

## **SUCCESSFUL FOSTERING OF A CAPTIVE-BORN EGYPTIAN VULTURE (*NEOPHRON PERCNOPTERUS*) IN SICILY**

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## LETTERS

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### SUCCESSFUL FOSTERING OF A CAPTIVE-BORN EGYPTIAN VULTURE (*NEOPHRON PERCNOPTERUS*) IN SICILY

The critically endangered Italian population of Egyptian Vultures (*Neophron percnopterus*) lives in the central-southern Apennines and in Sicily (Liberatori and Massa 1992, Pages 488–493 in P. Brichetti, P. De Franceschi and N. Baccetti [Eds.], *Fauna d'Italia - Aves I. Edagricole*, Bologna, Italy; Lo Valvo, Massa, and Sarà 1993, *Naturalista siciliano* 17:54–55). The Sicilian population experienced a sharp decline from some 30 pairs in 1970–80 (Iapichino and Massa 1989, *The birds of Sicily*. British Ornithologists' Union, London, U.K.), to three pairs in 1997; since then, the population has been monitored annually and has increased to 10–13 pairs (Sarà and Di Vittorio 2003, *Animal Conserv.* 6:317–328). In this study, we tested the viability of the fostering of juveniles born in captivity.

Successful fostering has been accomplished for many species of raptors and vultures, and fostering is considered one of the tools available for restocking wild populations (Frey and Bijleveld 1994, Pages 459–464 in B.-U. Meyburg, and R.D. Chancellor [Eds.], *Raptor conservation today*, WWGBP, Berlin, Germany; Terrasse et al. 1994, Pages 479–492 in B.-U. Meyburg and R.D. Chancellor [Eds.], *Raptor conservation today*, WWGBP, Berlin, Germany). For the Egyptian Vulture, there are only a few records of fostering of alien chicks (Donàzar and Ceballos 1990, *Ibis* 132:603–617; Levy and Segev 1996, Pages 415–424 in J. Muntaner and J. Mayol [Eds.], *Biology and conservation of Mediterranean raptors*, SEO, Madrid, Spain; Corsange, Perennou, and Gallardo 2005, *Alauda* 73:21–24).

In 2003 we selected two territories as candidates for the fostering trial based on three criteria: (1) regular and consecutive breeding at that territory during the last 5 yr, (2) a nest structure large enough to host the additional chick and (3) a location in a secluded portion of a nature reserve.

In March 2003, we established two small feeding stations, which we supplied with 10–15 kg of entrails and meat chops weekly. The two pairs of vultures immediately used the feeding stations, laid eggs approximately 20–25 April, and raised two chicks each to fledging (a common occurrence in Sicily, where, since 1995, 30% of 46 successful pairs fledged two young; M. Sarà and M. Di Vittorio unpublished data). Ideally, we believe that it would be better to choose a foster pair with only one natural chick, in order to avoid burdening the parents with the feeding of three chicks, and to minimize nestling competition for food and space within the nest. On 28 July 2003, a 60-d-old Egyptian Vulture (hatched 28 May 2003 at the World Wildlife Fund Breeding Center of Semproniano) was placed into the larger and more accessible of the two candidate nests.

The two Egyptian Vulture wild nestlings and the foster nestling were weighed and banded; in addition, one of the wild chicks and the foster chick were tagged with satellite transmitters. The nestlings were monitored continuously for 2 wk (until fledging) and observers were prepared to intervene and rescue the foster chick, in case of any detected or potential risk. The foster chick was immediately accepted by the two wild nestlings and after just 1 hr the three chicks stayed calm and close to each other. Four hours after the introduction, both adults landed on the nest, and immediately accepted the new chick without any sign of aggressiveness. In the following days, adults regularly fed all the nestlings, taking advantage of the close feeding station. The foster nestling was in general much noisier and begged for food more frequently than its acquired siblings.

On 11 August 2003, the two wild juveniles left their nest at 0700 H, followed by the fostered young at 0930 H. One day after fledging, the three young flew back into the nest and in the following days returned to the nest at various times. We were able to track the family in the surrounding area until 28 August 2003. Dispersal from the breeding site occurred at the end of August, the usual period for this population.

Our fostering experiment seemed successful; both foster parents and the acquired siblings accepted the fostered nestling. The presumed heavy charge of feeding three chicks seemed well supported by the parents, which probably benefited from the artificial feeding. Our experiment gave some promising indications for the use of fostering to restock wild populations of Egyptian Vultures in areas where lowered natural recruitment may not be sufficient to ensure population persistence.

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