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# 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.

We are very thankful to L. Andreev for help in field work, P. Jankov for helpful criticism on an earlier draft, R. Stoyanov for the loan of infrared binoculars, and J.A. Donázar for drawing our attention to his paper "Red Fox Predation on Fledgling Egyptian Vultures" that stimulated our paper.—**Y. Stoyanova and N. Stefanov, Blvd. "Nikola Viovodov" 19, Apartment 79, Vratsa 3000, Bulgaria.**

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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

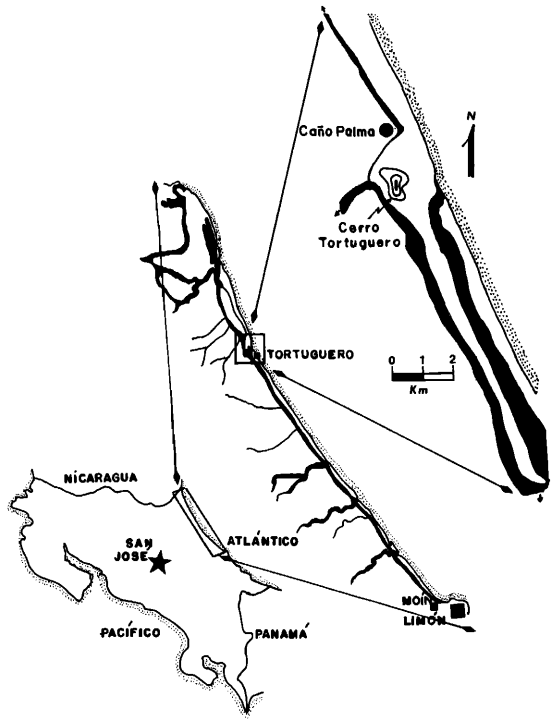


Figure 1. Locations where Peregrine Falcons were observed on migration on the Atlantic coast of Costa Rica, on 1–3 May 1992.

(L R. Holdridge et al. 1971, Forest environments in tropical life zones: a pilot study, Pergamon Press, Oxford, U.K.) with various agricultural and rural developments interlaced by a system of man-made and natural waterways paralleling the coast. This expansive costal plane (average elevation 5 m) is broken only by the isolated Cerro Tortuguero (119 m).

During the 3 d observation period we saw 83 Peregrine Falcons. About half the birds were identifiable to age and these were all adults. R.K. Murphy and M.T. Green (1992, *J. Raptor Res.* 26(2):101–102) reported seeing only adults migrating through North Dakota between 7–26 May. The dates of our observations fall within dates reported for other spring migrations north of Costa Rica (W.G. Hunt and F.P. Ward 1988, Habitat selection by spring migrant peregrines at Padre Island, Texas, pages 527–535 *in* T.J. Cade, J.H. Enderson, C.G. Thelender and C.M. White [EDS.], Peregrine Falcon populations: their management and recovery, Peregrine Fund, Inc, Boise, ID U.S.A.). On 1 May, during the 79 km trip by boat between Moín and Caño Palma (1000–1300 H) two peregrines were perched in trees along the canals. On 2 May at the Caño Palma Station, 2 flew over in the morning (0800–1100 H), and then 59 passed over in the afternoon (1400–1750 H). On 3 May, again at the station, another 14 flew by in the morning (0700–1115 H). During the return trip to Moín in the afternoon (1300–1600 H) five were seen flying and one perched. Seven Merlins (*F. columbarius*) were also seen migrating during the 3 d. Thousands of swallows (mostly *Hirundo rustica*), Chimney Swifts (*Chaetura pelagica*) and nighthawks (*Chordeiles minor* and *C. acutipennis*) passed overhead as well, on a concurrent coastal migration.

During periods of low clouds or drizzle (as on the afternoon of 2 May) the falcons flew in direct flapping or gliding flight at altitudes of 30–100 m, the majority passing at less than 60 m. However, when it was sunny, the falcons tended to soar higher, over 100 m, especially around Cerro Tortuguero, and took longer to pass. There was a steady but light wind from the northeast for the entire period. The flight line followed the coast with roughly equal numbers passing over forest, canal and beach. The falcons came by individually or in pairs, although on several occasions up to five birds were in view at one time.

These observations were incidental to our main purpose, which was to band migratory passerines. No one was

observing full time at Caño Palma until we realized the extent of peregrine migration. From 1400 H on 2 May to 1115 H on 3 May one person was assigned to count peregrines; during both boat trips, three observers ran a census of all birds. From our point of observation we had only a partial view of the sky. Several persons dedicated to looking for peregrines from a vantage point such as Cerro Tortuguero would certainly have obtained a better picture of the migration.

Whether or not the flight occurs there annually on this scale remains to be determined. For those interested in establishing monitoring sites for this alluring raptor, it is a question worth investigating.

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## FIRST RECORD OF THE EURASIAN KESTREL (*Falco tinnunculus*) IN FRENCH GUIANA

A subadult male Eurasian Kestrel (*Falco tinnunculus*) remained from 12–21 March 1991 in a semihumid lowland savanna along the Kourou River, mainly perching on and hunting from an electric power transmission line near the city of Kourou, French Guiana (52°39'W 5°09'N). The falcon was observed on six days by A. Brosset, Jean-Luc Dujardin, and both authors. We could not approach within 100 m of the bird, but observations were made with a 15 × 20 spotting scope. On 13 March the bird was observed continually for 4 hr during which time it made several prey captures (insects and lizards). The apparent proficiency in hunting and shyness toward humans made it very unlikely that the bird had escaped from captivity.

The head was gray with a well-marked mustache. Back and upperwing coverts were light rufous with contrasting dark flight feathers. The beige underparts were spotted on the belly. The tail was long and light gray in color with small dark spots underneath and a wide black subterminal band. Cere, eye-rings, and legs were bright yellow and the tip of the beak and the claws were black.

Extensive observations one year later at the same location failed to detect an Eurasian Kestrel. We found only one other record in the literature of an Eurasian Kestrel in Martinique (French West Indies; R.S. Palmer 1988, Handbook of North American birds, vol. 5, Yale Univ. Press, New Haven, CT U.S.A.).—**Alain LeDreff and Pierre A. Raynaud, Centre ORSTOM de Cayenne, BP 165, 97323 Cayenne, Cedex, France.**

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## LIVE PASSERINE NESTLING FOUND IN FERRUGINOUS HAWK NEST

On 11 June 1991, we climbed to a Ferruginous Hawk (*Buteo regalis*) nest, located about 30 km south of Hanna, Alberta, Canada. Our purpose was to check the status of the nestlings prior to trapping the adult birds for a morphometric study. The nest was an artificial structure, approximately 4.5 m high on a steel powerline tower. J.D. Smith initially climbed to the nest and discovered a live passerine nestling along with the three nestling hawks. The passerine nestling was partially feathered and appeared uninjured upon examination. The hawk nestlings were approximately 3 wks old (two were later banded prior to fledging, and aged by backdating to be 17- and 24-days-old on 11 June) (J.K. Schmutz pers. comm.). We left the passerine in the nest and set up for trapping. We stopped trapping due to an approaching storm and returned on 12 June. While rechecking the nest, only the three hawk nestlings were present, but we collected one partially grown passerine feather, presumed to belong to the previously found nestling.