

upward of a dozen about the various boxes. There was much quarrelling by spells and some of the birds were extremely vicious. Repeatedly I saw two birds clinch and fall to the ground, and after one became quiet, apparently exhausted, the victor would maintain his hold and pull and tweak. At such times I have approached as close as six feet to the birds struggling on the ground.

Finally the birds became settled for the summer and there were then five Swallows in the garden. *Three* Swallows took possession of box No. 1 and raised a brood and at all times there were three birds in attendance at this nest. As the nest was higher than my head, it was difficult to see the backs of the birds clearly enough to be certain of the sex, but I am reasonably sure they were two females and one male. What the relationship of these birds was to each other and to the young I could not determine, but all three brought food to the nest constantly. In the summer of 1930, also, three birds occupied nest No. 1 but all the other Swallow families have been normal.

The other pair of Swallows selected box No. 6 with the large entrance-hole. A pair of Starlings had already carried in a little nesting material, apparently dry grass, but the Swallows promptly threw this out. Their method of getting rid of the Starlings was interesting. While either of the Swallows was away from the nest the other was on guard, perched on the roof of the box. When the Starling appeared she was either attacked and driven away, or the Swallow immediately entered the box and sat looking out of the hole, effectively blocking the entrance. For several days I did not see the nest left unguarded for a moment and the Starlings soon went elsewhere.

Succeeding years have been a repetition of the same incidents. To me it has been an interesting experience to watch these unsuspected traits in two species that I had supposed I was thoroughly familiar with. The Swallow's aggressiveness was unexpected but the meekness of the Bluebirds in submitting to it was even more surprising.—F. SEYMOUR HERSEY, *Easton, Massachusetts.*

Purple Martins Gathering Leaves.—In watching the Martin colony in my garden I have often seen the birds gather fresh leaves from adjacent tree tops and take them into their nest compartments. They alight on outermost twigs and seem to worry off individual leaves with some trouble and awkwardness and do not take them in passing flight as might be expected. At other times I have seen them carry leaves from the nest and drop them in the immediate vicinity. On a number of occasions I have marked the fluttering fall of the leaf to the ground and examined it. In every case, while still green, it was dry to brittleness. When cleaning out the nest compartments at the end of the season a few brown leaf fragments are found in them but not a sufficient amount to account for the number carried in during the season of activity and I assume that practically all the fresh leaves so taken into the nest are removed when they lose their

moisture content. According to my observations it seems that this leaf gathering is most active during (or confined to) the incubation period and usually ceases as soon, or shortly after, the young are hatched.

The conclusions are, that the leaves are taken in to supply the needed moisture for incubation, as the poultry raiser adds moisture to his incubators. It is a well known fact that many hawks add green branches to their nests. Indeed, among oölogists it is a well known fact that fresh leaves about the margin of a hawk's nest denote an occupied structure while their absence usually designates an old, abandoned nest or one in which eggs are not yet deposited, a fact that saves many a strenuous and fruitless climb. Various reasons have been ascribed to this green bough habit,—for esthetic decoration, to shade the sitting bird, or when wiled to stop the openings in the loosely woven nest. Does it not seem probable that it is, with hawks as with Purple Martins, to supply necessary moisture to the eggs?—P. A. TAVERNER, *Canadian Nat. Mus., Ottawa.*

Canada Jay in Cheshire County, New Hampshire.—On October 30, 1932, while occupied with survey work on White Hill, the badly decomposed remains of a Canada Jay (*Perisoreus c. canadensis*) were found. While the structural form was still retained, when touched, the feathers fell away, but no flies or beetles were present, and I assume that the bird had been dead possibly a month. It would shortly have been unidentifiable. I know of no previous record for this county.—LEWIS O. SHELLEY, *East Westmoreland, N. H.*

Chickadee Occupies a Robin Nest.—On July 1, 1932, a family of Chickadees (*Parus atricapillus septentrionalis*) was observed nesting in a Robin nest at Big Sandy, on Big Sandy Creek, Sublette County, Wyoming. The Robin nest had been built in a crotch formed by several willow limbs, about three and one half feet from the ground. It was located in a patch of willows about 200 yards from a strip of spruce forest which follows the creek out from the mountains into the sage brush. Because of the narrowness of the crotch in which the nest was built it was unusually deep, measuring 19 cm. deep, outside measurement. The mud lining the bottom had all been removed by the Chickadees, the cavity thus formed measuring about 6.5 cm. deep and 6 cm. wide. This excavation was lined mainly with cow and rabbit hairs, together with a small amount of mouse fur (probably *Microtus*) and a few plant fibers. The only entrance to the nest was that afforded by the original opening on the top. This opening was pear shaped and measured 8 cm. by 11 cm. The young Chickadees in the nest were almost naked.

It seems odd that these Chickadees did not nest in their normal fashion in the nearby forest but willow bottoms are a favorite habitat and since woodpecker holes and other cavities are less available there, the inclination to frequent the thickets possibly influenced the birds in their choice of the makeshift but convenient cavity of the Robin's nest.—ADOLPH MURIE, *Museum of Zoology, Univ. of Michigan, Ann Arbor, Michigan.*