

SHORT COMMUNICATIONS

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NOTES ON THE DIET OF THE APLOMADO FALCON (*FALCO FEMORALIS*) IN NORTHCENTRAL CHILE

JAIME E. JIMÉNEZ¹

*Department of Wildlife and Range Sciences, 118 Newins-Ziegler Hall,
University of Florida, Gainesville, FL 32611 U.S.A.*

The Aplomado Falcon (*Falco femoralis*) is distributed from the southwestern United States south throughout South America to Tierra del Fuego (Cade 1982). Aplomado Falcons inhabit open savannas and desert grasslands, from coastal plains at sea level to elevations up to 4000 m in the Andes (Johnson 1965, Hector 1985). In Chile the Aplomado Falcon was considered uncommon throughout its range (Goodall et al. 1951), but more recently, Jaksić and Jiménez (1986) reevaluated its status as frequent in northern Chile, rare and increasing in the center of the country, and scarce in the south.

Despite the Aplomado Falcon's wide distribution in the Americas, its biology is still little known. Most accounts of the species deal with anecdotal descriptions of its feeding habits (see Hector 1981 and references therein). An exception is the detailed study of the diet and hunting behavior of *F. f. septentrionalis* in northern Mexico (Hector 1985, 1986) whose quantitative analysis of the falcon's diet revealed its mainly ornithofagous feeding habits, supplemented with large insects.

Here, I describe the diet of Aplomado Falcons in a locality of northcentral Chile, the first such investigation in South America. I then compare the findings with those of Hector (1985, 1986) in Mexico.

STUDY AREA AND METHODS

The study area encompassed the 4570 ha Chinchilla National Reserve (31°31'S 71°06'W) at Aucó and its surroundings. The reserve lies close to the town of Illapel, 300 km north of Santiago in northcentral Chile. The climate is semi-arid and the topography of the site is rugged with deep gorges and steep slopes (>15°) interspersed with flatlands and broad, open ravines with gentle slopes (<15°). The latter habitat types made up 23.2% of the Aucó surface (corrected by slope). The semi-desert vegetation is dominated by thorny deciduous shrubs with sparse cacti and bromeliads on the more rocky north-facing slopes. Grasses, herbs, small shrubs, and bare soil dominate the flatter areas (see Jiménez et al. 1992).

Aplomado Falcons are uncommon at Aucó; however, they can be seen at least once a month all year round, either alone or in pairs, mostly using flatlands and rolling hills. During 1991, two pairs nested close to the Reserve (B. Peña pers. comm.).

Between 26 January and 8 February 1992, I collected prey remains and pellets under perches and plucking sites used by Aplomado Falcons. The data collection period was after the breeding season (Jiménez pers. obs., Johnson 1965).

I identified the collected material by comparing it with voucher specimens from the Chilean Museum of Natural History. I used Hector's (1985: 337) method to determine the number of individuals taken. Prey weights were derived from Jiménez and Jaksić (1989a, 1989b) supplemented with personal field records. I assumed all insects weighed 1 g; a conservative estimate for the large insects typically captured. Geometric mean prey weights were calculated (Hector 1986, Jiménez and Jaksić 1989a).

RESULTS AND DISCUSSION

I found three pellets and abundant feathers, representing 40 individual prey items. Because of the small sample size conclusions should be drawn with caution.

Aplomado Falcons at Aucó hunted primarily birds (55.5% of total prey by number), followed by insects (42.5%; Table 1). Only one reptile, a lizard, was identified from prey remains. When considering prey weight, the rank order of the prey taken by the falcons did not change, but the relative importance of birds in the diet increased dramatically from 55.5-96.7%. Insects made up an insignificant amount of the prey biomass (1.7%).

In general, my results are consistent with previous qualitative (Housse 1945, Johnson 1965) and quantitative (Hector 1985, 1986) reports on the diet of Aplomado Falcons. In contrast to Cade (1982), Chilean Aplomado Falcons did not hunt small mammals, although two diurnal rodent species (*Akodon olivaceus* and *Octodon degus*) occur at the site and are taken by eight other local raptors and by two foxes (Jaksić et al. 1992). Thus, this falcon is the only vertebrate predator at Aucó which apparently does not hunt mammals.

At Aucó, Aplomado Falcons captured at least 11 bird species belonging to four orders and seven families (Table 1). The frequency of the birds captured was relatively

¹ Present address: Department of Biology, Utah State University, Logan, UT 84322 U.S.A.

of this study agree well with another quantitative study conducted in the northern end of the Aplomado Falcon distribution.

RESUMEN.—A base de restos de presas y contenidos de egagrópilas se estudia la dieta del halcón perdiguero (*Falco femoralis*) en la localidad de Aucó (31°31'S 71°06'W), en Chile centro-norte. Tanto en número como en biomasa, las presas más abundantes son las aves (55,5 y 96,7%, respectivamente). Los insectos sólo son importantes desde el punto de vista numérico (42,5%), pero su contribución en biomasa es casi nula (1,7%). La presencia de reptiles en la dieta es escasa y los mamíferos no son consumidos por estos halcones. Comparados con halcones perdigueros mexicanos, los estudiados en Chile tienen una dieta muy similar en los tipos y tamaños de las presas consumidas. Sin embargo, los perdigueros chilenos consumen menos aves insectívoras y más granívoras que los mexicanos.

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