Perspective, Arnett et al. 2016, Book Chapter. Given the magnitude and extent of fatalities of bats worldwide, the conservation implications of understanding and mitigating bat fatalities at wind energy facilities are critically important and should be proactive and based on science rather than being reactive and arbitrary.

> ***Bats in the Anthropocene: Conservation of Bats in a Changing World***, Editors: Christian C. Voigt and Tigga Kingston, Springer Open, 2016. In this Open Access e-book, you can learn about different anthropogenic impacts on bats from wind energy to roads to fragmentation.

WREN Webinar #5: Wildlife Monitoring and Wind Energy. Recording. This webinar series supports WREN's goal to facilitate international collaboration that advances global understanding of environmental effects of offshore and land-based wind energy development. Please feel free to forward this invite to others.

Webinars on the Latest Wind-Wildlife Research and Tools. Did you miss the recent webinar, "Developing Technologies for Bat Detection and Deterrence at Wind Facilities" or wish to review other wind-wildlife webinars? You can check them out under the Previous Webinars tab.

Wind farm prioritisation based on potential impacts on wolf (Canis lupus) habitat in Croatia, Gioele Passoni, 2015, Imperial College London. In this study a suitability model for wolf breeding habitat was carried out using Maxent based on 6 environmental variables and 31 homesite locations collected between 1997 and 2015. The prediction of habitat suitability was then used to determine the potential impact of proposed wind farms on wolves. Lastly, a wind farm prioritisation process was carried out using the software Marxan. This allowed selecting the wind farms that contributed to the meeting of the energy targets at the minimum ecological impact on wolf breeding habitat.

Wildlife & Habitats

Smart Science: App Helps Protect Shorebirds. The piping plover is an iconic shorebird that breeds along the Atlantic Coast, the Great Lakes and the Great Plains. Rising sea levels and storm surges associated with climate change, as well as increased development in their beach habitats, threaten the species. To help track changes in piping plover habitat, Thieler developed a free app called iPlover.

Migratory Birds Lack Adequate Habitat Protection. Migratory birds are always on the move and, as a result, rely on habitat protection — of breeding grounds, nonbreeding grounds and stopover areas. After looking at a database of protected areas for both non-migratory and migratory birds around the world developed by Birdlife International, the researchers developed maps of migratory routes and found that only 9 percent of 1,451 species of migratory birds receive adequate protection of their habitat across their entire range.

> ***Protected areas and global conservation of migratory birds***, Runge et al. 2015. Science. Runge et al. looked at the degree of protection migratory birds receive, globally, across their breeding and wintering ranges. A remarkably low percentage of migratory birds receive adequate protection across their entire ranges. Given that over half the world's migratory bird populations are declining, these results emphasize the urgency with which we must act to protect birds across their entire migratory cycle.

PLANTS ARE PROTECTING US FROM CLIMATE CHANGE – FOR NOW. As the concentration of CO2 in the atmosphere increases, so does the amount of carbon that plants sequester in their own tissues through photosynthesis. This so-called “CO2 fertilization effect” is well known in a general sense. But until now, scientists haven’t been able to quantify how much it might dampen the impact of our carbon emissions in the real world.

Wind

Standardization of Permitting and Zoning. The distributed wind turbine market in the region is challenged by an assortment of permitting processes across jurisdictions, cumbersome interconnection procedures, and inconsistent zoning ordinances. Existing ordinances in some counties contain restrictions that prohibit the installation of small wind turbines or significantly discourage it by substantially increasing the time and costs required to obtain necessary zoning and/or construction permits. To address this issue, The NW Wind Center, with input from regional stakeholders, has created a permitting toolkit based on industry best practices as well as positive examples already in place in the region. The toolkit includes guidance on incorporating wind energy into comprehensive plans, examples from local jurisdictions, and a model wind energy zoning ordinance.

Other

The President Delivers a Statement on the Paris Climate Agreement. The President addressed the nation from the Cabinet Room at the conclusion of the United Nations Convention on Climate Change to discuss the historic

global deal. In short, this agreement will mean less of the carbon pollution that threatens our planet, and more of the jobs and economic growth driven by low-carbon investment. Full implementation of this agreement will help delay or avoid some of the worst consequences of climate change, and will pave the way for even more progress, in successive stages, over the coming years.

Secretary Moniz Awards $125 Million for 41 Transformational Energy Technology Projects Ahead of COP21 in Paris. U.S. Energy Secretary Ernest Moniz today announced $125 million across 41 cutting-edge energy technologies awarded by the Department of Energy's (DOE) Advanced Research Projects Agency-Energy (ARPA-E). These new projects are funded under ARPA-E's OPEN 2015 program and come in advance of the COP21 U.N. Climate Negotiations in Paris next week. The announcement was made at D.C. technology incubator 1776 at an event that focused on leveraging America's top innovators to find technological solutions to combat climate change, enhance security and solve pressing energy challenges around the globe.

Tools

***RE-Powering's Electronic Decision Tree*.** Developed by US EPA's RE-Powering America's Land Initiative, the RE-Powering Electronic Decision Tree tool guides interested parties through a process to screen sites for their suitability for solar photovoltaics or wind installations. EPA encourages renewable energy on already developed or degraded land instead of green space.

US EPA Decision Tree Tool Webinar. The recording of the webinar is available.

Upcoming Conferences & Trainings & Webinars

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.

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.
