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The relationship between body size and habitat use was tested for male and female American Kestrels (*Falco sparverius*) wintering in east Mississippi. Females were significantly larger than males, averaging 5% longer in wing and tail length and 11% heavier. The sexes differed significantly with respect to habitat use. Females were more likely to be found in areas dominated by open pastures and short grasses, whereas males were commonly found in areas of taller grasses, often with trees and scrub.

Using discriminant function analysis, four habitat occupancy categories were created based on a "typical" male and a "typical" female habitat. Individuals were assigned to one of the four categories and body size measurements were compared among groups. There were no significant differences in body size between individuals occurring on typical male and typical female habitats. Data suggest that body size is not associated with habitat segregation of wintering kestrels.