

blackcaps able to obtain a seed. At the end of a week's "skirmishing" only one of the larger birds remained, still trying to get at his familiar food supply. He made intermittent and usually unsuccessful attempts, finally giving up entirely by the end of the month. I have not seen any of them since then. In the meantime the two smaller ones have been and still are frequent daily visitors, having soon learned how to reach the seeds.

About the third week in September, I happened to be near the open window close to the feeder when I heard a whistled "warble". Expecting to see a migratory warbler, I looked out, but saw nothing but one of the little chickadees on top of the feeder chopping into a seed. As I watched, he did the "warbling". Amazed, I continued to watch while he sang as he worked. The next day, while in the garden, I saw him as he flitted through a nearby pear tree hunting for food, alternating continuously the "dee-dee-dee" with the whistled "song" until he finally flew off.

After reading what I could find in Peterson, Eaton and Sprunt, I wondered if these two could be Carolina Chickadees (*Parus carolinensis*) north of their usual range. I asked Mrs. Vireo Whitaker about them. She came early one morning and after hearing the song said there is no doubt in her mind that they were the Carolina Chickadee.

I wrote to Dr. Kellogg about these birds. He imitated the "song" of the Carolinas on his next radio broadcast. It was identical with that of these birds. It seemed there was no doubt then, these must be a pair of the southern variety.

Some descriptions speak of less white on the wing of the Carolinas. These seem to have just about the same amount as the blackcaps, as far as I can tell. The descriptions admit that this is variable and unreliable, especially where the ranges overlap.

There are some minor differences which I noticed at first when I could see both varieties together, but which need more study when (or if) the blackcaps return. I believe these smaller ones are quicker in flight and that there is a slight difference in their "dee-dee-dee" call.

These then are the chief characteristics which differ from those of the blackcaps, as I have observed with this pair:

- (1). the **song** — a 4-note "warbling" whistle, in a **major key** instead of the 2-note minor key.
- (2). the **size** — noticeably smaller, even when not seen with the blackcaps.
- (3). the **aggressiveness** — toward the blackcaps; their refusal to allow the latter to eat from "their" feeder. — Mary J. Wheeler.

Sixth Report — Operation Bluebird (1962) in Warren County, Penn.: W. L. Highhouse. The nesting season of 1962 saw the Eastern Bluebirds raise their breeding numbers to 432 which is an increase of 60% over 1961.

The total of 432 fledged Bluebirds break down as follows:

62 nesting boxes had an initial occupancy by Bluebirds with a total of 297 eggs laid. Of the 297 eggs laid, 265 hatched and 265 Bluebirds were fledged.

51 nesting boxes had a second occupancy by Bluebirds with a total of 210 eggs laid. 167 of the eggs hatched and 167 Bluebirds were fledged.

Thus 432 Eastern Bluebird eggs hatched and 432 Bluebirds were fledged.

The remarkable fact that no Bluebird nestlings died in any of the boxes under observation is due to the spraying of the eggs once or twice with a mild flea powder to control the larvae of the birdnest screw-worm fly, Genus *Apaulina*.

One box not under observation and which was not sprayed had four Bluebird nestlings die in the box.

In a second unsprayed box 4 Tree Swallows were found dead.

In four instances, nesting Tree Swallows were followed by Bluebirds.

In two instances, nesting Bluebirds were followed by Tree Swallows.

The total for the season for the 94 boxes under observation is, 140 pair of nesting Bluebirds and Tree Swallows producing a total of 542 fledglings.

c/o Struthers Wells, Corp., Warren, Penn.

I learned of Mr. Highhouse's Bluebird operation through Mr. Gilbert Burgson, of Jamestown. I was so impressed with the Warren County, Penna. results on Bluebird and Tree Sawllow nest boxes for 1962, that I am here printing a portion of the report with an added comment of James Hartshorne of the Cornell Laboratory of Ornithology.

James Hartshorne has pointed out that in his considerable experience with Bluebirds he has found that 'floor size' of the nesting cavity is of more importance than has generally been realized. Although the birds will accept and use a too-small cavity, proper nest sanitation so important for the young to survive, becomes difficult or impossible, if the nest bottom measures less than 20 square inches. (5" x 5").

Any information from readers on their campaigns to help Bluebirds in New York State would be welcome material for The Kingbird. Editor.

Bluebirds: On the afternoon of October 26, 1962, Mrs. Robert Owens on Rte. 380, about one half mile south of Rte. 20 near Brocton, phoned to say that their backyard had been covered with Bluebirds all afternoon and that if we could come some might still be there. At our visit to her home, we found, so it seemed, a Bluebird on every weed stalk, grape post and tree limb. The birds moved more or less in separate flocks. As a flock moved in, we would count them, keep track of their movements and then estimate numbers in the other flocks.

At one time there was a flock of about 50 in the frontyard, about 50 in the Lombardy Poplars beyond the backyard, about 50 in the grape vineyard and adjoining abandoned meadow and another group of 50 on the back lawn, in apple trees and the rose arbor.

Darkness eventually made it impossible to identify the birds by sight but their presence was made known by their "chirrup" which came from all directions. All evidently left in the night, for the Owens did not see a single Bluebird the next morning.

Mrs. Stanley E. Buck and Mrs. Nina Bates, Bear Lake Road, Brocton

Persistent Flight Behavior in Some Raptorial Birds: In many years of bird study I have observed different mannerisms of hawk flight behavior which have been obviously persistent. One example is the towering of the broad-winged species—Buteos, Eagles, etc — to avoid persecution by other avian adversaries, usually smaller than themselves.

With the Peregrine (*Falco Peregrinus*) of the Falcon group, towering is usually used for a different purpose — that of over-topping its victim, occasionally after chasing it into the upper air. Then there is the Peregrine's headlong pursuit with low, dashing flight as this winged conqueror demoralizes some flock or individual in passing, or when it snatches its victim out of the air, or from a perch. Many of us have seen this spectacular species chase some individual bird, or flock, to all appearances with serious intent and at other times playfully. One tragic example of apparent playfulness was that of a Peregrine which pursued a Barn Swallow high over the ocean one fall afternoon at Jones Beach and followed it so closely in a spectacular downward dive that the unfortunate victim dashed to the waves and was seen no more.

Regarding the serious approach, an almost human trait of "venting its spleen" was noted by the writer in early morning one spring day at Oak Beach. A Peregrine had seemingly fared poorly, as food appeared scarce. To add to the difficulty of its still hunting from a foot-high stub on a bare mud flat in the marshes, was the approach of a quartering Marsh Hawk (*Circus cyaneus*). With no hopes of an early meal, the Peregrine shot into the air and with quick powerful wing strokes made rapid progress over the brown marsh grass. A few hundred yards away and directly in its path arose a flock of about a dozen Canada Geese. These panicked as they saw the dashing hawk and beat a hasty retreat in confusion. The Peregrine added to this by swooping at the leading goose with such a vengeance that it drove it and its nearest companions violently downward for several feet; then apparently satisfied, the powerful hawk, never missing a stroke, soon disappeared at tremendous level flight over the bay islands and out of sight.

A good example of towering to overtop its victim occurred one fall day in Massapequa when a Peregrine, presumably in search of a meal, spectacularly drove a pigeon into the upper air, climbed above it and shot downward for the fatal thrust. The pigeon in this case, however, descended terrifically fast and, with a quick dodge avoided the clutching talons. Just before smashing into the ground the pigeon recovered itself and the Peregrine likewise checked its plunge and then gave