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CONSERVATION OF GRASSLAND BIRDS IN AN URBANIZING LANDSCAPE: A HISTORICAL PERSPECTIVE

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Abstract. Landscape alterations resulting from urban expansion are among those factors negatively impacting Great Plains grassland birds. The City and County of Boulder, Colorado, manage one of the largest grassland open-space systems in North America, but it is embedded in an area of rapid urban growth. We compared bird count data from the 1980s and 1990s with checklist information about the Boulder grassland avifauna between 1900 and 1937, with the goal of determining what proportion and which species of the historical grassland avifauna are being sustained on Boulder open space. Of 29 native species present in 1900, 22 (76%) appeared on our counts in the 1990s. Formerly common species that disappeared or declined mostly were birds associated with shortgrass prairie, including Burrowing Owl (*Athene cunicularia*), Common Nighthawk (*Chordeiles minor*), Loggerhead Shrike (*Lanius ludovicianus*), and Lark Bunting (*Calamospiza melanocorys*). By contrast, species associated with mixed and tallgrass habitats increased or held steady, including Vesper Sparrow (*Pooecetes gramineus*), Savannah Sparrow (*Passerculus sandwichensis*), Grasshopper Sparrow (*Ammodramus savannarum*), Bobolink (*Dolichonyx oryzivorus*), and Western Meadowlark (*Sturnella neglecta*). We conclude that municipal open spaces can support populations of many Great Plains grassland birds, but that sustaining species associated with the shortgrass prairie may prove especially challenging.

Key words: birds, Colorado, grassland, Great Plains, open space, urbanization.