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FIRST DOCUMENTED CASE OF DOUBLE-BROODING IN THE EURASIAN BUZZARD (*BUTEO BUTEO*)

KEY WORDS: *Eurasian Buzzard*; *Buteo buteo*; *second brood*.

Multiple breeding attempts within a single breeding season are a common strategy in birds (Martin 1987, *Annu. Rev. Ecol. Syst.* 18:453–487). However, double-brooding is relatively rare in raptors, presumably due to the length of the breeding cycle (Newton 1979, *Population ecology of raptors*, T. and A.D. Poyser, London, U.K.).

There is only a single report of double-brooding behavior in a *Buteo* species, in which De Vries (1975, *Le Gerfaut* 65:29–54) described three successful second-broods by the Galapagos Hawk (*Buteo galapagoensis*). However, no double clutch data have been reported for the Eurasian Buzzard (*Buteo buteo*; Curtis et al. 2005, *Ibis* 147:11–16), a medium-sized raptor considered monogamous (Cramp 1998, *The complete birds of the western palearctic*, Oxford University Press, Oxford, U.K.; but see Barrientos and López-Darias, *J. Raptor Res.* 40:305–306). Previous studies suggest that this species is strictly single-brooded, with potential replacement clutches always smaller and laid after the loss of the first one (Cramp and Simmons 1980, *The birds of the western palearctic*, Vol. 2, Oxford University Press, Oxford, U.K.; del Hoyo et al. 1992, *Handbook of the birds of the world*, Vol. 2, Lynx Edicions, Barcelona, Spain; Cramp 1998).

I monitored 31 breeding territories of an unmarked population on Fuerteventura Island (Canary Islands, 28°35'N, 13°58'W) during the 2005 breeding season and recorded the first reported double-clutch case for the species (3.23% frequency of occurrence). On this island, the breeding period of the endemic subspecies (*B. b. insularum*) generally commences between February and March; 1–4 eggs are laid, incubation lasts ca. 1 mo, and the nestling period is ca. 2 mo.

Approximately 20 February, the reported pair laid eggs, being one of the earliest pairs of the population. On 27 March, I observed three one-week-old nestlings in the nest, but on 3 April only one remained. There was no evidence of the cause of the disappearance of the other two nestlings. On 25 April, the nest contained the surviving chick and also one egg. Four d later, a second egg had been laid and incubation had already started. Both adults were observed feeding the nestling from the first clutch, and incubating the second clutch. During this period, the chick was relegated to the exterior area of the nest. On 6 May, the nestling fledged and was not observed again in the territory. Until 21 May, the adults were observed incubating, but the eggs did not hatch and were eventually abandoned. One egg disappeared during the following week, while the other remained in the nest for 1 mo. Although it was impossible to check paternities through genetic analysis, the absence of aggression between the partners, and the fact that they were both feeding the chick and incubating the second brood led me to assume that the two individuals formed the breeding pair during both clutches. Moreover, I was reasonably sure that the same partners occupied the territory throughout the breeding season, because of distinctive plumage features that made them individually recognizable. Finally, no other breeding pair had its territory in the proximity of this pair.

Many factors could influence the occurrence of multiple-brooding in birds (Morrison 1998, *Auk* 115:979–987; Marks and Perkins 1999, *Wilson Bull.* 111:273–276; Moore and Morris 2005, *Waterbirds* 28:458–467 and references therein), and various explanations have been proposed for raptors (De Vries 1975; Newton 1979; Malan et al. 1997, *Ibis* 139:313–321;