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Cinereous Vulture Nesting Ecology in Ikh Nartyn Chuluu Nature Reserve, Mongolia

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Abstract

Cinereous vultures (*Aegypius monachus*) are the largest raptors in Eurasia. Little is known about the species, especially in Mongolia. We studied the nesting ecology of cinereous vultures in Ikh Nartyn Chuluu Nature Reserve, Dornogobi Aimag. To assess reproductive success, we located active nests and periodically checked to determine if they remained active. We measured nest sizes and, periodically, nestling sizes and weights. We located 42 active cinereous vulture nests (27 on rocks and 15 on trees) in 2003 and 19 nests (14 on rocks and 5 on trees) in 2004. Mean volume of active nests was 3.92 ± 0.39 m^3 (n = 36). Most nests failed prior to egg hatching, but after hatching nesting success rates increased dramatically. Following hatching, cinereous vulture chicks grew linearly until leveling off just prior to fledging. We generated growth curves for chicks that allowed us to determine the average size of chicks on specific dates. Improving the prospects for successful cinereous vulture conservation likely requires a better understanding of nesting ecology. As such, we plan to improve the quality of our data by monitoring nests more intensively to determine incubation and fledging lengths, as well as causes of nest failures.

Key words: *Aegypius monachus*, Cinereous vulture, Gobi, Mongolia, nesting ecology

Introduction

Cinereous vultures (*Aegypius monachus*) are the largest raptors in Eurasia, sporting impressive 2.5 – 3 m wingspans and weighing 7 – 13 kg (Del Hoyo *et al*., 1992; Álvarez & Garcés, 1997). The species appears to be faring well in Mongolia, although internationally conservationists have expressed concern over the status of the species. Listed as Vulnerable in 1994 by the IUCN, the species was upgraded to Near Threatened in 2000, where it remains today despite continued population declines (IUCN, 2004). Little is known about the species in Mongolia, although a few research projects were recently initiated. For example, Korean researchers have studied the species in Ikh Gazariin Chuluu in Dundgobi Aimag, and researchers from Mongolia and USA have been studying the ecology of cinereous vultures in Hustai National Park and Erdenesant soum of Tov aimag since 2002 (Batbayar, 2004).

Ikh Nartyn Chuluu Nature Reserve (Ikh Nart) in Dornogobi Aimag supports a large, dense (measured by total nests per unit area) breeding colony of cinereous vultures that usually includes >40 active nests/year in the northern 23,000 ha of the reserve. Vultures in Ikh Nart nest primarily on rocky outcrops and the scattered elm trees (*Ulmus pumila*) in the reserve. As with other vulture species in other areas of the world, nest site availability appears to constrain breeding cinereous vultures to areas with suitable nesting habitat; in this case, the more rugged areas like Ikh Nart (Sarà & Di Vittorio, 2003; Batbayar, 2004; Parra & Tellería, 2004). Nests on outcrops appear to be readily approachable by people and ground predators. In 2003 we initiated a research project to explore the nesting ecology of these large vultures in Ikh Nart. Our objectives were to compare nesting success rates of pairs using rocky outcrops with those using trees and to document growth rates of cinereous vulture nestlings.

Study Area

We conducted our research in the northern 23,000 ha of Ikh Nartyn Chuluun Nature Reserve. The reserve, located in northwestern Dornogobi

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