

Aravaipa Creek, Arizona. Almost immediately at least six Elf Owls began vocalizing from dispersed locations around our campsite and at least four of them began making low passes at the Great Horned Owl. Before we could relocate the horned owl to a protected enclosure, it was struck once in the head by an Elf Owl.

Some nocturnal behaviors may not be well known or understood, not because they are rare, but because they are difficult to observe. This may change with the increased availability of night vision equipment (P. Henson and J.A. Cooper 1994, *Auk* 111:1013–1018). Currently, observations of nocturnal behaviors are likely to be sporadic and anecdotal, and therefore unreported. Such information, however, may help in understanding a species biology. For example, other researchers have observed group mobbing by Elf Owls (F.R. Gehlbach, pers. comm.; B.A. Millsap, pers. comm.), but there are no published reports of the behavior. Our observations, and those of other researchers, suggest that Elf Owls will join together in mobbing and that they can be physically aggressive when defending their nests against predators.

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#### GRIFFON VULTURES (*GYPSES FULVUS*) INGESTING BONES AT THE OSSUARIES OF BEARDED VULTURES (*GYPHAETUS BARBATUS*)

Some African vultures overcome the calcium deficiency in their diets by ingesting bone fragments, and are dependent on the presence of large predators to supply them (Mundy and Ledger 1976, *S. Afr. J. Sci.* 72:106–110; Mundy 1982, The comparative biology of southern African vultures, Vulture Study Group, Johannesburg, South Africa; Richardson et al. 1986, *J. Zool. Lond.* 210:23–43). Because of the lack of large mammalian carnivores in the Iberian Peninsula, vultures apparently satisfy their calcium needs by ingesting small bone fragments from carcasses (König 1975, *Ardeola* 21:219–224) or small pieces of limestone (Fernández 1975, *Ardeola* 22:29–54; Elosegi 1989, *Acta Biol. Mont.* 3, Série documents de Travail). This note reports several observations of Griffon Vultures (*Gyps fulvus*) making use of bone splinters obtained from Bearded Vulture (*Gypaetus barbatus*) ossuaries, where large bones are deliberately dropped onto rock slabs (Boudoin 1976, *Alauda* 44:1–21).

Field work was carried out in the meridional Prepyrenees (northeast of Spain), an area of isolated calcareous massifs described by Riba et al. (1976, *Geografia física dels Països catalans*, Ketres, Barcelona, Spain). The data were collected while we were monitoring several Bearded Vulture pairs between 1991–95 at eight ossuaries located in five different nesting areas (Heredia 1991, Pages 78–89 in R. Heredia and B. Heredia [EDS.], *El quebrantahuesos Gypaetus barbatus en los Pirineos*, ICONA, Madrid, Spain) selected at random. All ossuaries had Griffon Vulture colonies nearby (<1 km). We made 126 visits to the nesting areas during the nesting period from February–August.

Griffon and Bearded Vultures interacted at ossuaries in all five nesting areas. Occasionally, Griffon Vultures explored ossuaries when there had been no previous occurrence of bone drops, but more often they were observed at ossuaries after Bearded Vultures had dropped bones. Over a 6-d-period, we observed groups of one to seven Griffon Vultures ( $\bar{x}$  = 2.62, SD = 1.99,  $N$  = 21) visiting the sites. During a total of 75 bone droppings, Griffon Vultures immediately descended to the ossuaries on 13 occasions (17.3 %) in numbers ranging from one to five individuals ( $\bar{x}$  = 2.30, SD = 1.63,  $N$  = 30).

On five occasions, Griffon Vultures attempted to pirate bone fragments from Bearded Vultures. Once, when an immature Bearded Vulture was dropping a bone, a Griffon Vulture flew in quickly and ingested small bone fragments next to the place where the impact had occurred before the Bearded Vulture could land. Twice, we observed griffons trying to overtake Bearded Vultures in flight to recover dropped bones, without success. Once, after a Bearded Vulture had perched next to the bone it had dropped, three Griffon Vultures attacked it and seized a large bone fragment which they then proceeded to fight over and ingested. We also saw a Bearded Vulture drop a bone and, once on the ground, five Griffon Vultures attacked the Bearded Vulture forcing it to flee with the prey.

We also observed three Griffon Vultures inside a Bearded Vulture nest that had been used in the previous breeding

season. One of them spent 30 min pecking an old sheep or goat bone. Occupation of Bearded Vulture nests by Griffon Vultures is frequent in the Pyrenees (Fernández and Donazar 1991, *Bird Study* 38:42–44; Donazar, pers. obs.).

Our observations suggest that Griffon Vultures living near Bearded Vultures benefit from this association because Bearded Vultures provide a source of calcium. The Griffon Vulture, like other species that eat mainly soft parts of carcasses (Brown 1976), is subject to a lack of calcium because his diet contains only 0.01 % of this element (Houston 1978, *J. Zool. Lond.* 186:175–184). The Bearded Vulture, a species that in the last century was spread over a large part of the Iberian Peninsula mountains (Hiraldo et al. 1979, El quebrantahuesos *Gypaetus barbatus* (L.), Monografías 22, ICONA, Madrid, Spain), may have also facilitated the spread of Griffon Vultures as the distribution of both species was extensively coincident in much of the southern Palaearctic (Elosegi 1989, *Acta Biol. Mont.* 3, Série documents de Travail).

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### A GOLDEN EAGLE EATS WILD CANADA GOOSE EGGS

Golden Eagles (*Aquila chrysaetos*) prey primarily upon medium-sized rodents, hares, birds and ungulates (S.K. Carnie 1954, *Condor* 56:3–12; Boeker and Ray 1971, *Condor* 73:463–467; M.N. Kochert 1972, M.S. thesis, Univ. of Idaho, Moscow, ID U.S.A.; P.A. Johnsgard 1990, Hawks, eagles, and falcons of North America, Smithsonian Inst. Press, Washington, DC U.S.A.). Although they are known to exploit a great variety of prey items throughout their holarctic range, eggs have not been reported as a food item (A.C. Bent 1961, Life histories of North American birds of prey, Dover Publications, Inc., New York, NY U.S.A.; Dement'ev and Gladkov 1966, Birds of the Soviet Union, Israel Program for Scientific Translations, Israel; Brown and Amadon 1968, Eagles, hawks, and falcons of the world, County Life Books, London, UK; Beecham and Kochert 1975, *Wilson Bull.* 87:506–513; Matchett and O'Gara 1987, *J. Raptor Res.* 21:85–94; Palmer 1988, Handbook of North American birds, Yale Univ. Press, New Haven, CT U.S.A.).

We observed a Golden Eagle raid a Canada Goose (*Branta canadensis*) nest and eat two eggs on 4 April 1995 in Hell's Canyon National Recreation Area in western Idaho. At 1150 H, an adult Golden Eagle (gender unknown) flushed a Canada Goose off a ground nest located on an island in the Snake River. The eagle landed near the nest, walked to the nest and broke open the eggs by grasping an egg in its foot and placing all of its weight on the egg until, after two to four attempts, it broke. The eagle ate the contents of the egg (stage of embryonic development was unknown) and then broke and ate the second egg. The pair of geese that had been displaced from the nest and four other pairs of nearby geese gave alarm calls during our observations, but never approached the eagle. Two Black-billed Magpies (*Pica pica*) followed the eagle to the nest and scavenged eggshell fragments while the eagle consumed the contents. The eagle finished eating both eggs at 1206 H and then spent the next 5 min walking and hopping around the island, possibly searching for more eggs. The magpies followed the eagle on the ground until 1211 H when the eagle flew 50 m downstream and perched on a talus slope. The Canada Goose pair returned to their depredated nest at 1430 H.

Although Golden Eagles have not been previously observed eating eggs, we speculate that depredation on goose eggs in Hell's Canyon may not be uncommon. Perhaps Golden Eagles in Hell's Canyon eat eggs when more typical prey for this region (black-tailed jackrabbits, *Lepus californicus*) are rare. In contrast, Golden Eagles nesting 128 km upstream of Hell's Canyon in the Snake River Birds of Prey National Conservation Area, where black-tailed jackrabbits were abundant and an important prey species (Steenhof and Kochert 1988, *J. Anim. Ecol.* 57:37–48), have not been observed to prey upon goose eggs, even though Canada Geese occasionally nest nearby (W. Bodie, pers. comm.).

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