CRP grasslands attract more diverse grassland bird populations

Has the U.S. Department of Agriculture's (USDA) Conservation Reserve Program (CRP) had a positive effect on grassland bird diversity and species richness? The answer is yes, in many regions, according to a study by the University of Northern Colorado (UNC).

Dr. Joseph Veech of UNC linked land use and cover data of the USDA Natural Resources Conservation Service (NRCS) National Resources Inventory with the U.S. Geological Survey North American Breeding Bird Survey data to estimate grassland breeding bird responses to land use changes, including CRP, over time.

"I found CRP land had a significantly positive effect on local grassland bird diversity in 6 of the 16 bird conservation regions I studied," Veech says. "That is, breeding bird survey routes in landscapes with a higher percentage of CRP land tended to have a higher percentage of the regional species pool represented on the route."

Veech found no negative effects of CRP for grassland breeding birds in any of the 16 regions analyzed.

"The higher percentages of CRP and positive effects in bird survey routes indicates CRP is being implemented in regions of the United States—the Midwest, Southeast, and western and northern Great Plains—where it may have greatest benefit to grassland birds," Veech says.

In two of the six bird regions, CRP land had a significantly positive effect on local diversity of all bird species, and in two bird regions, the CRP had a significantly positive effect on local diversity of neotropical migrants.

"The CRP may be having a positive effect on local bird diversity in other bird conservation regions, but the multiple regression models used were not able to detect it," Veech says. "We will continue to use other techniques other than regression to detect differences. I used routes with at least 5 years of data to eliminate the year effect of observing birds, but these initial results are promising enough that I plan to examine the extent to which grassland birds are recorded every year, and how that relates to the proportion of CRP land in the landscape," Veech adds.

The analysis was made from bird conservation regions 11, 12, 13, 17, 18, 19, 21, 22, 23, 24, 25, 26, 27, 28, 29, and 30. The Western United States was not included because there is less CRP land, and land cover data were not available in areas with substantial Federal land. Regions 14, 20, 31, 35, 36, and 37 were not analyzed because they did not contain enough breeding bird survey routes.

The study was done in support of the wildlife component of the Conservation Effects Assessment Project (CEAP) being used by USDA to evaluate its conservation programs.

The study contributes to the measurement of the value of USDA conservation programs, according to Charlie Rewa, a biologist with the NRCS in Beltsville, Maryland, who facilitated the study for the NRCS.

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The AWCC, located in Madison, Mississippi, is a fish and wildlife technology development center.

NRCS photo by Lynn Betts

CRP native grass around prairie pothole

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