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Cooperative breeding in the Bobolink.—Helpers at the nest (Skutch, Auk 52:257–273, 1935) or auxiliaries (Parry, Emu 73:81–100, 1973) have been reported in over 150 species of birds (Skutch, Condor 63:198–226, 1961; Harrison, Emu 69:30–40, 1965; Fry, Ibis 114: 1–14, 1972; Brown, Am. Zool. 14:63–80, 1974; and Ann. Rev. Ecol. Syst. 9:123–155, 1978; Rowley, pp. 657–666 *in* Proc. XVI Int. Ornithol. Congr., Canberra, Australia, 1976; Grimes, Ostrich 47:1–15, 1976; Woolfenden, pp. 674–684 *in* Proc. XVI Int. Ornithol. Congr., Canberra, Australia, 1976; Zahavi, pp. 685–693 *in* Proc. XVI Int. Ornithol. Congr., Canberra, Australia, 1976; Orians et al., pp. 137–151 *in* Evolutionary Ecology, B. Stonehouse and C. M. Perrins, eds., University Park Press, Baltimore, 1977; Emlen, pp. 245–281 *in* Behavioral Ecology, J. R. Krebs and Davies, eds., Sinauer, Sunderland, Massachusetts, 1978; and Am. Nat. 119:29–53, 1982). Most species of cooperative breeders are tropical or sub-tropical in distribution and are characterized as sedentary, have low fecundity, deferred maturation, long life span, and low dispersal (Brown 1974). As a result there is a limited chance for a young bird to attain a suitable territory or mates (Brown 1978). Helping has also been reported for a few long-distance migratory species such as the Barn Swallow (*Hirundo rustica*) (Forbush, Birds of Massachusetts and Other New England States, Mass. Dept. Agric., Boston, Massachusetts, 1929; Skutch 1961; Myers and Waller, Auk 94:596, 1977) and the Chimney Swift (*Chaetura pelagica*) (Dexter, Wilson Bull. 64:133–139, 1953; Ohio J. Sci. 69:193–213, 1969).

The Bobolink (*Dolichonyx oryzivorus*) is a long distance migratory species which breeds in North America and is single-brooded (Martin, Ph.D. diss., Oregon State Univ., Corvallis, Oregon, 1971; Wittenberger, Condor 80:355–371, 1978; Johnsgard, Birds of the Great Plains, Univ. Nebraska, Lincoln, Nebraska, 1979; pers. obs.). Individuals faithfully return to their breeding areas (Martin, Am. Zool. 14:109–119, 1974; Wittenberger 1978), but helpers have not been previously reported.

During casual observations of 14 nests 10 km southeast of Geneseo, Livingston Co., New York during June 1981 and 1982 we observed helpers, i.e., more adults than the mated pair, attending three of the nests. Observations at the study area were made daily from 1–20 June 1981, and 16–17 June 1982. Most of our observations were from 07:30–14:00, but occasionally extended later. One to 4 h of observation were made at each of the 14 nests. Three h of observation (over 2 days) were made at the first nest below, and 2 h each at the other two nests. At the first nest (11 June 1981), which contained five 5-day-old young, at least two females and one male were observed carrying food to the young. The birds were not color-marked, but we each simultaneously followed a different female and thus determined that two females were involved. We did not follow the male, but based on his habitual use of the same perches and his behavior, we concluded that probably only one male was present. During our observations, each female made about four–five feeding trips/h and the male made 3–4 trips. These rates are similar to those reported by Martin (1974). At the second (16 June 1981) nest, in a field adjacent to the first field, one female and three unbanded males were observed attending five 9-day-old young simultaneously. While we were watching, the female and two of the males carried food to the nest. The third male did not carry food to the nest. Because the males were unmarked, we could not determine their feeding rate. The female made about four trips/h while we were watching. The third (17 June 1982) nest had at least two unbanded adult females and one adult male in attendance and carrying food to the four 10-day-old young. The number of females was again determined by each of us simultaneously following a different female which attended the nest. The females made four–five feeding trips/h and the male made two trips.

The frequency of helpers in our study was 0.21 (3 of 14 nests). Because our observations were not continuous over long periods, it is possible that we did not detect other instances of helping and thus underestimated its frequency.

What would have been the eventual fate of the nests is not known because we took the young and hand-reared them for orientation experiments. The relationships, if any, of the individuals attending the nests is, of course, unknown.

Without knowing the relationship of the individuals involved, it is difficult to ascertain the advantage to the helpers. One explanation is that the individuals outside the breeding pair had recently suffered the loss of their nest and were still physiologically motivated to feed young. This would require the intrusion into an established territory by an outsider, but Wittenberger (pers. comm.) found that after the young hatch, territorial behavior and territory defense essentially cease. Wittenberger (pers. comm.) has also observed adults other than the parents visit a nest. Because these individuals never carried food to the nest, he interpreted the behavior as "information gathering" by the non-parents. All the birds we observed, except one male at the second nest, carried food to the nest. Although we were concealed about 10–15 m from the nest, we could not determine whether the adults actually gave the food to the young or ate it themselves while standing beside the nest.

This is one of very few records of a trans-equatorial migrant which has adult (and presumably sexually mature) helpers at the nest. For other migratory species with cooperative breeding, the helpers are usually young of the year. Because the Bobolinks are long lived (Martin, Bird-Banding 44:47–58, 1973) and return to their previous breeding locations regularly (Martin 1974; Wittenberger 1978 and Ecology 61:140–150, 1980), it is conceivable that the helpers were related to the birds being helped. This possibility is so intriguing from a theoretical aspect, based on kin selection theory (Hamilton, J. Theoret. Biol. 7:1–52, 1964), that we are reporting these observations with the hope that they will stimulate further studies with marked birds to investigate the relationship between the helpers and the individuals they help.

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Cooperative foraging and courtship feeding in the Laughing Gull.—Cooperative foraging (two or more individuals assisting each other in obtaining prey) has apparently not been previously reported in any gull species. I made the following observations of cooperative courtship feeding in Laughing Gulls (*Larus atricilla*) while conducting a study on shorebird foraging at Little Beach Island, Brigantine National Wildlife Refuge in Ocean County, New Jersey. During May and early June Laughing Gulls in New Jersey feed on horseshoe crab (*Limulus polythemus*) eggs, buried on sandy beaches (Wander and Dunne, Records of New Jersey Birds 7:59–64, 1981). They uncover the eggs by treading with both feet at the water's edge and then scooping up the eggs which float to the surface. The approach of a conspecific within 15–40 cm usually elicited aggressive acts such as long calls, jabbing with the gape exposed, and pecking with the bill closed.

On three occasions, 24 May 1981, 30 May 1981, and 25 May 1982, I observed two Laughing Gulls feeding on *L. polythemus* eggs, with their shoulders often touching and no apparent aggression. As none of these birds were individually marked, it is possible, but