

NOTES

OBSERVATION OF COPULATION BETWEEN A NON-NESTING ADULT AND SUBADULT BALD EAGLE IN CALIFORNIA

BARRETT A. GARRISON, Department of Wildlife Management, Humboldt State University, Arcata, California 95521 (present address: 4252 Mason Lane, Sacramento, California 95821)

Bald Eagle (*Haliaeetus leucocephalus*) copulatory behavior has been described for wild and captive adult birds (Herrick 1932, 1934; Broley 1952; Gerrard et al. 1979; Wiemeyer 1981), but not, as far as I know, between adults and subadults. Gerrard et al. (1980) observed a marked 4-year-old female in subadult plumage adopt copulation solicitation posture with an adult male, but no copulation was observed. Breeding of subadults has been rarely recorded (Hoxie 1910, Bent 1937). A 3-year-old male in adult plumage nested with an adult female and successfully fledged one young (D.A. Hammer unpubl. data). In this note I describe copulation between an adult male and a subadult female that apparently was not followed by successful nesting.

From 11 January to 23 March 1980 I studied Bald Eagles at Ruth Reservoir, Trinity County, California. An adult eagle present from 11 January to 28 February 1980 was the male of a pair that was resident there from 1976 to 1978. On 1 March 1980 I observed a second Bald Eagle fitting the description of a subadult in the fifth-year class (Southern 1964, 1967). This bird looked much like an adult, except the head and neck were streaked with brown, the tail had a diffuse brown terminal band approximately 8 cm high, and the breast, belly and back had considerable white speckling. This subadult was frequently seen soaring and perching with the male. Because the subadult was larger than the male, I assumed it was a female.

Between 0715 and 0720 on 16 March I observed two copulations. The female was perched on a shoreline tree and snag while the male circled approximately 10-30 m above her. The female uttered high-pitched gull-like screams as the male flew down to her. In one case, he landed directly on her back. In the other instance, he landed on a branch 1 m above her, hopped down to her branch, and gave several wing-out bows. Copulation ensued and lasted approximately 10 seconds, with considerable wing-flapping by the male and vocalizations by the female. In both cases, the male flew directly off the female and eventually flew out of sight. These observations are similar to published descriptions of adult-adult copulations (Herrick 1932, 1934; Gerrard et al. 1979).

Despite repeated visits to the lake throughout the breeding season, I observed no other copulations and found no evidence that the birds nested in 1980. The male was seen infrequently during the following breeding season after the disappearance of the female on 18 January 1981. My observations combined with those of Hammer (unpubl. data) and Gerrard et al. (1980) suggest that males may be capable of successfully reproducing at an earlier age than females. More data are needed on the sex and age class of Bald Eagle breeding pairs to answer this question.

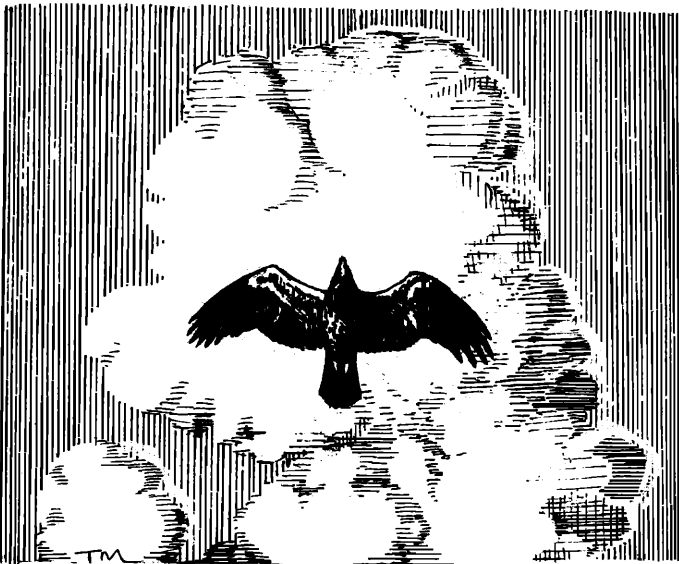
I thank Laurence Binford, James Fraser, David Garcelon, Joseph Ganey, Mark Martell, Donald Spencer and Stanley Wiemeyer for critical review of the manuscript, and Six Rivers National Forest and Ronald Escano for financial and logistical support during the study.

NOTES

LITERATURE CITED

- Bent, A.C. 1937. Life histories of North American birds of prey. Part I. U.S. Natl. Mus. Bull. 167.
- Brolley, M.J. 1952. Eagle Man. Pelligrini and Cudahy, New York.
- Gerrard, J.M., P.N. Gerrard & D.W.A. Whitfield. 1980. Behavior in a non-breeding Bald Eagle. Can. Field-Nat. 94:391-397.
- Gerrard, P.N., S.N. Wiemeyer & J.M. Gerrard. 1979. Some observations on the behavior of captive Bald Eagles before and during incubation. Raptor Res. 13:57-64.
- Herrick, F.H. 1932. Daily life of the American Eagle: early phase. Auk 49:307-323.
- Herrick, F.H. 1934. The American Eagle, a study in natural and civil history. D. Appleton-Century, New York.
- Hoxie, W.J. 1910. Notes on the Bald Eagle in Georgia. Auk 27:454.
- Southern, W.E. 1964. Additional observations on winter Bald Eagle populations: including remarks on biotelemetry techniques and immature plumages. Wilson Bull. 76:121-137.
- Southern, W.E. 1967. Further comments on subadult Bald Eagle plumages. Jack-Pine Warbler 45:70-80.
- Wiemeyer, S.N. 1981. Captive propagation of Bald Eagles at Patuxent Wildlife Research Center and introductions into the wild, 1976-80. Raptor Res. 15:68-82.

Accepted 25 September 1986



Subadult Bald Eagle

Sketch by Tim Manolis