

PROXIMAL NESTING BY THE BLACK-BILLED MAGPIE AND TWO RAPTORS

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An accumulating body of literature demonstrates that it is rather common for nonraptors to nest very near raptors, and unusual, but not rare, for two species of raptors to nest within what may be considered the same territory. It is rare for natural antagonists and least common for pairs of the same species to nest in close proximity.

Remarkable examples of raptors nesting near nonraptors include Great Horned Owls (*Bubo virginianus*) nesting in Great Blue Heron (*Ardea herodias*) colonies (Knight and Erickson 1978, Johnson 1976) and Peregrine Falcons (*Falco peregrinus*) in European heron colonies (Makatsch 1950, cited by Welty 1962:260–262). Some raptor/nonraptor nesting associations may be mutually beneficial. Konrad and Gilmer (1982) reported 30 Western Kingbird (*Tyrannus verticalis*) nests and 31 nests of other passerines in or within 10 meters of Ferruginous Hawk (*Buteo regalis*) or Swainson's Hawk (*B. swainsonii*) nests.

Raptors of different species occasionally nest near each other. Great Horned Owls nested about 21 (Smith 1970) and 33 (Houston 1975) meters from Red-tailed Hawks (*Buteo jamaicensis*), and about 30 meters from Harris' Hawks (*Parabuteo unicinctus*) (Freemyer and Freemyer 1970). White-tailed Sea Eagles (*Haliaeetus albicilla*) and Peregrine Falcons nested in the same tree over a three-year period (Deppe 1972, cited by Kale 1974). Perhaps the ultimate example is Bent's



Figure 1. Great Horned Owls nested in the right nest in 1967 and 1968. Black-billed Magpies nested each year from 1967 to 1969, and Red-tailed Hawks nested in 1969 on the canopy of the occupied magpie nest.

Photo by Catherine H. Ellis

NOTES

(1937:324) account of Bald Eagles (*Haliaeetus leucocephalus*) and Great Horned Owls sharing the same nest.

I observed the following in a lone cottonwood tree (probably *Populus angustifolia*) in the sagebrush- (*Artemisia tridentata*) clad hills near Big Gulch, Moffat County, Colorado. On 23 April 1967, a Black-billed Magpie (*Pica pica*) was incubating in its canopy-covered nest about 3.5 meters horizontally from an incubating Great Horned Owl (Figure 1). The owl's nonincubating mate was perched in the tree even nearer, although slightly below, the magpie nest. On 4 April 1968, two owl eggs were present in the same nest active in 1967. The magpie was again incubating (5 eggs) only 3.5 meters from the owls.

On 26 April 1969, in the same tree, I saw an adult Red-tailed Hawk fly to its nest and deposit a twig. Its deeply cupped and bark-lined but eggless nest was built on the canopy of the magpie nest, in which a magpie was incubating eight eggs. Another adult Red-tailed Hawk lay dead with a deep gash in its head at the base of the tree. No owls were observed on that day, but when I returned on 27 April, an owl was perched in the tree, and a magpie was incubating. When I flushed the owl, two adult Red-tailed Hawks appeared and drove the owl into the sagebrush.

These episodes of proximal nesting are extreme examples not of symbiosis or cooperative nesting but of competition for limited nesting habitat. The observations are all the more remarkable given the natural animosity between the species involved.

LITERATURE CITED

- Bent, A. C. 1937. Life histories of North American birds of prey. Part 1. U.S. Natl. Mus. Bull. 167.
- Deppe, H.-J. 1972. Einige Verhaltensbeobachtungen an einem Doppelhorst von Seeadler (*Haliaeetus albicilla*) und Wanderfalke (*Falco peregrinus*) in Mecklenberg. J. Ornithol. 113:440-444. Cited by H. W. Kale, II. 1974. Periodical literature. Auk 91:211-238.
- Freemyer, H., and Freemyer, S. 1970. Proximal nesting of Harris' Hawk and Great Horned Owl. Auk 87:170.
- Houston, C. S. 1975. Close proximity of Red-tailed Hawk and Great Horned Owl nests. Auk 92:612-614.
- Johnson, R. M. 1976. Incidence of Great Horned Owls nesting in a heron rookery. Passenger Pigeon 38:89.
- Knight, R. L., and Erickson, A. W. 1978. Canada Goose-Great Blue Heron-Great Horned Owl nesting associations. Wilson Bull. 90:455-456.
- Konrad, P. M., and Gilmer, D. S. 1982. Nesting associations between passerines and birds of prey in central North Dakota. Condor 84:343.
- Makatsch, W. 1950. Der Vogel und Sein Nest. Akademische Verlagsgesellschaft, Leipzig, Germany. Cited by J. C. Welty. 1962. The Life of Birds. Saunders, Philadelphia.
- Smith, D. G. 1970. Close nesting and aggression contacts between Great Horned Owls and Red-tailed Hawks. Auk 87:170-171.

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