## **Daniel Elbert**





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Daniel Elbert, a Graduate Research Assistant at the Illinois Natural History Survey, is researching habitat use, nest success and natal philopatry of Loggerhead Shrikes in Northwest Illinois. A group of private donors provided the funds for the \$500 IOS Grant to Elbert's project work during 2009.

The Lost Mound Unit of the Upper Mississippi River Wildlife and Fish Refuge, located in Carroll and Jo Daviess Counties, Illinois, contains the largest remnant sand prairie in the state. Long-term grazing and fire suppression led to considerable woody plant invasion of the sand prairie; nonetheless, the ecological integrity of the site remains high. In addition to seventeen non-game conservation priority bird species, Lost Mound also hosts one of the few breeding populations of the state-endangered Loggerhead Shrike, a shrubby, grassland species. Long range management plans at the site include restoration of the sand prairie using techniques such as prescribed burning and brush cutting.

Elbert's study aims to understand the habitat features associated with successful nesting of shrikes, and the degree of natal philopatry they exhibit (a biological term used to describe species returning to their birthplace to breed), so site management activities aimed at benefiting grassland species do not detract from shrike habitat. To accomplish this, Elbert intends to:

· Locate and monitor all shrike nests at Lost Mound

• Characterize the habitat around each nest, including characteristics of the nest tree, proximity to other trees, structure of the surrounding prairie vegetation and percent coverage (and identity) of non-prairie woody vegetation

• Describe shrike diet composition by locating larders and recording their characteristics

- · Trap and band adults and nestlings
- Map the territories of all shrikes present at Lost Mound.

Jeffrey M. Fox, of U of I's Graduate College in Urbana, is studying the reproductive success of Sandhill Cranes in Northeastern Illinois. Sandhill Cranes have been successful in increasing their reproductive rates in Northeastern Illinois. This study is intended to determine the factors contributing to their success. IOS directly provided the funds for the \$500 IOS Grant to Jeffrey's project work during 2009. This species was recently removed from the state-threatened list.

Fox is capturing and radio-tagging young Sandhill Cranes, called colts, throughout Lake and Mchenry Counties in Illinois. These colts are then recaptured periodically to get updated growth measurements. At the end of the season, the survival rates and growth curves of colts raised in different environments – urban, suburban, agricultural (or proximity to such kinds of development) – will be determined. These data will help reveal the effects of varying types of development on the cranes that have repopulated this area as breeders. Is this region a population sink for the cranes, or is this population viable? How does manmade development affect the growth curves of birds raised within it?

The final recapture will include attaching permanent leg bands so that the birds may be identified in the future and to determine where juvenile cranes disperse once they're driven from their parent's territories.