

as the species that had increased most dramatically between 1909 and 1956. The Grabers attributed the Dickcissel's statewide increase in Illinois to an expansion in acreage of agriculturally disturbed grasslands, a type of habitat that this species may prefer over true prairie (Kendeigh 1941, Graber and Graber 1963, Zimmerman 1971). Most species of grassland birds, however, had shown

either little or no statewide population change between 1909 and 1956 (Graber and Graber 1963). The Bobolink, Song Sparrow, and Savannah Sparrow showed slight increases, the Upland Sandpiper, and Field Sparrow slight decreases, and the Vesper Sparrow, Grasshopper Sparrow, and American Goldfinch no change.

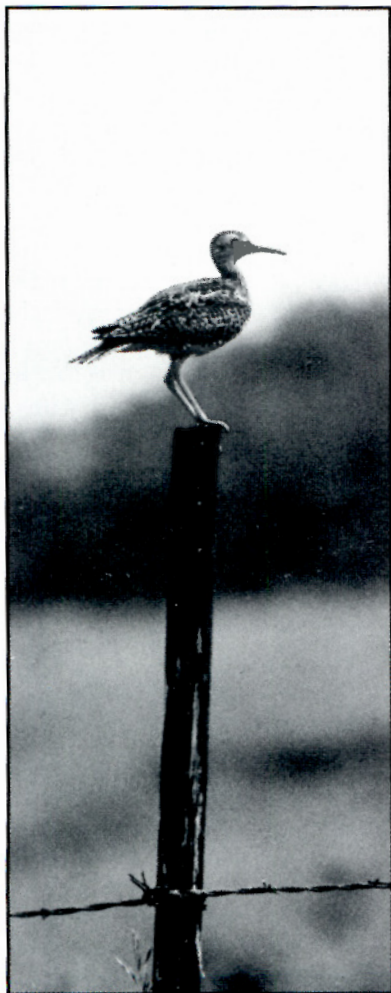
Recent Investigations of Grassland Birds

Since 1987 I have been studying the breeding birds of Illinois grasslands. The field methods I use, however, differ from those used by Gross and Ray and the Grabers and consequently direct comparisons with their data are not possible. Nevertheless, a comparison of the relative abundances of these species suggests the current composition of Illinois' grassland bird fauna is probably very similar to that of the late 1950s (Table 1). The Red-winged Blackbird remains the most common species in Illinois grasslands, outnumbering the next most abundant species, the Eastern Meadowlark, by more than two to one. In fact, four of the five most abundant species are the same in both my recent surveys and those of the Grabers in the 1950s.

An estimate of how grassland bird numbers have changed since the Grabers' census can be obtained from data collected by the United States Fish and Wildlife Service's (USFWS) cooperative breeding bird survey (Droege 1991). The USFWS data from Illinois for 1967-1989 show that nearly all grassland bird populations have declined during this 23-year interval (Table 1). One grassland bird species, the Bobolink, has declined by over 90 percent during this period. Analyses of more recent (1980-1989) USFWS bird data (Droege 1991) indicate that the decline of some of these grassland bird species has recently reversed while other species populations have stabilized, and a

few have intensified. Populations of the Eastern Meadowlark and Song Sparrow in Illinois significantly increased during the period 1980-1989 (Droege 1991). Additionally, earlier population declines exhibited by the Field Sparrow and American Goldfinch in Illinois may now have stabilized. However, populations of the Bobolink, Savanna Sparrow, and Common Yellowthroat appear to have decreased during this period. One of these species, the Bobolink, may now be the fastest declining songbird in Illinois with an average annual decline of nearly 20 percent per year for the period 1980 - 1989. Unfortunately, the causes of these recent population declines are not well understood but probably are in part a consequence of the continued loss and degradation of grassland habitat within Illinois.

Although the initial loss of prairie habitat within Illinois was rapid and extensive, the reduction of grassland habitat has continued in recent decades. By 1978 less than 2,500 acres of high-quality prairie remained in the state (Schwegman 1983). The loss of prairie habitat was originally offset by the creation of secondary grasslands such as hayfields and pastures, habitats that a majority of grassland birds found suitable for breeding (Graber and Graber 1963). In fact, none of the characteristic birds of the eastern tallgrass prairie region are considered endemic to prairie habitat (Risser et al. 1981). Acreage of these secondary grassland habitats, however, has also recently declined. For example, the amount of hay within Illinois was reduced by more than half, from roughly 2.1 to 1.0 million acres, between 1960 and 1989 (Illinois Agricultural Statistics Service 1988, 1989). The amount of pasture within Illinois has also been greatly reduced, with pasture occupying only 1.5 million acres in 1987 (U.S. Department of Commerce Bureau of the Census 1989), compared with over 6 million acres in 1906.



Upland Sandpipers, very common in Illinois prior to 1900, now only nest in a few places throughout the state including the Joliet Arsenal in Will County where Joe B. Milosevich photographed a territorial male on 21 June 1991.