Is bioenergy expansion harmful to wildlife?

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Despite the predicted environmental benefits of biofuels, converting land to grow bioenergy crops may harm native wildlife. Researchers at the Helmholtz Centre for Environmental Research in Leipzig have developed a way to study the effects of increased energy crop cultivation on farmland bird populations.

"The Skylark is an indicator species for agricultural areas because it occupies many habitats of the wider countryside around the globe, breeds on the ground within fields and feeds mostly on insects" notes lead researcher, Jan Engel. "Improving the habitat suitability for Skylark, accordingly, would improve conservation of natural vegetation, insects, and other ground breeding farmland bird species."

Mr. Engel and his colleagues developed a computer model that evaluated the habitat requirements of Skylark in a variety of bioenergy cultivation scenarios. The study, published in Global Change Biology *Bioenergy*, found that bioenergy crop expansion will not harm Skylark populations if field sizes are low, many crop types are present, and small natural areas, known as Integrated Biodiversity Areas, are included within the landscape.

"In ecology it is a widely accepted idea that abundance and occurrence of particular species can broadly indicate the condition of the respective ecosystem" says Engel. The recent Skylark population decline illustrates the endangerment of farmland ecosystems. "However, we could show that bioenergy cultivation can get harmonized with Skylark conservation by application of regionally adapted actions."

Provided by Wiley

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