

**Juvenile Cardinal helping at a nest.**—Skutch (*Auk*, 52, 1935: 257-258) and Nice (*Trans. Linn. Soc. N.Y.*, 6, 1943: 79-80) have reviewed species in which young birds have been observed to help their parents feed later broods. In addition, Lack (*Auk*, 57, 1940: 173) records this behavior in the European Swallow (*Hirundo rustica*), Waterhouse (quoted in *Auk*, 57:277) reports it probable in the Variegated Wren (presumably *Malurus lamberti*), and Skutch (*Auk*, 57: 306-307) adds the Central American House Wren (*Troglodytes musculus*). Nice (p. 79) also reports help with nest sanitation given by juveniles of the Eastern Bluebird (*Sialia s. sialis*). Neither of these activities seems to have been recorded in the Cardinal (*Richmondia cardinalis*).

At a nest of Cardinals that I found on August 3, 1943, and watched through August 8, the day before the young left, a grown juvenile—possibly 2½ months old and apparently a female—on the morning of August 8 made three feedings and once carried something away. On the other hand, occasionally during my 14 hours of observation this bird begged food from both adults, alighting near them and, sometimes craning forward, *tih-tih*-ing with quivering wings; once it was fed by the male, and twice the female tried to drive it off. The adults were both color-banded birds, the juvenile helper was unbanded; identifications were always positive.

The juvenile was fed on the evening of August 5. The adult male had just reached the nest tree with a billful of food when the young bird alighted beside him and began to beg. Instead of going on to the nest, the male turned and gave his food to the juvenile. Three times on August 8 while the adult female was similarly en route to the nest with food, and once while she was still at the nest after completing a feeding, the juvenile likewise alighted in the tree and begged. Twice the female paid no attention. Of the two attacks that she made, one was not visible in detail because of foliage; in the other, she twice flew at the juvenile with feet thrust out, although apparently she did not actually strike. Neither of the attacks drove the young bird from the tree; after the one described, in fact, it went to the nest while the female was still there, took what seemed to be a dropping from the depths of the cup, and flew away with it.

On August 8, I watched the nest from dawn until noon. The juvenile made its feedings of the nestlings at 8:03, 8:09 and 9:16 o'clock. Each time its unbanded legs were clearly visible, and its juvenile calls confirmed its identity. On the first and third occasions it arrived at the nest alone; no food was actually visible, but the bird was plainly seen to thrust its bill into the mouths of nestlings. On the other occasion, the juvenile and the banded female alighted in the nest tree together, with food visible in the bill of each. The female went to the nest. While she was still engaged at her feeding the juvenile moved to the nest-rim 90 degrees to her right and also tried to feed. Its offering, however, was too large to dispose of; after several vain attempts, it tendered the food to the female, which took part of it and fed it to a nestling; whether the helper then also made a feeding or whether it ate the rest of the food itself I could not see. Curiously, the juvenile now reverted to its customary begging: during the appreciable time that both remained at the nest it held its open bill toward the female, called, and quivered its wings.

On June 6 I had seen a very short-tailed juvenile, whose age I estimated at 15 days, accompanying the color-banded male of this August nest. It is therefore possible that the helper was that bird or another member of the same earlier brood, and if so its age on August 8 was about 78 days. I supposed the bird to be a female since it showed no bright red in its plumage.—HERVEY BRACKBILL, 3201 Carlisle Avenue, Baltimore 16, Maryland.