

PREY REMAINS FROM GOLDEN EAGLE NESTS IN CENTRAL ARIZONA

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The food habits of the Golden Eagle (*Aquila chrysaetos*) in North America have been well documented. Olendorff (1976) summarized the available data to date from the literature. Bloom and Hawks (1982), Collopy (1983) and Marr and Knight (1983) documented prey remains collected from Golden Eagle nests in various regions of the western United States. However, the food habits of Golden Eagles in Arizona have not been described. Willard (1916) reported White-tailed Deer (*Odocoileus virginianus*) and domestic livestock being killed and fed upon by eagles, but this is the only information for the entire state. This note documents the first recorded collection of prey remains from Golden Eagle nests in central Arizona.

We collected prey remains from nests in Coconino, Gila, Maricopa and Yavapai counties incidental to entering the nests to obtain measurements for an unrelated study comparing Bald Eagle (*Haliaeetus leucocephalus*) and Golden Eagle nest structure (manuscript in preparation). Entering 15 nests from 9 territories, we collected remains from 9 nests between 18 June and 12 July 1985. Six territories were located in pinyon-juniper habitat (*Pinus* spp.-*Juniperus* spp.), two in Sonoran desertscrub, and one in Ponderosa Pine (*Pinus ponderosa*). The remains from three nests in one territory are considered one collection because of the close proximity of the nests to one another (<5 m). The number of individual prey items at each nest was determined by the maximum number of body parts present (e.g., feet, mandibles, skulls). Prey remains were identified in the field, by comparison with museum specimens and with the aid of a dichotomous key (Glass 1951).

A total of 38 prey items representing 12 species was collected (Table 1). Mammals made up 78.9%, birds 18.4% and reptiles 2.6%. No evidence of domestic livestock was noted in the remains. Black-tailed Jackrabbit (*Lepus californicus*) and Rock Squirrel (*Spermophilus variegatus*) remains were found in approximately 86% and 57%, respectively, of the nests from which prey remains were collected, indicating their importance to nesting eagles in central Arizona. Our results are comparable with those reported by Olendorff (1976) on a continent-wide basis, 83.9% mammals, 14.7% birds and 1.0% reptiles. No previously unreported prey species were collected.

Table 1. Prey remains from Golden Eagle nests in central Arizona, 1985.

Prey item	Occurrence			
	Individuals		Nest collection	
	(N = 38)		(N = 7)	
	N	%	N	%
Reptiles				
Gopher Snake (<i>Pituophis melanoleucus</i>)	1	2.6	1	14.3
Subtotal	1	2.6		

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Table 1 (Cont.)

Prey item	Occurrence			
	Individuals		Nest collection	
	(N = 38)		(N = 7)	
	N	%	N	%
Birds				
Turkey Vulture (<i>Cathartes aura</i>)	1	2.6	1	14.3
Red-tailed Hawk (<i>Buteo jamaicensis</i>)	2	5.3	2	28.6
Mourning Dove (<i>Zenaidra macroura</i>)	1	2.6	1	14.3
Great Horned Owl (<i>Bubo virginianus</i>)	1	2.6	1	14.3
Common Raven (<i>Corvus corax</i>)	1	2.6	1	14.3
Unidentified birds	1	2.6	1	14.3
Subtotal	7	18.4		
Mammals				
Black-tailed Jackrabbit (<i>Lepus californicus</i>)	14	36.8	6	85.7
Rock Squirrel (<i>Spermophilus variegatus</i>)	6	15.8	4	57.1
Unidentified woodrat (<i>Neotoma</i> spp.)	1	2.6	1	14.3
Gray Fox (<i>Urocyon cinereoargenteus</i>)	2	5.3	2	28.6
Striped Skunk (<i>Mephitis mephitis</i>)	3	7.9	3	42.8
White-tailed Deer (<i>Odocoileus virginianus</i>)	1	2.6	1	14.3
Unidentified mammals	3	7.9	3	42.8
Subtotal	30	78.9		
Total prey items	38	100.0		

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LITERATURE CITED

- Bloom, P.H. & S.J. Hawks. 1982. Food habits of nesting Golden Eagles in northeast California and northwest Nevada. *Raptor Res.* 16:110-115.
- Collopy, M.W. 1983. A comparison of direct observations and collections of prey remains in determining the diet of Golden Eagles. *J. Wildl. Manage.* 47:360-368.

NOTES

Glass, B.P. 1951. A key to the skulls of North American mammals. Burgess Publ. Co., Minneapolis, MN.

Marr, V.N. & R.L. Knight. 1983. Food habits of Golden Eagles in eastern Washington. Murrelet 64:73-77.

Olendorff, R.R. 1976. The food habits of North American Golden Eagles. Am. Midl. Nat. 95:231-236.

Willard, F.C. 1916. Notes on the Golden Eagle in Arizona. Condor 18:200-201.

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Golden Eagle

Sketch by Narca Moore-Craig