

SUMMER 2011

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MAGAZINE

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FINDING THE RIGHT GROOVE
FOR AMERICA'S ENERGY
AND ENVIRONMENTAL CHALLENGES



Prairie Professor

UNO's LaReesa Wolfenbarger explores man's impact on native tall grasses and their inhabitants

Considering it's in the heart of the Great Plains, Nebraska surprisingly has little undisturbed tall grass prairie left — 99 percent of it has been altered for some other use.

“Most of it has been converted to some sort of farmland,” says UNO Biology Professor LaReesa Wolfenbarger.

That's bad news for birds like the Eastern and Western Meadowlarks and Grasshopper Sparrows, which need tall grasses to survive. They've at least got a great advocate on their side — Wolfenbarger.

A researcher at UNO for 10 years, she studies how land use affects species that traditionally live in tall grass prairies. Her field research has brought her to a part of the country she loves after spending a couple of years carrying out policy work as a scientist with the Environmental Protection Agency.

Understanding the impact of agriculture is important to everyone — from the farmer in the field to the consumer buying food for their family, Wolfenbarger says. Those impacts can range from the unknown effects of genetically engineered crops to the overuse of chemicals, damaging ground water.

“When humans degrade ecosystems there are cascading effects that affect humans

directly in those locations,” Wolfenbarger says. “We know that increasing the use of pesticide is something we want to avoid or minimize because those chemicals may impact humans in some way.

“We also put a lot of effort in agricultural policy to avoid soil erosion. Controlling soil erosion has benefits to wildlife as well as benefits to humans.”

One project she is particularly excited about is the compilation of a large agriculture/environment database that will look at farming practices over time, in some cases more than a century, and the resulting changes in environmental quality. While it will take years to assemble, the hope is once the information is in place computer modeling will provide accurate predictions about land use and its impacts.

Another project, sponsored by the state's Game and Park Commission, has Wolfenbarger examining the environmental impact of wind power (see Page 24). Birds and bat populations can be negatively affected if the giant turbines are placed incorrectly.

“It's got me really interested in how do we provide the right ecological information to agencies and developers so that wind power is a win-win,” she says.

— Tim Kaldahl, Associate Editor