

At dawn the next morning the distressed cries of the parents of the little birds awoke Mr. N. He at once carried the family to their former location. Flying to the nest the old birds inspected it and seeing the cotton which Mr. N. forgot to remove, they proceeded to pull it out by the mouthful, carry it to the outside of the branches, and drop it on the ground. After the nest was cleared the female took up her place of house-mother and went about her family duties the rest of the day as if nothing had happened.

Now comes the strange part of this story. The next evening the owl again attacked the mother bird, who again left her family to the mercies of her landlord and took herself to safer quarters. The little birds were again cared for through the night and replaced in the tree at the call of the mother bird at dawn. This performance was repeated for five nights, when Mr. N. became tired of acting nurse to his Cardinal tenants and decided to place a piece of poultry netting over the tree to protect the birds. The family accepted the protection and the mother continued to rear her family, seeming to know they were safe from the "winged wildcat".

Certainly fixedness of purpose seems characteristic of the mother Cardinal when it comes to sticking to the home, despite all interference in family affairs from outside sources.—MARGARET STACKER, *Cumberland City, Tenn.*

Behavior of Bob-whites Upon the Approach of a Marsh Hawk.—On March 25, 1930, from 1:30 to 3:00 P. M., at Madison, Wisconsin, west of University Bay, twelve Bob-whites were watched while feeding in and about a number of corn shocks still left in the field from the winter. While the birds were thus occupied, an adult male Marsh Hawk approached, scouting low over the stubble. The Bob-whites apparently did not see the hawk until he was within eighty to a hundred feet from them. Two of them then flushed to a strip of roadside brush some thirty-five yards distant; the other ten ran easily into the openings at the base of the corn shocks. The ten birds displayed no great alarm nor any haste whatever. Their behavior was comparable to that of well-trained school children going through a fire drill.

The Marsh Hawk went methodically about his business without showing any especial designs against the Bob-whites, although his line of flight took him directly over the corn shocks and past the roadside brush in which the first two birds had alighted. Thirteen minutes after the raptor's departure, a single Bob-white flew from a shock to the roadside brush. A minute later, three more ventured out, one of which joined the last bird in the brush. The remaining two in sight, subsequent to a short period of calling, resumed feeding. Twenty-one minutes after the Marsh Hawk had left, the six issued forth from their shock, pecked disinterestedly at miscellaneous material, until all eight flew as a group eighty yards to the edge of a sweet clover patch. The scattered birds drew together when they became ready, the covey bunching up to roost for the night beside the sweet clover.

Mention might be made that a cock Ring-necked Pheasant was also feeding amid the corn shocks, fully exposed, when the Marsh Hawk appeared. The hawk flew within ten feet or less of the pheasant, but did not deviate from his course in the least, nor did the pheasant exhibit uneasiness nor make any effort to conceal himself. He merely continued eating, evidently confident that he was altogether too big game for Marsh Hawks, with which the Marsh Hawk seemingly agreed.

These incidents rather typify the southern Wisconsin observations to date, with respect to Marsh Hawk-upland game relationships. In general, the evidence indicates that the Marsh Hawk is too weak to kill game of appreciable size; i. e., adult pheasants, and that he is ordinarily too slow to catch healthy alert birds like Bob-whites, especially if the latter are well fed and have suitable cover for refuge.

It is particularly significant to note, in this connection, that corn shocks, properly constructed and open at the base, may serve a double purpose in northern conservation or game management by making available both an excellent food and a fair emergency cover at the same time.—PAUL L. ERRINGTON, *Madison, Wis.*

The Nesting Habits of the Baltimore Oriole.—Of all our beautiful summer residents the Baltimore Oriole (*Icterus galbula*) is the most handsome. This statement applies to both form and coloration. Migration records covering twelve years show that these birds come to southern Iowa on dates ranging from April 26 to May 6, and that the last of them usually disappear about September 1. Thus they remain with us about four months in each year.

Orioles are most conspicuously useful in their food habits, living as they do, almost exclusively on caterpillars, bugs, beetles, and grasshoppers (nearly all of them harmful species), and merely tasting ripe fruit, such as cherries and mulberries occasionally, in the most dainty manner.

The song of the Baltimore Oriole, though not the most elaborate, is yet quite distinctive and cheerful and is given in short whistled phrases, all day long, even while the singer is searching among the tree tops for its favorite food. When alarmed, however, it utters a rather harsh penetrating "perk" and chatters. During the mating season the males are quite gallant and pugnacious. I have observed one of them fighting with his own reflection in an upstairs chamber window, intermittently for several days, in a fierce combat with a supposed rival. Mrs. Oriole meanwhile was quietly weaving her nest but a short distance away.

This oriole's nesting habits are of especial interest. For the purpose of acquiring more information about the matter I have recently made some careful observations in regard to this phase of their home life. The much traveled street in Sigourney, Iowa, upon which I live, is paved throughout with concrete. I kept nine blocks between my residence and the Legion Park under observation during the season of 1927. There are about six residences to the block fronting upon this street. The street is well provided with shade trees of the following named varieties: soft maple, hard maple, elm, cottonwood, catalpa, ash, boxelder, and some species of evergreens.

The purse-shaped nest of the Baltimore Oriole is a remarkable structure, taking into consideration the materials the bird has to work with and the tools with which she does the work, for it is Mrs. Oriole that usually constructs the nest. She receives no help as a rule from the male at this work, excepting his songs of encouragement and chirps of approval. To make a structure like this, a human being would not only require two hands with ten deft fingers and a darning needle, but also a select lot of materials and plenty of time. Mrs. Oriole hunts and gathers the materials from a thousand places, both far and near. She weaves and quilts her nest without any other tool than her bill. She works as a rule with her head downward while she holds fast with her feet to the twigs above, and she finishes the job in two or three days!