

night in hollow trees, where they suspend themselves by their bills. These birds also retreat to hollow trees in winter. There have been found, after a severe winter, prodigious numbers in a large tree, filling the whole cavity, where they had perished by the severity of the cold."—LAWRENCE E. HICKS, *Ohio State University, Columbus, Ohio*.

Notes on a Hand-reared Flicker.—What bird lover does not revel in the joy of close contact with his feathered friends, when a bond of sympathy is developed between them, so that the bird will perch on his finger or shoulder? An even greater joy comes to him who has had the privilege of being a foster parent to some baby bird, watching it from day to day, growing from helpless babyhood to adult proportions and plumage, to have that bird's affection for him become so firmly fixed that when adult it continues to return to him as its foster parent for food, drink, and attention.

We have had this joy this summer (1934) with a Northern Flicker, which we called Chee-Chee. In years past we have raised many nestlings and fledglings of such birds as Eastern Robins, sparrows, and pheasants, such being merely a matter of patience and the selecting of the proper food. But when one considers that the mother flicker eats her food, digests it, and then regurgitates the same to feed her babies, the hand raising of a young flicker is an entirely different matter. So when this unfortunate orphan came into our possession we were at our wit's end as to the proper method of procedure. Shredded wheat softened in boiling milk was added to the yolk of a hard-boiled egg; this was triturated and then dried ant's eggs and insects, in conjunction with cod liver oil, were added. The mixture might have been said to be about like pie dough in consistency. Pellets of this were pushed down the baby's throat, followed by seedless grapes or raspberries as dessert. I greatly feared rickets, or some other disease, due to malnutrition, but to our great surprise and delight the baby flicker grew and developed beautifully.

His first home was a box, in which he nestled in tissue paper and soft cloths. It was amusing to see him peep out from under the cloth, as he would raise himself on his weak and wobbly legs, and complacently watch us moving about the room, or the dogs on the floor. After a few days he would slip from under the cloth, climb to the edge of the box, and balance himself there. Shortly after this, he would climb up the curtain and perch on the curtain rod above the window. A perch was made for him, of old branches fastened to a base, on which he could climb about. In a few weeks the porch afforded abundant place to practice climbing. On rainy days lace curtains indoors served the same purpose; or if he had flown to the floor, anybody convenient served as a tree, and up he would come in a hurry. When the drumming instinct first manifested itself, our heads, ears, and spectacles were used indiscriminately. This is a sensation which cannot adequately be described.

The dogs he never minded, when on the floor, allowing them to come right up to him, and sniff at him as much as they wished, with no resentment on his part. But Chee-Chee did not like the parrot, which would fly down at him when he was on the floor. This invariably precipitated a fight. The belligerents were separated at once, and so no harm was really inflicted. It was after one of these impromptu battles that I felt Chee-Chee would probably prefer having his freedom, for he was absolutely fearless and seemed able to give a good account of himself. So I took him out into the garden, set him on the edge of a bird bath,

and away he flew into a cherry tree. Apparently he had a good time climbing up and down the main trunk (his first real tree) and flitting about the branches. An hour and a half later he began to call lustily for help. Evidently he had become very hungry, and possibly tired, too. On going to the tree, he scrambled down far enough so I could reach him, when he was taken indoors and fed. He seemed very tired after this excursion, and was content to remain indoors the balance of the day.

On the following day he was very anxious to get out of doors again, so we liberated him a second time. As on the first day, an hour and a half seemed to satisfy him, and he called to be taken in. But the garden was full of clothes drying and fluttering in the sun. Evidently this was a fearful spectacle when viewed from a tree top, so he would not come down the tree where we could reach him. Finally Islay put up a twenty-foot ladder, and was barely able to reach him from the upper rung.

On the third day Chee-Chee made no attempt to get out until in the evening. As he had returned so nicely on the previous days, we turned him out without any hesitancy, but to our great dismay, just about dusk, he flew across the street, crossing telephone and trolley wires. Islay followed him, calling repeatedly, until she lost sight of him in the woods beyond. That was a sad and disconsolate night, for we were thoroughly convinced that we would never see Chee-Chee again, as we thought that on awakening in the morning he would find himself in a strange environment, the houses on the other side of the street being grouped differently and the trees also being different; all told, a new place. But at 5:30 the following morning, he was in the ash tree adjoining Grandma's room, calling lustily for breakfast. What was to be done? Grandma hurried down stairs, stepped into the garden, called "Chee, Chee, Chee", and with a rush he alighted on her shoulder. He had tested his strength and courage, and was absolutely sure of himself.

Since then he has never been confined indoors, only for such periods of time as were of his own choosing. Sometimes after a meal he rests for an hour or longer, preening his feathers, stretching his wings, talking to us, or quietly to himself, or tucking his head under his wing and taking a real nap, and then flying away at his own discretion. He usually returns about six times a day for his meals, announcing his return from either tree or cornice by calling until somebody goes out to get him. He flies down on to one's shoulders, or low down on a tree where he can be easily reached, or onto the fence posts. Frequently he clings to the screen, from whence he steps onto a proffered hand or finger. Lately, on hearing him, we merely open the screen door. Then he may fly directly into the kitchen and alight on his perch; or he may alight on the parrot's perch on the porch, which immediately starts belligerency on the part of the parrot, who climbs after Chee-Chee as rapidly as he can. Chee-Chee hurriedly scampers up the longest branch, which projects into the kitchen, when with a single bound he alights on his perch, half way across the room. Some times he makes a longer detour, flying through the breakfast room, and thence into the kitchen. Some days he hops the entire way up the four steps onto the porch, across the floor of the porch and breakfast room, into the kitchen, and then allows himself to be picked up.

While being fed he carries on a rapid-fire conversation, which is continued during the entire feeding time. He sips water from a cup, when it is presented

to him. At times he takes one or two sips, but sometimes as many as nineteen. He likes cocoa, too, sitting on my arm, from which point he can easily reach my cup. Feeding is still done in the same fashion as when he was a tiny baby; the food must be pushed down into his throat, he making absolutely no attempt to help himself. When fully satisfied he flies to the shoulder of the person feeding him, thence out through the window, or around by way of the breakfast room, and on to the porch, clinging to the screen until the door is opened for him, and away he soars into the trees. This performance is varied at times, when he deliberately allows himself to be carried out of doors, making no attempt to fly until on the outside. Not always does he fly away promptly, but he will sometimes perch on the hand before leaving, and administer a few vigorous whacks on the fingers with his powerful beak. Apparently it is a form of play. Oftimes he comes home with his long beak coated with dry mud, evidently having been digging ants in wet ground. And even his feet may be caked with mud. But a wet cloth soon restores them to perfect cleanliness. This cleaning process has never been resented in the least.

One day while sipping water he acted as if he wanted to bathe, so Grandma carried him to one of the bird baths, and gently put him down into the water. On releasing him, he had a most wonderful bath. Finally, he flew into a tree to preen his feathers, and then flew down into the lawn, where he lay with outstretched wings until dry. Some weeks ago he made more than his usual noise on coming home, and there he was, in the top of an enormous tree, with three rollicking companions. Grandma called him, and two of his companions flew away, but Chee-Chee and one other flew into our own garden, and then he individually flew down onto his beloved shoulder, whence he was taken indoors, fed, and flew back into the tree where his chum was still waiting for him. The thrill of this wild creature coming back repeatedly to be fed, taken indoors, fussed over, talked to, and to fly out again at his pleasure, is indescribable. We have never experienced anything quite like it. We dread the onset of autumn, fearing he may respond to the great spirit of migration, and leave us for the sunny and genial South. And yet, he may do like a Robin we had years ago, that returned to us for three successive springs.—DR. G. A. HINNEN, *Mt. Lookout, Cincinnati, O.*

The Incubation Period of the Sora Rail.—In searching through the literature of ornithology I find no definite incubation period given for the Sora Rail (*Porzana carolina*). Having made many observations of this species during the nesting season, I have had the good fortune of following three nests from the beginning of incubation on through hatching, and wish to publish these records.

The first of these nests was found May 10, 1920, at Bellevue, Eaton County, Michigan, when it contained four eggs. The set was completed on May 15, when it contained nine eggs. The period from then to May 31, when the last egg hatched, would be the incubation period for that certain egg, which would be sixteen days. The eggs hatched from May 29 to May 31, indicating that incubation began at least two days before the last egg was laid.

The second nest was found on May 11, 1930, in Convis Township, Calhoun County, Michigan. It contained four eggs and the female was flushed from the nest, even though it was during the middle of the afternoon. This set was complete on May 17, when it contained ten eggs, and these hatched from June 1 to June 3. The period of incubation for the last egg in this case was seventeen days.