

Ogden 1979), and I have rarely encountered wasps except there; so Great Plains Mississippi Kites and wasps are probably also new associates. Mississippi Kites suffer heavy loss of nests and some loss of nesting adults to a variety of predators (Parker 1974, unpublished data), many of which also threaten the smaller birds nesting near the kites. This is a major factor defining the potential relationships between nesting kites and their associates.

The kite-wasp association seemed potentially commensalistic. Presumably the wasps would have reacted aggressively to climbing predators, especially mammals, thereby increasing protection against terrestrial predators. It is unlikely that the wasps benefitted unless a kite nest provides a more secure site of attachment than a tree limb. Although wasps are known to attack birds (Duncan 1962), I saw no aggressive response to the kites. Sutton (1939) noted that kites occasionally eat vespine wasps, but I have no evidence of this from a large collection of food remains taken from kite nests or from observation of hunting or eating kites (Parker, unpublished data).

The potential relationships between kites and small birds were more diverse. Kites do capture and eat small adult and nestling birds, but not often, and this dietary habit may be recent (Parker and Ogden 1979). Generally, raptors do not hunt near their own nests. This may minimize advertisement of the nests (Durango 1949). Therefore, they are a minimal threat to the small birds nesting near them (Brown and Amadon 1968). Blue Jays are sometimes a threat to kite eggs (Parker 1974); although they may cooperate in defense of common nest areas, their net impact is probably not beneficial for the kites. However, the species of small birds which pose no threat to Mississippi Kite eggs contributed to the detection and harassment of nest predators near kite nests, and likewise probably benefitted from similar behavior of the kites in a seemingly mutualistic association.

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**American Robin Rears Brown-headed Cowbird.**—Friedmann (1963; Friedmann et al. 1977) recorded no instance of American Robins (*Turdus migratorius*) rearing Brown-headed Cowbirds (*Molothrus ater*). In fact, there are very few records of parasitism on

robins, primarily due to the robin's habit of quickly ejecting foreign eggs from its nests (see especially the experiments of Rothstein 1975). Friedmann (1929) showed ejection behavior by robins applied only to eggs and did induce a pair to rear 2 cowbirds by placing young birds in their nest. In another parasitism experiment by Nice (1941), a robin pair accepted a cowbird egg for an unspecified duration. This cowbird hatched but survived only 3 days, probably starving in the presence of 3 nestling robins that had hatched the same day. My observation of a young Brown-headed Cowbird, reared by an American Robin, is surprising as a successful instance of cowbird parasitism against a species normally showing effective behavioral defenses.

Between 27 May and 7 June 1980, on the University of Kansas campus, Lawrence, Kansas, I noted the interactions between a young Brown-headed Cowbird and an adult American Robin. After I first saw this out-of-nest cowbird, I waited to discover what its host might be. During the first 20 min, I saw this cowbird fed 3 times by an American Robin. The cowbird remained in the same area over the next 11 days, and I regularly found the bird due to its frequent calling. If the adult robin was near, the cowbird followed and begged from the robin and I sometimes saw it fed. On 1 June, I saw the cowbird probe for food on its own and, after being fed by the robin, pick up dropped food items. On 6 June, it foraged 30 min alone and later was seen following the robin. The next day I could locate the cowbird but I did not see the robin with it.

When first seen on 27 May, the young cowbird could fly, but gave the appearance of having left the nest only recently; tail feathers were less than 2 cm long and the gape seemed still soft. On my last observation, the cowbird looked fully grown. Woodward and Woodward (1979) indicate that young cowbirds remain dependent on their hosts 15-29 days after leaving the nest. I judged this bird was about 16 days old when first seen. The American Robin in company with the cowbird seemed to be a male by the appearance of its plumage. No other species were seen to feed, approach, or be followed by the young cowbird.

I did not make the critical observation of cowbird egg or young in the nest and my assumption of a successful parasitism on an American Robin is based on the long and close association of the two birds. Dispersing young robins are sometimes adopted by other adult robins (Young 1955) and perhaps something similar happened in this case. Trautman's (1940) report of robins feeding out-of-nest cowbirds is without details; Nice (1941) felt that Trautman's observations were instances of adoptions. Neff (1926) described an adoption of a cowbird by a male Rufous-sided Towhee (*Pipilo erythrophthalmus*) that lasted for 22 days after the cowbird left the nest of an Orchard Oriole (*Icterus spurius*). The towhee pair had reared cowbirds in an earlier brood. Individual recognition of their brood by adults of some altricial species develops as the brood becomes mobile (Burt 1977). I feel this cowbird-robin interaction showed sufficient individual recognition to have been the result of a natural parasitism rather than either an interspecific adoption (unlikely except under unusual circumstances as in the towhee case) or a response by the robin to a supernormal feeding stimulus.

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**Further Notes on Wilson's Phalarope-American Avocet Feeding Associations.**—Wilson's Phalaropes (*Steganopus tricolor*) commonly form feeding associations with other water birds. Williams (Condor 55:158, 1953) reported that swimming Wilson's Phalaropes followed wading American Avocets (*Recurvirostra americana*) and he suggested that food consumed by the commensal phalaropes was stirred up by the feet of the avocets. Siegfried and Batt (Auk 89:667-668, 1972) found that wading phalaropes following Northern Shovelers (*Anas clypeata*) pecked at prey at almost 3 times the rate measured for a phalarope feeding alone; they also noted that females often occupied the choice lead positions.

Beginning at 1900 on 9 May 1980 I observed a Wilson's Phalarope-American Avocet feeding association in a shallow pond near Belden, Mountrail Co., North Dakota. In approximately 5-7 cm of water, a single female phalarope followed 1 of 2 avocets which foraged 10-40 m apart. The phalarope waded behind or next to one of the avocets, picking food from the surface as the avocet apparently obtained food from the bottom of the pond. When the avocet ceased feeding, the phalarope promptly flew to the second bird and foraged with it until this avocet ceased feeding, whereupon the phalarope returned to the first avocet. Six such changes were observed in the following hour. The distances traveled by the phalarope in moving from one avocet to the other indicated that it was responding to the sight of a foraging avocet and not to the detection of food released or stirred up by the foraging birds. When one avocet ceased feeding but continued wading, the phalarope always ceased feeding and sometimes flew to the other avocet, indicating that the avocets' foraging activity and not their wading resulted in prey suitable for the phalarope. Although the feeding phalarope always remained within 1 m of a foraging avocet and followed closely by moving in a similar direction, neither avocet behaved aggressively toward it.—BEN C. PINKOWSKI, *Fort Berthold College Center, P. O. Box 308, New Town, ND 58763.* Received 6 Nov. 1980; accepted 24 March 1981.

**Barn Owl Takes an American Kestrel.**—On 19 July 1980, while conducting studies of the Barn Owl (*Tyto alba*) in northern New Jersey, I found the remains of an American Kestrel (*Falco sparverius*) in an active Barn Owl nest. The nest site was an old wooden water tank, 7 m above the ground in an open field. The tank had been dry for many years and was regularly used by Barn Owls.

The tank contained three 4- to 5-week-old owlets. On the floor were the remains of the recently killed American Kestrel. Examination of the feathers and bones revealed the Kestrel to be an approximately 4-week-old female. It had probably fledged because its primary wing feathers were almost completely unsheathed.

Diets of Barn Owls show geographic, seasonal, and individual variations. Most studies of food habits indicate small percentages of avian prey, although numerous species have been recorded. (Bent, U.S. Natl. Mus. Bull. 170, 1938; Rusling, Proc. Linn. Soc. N.Y., 1951). I believe the taking of an American Kestrel as prey by a Barn Owl is highly unusual, and this is the first such occurrence known to me.—LEONARD J. SOUCY, JR., *1390 White Bridge Rd., Millington, NJ 07946.* Received 11 Sep. 1980; accepted 21 Mar. 1981.

**Individual Recognition of Nestlings.**—In studies of bird nesting it is often important to recognize individual young. Ricklefs (1973, *Bird-Banding* 44:63) reported a method of tattooing nestlings with India ink, but noted that tattoos disappeared or faded at about 2 weeks of age. Also, an injection was required and one had to be careful not to inject into the abdominal cavity.

While ink is useful for marking eggs, I have found a better method to be marking young around the legs with threads of different color. I have tried and do not recommend nail polish, paint, or black India ink on the claws or other parts of the body. Ink marking had to be repeated almost daily, and it is time consuming to read combinations of 2 claws.