

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 Donázar 1991, *Bird Study* 38:42–44; Donázar, 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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McKinley worked long hours in the field. Mark Fuller and Stephanie Gossett provided administrative support.—**Laura L. Valutis, Department of Biology, Boise State University, Boise, ID 83725 U.S.A. and John M. Marzluff, Sustainable Ecosystems Institute, 30 E. Franklin Road, Suite 50, Meridian, ID 83642 U.S.A.**

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## TWO PLUMBEOUS KITES (*ICTINIA PLUMBEA*) CAPTURE SWALLOW

The Plumbeous Kite (*Ictinia plumbea*) is a common but poorly studied raptor of the neotropics, ranging from Mexico to northern Argentina and Paraguay (L. Brown and D. Amadon 1968, *Eagles, hawks and falcons of the world*, McGraw-Hill Book Co., New York, NY U.S.A.). This species feeds mainly on insects (A.F. Skutch 1947, *Condor* 49:25–31; F. Haverschmidt 1962, *Condor* 64:154–158), but vertebrates, including birds and bats, make up a small percentage of its diet (N.E. Seavy et al. 1994, *J. Raptor Res.* 29:65–66). Likewise, birds, including swallows and swifts, and bats have been recorded as prey items for the similarly insectivorous Mississippi Kite (*Ictinia mississippiensis*) (J.W. Parker 1988, pgs. 166–186 in R.S. Palmer [Ed.], *Handbook of North American birds*, Vol. 4, Yale Univ. Press, New Haven, CT U.S.A.). We know of no published accounts, however, of either species capturing small birds by tandem hunting.

On 6 June 1994, we were observing a Plumbeous Kite nest in Tikal National Park, Petén, Guatemala. The nest contained one 21-d-old nestling. Both adults were perched approximately 100 m from the nest in a large cedro (*Cedrela mexicana*) tree. The area between the adults and the nest was a large open plaza covered with short grass. At 0659 H, one of the kites flew from its perch passing within 1 m of a flying Northern Rough-winged Swallow (*Stelgidopteryx serripennis*). The swallow flew down and away and the kite dived unsuccessfully again on the fleeing swallow, which at this point was no more than 1–2 m above the ground. On a third dive, the kite again missed, and the swallow took cover, perching in the short grass. As this kite was making a fourth dive, the second adult kite also dived from its perch toward the grounded swallow. As the first kite dived, the swallow flushed and was caught by the second kite in its feet no more than 2 m above the ground. The first kite followed the second kite for a short distance and then returned to perch in the cedro. The second kite flew to the nest and fed the swallow to the nestling.

Cooperative hunting can allow raptors to take larger or more elusive prey with increased success compared to solo hunting (D.P. Hector 1986, *Ethology* 73:247–257; J.C. Bednarz 1988, *Science* 239:1525–1527). Based on the social foraging classes defined by Ellis et al. (1993, *Bioscience* 43:14–20), our observation qualifies as either “pseudocooperative hunting” (group attacks by a variable number of individuals on large or elusive quarry, without division of labor or sharing of prey, though success is enhanced) or “cooperative pair hunting” (involving only two birds, clear division of labor and at least limited prey sharing).

Tandem hunting occurred only once during 127 foraging attempts we observed from perches. Most attempted prey captures were directed at insects. In comparison, 29% (102 of 349) of all Aplomado Falcon (*Falco femoralis*) foraging attempts observed by Hector (1986, *Ethology* 73:247–257) involved pursuit by two falcons. Of these tandem hunts 66% were directed at birds and only 2% at insects. Though probably not important in the pursuit and capture of insects and other small prey, tandem hunting may allow the Plumbeous Kite to increase success in occasional attacks on elusive prey such as birds.

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