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## LETTERS

## INTRASPECIFIC NEST DEFENSE BY PRAIRIE FALCONS

A west facing cliff in Sunol Regional Park, Sunol, California, supported an active Prairie Falcon (*Falco mexicanus*) eyrie in 1991. Nesting at this eyrie has been recorded for the preceding six years by the author and for many years prior by local falconers and birdwatchers. Historically, this site was occupied by Peregrine Falcons (*Falco peregrinus*).

I recorded observations of a resident pair of adult Prairie Falcons nesting at this site on 7 March 1991, as they defended their eyrie from an intruding female Prairie Falcon, not identified as to age. The intruding bird approached the cliff from the southwest. The resident male and female stooped at the intruding falcon repeatedly. She responded by rolling upside-down, presenting talons in defense, and by stooping at the resident female. The intruder was pursued and harassed by the resident male as she continued to make aerial advances toward the cliff face. Vocalizations were made by more than one bird, but particularly by the resident female.

The resident female appeared heavy and sluggish. Her undertail coverts were drooping and she may have been carrying an egg. This presumption matched with egg laying dates later deduced from hatching dates. She flew to a ledge near the nest cavity. Even though aggressively pursued by the resident male, the intruding female flew to the cliff and landed near the resident female. Both birds were facing each other and were screaming. Their bodies were crouched down in a posture similar to that described as the "horizontal threat display" by D.A. Ratcliffe (1980, The Peregrine Falcon, Buteo Books, Vermillion, SD). The intruder took a few steps toward the resident female when the latter advanced and while still vocalizing, placed her head under the chest of the intruder and, lifting upwards, forced her to take flight. During these events, the male was still flying near the cliff. When the intruding female was again airborne, the male pursued her in a tail chase for 5–6 sec, covering a distance of about 200 m. The intruding female flew from the area, never changing her direction from southwest even after the male had ended his pursuit.

Having returned to the cliff, the male made several flights past the ledge where the resident female had been sitting He then perched above the nest cavity. Shortly thereafter, the female left her perch for another where her solicitation to the male quickly led to a brief copulation. Immediately following, the female flew to the nest cavity and, after scraping the ground briefly and peering over her shoulder, lay down with her head facing west. During the subsequent observation period, from 1115 to 1310 H, there were no further interactions involving this pair.

I wish to thank Hans Peeters and Kevin Shea for their review and editing of this manuscript.—Joseph E. DiDonato, East Bay Regional Park District, 2950 Peralta Oaks Court, Oakland, CA 94605.

J. Raptor Res. 26(1):40-41 © 1992 The Raptor Research Foundation, Inc.

## NESTLING RED-TAILED HAWK IN OCCUPIED BALD EAGLE NEST

On 1 June 1990 we approached a Bald Eagle (*Haliaeetus leucocephalus*) nest, located north of Merrit, Michigan, to band and draw blood from a nestling eagle for contaminant analysis. Two nestling eagles were visible from the ground. Nest height was 13.7 m in a 21.0 m Quaking Aspen (*Populus tremuloides*) with a DBH of 57.1 cm. J.B. Holt climbed to the nest and discovered a nestling Red-tailed Hawk (*Buteo jamaicensis*) in addition to the two nestling eagles. We aged one of the nestling eagles as approximately 7.5 wk old, using an eighth primary length of 175 mm and equations previously derived for nestling growth rates (G.R. Bortolotti, 1984, *J. Field Ornithol.* 55:467-481). The nestling hawk was downy and approximately 3.5 wk old. It was in excellent condition, with no apparent signs of abuse by the adult or nestling eagles.