

**HOME ON THE RANGE: PATTERNS OF HABITAT USE BY MALE AND FEMALE BROWN-HEADED COWBIRDS IN THEIR HISTORIC BREEDING RANGE**

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*Abstract:* The Brown-headed Cowbird (*Molothrus ater*) is an obligate brood parasite that depends on other avian species to incubate its eggs and rear its young. The species evolved in the Great Plains in North America. Within the species' historic breeding range, the cowbird attains its highest densities in the northern Great Plains, but, surprisingly, little information is available on habitats used by the species in that region. Information on cowbird habitat use is crucial for a better understanding of the effects of grassland fragmentation and land-use changes on cowbird brood parasitism in this region. In 1992 and 1993, we surveyed breeding populations of male and female cowbirds and their hosts on 128 randomly selected quarter-sections in North Dakota. Statewide estimates (95% CI) for male cowbirds were 1,425,000 (1,249,000-1,602,000) in 1992 and 1,335,000 (1,223,000-1,447,000) in 1993; statewide estimates for female cowbirds were 555,000 (504,000-607,000) in 1992 and 772,000 (678,000-865,000) in 1993. Male and female cowbirds were least common in open habitats (e.g., cropland, grassland, wetland) and most common in habitats with woody vegetation, rights-of-way, and odd areas. Males outnumbered females in all habitats. Hosts that are known to eject cowbird eggs were more prevalent in habitats containing woody vegetation. Brood parasitism was highest in nests found in open habitats and lowest in nests found in habitats containing woody vegetation. Our results suggest that the practice of planting trees and shrubs, especially single-row shelterbelts, has benefited cowbirds in North Dakota by facilitating access to nests in open habitats.