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Reverse mounting in the American Kestrel.—Reverse mounting during mating has been reported in a number of avian orders (see James 1983 for review). Several authors imply that the behavior is aberrant (Ficken 1963, Nolan 1978, Thompson and Lanyon 1979), while others suggest that reverse mounting is a normal behavioral trait during courtship (Glick 1954, Kilham 1961, Nuechterlein and Storer 1982). James (1983) suggests that the behavior may be designed to obtain the full cooperation of a mate during courtship or after a nest failure. Here we report two instances of reverse mounting in free-ranging American Kestrels (*Falco sparverius*), the first recorded for Falconiformes, between females and the males that replaced their original mates after they were experimentally removed.

During 1983 and 1984, in southwestern Quebec, one member of each of 20 mated kestrel pairs was removed from the wild and the remaining bird was color banded. We removed the mate of female C84 on 26 May 1984. She continued incubating her clutch and, on 7 June, engaged in normal courtship and copulation with a new unmarked male. On 9 June the pair disappeared from the territory. Upon inspection we removed 4 addled eggs from the box. On 12 June the new male returned and repeatedly inspected the available nest box. At 16:35 of the same day, both male and female were preening within 100 m of the nest box. The male leaned forward, a typical female precursor to copulation (Willoughby and Cade 1964), and the female mounted him in typical copulatory posture (Balgooyen 1976) for approximately 5 sec. The birds preened side by side for 45 sec, and the female flew to and entered the nest box. Within 15 min the male copulated with the female.

In the second instance, we removed the mate of female H84 on 25 May 1984. A new male was observed on the territory within 18 h, and the pair immediately began courting, even though H84 continued to incubate the original clutch. On 27 May the male entered the nest box, but later that day the pair abandoned the territory. When we examined the nest box we found shell fragments from the freshly destroyed clutch. Within 2 days the pair returned to the territory, and the male inspected the nest box. At 14:10 on 6 June the male flew from the nest box and preened about 5 m above the box. At 14:20 the female landed next to the male. The male leaned forward, and the female mounted him for 3 sec. They preened for 1 min; then the female leaned forward, and the male mounted her. In neither instance of reverse mounting was actual cloacal contact observed.

James (1983) suggested that reverse mounting by the female may be a stronger than usual signal to re-stimulate her mate for a replacement nest. Females may also need a strong stimulus to re-nest. Of 8 female kestrels who, having lost their original mate, received a replacement, only 4 subsequently laid a second clutch (Bowman 1985). Of these, 2 pairs were observed reverse mounting. All kestrels laying clutches late in the season, including replacement pairs, have significantly lower nesting success (Bowman 1985); a stronger than usual signal may be helpful to stimulate re-nesting.

Though reverse mounting has not been previously described as part of normal courtship in kestrels, there are few intensive observational studies of early courtship in wild birds. Mounting has been associated with the establishment of dominance in mammals (Maslow 1940) and birds (Fujioka and Yamagishi 1981).

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Intraspecific brood parasitism in three species of prairie-breeding shorebirds.—Intraspecific brood parasitism has been reported in fewer than 100 avian species (Yom-Tov 1980). For precocial birds it is common among ratites, phasianids, and, particularly, anatids (Andersson 1984). Shorebirds are characterized by small, fixed clutch sizes, and abnormally large clutches are uncommon (Cramp and Simmons 1983). Intra- and interspecific egg-dumping account for many of these large clutches. Other instances result when more than one female contributes to the laying and care of combined clutches (Walters and Walters 1980). Here I document three shorebird nests that each contained eggs from more than one female of the same species.

The three nests included those of a Western Willet (*Catoptrophorus semipalmatus*), a Marbled Godwit (*Limosa fedoa*), and a Wilson's Phalarope (*Phalaropus tricolor*) at Last Mountain Lake Wildlife Management Unit in southcentral Saskatchewan. From 1982 to 1985, when I studied shorebirds in the area, water conditions changed dramatically. All observed cases of brood parasitism occurred in 1984, a year of severe drought in which 75% of local wetlands were dry. The severity of the drought reduced available breeding sites for