

LETTERS

PREDATION UPON NESTLING EGYPTIAN VULTURES (*Neophron percnopterus*) IN THE VRATSA MOUNTAINS OF BULGARIA

J.A. Donázar and O. Ceballos (1988, *Ardeola* 35:3-13) indicated that, except for their observations, very little has been published about predation upon nestlings of the Egyptian Vulture (*Neophron percnopterus*; L. Brown and D. Amadon 1968, Eagles, hawks, and falcons of the world, Country Life Books, London, U.K., P.J. Mundy 1982, The comparative biology of southern African vultures, Vulture Study Group, Johannesburg, South Africa). We report here ten observations of predation by mammals and birds upon nestling Egyptian Vultures occurring from 1987-1992.

We observed two cases of predation by Golden Eagle (*Aquila chrysaetos*). On 2 June 1987 we saw an eagle capture, kill, and eat a nestling as it sunbathed near its nest. In a similar incident on 24 August 1991, we saw an eagle catch and carry away a nestling sunbathing on a rock near its nest.

On 29 June 1989, a nestling vulture disappeared from its nest. We found the remains of what was probably the same nestling about 900 m away among the prey remains of a pair of Eagle Owls (*Bubo bubo*).

Jackals (*Canis aureus*) apparently killed two nestlings that had fallen from their nests and could not fly well. One was on 15 August 1988 and the other on 15 August 1990. Another nestling fell from a nest on 13 June 1990 and was killed and eaten by a red fox (*Vulpes vulpes*).

A group of Egyptian Vultures were observed feeding on a carcass on 20 August 1989. Among them was an 86 d old fledgling. When the group was approached by two wolves (*Canis lupus*), the adult vultures escaped, but the fledgling could not and was killed and eaten by the wolves.

In addition to the incidents noted above, we know of three more nestlings killed by red foxes. Thus, of 61 nestling vultures that hatched in the interval of our observations, 10 (16.4%) were killed by predators (two by Golden Eagles, two by Eagle Owls, two by jackals, four by red foxes, and one by wolves). In addition, we observed 12 unsuccessful predation attempts by Golden Eagles and six by Common Ravens (*Corvus corax*). Most of the vultures we documented died between 65-70 d of age. After fledging, the vultures rarely returned to their nests and were vulnerable to mammalian predators while roosting in exposed sites where the adults carried food to them.

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NORTHWARD MIGRATION OF PEREGRINE FALCONS ALONG THE CARIBBEAN COAST OF COSTA RICA

Several migrant raptor species form immense concentrations during their annual northward and southward movements through the Central American isthmus (N.G. Smith 1980, Hawk and vulture migrations in the Neotropics, Pages 51-65 in A. Keast and E.S. Morton [Eds.], Migrant birds in the Neotropics: ecology, behavior, distribution, and conservation, Smithsonian Institution Press, Washington, DC U.S.A.; A. Wetmore 1981, The birds of the Republic of Panama, Part 1, Smithsonian Institution Press, Washington, DC U.S.A.). The Peregrine Falcon (*Falco peregrinus*) occurs in Central America principally as a migrant (P. Slud 1964, The birds of Costa Rica, distribution and ecology, Volume 128, Bull. Am. Mus. Nat. Hist., New York, NY U.S.A.; F.G. Stiles and A. Skutch 1989, A guide to the birds of Costa Rica, Cornell Univ. Press, Ithaca, NY U.S.A.). However, there are no reports of this species passing anywhere in Central America in large numbers. We present here observations of a concentrated spring flight of peregrines along Costa Rica's Caribbean coast.

Observations were made during 1-3 May 1992 between the port city of Moín and the Tortuguero area of Limón Province (Fig. 1). A fixed point of observation was established at the Caño Palma Biological Research Station of the Canadian Organization for Tropical Education and Rainforest Conservation. The area consists of tropical wet forest