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RED FOX PREDATION ON FLEDGLING EGYPTIAN VULTURES

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Reports of predation on nestlings of Old World vultures are rare (see Brown, L. and D. Amadon, Eagles, hawks and falcons of the world. Feltham, Middlesex, 1968; Mundy, P., The comparative biology of Southern African Vultures. Vulture Study Group, Johannesburg, 1982). The Egyptian Vulture (*Neophron percnopterus*) nests frequently in narrow cliff cavities where the possibility of mammalian predation is low (Ceballos, O. and J. Donázar, *Munibe*, in press). Only one reference (Rodríguez-Jiménez and Balcells, *P. Cent. Pir. Biol. Exp.* 2:159-187, 1968) reports the capture of a nestling in an accessible nest by a mammalian predator of unknown species. Killing of fledglings by predators are not known. In this note we report an Egyptian Vulture-Red Fox (*Vulpes vulpes*) incident and two cases of fledgling predation by Red Foxes. The research was done in Bardenas Reales-Navarra (northern Spain).

On 11 August 1987, while observing an Egyptian Vulture nest with 2 fledged chicks, we saw a fox approaching the nest along the cliff edge close to where the younger fledgling (81 d old) was perched. Immediately, the female vulture placed herself between the fox and the chick and displayed much nervous excitement. A few seconds after, the fox moved away. Meanwhile, the nestling, very frightened, flew hurriedly to a nearby ravine.

On 28 August 1987, the remains of an 83 d old fledgling were found under the nest-cliff. On the ground there was a great pool of blood and plucked feathers with cut quills. Fox tracks were very common, and a den was located 150 m away from the nest.

On 30 August 1987, a fledgling provided with a radio transmitter flew from the nest at sunset and did not return, roosting on the ground under the nest-cliff. Next morning the young had disappeared. It was 82 d old and its flights

were still very short, no more than 50 m around the nest. Searching with receivers we found the radio transmitter together with the nestling remains at the burrow entrance of a fox den, which was 650 m away from the nest. The remains, only wings and body, had signs of carnivore feeding.

It is difficult to evaluate the real importance of fox predation in our study area. Of 7 fledglings provided with radio transmitters, 1 was killed (last reported case). The chance for predation would be enhanced by foxes wandering around vulture nests searching for food remains. Predation seems more probable during the days following the initial flight, which occurs when the chick is around 75 d old. In this period, fledglings are not able to return to the nest at night (unpubl. obs.) and are thus being exposed to possible mammalian predation.

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