

GENERAL NOTES

Eastern Bluebirds in Juvenal Plumage Feed Young of Second Brood.—On June 4, 1933, the first brood of four young Bluebirds of C160154, male, and B176467, female, left the nest. Later in the month the adults built again in a nesting-box about two hundred feet distant from their first nest. The young Bluebirds of the first brood remained with their parents constantly during this time, usually perching on cross-pieces nailed to the post on which the nesting-box was placed. So far as is known, the adults did not feed these young after the second nest was built, nor did they seem to resent having the young birds perch about on the house and even on the step at the entrance. On July 22d an immature female Bluebird was seen entering the nesting-box with a grasshopper. The bird was captured and banded with a green band for further study. The following day an immature male entered the box with food and was also taken and banded with a black band. These birds both proved to be young of the first brood. At the same time it was noticed that a green-banded male, C160177, was also carrying food to the young. The parent Bluebirds both wore blue bands. This additional male had raised a first brood about five hundred feet from the present nest of C160154, male, and B176467, female, but his mate, B176225 female, had taken another male, C160301, for her second nesting, leaving him without a mate. The feeding territories of the green- and blue-banded males had overlapped, each having a favorite perch on the same telephone-wire, but as the green-banded male was not seen around the nest until the eggs hatched, it is believed that the blue-banded male was the real parent of the young.

These two males, the female and two immature birds, continued to feed the young in perfect harmony, and on July 27th, two days before the young left, the nest was watched for two hours during the afternoon to determine how frequently each fed the young. The results follow:

Time	Color of Band	Sex	Entered, fed two insects, removed fecal sac
2.50	Green	Male	Fed from perch
2.51	Green	Female	Entered, fed insect
2.53	Blue	Female	Entered, fed insect, removed fecal sac
2.53½	Green	Female	Entered, fed insect
2.54	Blue	Female	Entered, fed insect, removed grasshopper
2.55	Blue	Female	Entered, fed insect
2.57½	Green	Male	Fed from entrance
3.00	Blue	Female	Entered, fed
3.01	Black	Male	Fed young a moth from entrance
3.01½	Green	Female	Fed insect from entrance
3.03	Blue	Female	Fed insect from entrance
3.05	Black	Male	Fed insect from entrance
3.06	Blue	Male	Ate the insect (after trying to feed it to the young from entrance)
3.07	Blue	Female	Fed insect from entrance
3.11	Blue	Female	Entered, fed insect
3.28	Blue	Female	Entered, fed insect, removed fecal sac
3.29	Green	Female	Entered, fed insect, removed straw
3.31½	Green	Female	Entered, fed insect, removed fecal sac
3.36	Green	Female	Fed berry from entrance
3.39½	Black	Male	Fed insect from entrance
3.40	Blue	Male	Fed insect from entrance
3.44	Green	Female	Entered, fed insect, remained one minute
3.46	Black	Male	Fed from entrance (a piece of grass and probably small insect)
3.50	Blue	Male	Fed insect from entrance
3.53	Green	Male	Entered, fed berry, removed fecal sac
3.55	Blue	Female	Entered, fed insect
4.05	Green	Male	Entered, fed insect, removed fecal sac
4.06	Blue	Male	Entered, fed grasshopper, removed fecal sac

4.19	Blue	Male	Tried several times to enter, then ate insect
4.20	Green	Female	Entered, fed insect, removed faecal sac
4.21	Blue	Female	Entered, fed insect
4.23	Green	Female	Entered, fed insect, remained one minute
4.23 $\frac{1}{4}$	Blue	Female	Fed insect from entrance while green female was inside
4.24	Blue	Male	Fed katydid from entrance while green female was inside
4.31	Blue	Male	Entered, fed worm, removed faecal sac
4.32	Green	Male	Fed berry from entrance
4.34	Black	Male	Fed insect from entrance

Thus during the two hours the adult green-banded male fed 5 times, the adult blue-banded male fed 8 times, the adult blue-banded female fed 11 times, the immature green-banded female fed 9 times, and the immature black-banded male fed 4 times.

All cleaned the nest except the young male. The blue-banded male, who was evidently father of the brood, displayed more fear than the others. He had difficulty in entering the box and at least once ate the food after trying several times to give it to the young. When both males arrived at the nest with food at the same time, one greeted the other with characteristic Bluebird fluttering and caroling, similar to that of a mated pair, but the green-banded male always fed first, probably because he was more fearless. The immature female when feeding lingered in the box and cleaned the nest more often than even the adult female. That the adult male Bluebird left unmated should assist in feeding the young seems not so strange as the fact that two young of the first brood should feed and care for their younger brothers and sisters when they themselves were only two months old¹.—MRS. KENNETH B. WETHERBEE, Wetherbee Pastures, Pomfret, Connecticut.

Further Notes from Penikese Island Terns.—During the summer of 1932 many tern colonies along the Massachusetts Coast suffered more severely than during any year so far recorded. The details of these bird tragedies have been exhaustively described by Oliver L. Austin, M.D., and Dr. Oliver L. Austin, Jr. (see *Bird-Banding*, Vol. III, No. 4, pp. 123-139 and pp. 143-156.)

In the case of Penikese Island, the terns returned to their nesting colony in the usual numbers in the spring of 1932, and breeding proceeded normally until the season was well advanced. Eggs and young were produced in abundance, and a successful rearing appeared to be in the making, when suddenly the adults completely deserted the colony, and eggs, young, and adults vanished almost over night. (See *Bird-Banding*, Volume III, No. 4, pages 173 and 174.) The reason for this strange disappearance has not been determined. It was, therefore, with great interest that Penikese Island, lying near the entrance to Buzzard's Bay, was again visited from July 1st to July 5th, 1933, by the same group of banders that were on the island the previous year during the corresponding period. As I have previously stated, the island is completely covered to the water's edge with long thick grass, in which the terns nest under conditions quite in contrast to those in other Massachusetts colonies, where open sandy tracts on islands

¹ This exhibition of one of the series of procreative instincts out of the usual order, which begins with the sexual urge, followed by mating and nest-building, and ends with the discontinuance of feeding the young, is of great interest as none of the antecedent instincts in the series, generally regarded as essential to the appearance of a successor, could well have been manifested.—EPROR.