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Organochlorine Contamination in Dickcissel (*Spiza americana*) Eggs and the Potential Effect on Eggshell Thickness

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Poster Presentation P2

**ORGANOCHLORINE CONTAMINATION IN DICKCISSEL
(*SPIZA AMERICANA*) EGGS AND THE POTENTIAL EFFECT ON
EGGSHELL THICKNESS**

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Dickcissels (*Spiza americana*) are small, sparrow-like songbirds that nest in grasslands in the U.S. and winter in Venezuela. Dickcissel populations are declining and a recent study of dickcissels collected in Venezuela documented that some birds were contaminated with organochlorine (OC) pesticides and metabolites. Dr. Brian Peer, an Illinois Wesleyan University alum and an avian ecologist at Western Illinois University, has documented that some dickcissel eggs appear to break easily when handled. Past studies of raptorial birds (e.g., eagles and falcons) have indicated that high levels of OCs were responsible for thin eggshells. The purpose of this study was to screen dickcissel eggs for 17 different OC compounds and to determine if there was a relationship between OC levels and eggshell thickness. Eggs were collected with required permits during the summers of 2004 and 2005 from nests in Illinois, Iowa and Indiana. Three approximately equal-sized eggshell samples were taken from the equator of each egg before the remaining eggshell and contents were analyzed for OC compounds via gas chromatography. Measurements of eggshell thickness were determined using a Starrett Thickness Indicator.