J. Field Ornithol., 61(2):171–173

NESTING FISH CROWS ADOPT A FLEDGLING BLUE JAY

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Abstract.—A fledgling Blue Jay (*Cyanocitta cristata*) appeared in a Fish Crow (*Corvus ossifragus*) nest containing young nestlings. The jay was fed by both adult crows for 12 d before it disappeared, representing only the second recorded instance of interspecific feeding by a member of the family Corvidae. The jay probably entered the nest on its own after fledging from a nearby nest and was not considered potential prey while near the crow nest.

CORVUS OSSIFRAGUS* ADOPTA UN PICHÓN DE *CYANOCITTA CRISTATA
Sinopsis.—Un pichón de *Cyanocitta cristata* apareció en un nido de cuervos (*Corvus ossifragus*) conteniendo polluelos. El pichón fue alimentado por los cuervos durante un período de 12 d, al término del cual el pichón desapareció. Este es el segundo registro de una instancia de alimentación interespecífica por un miembro de la familia Corvidae. El pichón de *Cyanocitta cristata* probablemente entró al nido por si solo después de haber dejado su propio nido, y no fue considerado como posible presa mientras estuvo en la vecindad del nido de los cuervos.

Skutch (1987) reviewed the literature on interspecific feeding in birds, and reported a single instance of this phenomenon in the family Corvidae: a captive Common Raven (*Corvus corax*) feeding a wild Black Vulture (*Coragyps atratus*) (Davis 1952). I report prolonged care and feeding of a fledgling Blue Jay (*Cyanocitta cristata*) by nesting adult Fish Crows (*Corvus ossifragus*).

At 0905 (EDT) on 22 May 1987, I had been watching a Fish Crow nest for 20 min as part of a study of the nesting biology of Fish Crows on the campus of the University of South Florida, Tampa, Florida. The nest contained nestlings between 3 and 7 d old and was attended by two adults. The female of the pair was distinguishable by the absence of a secondary in her right wing. The male had just come to the nest and fed nestlings and was perched on the rim, pecking in the nest. Suddenly a fledgling Blue Jay, approximately 30 d old, appeared on the nest rim from inside the nest bowl. It begged at the crow, but was ignored and remained on the nest rim. At 0906 the female crow arrived at the nest and fed nestlings. The male took some food from the female and also fed nestlings. The jay begged briefly, and was fed by the male. At 0909 the male left and the female settled onto the nest. The jay sat on the nest rim, preened and stretched, and occasionally looked into the nest. At 0925 h when the crow was pecking in the nest and had its body raised slightly, the jay hopped down into the nest bowl. The crow then settled down onto the nest again, and remained this way until I left at 0930.

I observed the Blue Jay at the crow nest on five occasions over 12 d. I observed the crows feed the jay eight times: the male five times, the

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female three. Never did the adult crows show any signs of aggression toward the jay. In the first few days the jay spent most of its time in the nest or on the rim. Later it spent more time in the nest tree away from the nest, returning to beg when the crows arrived at the nest with food. The jay moved farther from the nest on each observation. Eventually it may have left the nest tree and no longer was fed by the crows, who continued to attend the nest for three weeks after the Blue Jay was last seen. Blue Jays have a relatively long period of dependence (80 days, Laskey 1958), and this jay probably was incapable of feeding itself and would not have survived unattended.

These observations present two questions: how did the jay get into the crow nest, and why was it not eaten by the crows, known to prey on fledgling birds (Bent 1946, Taylor 1972)? Several avenues of entrance into the nest are possible. The jay could have been brought alive to the nest, could have hatched in the nest from an egg dumped into it, or could have fledged nearby and climbed into the nest on its own. It is unlikely that the crows brought the jay into the nest as food, because they never brought whole, unprocessed food items to the nest. Invariably, before they took food to the nest they perched nearby and pecked the items into small pieces. Pieces of food items were left on these perches, and often were revisited after the nest visit in a manner similar to the caching behavior reported by McNair (1985). Interspecific egg dumping is unlikely because the jay was approximately 30 d old, and the crows were at most 7 d old on the first observation. With an 18 d incubation period for the jay (Arnold, in Bent 1946), the egg would have to have been laid at the end of March, when the nest was just under construction. These facts leave only the possibility that the jay climbed into the nest itself after fledging nearby. I did not find any Blue Jay nests in the vicinity, but Blue Jays commonly nested on campus.

Why did the crows not eat the jay? Fish Crows raid Blue Jay nests and will eat young Blue Jays: I witnessed a pair of Fish Crows raiding a Blue Jay nest (probably with eggs) in Hardee County, Florida on 25 May 1988, and I found remains of old nestling or young fledgling Blue Jays beneath a cache site near a Fish Crow nest in Tampa in May and June 1988. It is possible that the jay arrived at the nest while the crows were absent. Fish Crows appear to prey heavily on nestling passerines during the nesting cycle (pers. obs.) but may have an inhibition against eating small birds in their own nest, thereby not eating their own offspring. As long as the jay was in or near the crows' nest it might have been protected from being treated as potential prey. Parental recognition of chicks is known to develop slowly over the nesting period in some bird species (Burtt 1977 and references therein). Yom-Tov (1976) found that Carrion Crows (*Corvus corone*) did not distinguish strange chicks introduced into their nests containing young nestlings, even chicks of Rooks (*Corvus frugilegus*) or Herring Gulls (*Larus argentatus*). Several species of *Corvus* are regular hosts of the Great Spotted Cuckoo (*Clamator glandarius*) (Witherby et al. 1965), a brood parasite. Yom-Tov (1976) rea-

soned that crows are slow to develop chick recognition because, as nest predators, the danger of attacking their own eggs and young is greater than the advantage of having a good antiparasitic device.

Intraspecific adoption may occur regularly in some bird species for reasons not fully understood (e.g., gulls [*Larus* sp.] Pierotti 1980; Black Tits [*Parus niger*], Tarboton 1981). Interspecific adoption is relatively rare, and is heretofore unknown in corvids.

ACKNOWLEDGMENTS

I thank David Winkler, Kimberly Kline, Lawrence Kilham, Edward Burtt, Jr., and an anonymous referee for helpful comments on the manuscript, and Roxanna Normark for the Spanish abstract.

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Received 12 Oct. 1988; accepted 9 Sep. 1989.