

How to improve habitat conservation for migrating cranes

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Every year, North America's critically endangered Whooping Cranes travel back and forth along a 4,000-kilometer corridor linking their nesting grounds in Canada and their winter home in Texas. Habitat in their path through the northern Great Plains is being lost at an alarming rate to agriculture and other development, but the birds' widely dispersed movements make identifying key spots for protection a challenge. Now, researchers behind a new study from *The Condor: Ornithological Applications* have created a model of Whooping Crane habitat use with the potential to greatly improve the targeting of conservation efforts during their migration.

Researcher Neal Niemuth and his colleagues used a database of Whooping Crane sightings in the region since 1990 to examine cranes' <u>habitat</u> use in North and South Dakota. Analyzing the spatial patterns of the sightings, they found that Whooping Cranes prefer habitat that includes a mix of croplands and wetlands and are more attracted by a single large wetland basin than multiple smaller basins. Their results also show the effects of different conservation strategies across the region. East of the Missouri River, where efforts have been specifically targeted toward waterfowl conservation, lands under conservation management were more likely than other locations to be used by Whooping Cranes. West of the river, however, this was not the case.

Niemuth and his colleagues hope that their model can help to guide the siting of new wind, oil, and electrical transmission infrastructure to minimize potential conflicts with Whooping Cranes, as well as



identifying opportunities for wetland restoration. According to the article, approximately \$50 million per year is spent for habitat protection in the region, with much funding coming from sales of Duck Stamps. Because of their endangered status, Whooping Cranes have always been a priority in the area, but the quality and resolution of existing tools for targeting conservation and avoiding conflicts were low. The model presented in this publication provides biological linkages and increased spatial resolution that will increase effectiveness of Whooping Crane conservation efforts.

"Research on Whooping Crane habitat use throughout the migration corridor is crucial in helping us ensure that we are restoring and protecting habitat for a growing population of Whooping Cranes in the right places," states Wade Harrell, the U.S. and Wildlife Service's Whooping Crane Recovery Coordinator. "It is positive to see that the prairie pothole habitat in the Dakotas that the U.S. Fish & Wildlife Service is actively protecting for breeding waterfowl is also benefiting endangered species like the Whooping Crane."

More information: Neal D. Niemuth et al, Opportunistically collected data reveal habitat selection by migrating Whooping Cranes in the U.S. Northern Plains, *The Condor* (2018). DOI: 10.1650/CONDOR-17-80.1

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